

# Connections and setup

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

**Tip:** If you are using an antenna with a 300-ohm twin-lead cable, you need to use a 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.

**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 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.

### Connecting headphones or analog sound bar

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.

**Warning:** Loud noise can damage your hearing. When using headphones, use the lowest volume setting on your headphones that still lets you hear the sound.

Select models also have an audio line out connection that is not affected by TV volume or mute settings and does not disable the TV speakers. Use this connection when you want to use your amplifier or sound bar to control the TV volume. To turn off the TV's built-in speakers, in the Home screen menu, navigate to Settings > Audio TV speakers and change the setting.

## 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 remote's headphone jack disables 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.

**Warning:** Loud noise can damage your hearing. When using headphones, use the lowest volume setting on your headphones that still lets you hear the sound. You might notice that connecting headphones to your remote shortens the remote's battery life somewhat.

## 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.

## 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.





# 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.

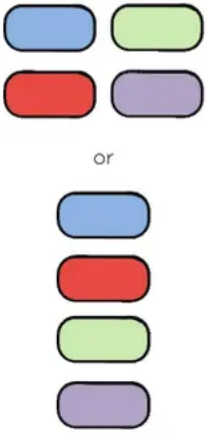


Roku voice remotes have additional capabilities as noted in the following table..

BUTTON	FUNCTION	DESCRIPTION
	POWER	Turns TV on and off.
	BACK	<ul style="list-style-type: none"> <li>• Menu: Goes back to previous menu/screen.</li> <li>• Home screen tile: Moves highlight back to the Home screen option.</li> <li>• Watching Antenna TV or a TV input: Returns to Home screen.</li> <li>• Playing streaming content: Stops playing stream and returns to the previous menu or screen.</li> <li>• Browsing streaming content: Goes to the previous level in the content tree.</li> </ul>
	HOME	Immediately returns to the Home screen.
	PAD	<ul style="list-style-type: none"> <li>• <b>LEFT/RIGHT/UP/DOWN</b> moves the highlight in the corresponding direction.</li> <li>• <b>OK</b> selects the highlighted option.</li> </ul> <p>While watching TV:</p> <ul style="list-style-type: none"> <li>• <b>UP/DOWN</b> changes channel.</li> <li>• <b>LEFT</b> displays the Smart Guide<sup>1</sup> (connected mode) or channel list (non-connected mode).</li> <li>• <b>LEFT/RIGHT</b> <i>only on TVs operating in non-connected mode</i>, while in the channel list switches between All Channels and FAVORITE CHANNELS.</li> <li>• <b>OK</b> while in the channel list selects the highlighted channel.</li> </ul> <p>While watching live TV: displays the program information banner.</p>



BUTTON	FUNCTION	DESCRIPTION
	<b>VOICE SEARCH and VOICE COMMANDS</b>	<p><i>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:</i></p> <ul style="list-style-type: none"> <li>• Search for programs by director or genre, including the special genre “free.”</li> <li>• See search results that include Antenna TV channels.</li> <li>• Use your voice to start streaming, change a channel, and more.</li> </ul> <p>For more information, go to:  <a href="https://go.roku.com/voicesearch">go.roku.com/voicesearch</a></p>
	<b>GAME MODE</b>	<p><i>Select models.</i> Displays a banner showing the current Game mode or <b>Not available at this time</b>. Subsequent presses toggle Game mode. When <b>On</b>, the TV performs less image processing and has less input lag, producing a better experience with action games. <i>Available only for HDMI and AV inputs.</i></p> <p><i>Select models.</i> Auto Low Latency Mode (ALLM) detects certain game consoles connected to an HDMI input and automatically switches to the best settings for action games. When ALLM is active, the manual <b>Game mode</b> setting is unavailable.</p> <p><b>Note:</b> <i>If you have paired Roku Wireless Speakers with your TV, enabling <b>Game mode</b> switches sound back to the internal TV speakers to avoid latency or lag in game play. Disabling <b>Game mode</b> switches sound back to the Roku Wireless Speakers.</i></p>

BUTTON	FUNCTION	DESCRIPTION
	<b>INSTANT REPLAY</b>	<p><i>Select models.</i> 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.</p> <p>Broadcast TV: If Live TV Pause is disabled, jumps to previous channel.</p> <p>When using an on-screen keyboard: Backspaces in the text you are entering.</p> <p>Smart Guide<sup>1</sup>: Returns to the current day and time.</p>
	<b>SLEEP</b>	<p><i>Select models.</i> Displays a banner showing the remaining sleep time, if any, or <b>Sleep timer is off</b>. Subsequent presses cycle among the preset sleep time intervals. Once set, the sleep timer remains in effect regardless of what you are watching.</p>
	<b>MEDIA PLAYBACK CONTROLS</b>	<p>Rewind, pause, play, and fast forward streaming content and Antenna TV channels (if Live TV Pause is enabled).</p> <p>Press <b>REWIND</b> or <b>FAST FORWARD</b> one, two, or three times to control the speed of the operation.</p> <p><b>REWIND</b> and <b>FAST FORWARD</b> 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>.</p>
	<b>OPTIONS</b>	<p>Displays additional options when available. On-screen hints let you know when this button is active.</p>

BUTTON	FUNCTION	DESCRIPTION
	<b>FACTORY ASSIGNED CHANNEL SHORTCUT</b>	<p>Dedicated buttons show the logo of a preset streaming content provider. Dedicated content providers vary by model and region. Pressing a button:</p> <ul style="list-style-type: none"> <li>• Displays the streaming channel's main page if you have already added the channel to your Home screen.</li> <li>• Displays the streaming channel's sign-up page if you have not already added the channel.</li> </ul>
	<b>VOLUME/MUTE</b>	<p>Located on the right edge of the remote. Increases/decreases volume and mutes the TV sound.</p> <p><b>Note:</b> <i>If the TV is muted, pressing <b>VOLUME UP</b> unmutes. Pressing <b>VOLUME DOWN</b> does not unmute the sound.</i></p>
	<b>HEADPHONE</b>	<p><i>Select models with Roku Enhanced Voice Remote.</i> Connect headphones to the jack on the left edge of the remote to listen privately. Plugging in headphones mutes the TV speakers.</p>

## 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.

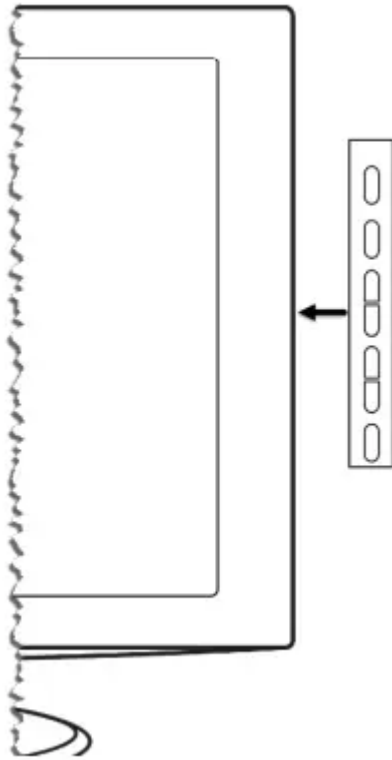
Note that the order of the buttons might vary from model to model. Examine the panel button labels to determine your TV model's layout.

- 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.

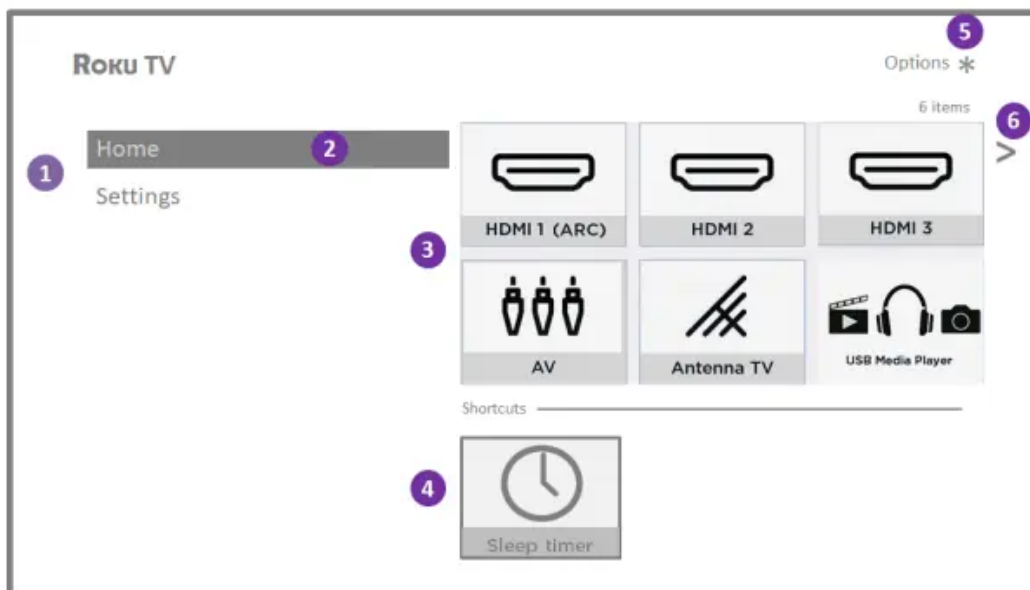
## The Home screen

**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. You can add any number of channels from the Roku Channel Store.
5. Direct access tiles – shortcuts to often used features.
6. Options hint—press **\*** on the remote for options when this symbol is present.
7. 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. Direct access tiles – shortcuts to often used features.
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.

## Using 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:

TV CONDITION	STATUS INDICATOR	MEANING
On (screen is active)	Off	Screen is communicating that TV is on.
Screensaver (screen is active)	Off	Screen is communicating that TV is on.
Off (no power)	Off	TV is not connected to power.
Off (standby)	On	TV is connected to power and is ready to use.
Starting up from off state	Slow pulsing blink until startup completes	TV is doing something.
On (receiving update from USB)	Slow pulsing blink until update completes	TV is doing something.
Remote command received	Dims on/off once	TV has received your command.
Network connection lost	Two short blinks, pause, repeat	TV was connected and paired with a Roku account and now has no network connection.
Powering down to standby mode	Slow pulsing blink until the TV reaches standby.	TV is doing something.

## Watching Antenna TV channels

### Changing channels

- 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 .

### **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.

#### **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**

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.


## Surf all channels again

In non-connected mode, you can switch back to all 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 All channels. Notice that the words All channels appear at the top of the channel list.
3. Highlight a channel and press OK to select one of the channels in the All channels 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 channel among all your available channels. You can surf among all channels in your channel list.

## Remove a channel from your favorites

In non-connected mode, you can remove a channel from your favorites whenever you're watching the Antenna TV input.

1. Press the LEFT arrow to display either channel list—All channels or Favorites.
2. Scroll up or down to highlight a favorite channel that you want to remove from your favorites.
3. Press  on your remote. At this point, you'll see two options:
  - Remove from favorites
  - Back
- 4.

With Remove from favorites highlighted, press OK. The

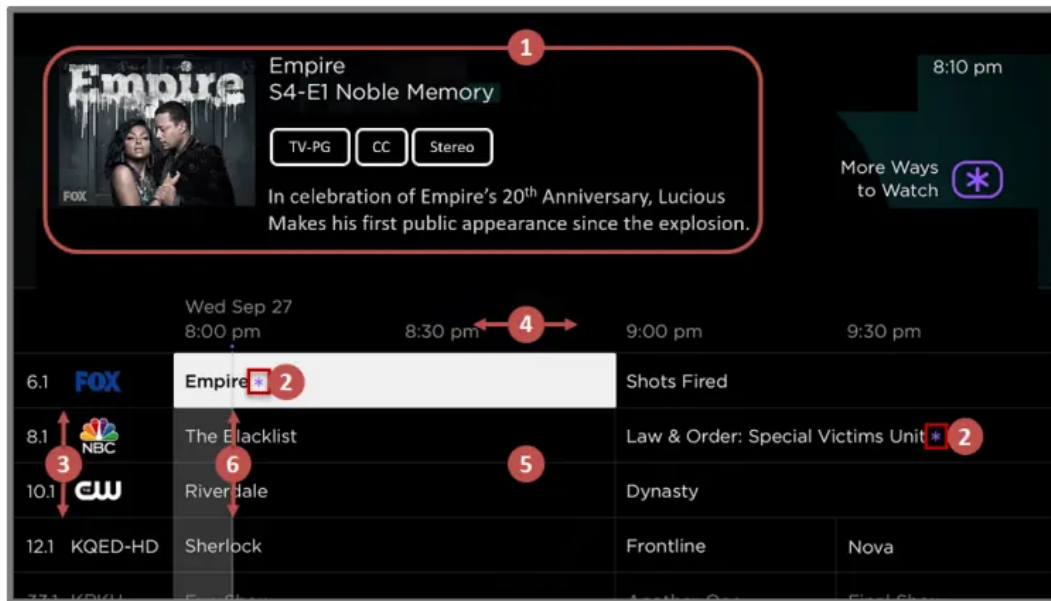


symbol adjacent to the channel disappears.

5. Repeat these steps to remove other channels from Favorites

## Smart Guide (U.S. only)


To view the Smart Guide, press the LEFT arrow. The Smart Guide opens showing the name of the current program highlighted, and a lot more information.



1. Program information for the highlighted show.
2. More Ways to Watch indicator.
3. Channel list. Navigate with the UP and DOWN arrows.
4. Time slots. Navigate with the LEFT and RIGHT arrows. Use the FF and REW buttons to skip ahead or back a screen at a time.
5. Program list
6. Progress bar showing the approximate time with respect to the time slots

### Navigating the Smart Guide

To switch to a program that is currently in progress, highlight it, and then press OK.

To return to the current time after navigating to a different time slot, press REPLAY .

To return to the currently airing program without causing a channel change, press BACK.

To see More Ways to Watch, highlight any show that has a purple asterisk ( \* ), and then press \*.

### Favorite channels in the Smart Guide

#### Turn off favorite channels


1. From the Home screen menu, navigate to Settings > TV inputs > Antenna TV > Favorite channels.
2. Highlight Enable 'Favorite channels'.
3. Press OK to clear the check mark.

## Pausing Live TV

### Requirements

1. Connect your TV to the Internet. If you didn't connect during Guided Setup
2. Provide your own dedicated USB flash drive (thumb drive) with the following minimum specifications.
  - 16 GB
  - 15 Mbps read/write speed
  - USB 2.0 compliant
    - A USB flash drive (thumb drive) meeting the minimum requirements is highly recommended over an externally-powered hard disk drive. Note that you can use any larger size drive—there is no limit to the maximum size—but using a larger drive does not extend the 90-minute pause time.
    - Important: After warning you and giving you a chance to cancel Live TV Pause setup, all existing content on your USB drive is erased when you enable this feature.
3. Connect your USB drive to the TV's USB port.
  - Important: Some TV models have more than one USB port. You can connect your Live TV Pause USB drive to any port, but make sure that nothing is connected to other USB ports while enabling Live TV Pause. Reconnect other USB devices after you have finished enabling Live TV Pause.
4. Enable Live TV Pause, as explained in the following topic.

### Enabling Live TV Pause

- After completing a channel scan, select Set up Live TV Pause from the available options.
- Press Play/Pause on the Roku remote while watching a digital Antenna TV channel.
- Highlight the Antenna TV tile on the Home screen, press  on the remote, and then select Enable Live TV Pause

### Using Live TV Pause

- While watching a digital Antenna TV channel, press PLAY/PAUSE to pause or play the content. After the TV program has been paused for 90 minutes, the TV resumes playing.
- After watching a channel for a while, press REWIND to jump back up to the point where you first started watching the channel, up to 90 minutes.
- After pausing or rewinding, press FAST FORWARD to jump ahead up to the point where you are once again watching the live TV program.

- Press FAST FORWARD or REWIND repeatedly to cycle through 1x, 2x, and 3x skip speeds. Press INSTANT REPLAY to play back the last several seconds of the program.
- When the program is paused, press the LEFT and RIGHT arrows to move forward and backward through the program approximately 10 seconds per press. Small frames appear across the screen to identify your location in the program.

Whenever you use any of the Live TV Pause features, the TV momentarily displays a progress bar:




1. Time at current playback position.
2. Current playback position
3. Extent of pause time, representing the amount of time this channel has been buffered, up to 90 minutes.
4. 90 minute mark, representing the maximum extent of pause time.
5. Current time.

### Notes about Live TV Pause

- You can use Live TV Pause only with digital broadcast and cable channels received through the TV's ANT input (ATSC and Clear QAM channels).
- Changing channels erases and restarts the Live TV Pause buffer.
- Returning to the Home screen, selecting another input, or turning off the TV erases and resets the Live TV Pause buffer.
- Disconnecting the USB drive erases the Live TV Pause buffer.

# Adjusting TV settings


## 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



### Typical Options menu

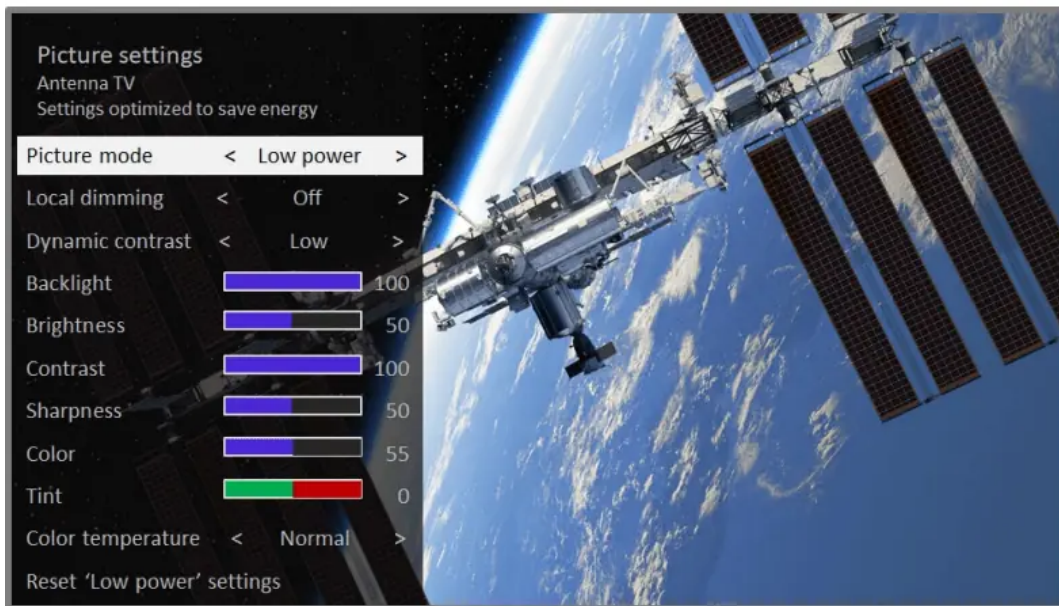
To adjust the settings on the Options menu, press the **UP or DOWN** arrow to highlight a setting, and then press the **LEFT or RIGHT** arrow to change the setting. You'll see the changes you make right away in picture appearance or audio quality.

**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.

Note: Some streaming channels assign the \* button to a different function, meaning it will not open the Options menu. In these cases, use a different channel, such as The Roku Channel, to configure options. The selected settings remain active for all streaming channels.

### Picture settings

To use the Picture settings menu, first press \* to display the Options menu. Then select Picture settings.



## 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 dimming** – Only on select models: Sets the amount of dimming applied to multiple areas of the screen's backlight intensity. This setting can make dark areas darker without affecting the brightness of light areas.
- **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.
- **Micro contrast** – Only on select models: Improves image contrast.
- **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).
- **Frame rate conversion** – Only on select models. Each TV brand uses a different name for this option. Adjusts the amount of motion processing 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 default setting.
- **Film mode** – Only on select models. Each TV brand uses a different name for this option. When enabled, this feature reduces “judder” that is often present when 24 frame-per-second movies are upscaled to 60Hz TV standards. Film mode is On by default in Movie and HDR Dark picture modes, and Off by default in other picture modes.
- **Blur reduction** – Only on select 120Hz models. Each TV brand uses a different name for this option. Reduces blur, especially for fast-moving images such as sports.
- **Black frame insertion** – Only on select models that also have the local dimming feature. Each TV brand uses a different name for this option. Reduces motion blur caused by the refresh rate of the screen. Enabling this feature inserts black frames between picture frames in a way that improves the clarity of fast moving objects. It provides an improved viewing experience for video games and sporting events, but reduces the brightness of the picture. You can choose settings of Low, Medium, High, or Off to achieve the desired picture quality.
- **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.
  - Only on select models: Auto Low Latency Mode (ALLM) detects when certain game consoles are connected to an HDMI input, and automatically configures the best settings for action games. When ALLM is active, the manual Game mode setting is not available.
  - **Note:** If you have paired Roku Wireless Speakers with your TV, enabling Game mode switches sound back to the internal TV speakers to avoid latency or lag in game play. Disabling Game mode switches sound back to the Roku Wireless Speakers.
- **Reset picture settings** – Returns all picture settings for the input's currently selected Picture mode to their original values.

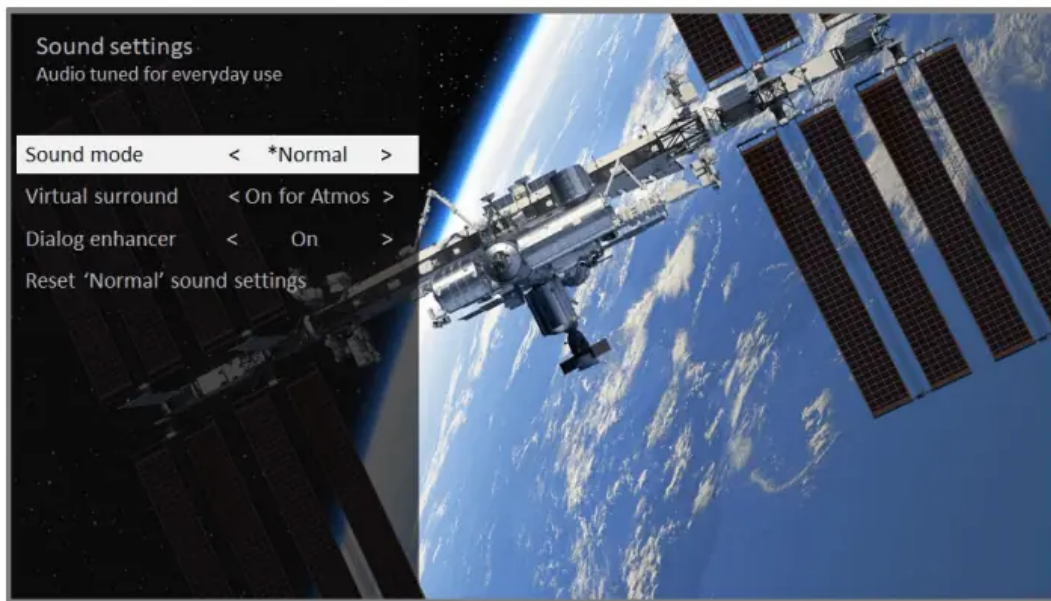
**Tip:** To dismiss the Picture settings menu, just wait a few seconds without pressing any buttons. Or press **Back** again to dismiss the menu immediately.


## Sound settings

### Sound settings – Dolby® Audio Processing.

Each TV input has separate settings for fine tuning sound quality. All of the settings in this menu

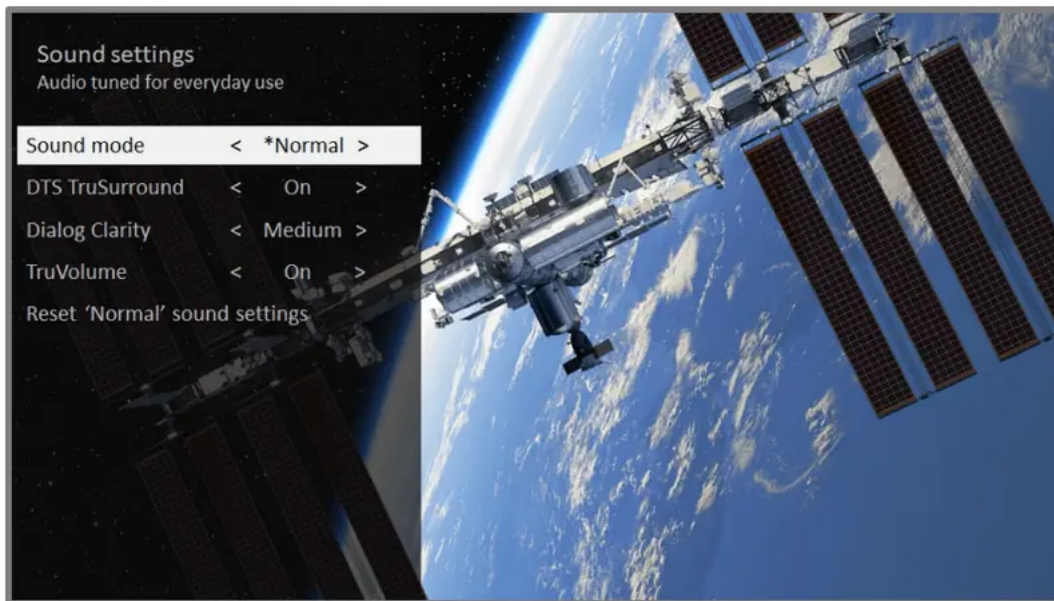
apply only to the currently-selected input. To access the DAP settings, first press **Options**  to display the Options menu, then select Sound settings.



**Tip:** Some streaming channels assign the **Options**  button to a different function, meaning it will not open the Options menu. In these cases, use a different channel, such as The Roku Channel, to configure Dolby® Audio Processing. The selected settings remain active for all streaming channels.

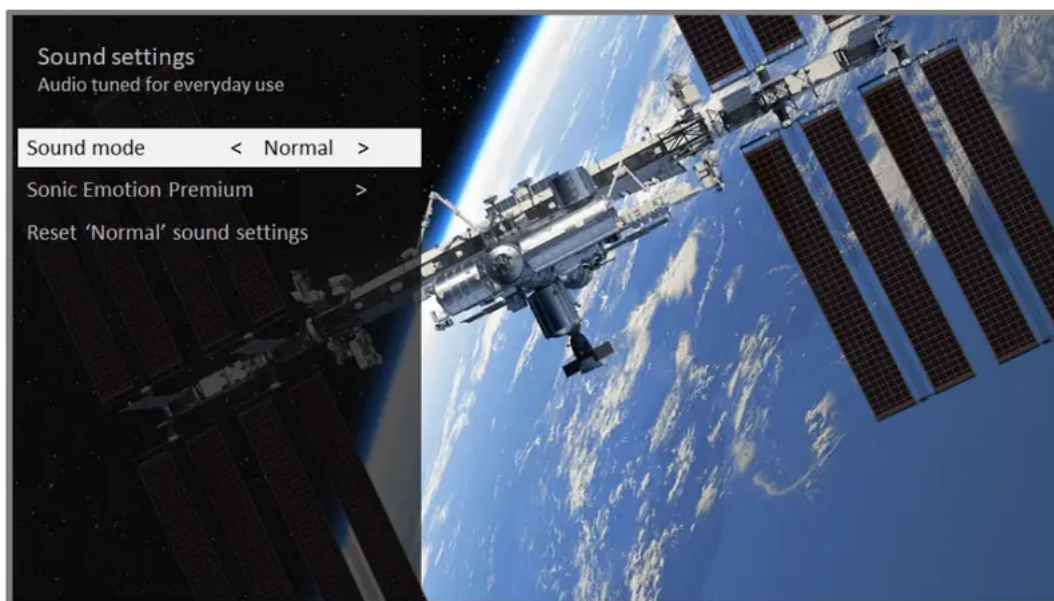
- **Sound mode** – Select from among various preset sound modes to improve speech, make music sound its best, boost bass or treble, or simulate a theater. Use Reset audio settings, described below, to return the input's current settings to their original values.
- **Virtual surround (select models only)** – Options vary by TV model. Simulates surround sound that otherwise would require installation of a surround sound audio system. Sometimes, the effect interferes with dialog clarity. Use the Dialog enhancer option to compensate.
- **Dialog enhancer** – Improves the clarity of speech when on.
- **Reset audio settings** – Returns Virtual surround and Dialog enhancer settings to their default settings for the selected Sound mode.

## Sound settings – DTS® TruSurround / DTS® Studio Sound (select models only)



- **Sound mode** – Select from among various preset sound modes to improve speech, make music sound its best, boost bass or treble, or simulate a theater. Use Reset audio settings, described below, to return the input's current settings to their original values.
- **DTS TruSurround** – Simulates surround sound that otherwise would require installation of a surround sound audio system. Sometimes, the effect interferes with dialog clarity. Use the Dialog clarity option to compensate.
- **Dialog Clarity** – Available only when DTS TruSurround is On. Choose among Low, Medium, and High settings to improve the clarity of dialog when you are using the TruSurround feature.
- **TruVolume** – Minimizes annoying volume fluctuations in programs.
- **Reset audio settings** – Returns DTS TruSurround, Dialog Clarity, and TruVolume settings, to their default settings for the selected Sound mode.

## Sound settings – Sonic Emotion™ Premium (select models only)



- **Sound mode** – Select from among various preset sound modes to improve speech, make music sound its best, boost bass or treble, or simulate a theater. Use Reset audio settings, described below, to return the input's current settings to their original values.
- **Sonic Emotion Premium** – Displays a menu with individual Sonic Emotion™ audio settings, as described in Sonic Emotion settings.
- **Reset audio settings** – Returns Sonic emotion settings to their default settings for the selected Sound mode.

### Sonic Emotion™ settings


- Dialog Enhancement – Enhances your ability to hear and understand dialog in the program.
- Bass Enhancement – Enhances the low frequency sound component in the program.
- Absolute 3D Sound – Simulates sound from multiple speakers that would otherwise require installation of a surround sound audio system.

## Customizing 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.

## Add streaming channels


You can add streaming channels by searching in the Roku Channel Store. New streaming channels are added to the bottom of the Home screen.

## Rename inputs

Rather than trying to remember that your Blu-ray™ player is connected to HDMI 1 and your game console is connected to HDMI 3, you can rename the TV inputs to match the connected device.

**Note:** Renaming an input also changes the icon associated with it.

To rename an input, you can either:

- Highlight the input tile in the Home screen, and then press  to display a list of options. From the list of options, select Rename input. Then select a new name and icon. or
- From the Home screen, navigate to Settings > TV inputs. On the TV inputs screen, select the input you want to rename, select Rename, and then choose a new name and icon from the provided list.


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.


Press  to return to the Home screen. The new name and icon are now in effect

## Remove unwanted tiles

It's easy to remove unused TV inputs and unwanted channel or app tiles. For example, if you never use the HDMI 3 input, or if you don't like the weather app you added from the Roku Channel Store, you can remove them from your Home screen.

**Note:** You also can remove the Antenna TV tile if you never use the TV tuner. But be aware that removing the Antenna TV tile also deletes the channel list. You'll have to set up the TV tuner again next time you want to view Antenna TV. Instructions for setting up the TV tuner can be found in Setting up Antenna TV.


- To remove any tile, highlight the input tile in the Home screen, and then press  to display a list of options. From the list of options, select Remove input. In the screen that follows, confirm you want to remove the input.

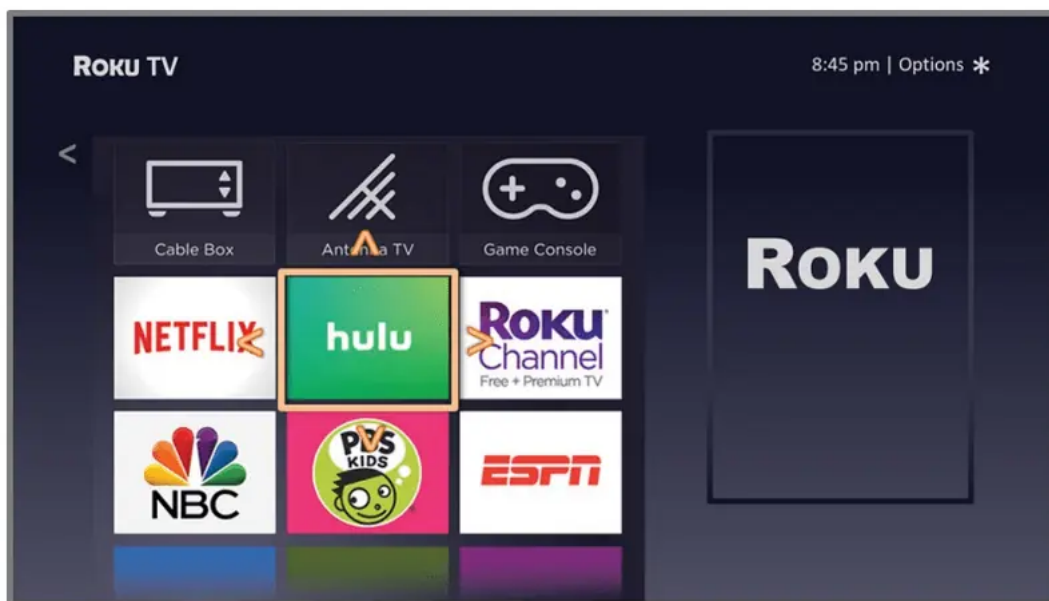
- Alternatively, to remove a TV input tile from the Home screen, navigate to Settings > TV inputs. On the TV inputs screen, select the input you want to remove, and then select Remove > Confirm. Then press  to return to the Home screen.

## 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:

- In the My Themes section, highlight one of your themes, and then press OK to switch to that theme.
- In the All Themes section, highlight a new theme, and then press OK to preview and add it.

To change enable or disable Featured themes, from the Home screen menu, navigate to Settings > Theme > Custom settings, and then, press OK to set or clear the check box next to Enable featured themes. When Featured themes is enabled, 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.

## Change screensaver

Only in connected mode, you can change what your TV displays after a period of inactivity.

**To change the screensaver**, from the Home screen menu, navigate to Settings > Screensaver > Change screensaver. In the Screensavers screen, choose from the following options:

- In the My Screensavers section, highlight one of your screensavers, and then press OK to switch to that preview, change settings, rate, and select that screensaver.
- In the All Screensavers section, highlight a new screensaver, and then press OK to add it.

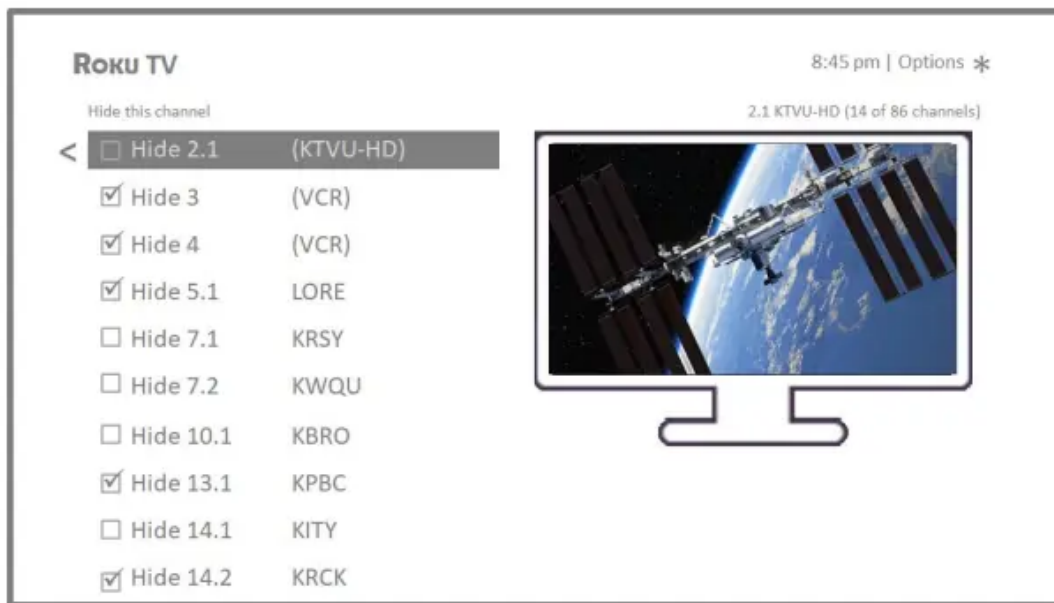
**To disable your screensaver**, or to change the inactive time before it starts, from the Home screen menu, navigate to Settings > Screensaver > Change wait time. Select the desired option, and then press OK.

## Edit Antenna TV channel lineup

When you set up the TV tuner as described in Setting up Antenna TV, the TV adds all the channels with good signals that it can detect in your area. It's likely that you now have more channels than you want in your channel list.

**To edit the channel lineup**, from the Home screen, navigate to Settings > TV inputs > Antenna TV > Edit channel lineup. You'll see a screen listing all of your channels.

Adjacent to the list of channels is a miniature TV screen playing the highlighted channel's picture and sound.



Highlight each channel you want to hide, and then press OK to hide the channel.

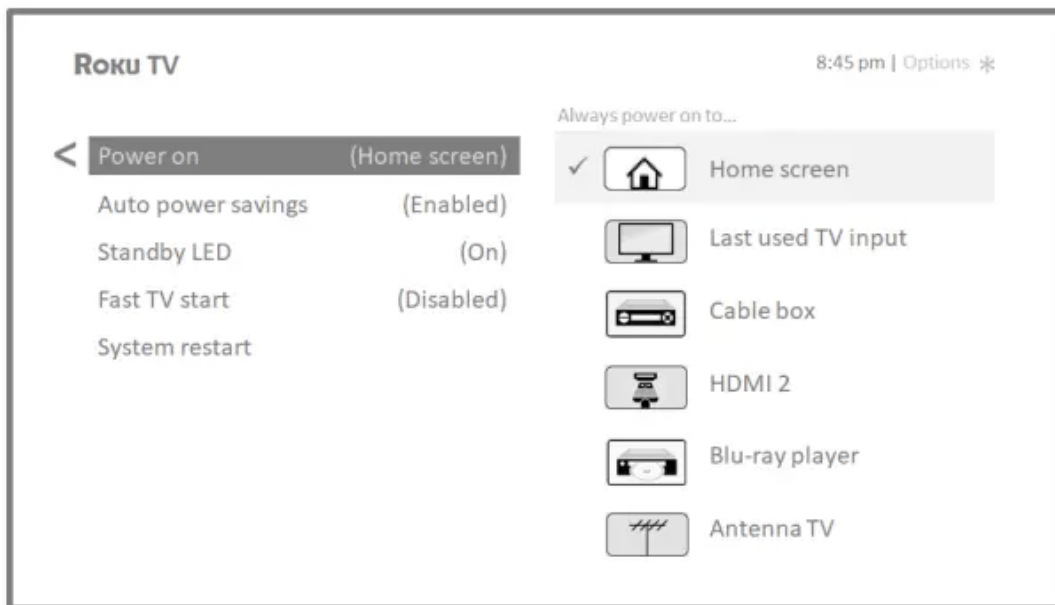
**Tip:** If you need to see or hear the highlighted channel, wait a couple of seconds for the TV to start playing the channel's picture and sound. Also note that if you've enabled parental controls and the program on the current channel is blocked, you won't see a picture or hear sound while editing the channel lineup.

**Note:** Repeating the tuner channel scan unhides all hidden channels.

## Configure power settings

### 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 listening to certain music channels with the TV screen off 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.

## Configure accessibility (U.S. only)

### Captions mode

The Captions mode settings specify when closed captions appear. Access caption settings from the Home screen by selecting Settings > Accessibility > Captions mode. At this point, you can choose among the following options:

- Off – No captions appear.
- On always– Captions appear whenever they are available from the program source.
- On replay– Captions appear only when you use the replay feature, and only when you are watching a streaming program that supports instant replay, watching a video through the Roku or USB media player, or watching a TV channel after enabling Live TV Pause.
- On mute – Captions appear only when the TV is muted.

### Tips:

- You can change the captions mode while watching a program. Press **OK** to display the Options menu, and then select Closed captioning.
- Some streaming channels require you to enable captions through a setting within their channel even though you have turned on captions in the TV settings.

**Note:** Once enabled, the selected captions mode applies to all inputs that support captions and remains enabled until you turn it off

### 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

- 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 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

### **Configure parental controls**

Parental controls enable you to control whether the members of your household can view certain kinds of broadcast TV programs. When a program or feature is blocked, you can unblock it by entering a parental control PIN that only you know.

**Note:** Parental controls block content from the TV tuner and from streaming options, if any, on the Home screen menu. Parental controls do not block content on other TV inputs or content from streaming channels you add to your TV.

### **Creating a parental control PIN**

The first time you access the Parental controls screen, you must create a new parental control PIN. Thereafter, whenever you want to change parental control settings, unblock programming that has been blocked, change the PIN, or disable parental controls, you must enter your parental control PIN.

**Tip:** Your parental control PIN has nothing to do with your Roku account PIN. You can make them the same if you want—this is entirely your choice.

To create a new parental control PIN, from the Home screen menu navigate to

Settings > Parental controls. The screen displays a numeric keypad. 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.

**Important:** If you forget your parental control PIN, the only way to recover is to perform a factory reset operation, as explained in [Factory reset everything](#). Be sure to write it down in a safe place just in case.

### **Blocking Broadcast TV shows**

For broadcast TV, parental controls use information embedded in the broadcast signal to determine whether to allow a program to be displayed. Parents can configure parental controls to block broadcast TV programs that meet or exceed a specific rating, so they cannot be viewed or heard unless the correct parental control PIN is entered.

**Note:** Rating standards differ by country.

### **Enabling parental control of TV shows**

The first step in blocking TV shows is to enable parental control of TV shows.

This setting is provided separately to make it easier for you to turn parental control of

TV shows on and off without disturbing their settings. For example, your kids are going to summer camp for two weeks, and while they are gone, you don't want to have to deal with unblocking shows that you want to watch by entering your parental control PIN. All you need to do is clear Enable parental controls, and all TV shows are unblocked. When the kids return, select Enable parental controls again, and all of your parental control settings are restored in a single operation.

*To enable parental control of TV shows:*

1. In the Home screen menu, navigate to Settings > Parental controls, and then enter your parental control PIN.
2. In the Parental controls screen, navigate to TV tuner > Parental control of TV shows.

3. Make sure the check box next to Enable parental controls is checked. If not, highlight it and press OK.

### **Blocking based on US TV ratings**

Most broadcast US TV shows—other than movies—contain rating data that enables parental controls to block shows that parents don't want others to view. The ratings are divided into two groups that function independently:

- Youth group – TV-Y, TV-Y7
- Main group – TV-G, TV-PG, TV-14, TV-MA

Within each of these groups, the ratings interact such that if you block a particular level of content, the TV also blocks all content with a higher rating. Conversely, if you unblock a particular level of content, the TV also unblocks all content with a lower rating. For example, if you block TV-PG programs, the TV also blocks TV-14 and TVMA programs. If you subsequently unblock TV-14 programs, TV-PG programs are also unblocked, but TV-MA programs remain blocked.

Similarly, within the main group, content types can be individually blocked. For example, you can block just coarse language in shows with a TV-PG rating. If you do, then the TV also blocks shows with coarse language in the higher ratings (TV-14 and TV-MA). Subsequently unblocking coarse language in TV-14 ratings does not unblock coarse language in TV-MA programs, but it does unblock coarse language in TV-PG programs.

*To block TV shows based on US television ratings:*

1. From the Home screen menu, navigate to Settings > Parental controls, and then enter your parental control PIN.
2. In the Parental controls screen, navigate to TV tuner > TV ratings. Choose among the following settings:
  - Entire ratings – Highlight the rating you want to block, and then navigate to the right and select the first option that blocks the entire rating level (and all higher rating levels).
  - Individual content types – Highlight the rating that contains the content type you want to block, and then select the content types you want to block from among those listed. Remember that blocking a content type in one rating blocks the equivalent content type in all higher rating levels.

### **Blocking based on US movie ratings**

Most movies in the US are rated by the Motion Picture Association of America, or MPAA, so the ratings are known as MPAA ratings. TV broadcast signals carry movie rating data that enables parental controls to block shows that parents don't want others to see. The ratings are:

- G – General audiences
- PG – Parental guidance suggested
- PG-13 – Parents strongly cautioned for children age 13 or younger

- R – Restricted
- NC-17 – Not for age 17 or younger

Unlike US TV ratings, there are no individual content types within the ratings. But like TV ratings, blocking movies with a particular rating also blocks movies with a higher rating, and unblocking movies with a particular rating also unblocks movies with a lower rating.

**Tip:** Blocking movies with an NC-17 rating also blocks programs with the now-obsolete X rating, which can still occur in the program data of older movies.

*To block movies based on MPAA ratings:*

1. From the Home screen menu, navigate to Settings > Parental controls, and then enter your parental control PIN.
2. In the Parental controls screen, navigate to TV Tuner > Movie ratings.
3. Select the rating level you want to block. You need only select one rating level, and all higher levels are automatically blocked.

### **Blocking based on Other ratings**

Your TV can block programs having ratings that had not been defined when the TV was manufactured. It does this by detecting a new Rating Region Table in a program and then downloading the new table and displaying its rating in the Parental controls.

When the TV downloads a new Rating Region Table, it adds a new option to the list of rating types: Other ratings. If you see this option in the Parental controls screen, you have tuned to a station that has implemented a new rating table. Once the new rating table has been downloaded to the TV, it remains in the TV until it is factory reset, and you can configure blocking based on the new ratings.

New Region Rating Tables can have independent rating levels, or rating levels that interact in the same ways as the built-in US TV and MPAA Movie ratings.

**Tip:** If your TV downloads a new Region Rating Table, you'll have to experiment with its settings to understand how to use it

### Blocking based on Canadian English ratings

Canadian-English language and third-language programs that are broadcast in

Canada are rated by the Action Group on Violence on Television, or AGVOT. TV broadcast signals carry rating data that enables parental controls to block shows that parents don't want others to view based on content containing violence, language, sex, or nudity. The ratings are:

- C – Children under 8 years
- C8 – Children 8 years and older
- G – Generally suitable for all age groups
- PG – Parental guidance suggested for viewers under 14 years

- 14+ Generally not suitable for viewers under 14 years
- 18+ Generally not suitable for viewers under 18 years

Blocking content with a particular rating also blocks content with a higher rating, and unblocking content with a particular rating also unblocks movies with a lower rating.

*To block programs based on AGVOT ratings:*

1. From the Home screen menu, navigate to Settings > Parental controls, and then enter your parental control PIN.
2. In the Parental controls screen, navigate to TV tuner > Canadian English ratings.
3. Select the rating level you want to block. You need only select one rating level, and all higher levels are automatically blocked.

### **Blocking based on Canadian French ratings**

Canadian-French language programs that are broadcast in Canada are rated by Québec's Ministry of Culture and Communications. TV broadcast signals carry rating data that enables parental controls to block shows that parents don't want others to view based on content containing violence, language, sex, or nudity. The ratings are:

- G – Generally suitable for all age groups
- 8+ Viewers 8 years and older
- 13+ Viewers 13 years and older
- 16+ Viewers 16 years and older
- 18+ Adults only

Blocking content with a particular rating also blocks content with a higher rating, and unblocking content with a particular rating also unblocks movies with a lower rating.

*To block programs based on Canadian-French ratings:*

1. From the Home screen menu, navigate to Settings > Parental controls, and then enter your parental control PIN.
2. In the Parental controls screen, navigate to TV tuner > Canadian French ratings.
3. Select the rating level you want to block. You need only select one rating level, and all higher levels are automatically blocked.

### **Blocking unrated programs**

Some broadcast TV shows and movies do not have an assigned rating, and are considered to be "Unrated". Whether or not such programs contain content that is objectionable to you cannot be determined. However, you can choose to block such programs.

To block all unrated broadcasts:

1. From the Home screen menu, navigate to Settings > Parental controls, and then enter your parental control PIN.
2. In the Parental controls screen, navigate to TV tuner > Block all unrated programs.
3. Highlight Unrated programs and press OK. When blocking is enabled, the adjacent padlock icon changes from unlocked to locked.

**Tip:** Blocking programs that have not been assigned a rating does not block programs that specifically have been assigned a US TV rating of “None” (for example a broadcast of a local town council meeting). Programs that do not have an assigned rating display Rating NA (for “not applicable,” meaning a rating is not needed).

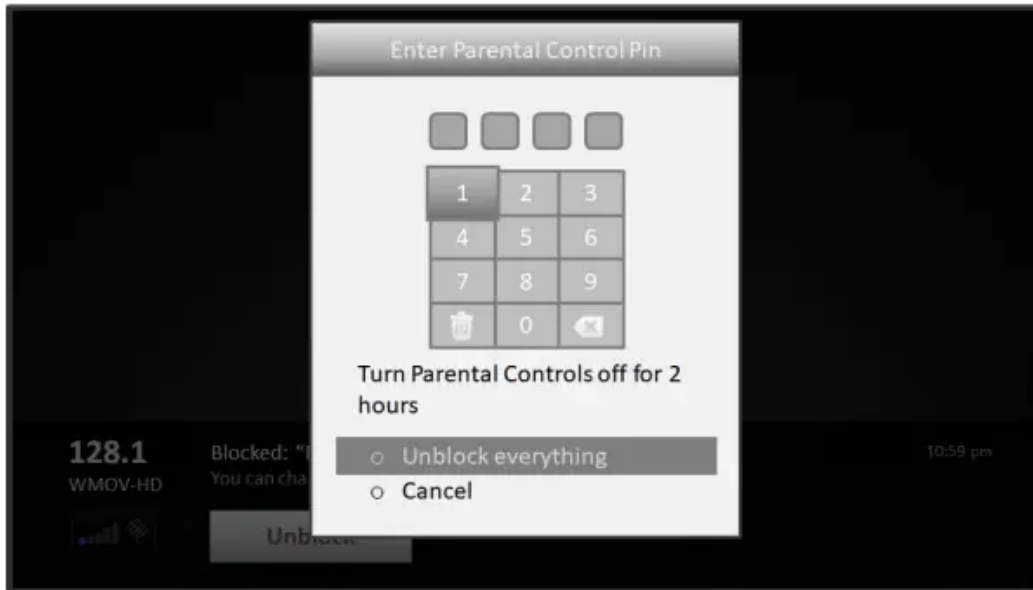
In the absence of other ratings for a program, the parental controls do not consider the MPAA US movie rating N/A (MPAA rating not applicable to this content) and NR applicable content not rated by the MPAA) to be ratings. In these cases, the TV handles the program as though it is unrated, blocking the program if Unrated programs blocking is enabled

### TV show is blocked

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



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 **Unlock 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**

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.

### **Resetting parental controls**

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 **Reset parental controls**.
3. Follow the instructions on the screen to confirm that you want to erase all parental control settings.

**Tip:** Resetting parental controls also erases your parental control PIN.

#### **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.

