
Solis Outdoor 4K Television Owner's Manual

- SB- FS- 49- BL
- SB- FS- 55- BL
- SB- FS- 65- BL
- SB- FS- 75- BL

[\[Download the PDF\]](#)



SunBrite OvrC Release Notes

Version S201_A2.116 - 10/13/25

This new feature experience allows the installer to monitor the following properties remotely from OvrC.

 **Note:** The TV must be **on** in order to view current status of these properties. OvrC cannot communicate with the TV when in Standby mode.

- **Rename inputs in OvrC** for future reference of which devices are connected to the TV's inputs. (Only visible in OvrC. This does not reflect on the TV itself.)
- **Monitor power state*** - on/off status
- **Monitor current input*** - input status
- **Monitor ARC state*** - shows state if ready or in use
- **Total Device Hours*** - total power-on time

** Expect a delay before the property's actual status is shown in OvrC.*

Frontmatter

Dear Valued Customer

Thank you for choosing SunBrite. We're honored that you've chosen us to be a part of your outdoor experience.

At SunBrite, we've been developing and building the finest outdoor TVs since 2004 with the singular goal of delivering the best possible outdoor experience—to bring people together to share in the latest sports and entertainment while also enjoying all that the outdoors have to offer.

To ensure you receive the latest updates from SunBrite, please register your TV at this web address:

www.sunbrite.tv/support/product-support/product-registration

If, for any reason, you are not completely satisfied with your SunBrite TV, please let us know. Your experience is of the utmost importance to us, and we don't take it lightly. Reach our team of experts Monday through Friday from 9:00 am – 6:00 pm Eastern at 866-357-8688.

Again, thank you for choosing a SunBrite premium outdoor television. We know you had options, and we're grateful you chose us to help you create new experiences with your friends and family.

—The SunBrite Team

Recycling

SunBriteTV operates a free mailback recycling program for consumers.

For more information on how to recycle your TV, please visit

<https://www.sunbrite.tv/support/recycling-programs> or contact customer service at 866.357.8688.

Regulatory/ Safety Information

To review complete regulatory information for your SunBrite products, see the information located on the Snap One website at

<https://www.sunbrite.tv/snapone-legal>.

AC Power requirements

AC power outlet (receptacles), rated 125- V, single phase, 15 or 20 Amp, accessible to either ordinary, instructed, or skilled persons, shall be provided with GFCI protection.

A Residual current protective device (RCD) with rated residual operating current not exceeding 30mA shall be used in the MAINS supply to socket-outlets intended for general use.

The display must be connected to a grounded wall socket outlet.

The power plug is used as the primary disconnect for the TV and shall remain readily accessible.

General Operation

The front panel used in this product is made of glass. Therefore, it can break when the product is dropped or impacted.

The Liquid Crystal Panel is a very high technology product with 2,073,600 pixels, giving you fine picture details. Occasionally, a few non-active pixels may appear on the screen as a fixed point of blue, green, or red. This does not affect the performance of your product.

For added protection during a lightning storm, or when the SunBrite is left unattended and unused for long periods of time, disconnect it from the wall outlet and disconnect the antenna. This prevents damage due to lightning and power-line surges.

Do not place an outside antenna system in the vicinity of overhead power lines or other electric light or power circuits, or where it can fall into such power lines or circuits, as contact with them might be fatal.

Never place a candle or flame on top of, or near, your SunBrite.

Preserve your eyesight

To reduce the eye strain and protect your vision when you watch your television, please take the following steps:

- Take regular and frequent breaks. Extended viewing may cause eye fatigue. We do not recommend watching for more than one hour without a break.
- Look away from the TV screen and focus on distant objects during the breaks for at least 10 minutes.
- Relax yourself during a break by doing eye exercises or outdoor activities.

The recommended viewing distance is to sit at least as far away as three times the vertical height of the screen.

Proper breaks and exercises relieve eye strain and fatigue.

Repair

Do not service SunBrite yourself: Opening the cover voids the warranty and exposes you to high voltage and other dangerous risks. Refer all servicing to a qualified service professional.

If any of the following conditions occurs, disconnect the power plug, and call a qualified service professional to perform repairs:

- When power plug or plug is damaged.
- When objects have fallen into the product.
- If unit was submerged in water or pressure-washed.
- When product does not operate properly as described in the operating instructions.
- When the product has been dropped or damaged.
- When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.

Replacement parts: Ensure that the service person uses replacement parts provided by SunBrite. Use of unauthorized parts can result in fire, electric shock and/or other danger.

Safety checks: Upon completion of service or repair work, ask the service technician to perform safety checks to ensure that the product is in proper operating condition.

Box Contents

 **Note:** When unboxing your TV, check all of the packing material to ensure you have all of the items listed below.

- SunBrite TV
 - SunBrite Outdoor remote
 - WebOS Remote (The WebOS Remote is not weatherproof and should be stored indoors.)
 - 2 AAA batteries (for SunBrite Outdoor Remote)
 - 2 AA alkaline batteries (for WebOS Remote)
 - Power plug
-

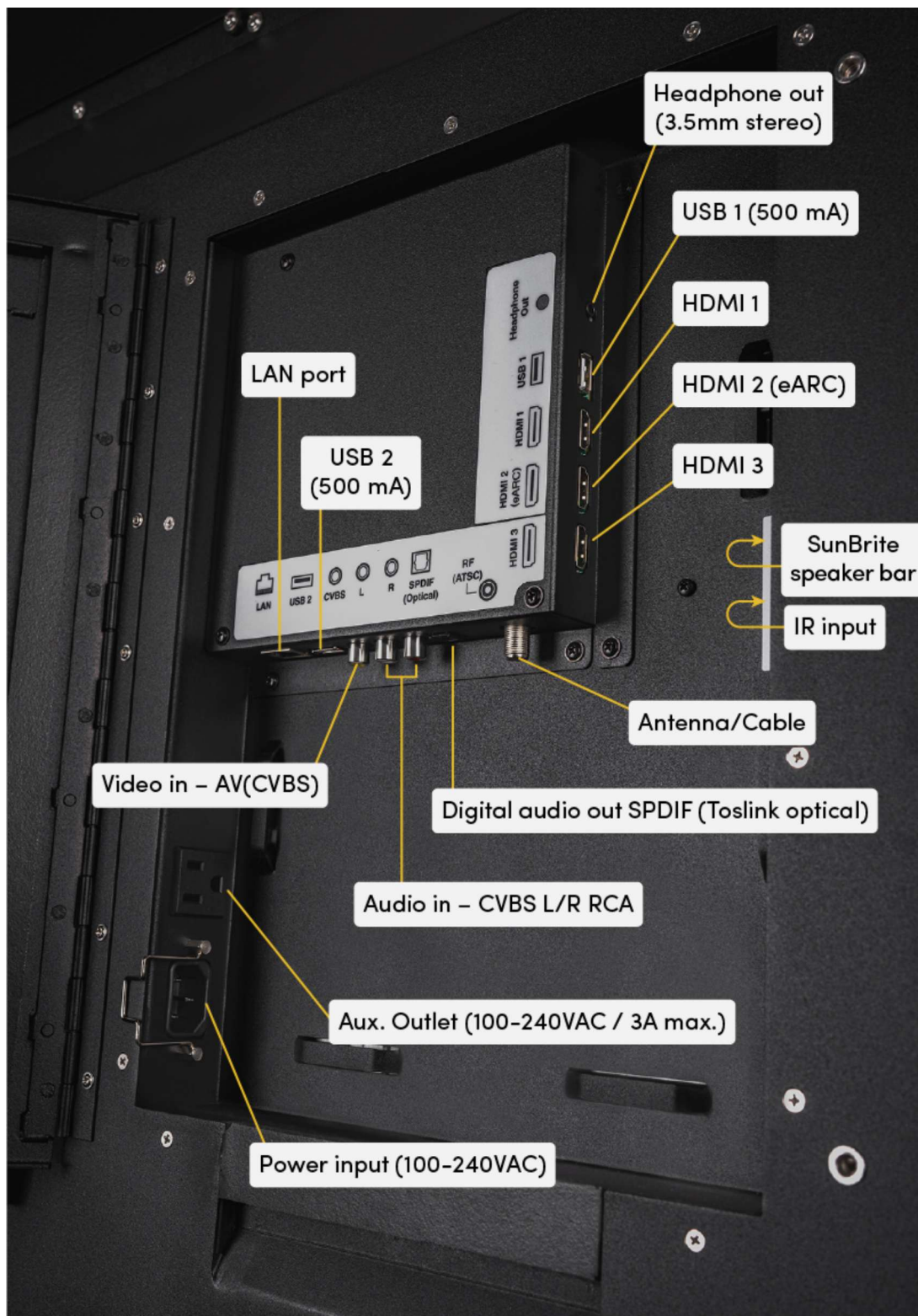
Media Bay

All TV connections are made in the media bay, which is located on the rear of the television. Port locations are shown in the figures below.

The media bay is protected by a watertight cover that is fastened by three or four thumb screws (depending on model). Be sure to leave a drip loop in the cables as they exit the media bay. Torque media bay thumbscrews to 4kgf.cm (add 3.5 in-lb and 0.4 Nm).

 **Caution:** Before mounting the TV outdoors, use the thumbscrews to fasten the media bay cover and ensure that it is watertight to prevent serious water damage to the TV.

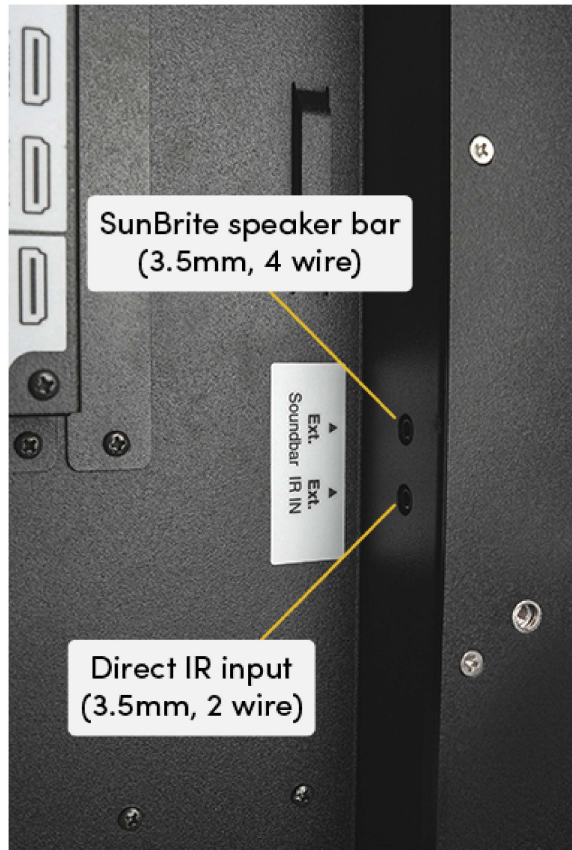
 **Note:** All installation must be conducted by trained and qualified technicians. We are not responsible for any personal injury or damage resulting from an improperly sealed media bay cover.



Media bay ports

In 49" and 55" model TVs, the IR control and speaker bar inputs are located on the right side panel of the media bay (see figure below).

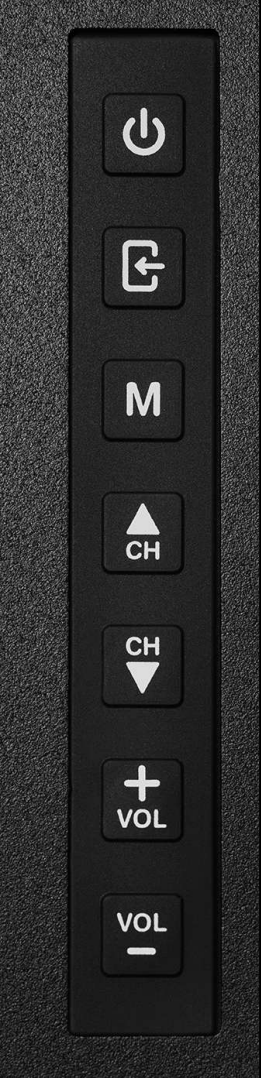
In 65" and 75" model TVs, the IR control and speaker bar inputs are located on the left side panel of the media bay, below the power input port.



IR control and speaker bar ports

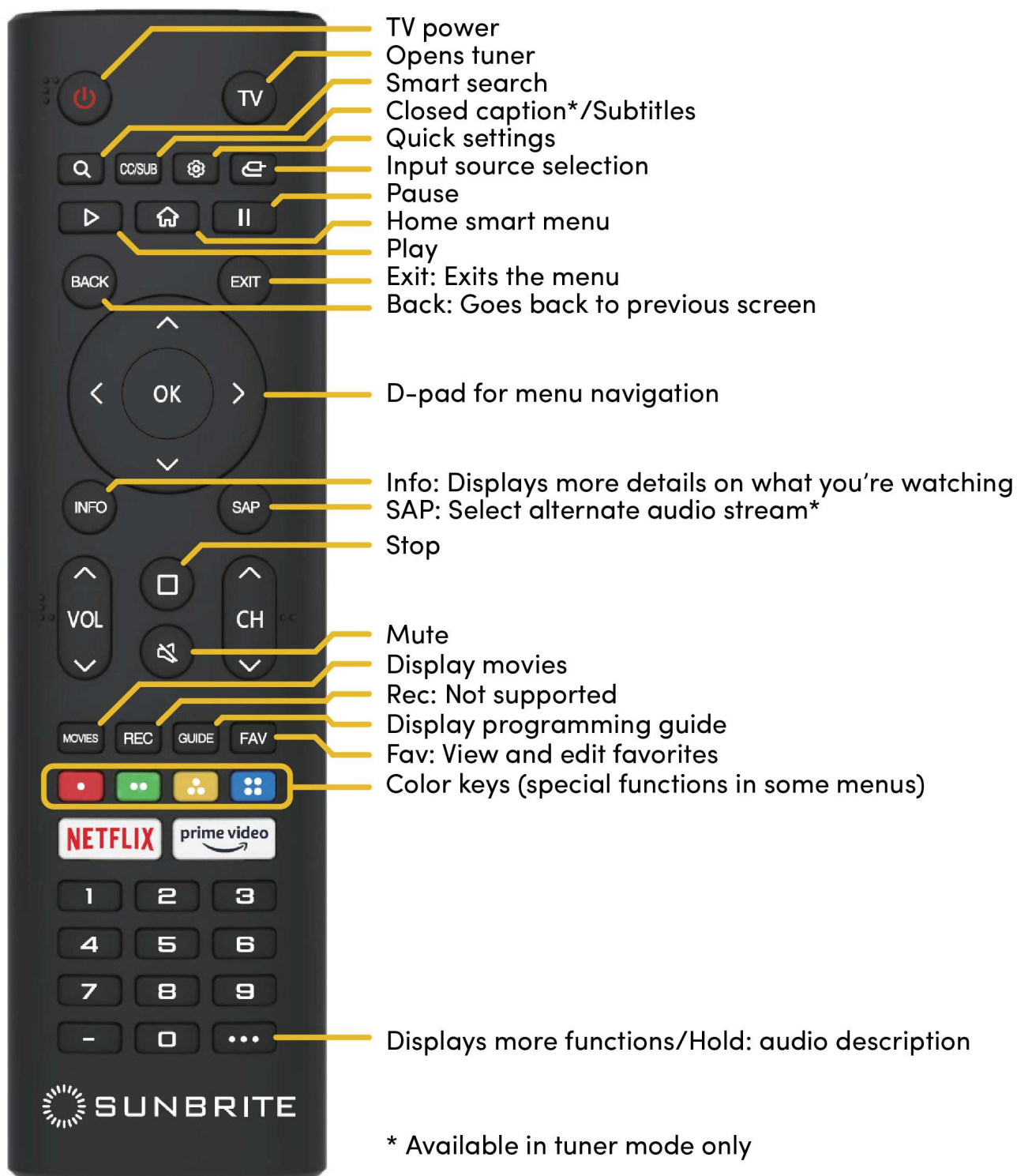
Side Panel Controls

Buttons are provided on the left-hand side panel for controlling the TV without a remote.

	Power: Turn on the TV by pressing the button once. Press and hold the button to turn off the TV. If the On-Screen Display (OSD) is active, this button functions as Enter or OK for the menu. Input: This button switches between the different sources of the TV. Menu: This button activates the OSD. If the OSD is active, this button returns the selection to the previous menu level. Up / Down: These buttons change the TV channel up or down. If the OSD is active, these buttons function as up or down controls for the menu. VOL+ / VOL-: These buttons increase or decrease the volume. If the OSD is active, these buttons function as right (VOL+) or left (VOL-) controls for the menu.
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Remote Controls

SunBrite Outdoor Remote Control



Note: The SunBrite Outdoor Remote uses IR only. It does not support voice control.

Requires 2 AAA batteries (included).

Requires small Phillips screwdriver to remove the four screws fastening the weather-resistant battery cover.

WebOS Remote Control

 **Caution:** The WebOS Remote is not weatherproof and should be stored indoors.



Requires 2 AA alkaline batteries, included.

 **Note:** The WebOS Remote uses IR and Bluetooth.

Pairing the WebOS Remote

You must pair the WebOS Remote prior to use as follows:

1. Turn on the TV. After about 20 seconds, point the remote toward the TV and then press the Wheel (OK).
2. The remote control is automatically registered and the pairing completion message is displayed on the TV screen.

If the WebOS Remote failed to register, turn the TV off and back on. Then, try to register again.

Button Functions

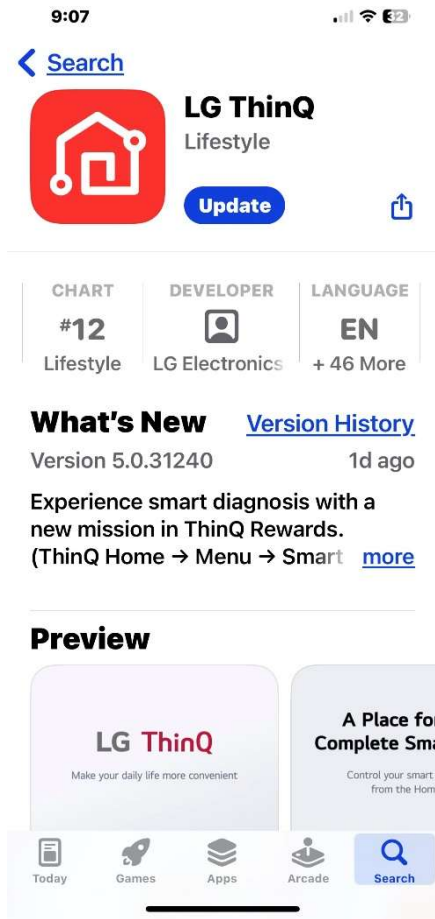
Select Settings > Settings > General > Accessibility > Learn Remote Control. Follow the on-screen instructions. Press a button on the remote control for more information about the button.

Smart Device Remote Control

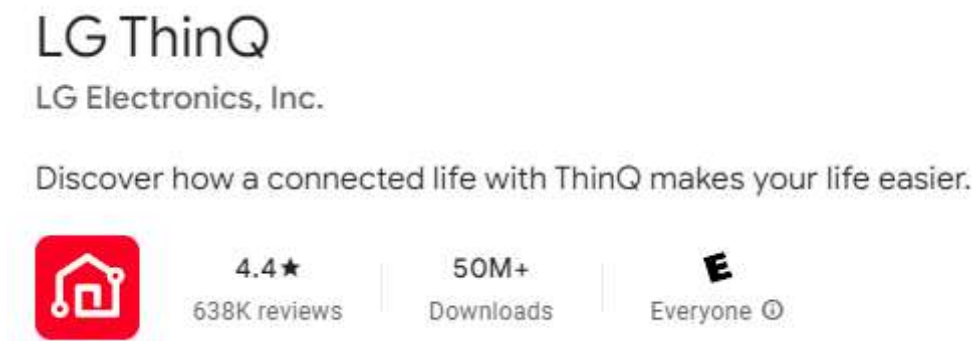
To control your TV using a smart device, download the official “LG ThinQ” app on Apple Store or Google Play.



Note: Beware of look-alikes! Download only the app that lists LG Electronics Inc. as the developer and shows the icon below.



LG ThinQ app on Apple Store



LG ThinQ app on Google Play

Once the app is installed, perform the following:

1. Follow the directions in the app.
2. Log in to your LG account.

3. Allow the app to use Bluetooth.
4. Tap Add Device > TV. The app searches for your TV.
5. Pair the TV with the app by entering the on-screen code.
6. Follow the remaining directions in the app.

Set up TV On with Smart Device Remote Control

To set up WOL (Wake-On-LAN) or Bluetooth to work using a smart device as the remote control, perform the following:

For Wi-Fi control, navigate to All Settings > General > Devices > External Devices > TV On With Mobile > Turn on via Wi-Fi. Set 'Turn on via Wi-Fi' to 'On'.



Note: This must be set even when controlling via a wired LAN.

To control via Wi-Fi, the router must support Wireless Multimedia Extensions (WME or WMM).

Bluetooth control is also available.

First Time Power On

When plugging in your TV for the first time, it automatically turns on and walks you through the initial setup. Follow the onscreen instructions using the SunBrite Outdoor Remote.



Pro Tip: SunBrite TVs ship in APS (Auto Power Save) Mode. For the best outdoor viewing experience, switch the picture mode to Vivid.

To switch your SunBrite to Vivid mode:

1. Press the Settings button on your remote.
2. Select Picture Mode.

3. Select Vivid.

Network Connection



Pro Tip: Begin by setting up a Wi-Fi connection, then set up the Ethernet connection. Having Wi-Fi as a secondary connection is recommended as the system automatically reverts to Wi-Fi if the Ethernet connection fails. Whichever connection (Wi-Fi or Ethernet) is active when the TV is powered off, that connection must be used to turn the TV back on using Wake-on-LAN.

Establishing a Wi-Fi Connection

- Go to All Settings > General > Devices > Network > Wi-Fi Connection



Pro Tip: Wired connections are more reliable and faster than wireless connections, so use a wired connection whenever possible. Wi-Fi connections are subject to interference from building materials which may limit the range and speed of your Wi-Fi connection. If it's impossible to use a wired connection, explore solutions to improve your Wi-Fi coverage. This may include relocating access points, adding access points, or adding Wi-Fi repeaters.

Your TV has a dual-band wireless antenna built in, so it can establish a wireless connection to your network. Ensure your wireless access points are working before starting.

Here, you see the available SSIDs. Select the desired SSID and enter the password.

Ethernet

Use your TV's LAN port for direct connection to your network.

- Go to All Settings > General > Devices > Network > Wired Connection (Ethernet)



Pro Tip: For best results, set your router to use Dynamic Host Configuration Protocol (DHCP). This way, the router automatically provides the TV with an IP address, subnet mask, gateway, and DNS, so you don't have to enter them manually. You may want to add a router reservation for the TV for reliable IP control.



Caution: When using the LAN port for IP control, connect the cable to the network router or switch before connecting it to the TV's LAN port.



Caution:

- Turn off PoE on the Ethernet line connecting to the TV.
- Specifically, passive PoE injectors supply voltage on Ethernet pairs with no negotiation or safety checks. Plugging a standard Ethernet device into a passive PoE line (especially 24V or 48V) it may damage the TV's Ethernet port.

Other options

Add a Hidden Wireless Network: If your wireless network does not broadcast its SSID, this command allows you to enter your network's name, security mode, and password.

Connecting via WPS PBC and WPS PIN are also available.

IP Control

Your TV supports IP control through the local area network (LAN). The TV can accept valid commands issued by another device in the same network through the predefined network interface and command format, such as shutdown, volume up / volume down, switch channels, etc.



Note: Turn on via Wifi must be enabled for IP Control to operate even if you are using a wired Ethernet connection (Settings > general > devices > external devices > TV on with mobile > Turn on Via Wifi).

Control4 OS Compatibility

This driver is designed to work seamlessly with Control4 OS 3.4.2 and later, ensuring optimal performance and reliability.

Turn on the TV to ensure that the SDDP is broadcast from the TV to the network before adding to the Control4 project in composer.



Pro Tip: For the most reliable IP control, connect your device via Ethernet.



Pro Tip: Reserve your TV's IP address using DHCP reservation. It's easy to set up through your router's settings or via OvrC if you're using a compatible networking device.

Control Method

This driver supports both IP (network) and IRcontrol. The control method is determined by the Communication Method property on the driver. (i.e., navigate to System Design, select the driver, go to the Properties tab, and set the Communication Method). Ensure the appropriate control binding is established:

- For Network control, use the Network Connections tab.
- For IRcontrol, use the Control/ AV Connections tab.

Although multiple control connections can be configured, only the control method specified by the Communication Method property will be utilized.

IP Control (Control4 driver only)

This TV supports SDDP. See *"Adding the TV to Control4 via SDDP" on page 24*, below, for instructions.

IR Control (Control4 driver only)

To enable IRcontrol, perform the following:

In Composer, set the Communication Method property to IR.



Advanced Properties			
Properties	Actions	Documentation	Lua
Log Level	1 - Error		
Log Mode	Off		
Driver Version	214		
Set Power On Delay Seconds	4		
Set Power Off Delay Seconds	4		
Set IR Input Command Delay Sec	3		
Set Command Delay Milliseconds	100		
Set Ramp Interval Milliseconds	200		
Communication Method	IR		
Tuner Region	South Korea, North/Latin America except Colombia Model		

Bind the IRconnection to a Control4 controller's IRoutput.

Either position the IRemitter correctly on the front of the TV or connect directly to the 3.5 mm IRinput on the rear of the TV to ensure proper control.

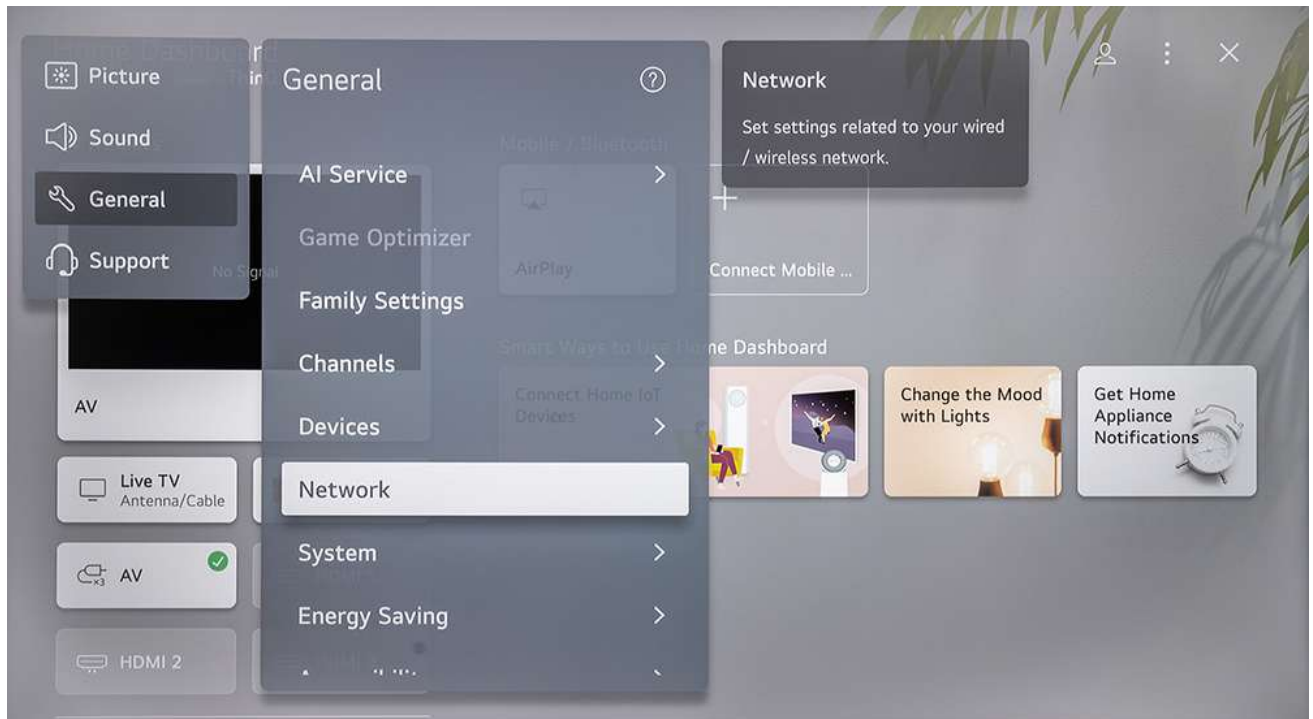


Note: This TV does not support RS-232 communication.

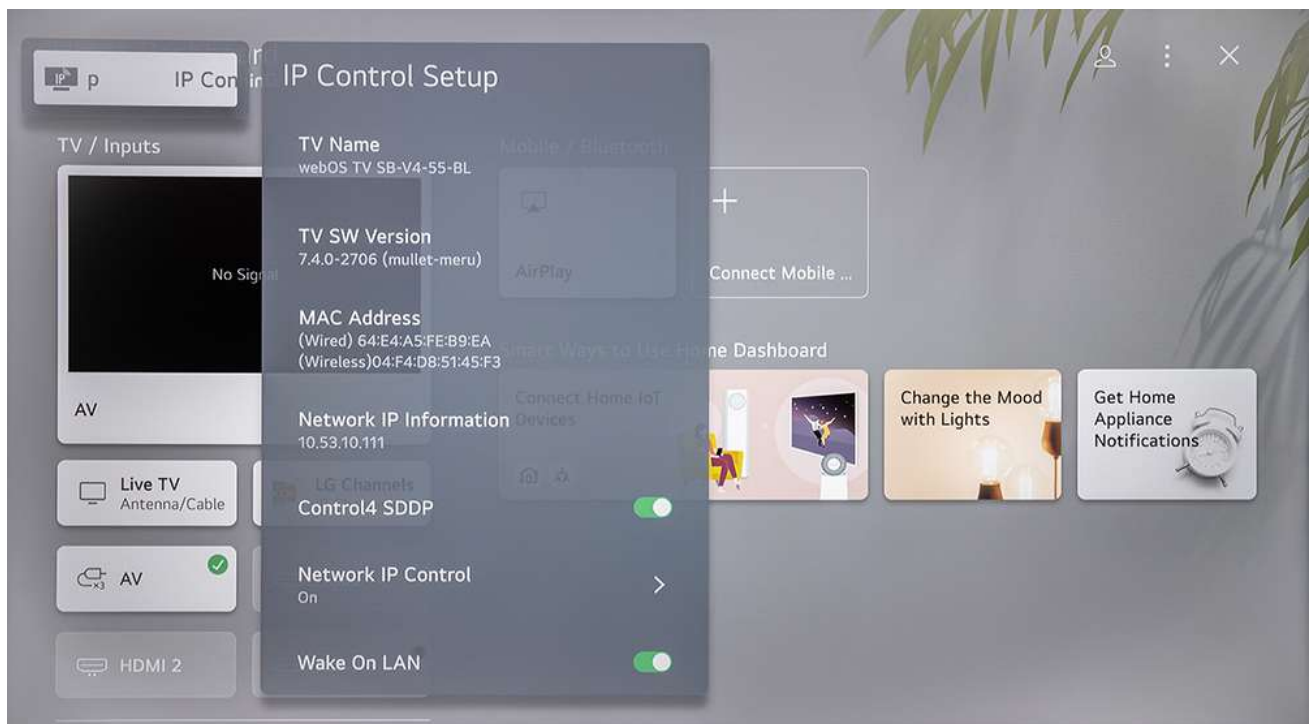
IP Control Setup

To set up IP Control on your TV, perform the following steps:

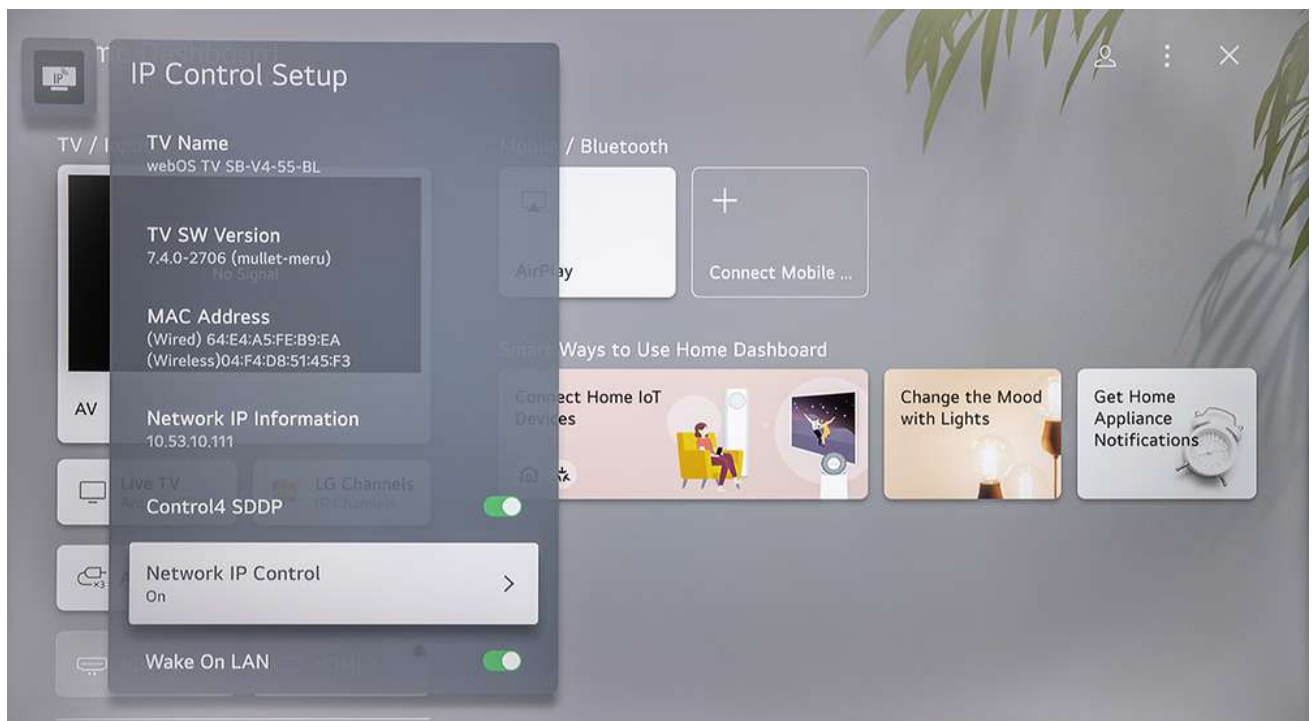
1. Connect your TV to a wired or wireless network.
2. Unhide the IP Control Setup menu.
 - a. Navigate to Menu > All Settings > General > Network. Move the cursor onto Network, but **do not press OK!**
 - b. Then, input “82888” using the number keys. Enter the digits in quick succession. It takes a few seconds for the IP Control menu to appear.



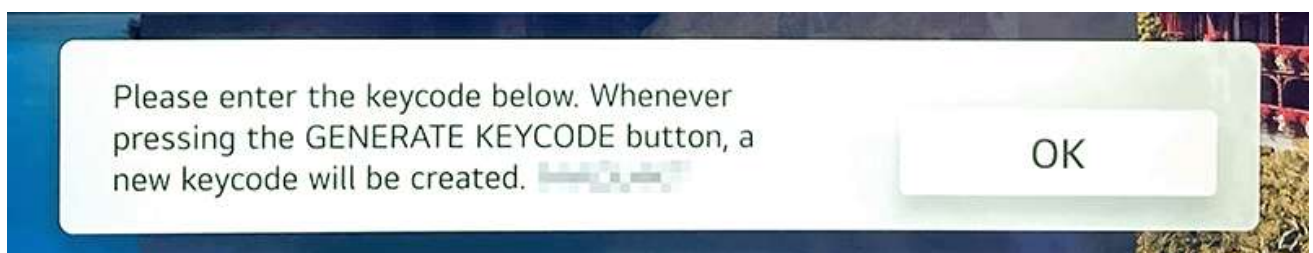
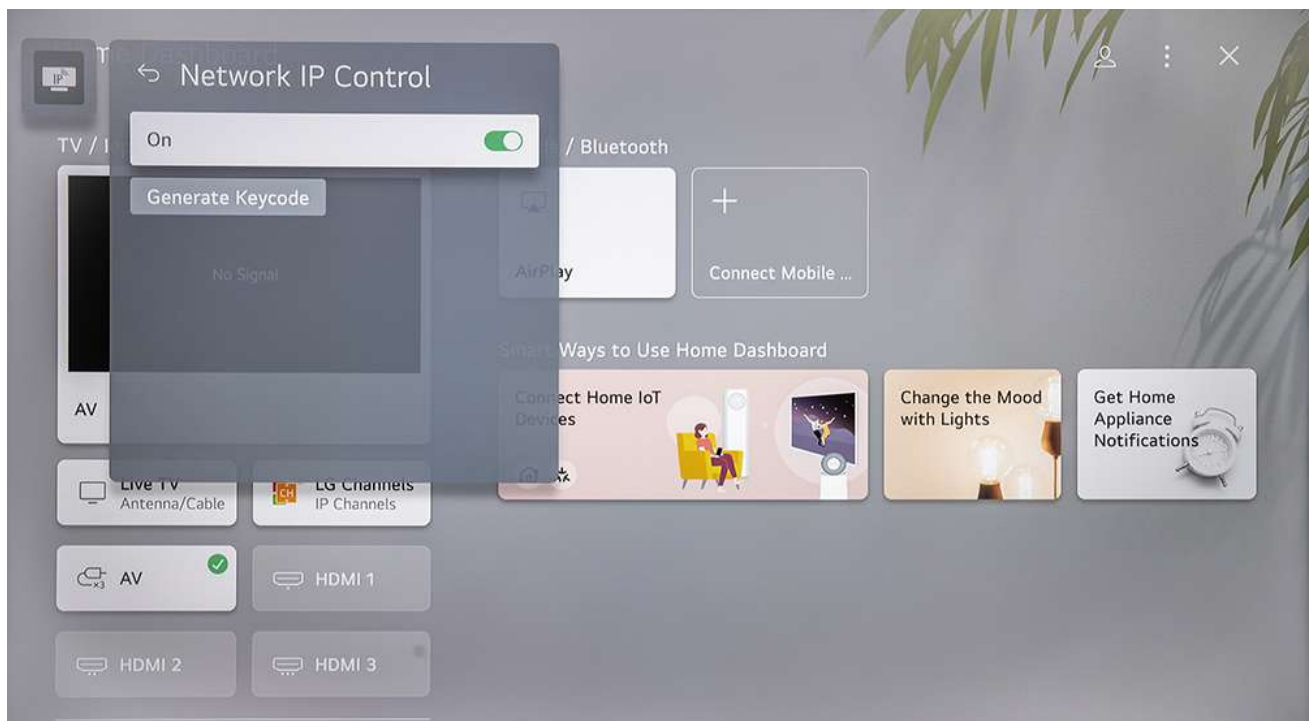
3. With the 'IP Control Setup' menu open:
 - a. Set Control4 SDDP to 'On' and
 - b. Set Wake-on-LAN to 'On' (TV power on)



4. To enable Network IP Control and generate a keycode, go to Network IP Control and press OK.



5. In the Network IP Control menu perform the following:
 - a. Set Network IP Control to 'On'.
 - b. Highlight the Generate Keycode button and press OK. Record the key code. Treat it like a password, as it is required for network security.
 - c.  **Note:** Each time a new key code is generated, any previous key codes are invalidated.



6. Enter the TV's key code into the driver's Password property.
7. Enable the Turn on via Wifi setting (Settings > general > devices > external devices > TV on with mobile > Turn on Via Wifi).

 **Note:** Turn on via Wifi must be enabled for IP Control to operate even if you are using a wired Ethernet connection (Settings > general > devices > external devices > TV on with mobile > Turn on Via Wifi).

8. For technical details, see [IP Control Guide](#).

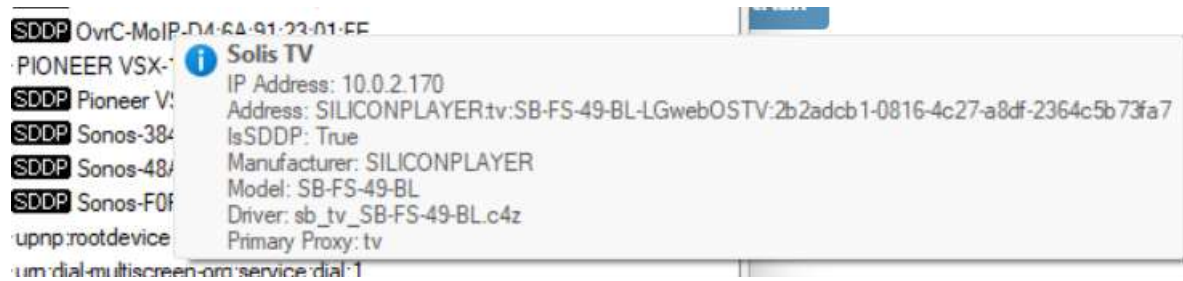
Adding the TV to Control4 via SDDP

 **Note:** With the TV powered on and SDDP enabled, your TV will appear in Composer's Discovered tab under the manufacturer **SILICONPLAYER**. See the following screenshots.

Items

LocationsDiscoveredMy DriversSearch

Type	Manufacturer	Model
wattbox_wb300vb...	WattBox	WB-300VB-IP-5
A/V Switch	SnapAV	MoIP Controller
Media Service	Sonos	Zoneplayer
Media Service	Sonos	Zoneplayer
Audio/Video	SILICONPLAYER	SB-FS-49-BL



To automatically add your TV to your Control4 system , perform the following:

1. Turn on your TV to ensure that the SDDP is broadcast from the TV to the network.
The TV does not broadcast SDDP when in sleep mode.
2. With your TV connected to the network, start Composer Pro and connect to a Director.
3. Click System Design (default view).
4. In the Items pane, click the Discovered tab. View the devices in the list. In the project, click the room to add the device to.
5. In the Discovered list (Items pane), double-click the device to add it to the project.

Adding the TV to a Control System Manually

To manually add a TV to a control system , you will need :

- the MAC address of the network connection
- the IP address of the TV
- Network > IP control > key code

Controlling the TV

Basic IP control is achieved by using Wake-on-LAN to turn the TV on, then all remaining control is done by encrypted API commands, including Power Off.



Pro Tip: We highly recommend that you connect the TV to the network using Ethernet instead of Wi-Fi.



Note: Once IP Control is configured, the only way to turn the TV on from standby is with Wake-on-LAN.

Snap One is actively working with other third-party control systems to create SunBrite TV drivers.

SB-FS-49-BL Sunbrite Television IP	 8/26/2024
SB-FS-55-BL Sunbrite Television IP	 8/26/2024
SB-FS-65-BL Sunbrite Television IP	 8/26/2024
SB-FS-75-BL Sunbrite Television IP	 8/26/2024
SB-V4-49-BL Sunbrite Television IP	 8/26/2024
SB-V4-55-BL Sunbrite Television IP	 8/26/2024
SB-V4-65-BL Sunbrite Television IP	 8/26/2024

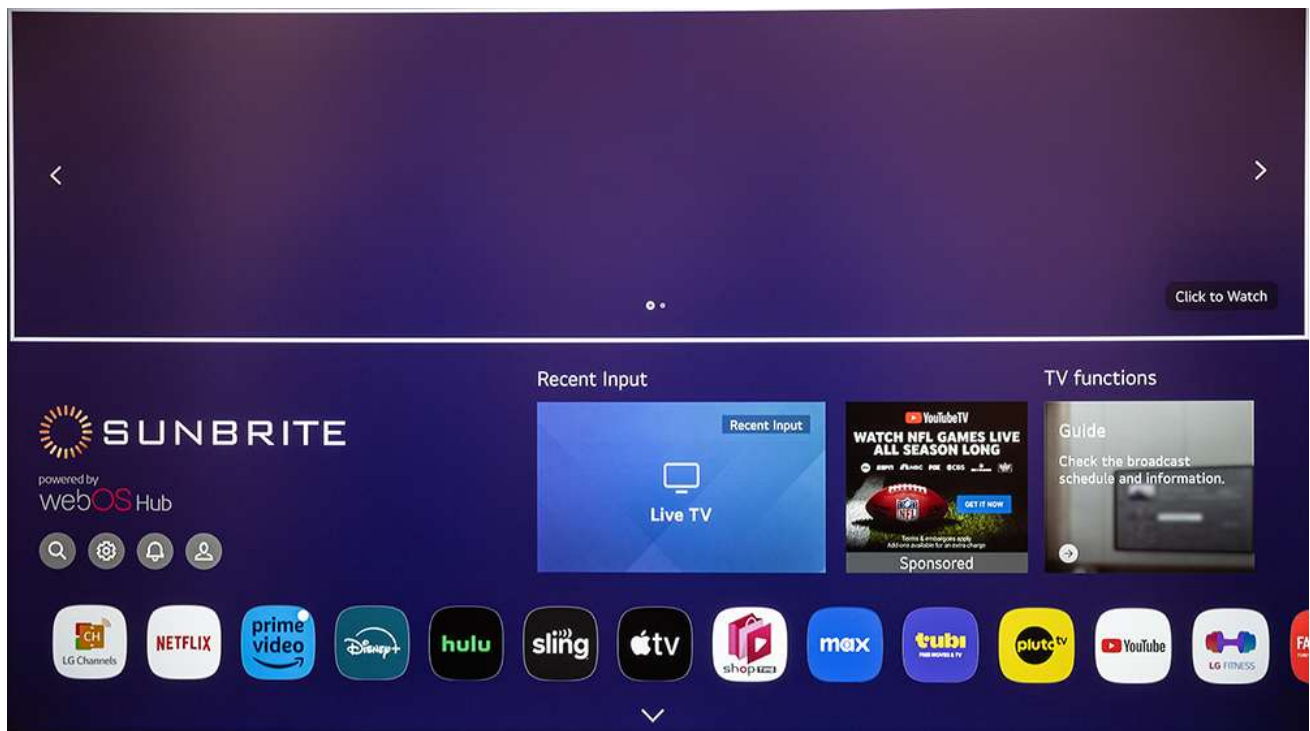
Figure 1. Composer Pro Search Tab.

Home Screen

The simple design of the Home screen menu makes it easy to navigate. You can easily add or delete applications according to your needs.

To access the Home screen, press the Home button on your remote and use the D-pad to make your selection.

To exit the Home screen, press the Input button on your remote or use the D-pad to move the cursor to the Recent Inputs icon near the center of the screen and press the OK button.



Home Screen

Managing Apps

Adding Apps

Find apps in the Featured List or search for them in the Search (magnifying glass icon).

Caution: Use discretion when downloading apps. Report suspicious or malicious apps using the link provided in the apps options vulnerability report link.

Edit App List

Select an app, then press and hold the OK button. This allows you to rearrange and delete installed applications.

 **Note:** Certain built-in apps cannot be deleted.

Settings Menu Tree

Picture Mode

Vivid

Standard

APS (Auto Power Save) (default)

Cinema

Sports

Game Optimizer

Sound Mode

Standard

Cinema

Clear Voice

Sports

Music

Sound Out

TV Speaker

Bluetooth Device

Mobile Device

Optical Out Device

HDMI (ARC) Device

Wired Headphones

Bluetooth Device + TV Speaker

Optical Out Device + TV Speaker

Wired Headphones + TV Speaker

Game Optimizer

Enable/Disable Game Optimizer Settings

Game Tab

Game Genre

Standard

FPS (First Person Shooter)

RPG (Role-playing Game)

RTS (Real-time Strategy)

Sports

Reduce Blue Light

Off

Level 1

Level 2

Dark Room Mode

Off

Level 1

Level 2

Game Dashboard: Enable/Disable

Picture Tab

Game Genre

Standard

FPS (First Person Shooter)

RPG (Role-playing Game)

RTS (Real-time Strategy)

Sports

Black Stabilizer: 0-20

White Stabilizer: 0-20

Reset

Network

Wired Connection (Ethernet)

Wi-Fi Connection

All Settings

Picture

Select Mode

Aspect Ratio

User Selection

Just Scan

Advanced Settings

Brightness

Panel Brightness

Adjust Contrast

Black Level

Auto Dynamic Contrast

Gamma (Adjust brightness)

Video Range

Color

Color depth

Tint

Color Gamut

Fine Tune

Color adjustment

Reset

White Balance

Color temperature

Reset

Clarity

Adjust sharpness

Noise reduction

Real cinema

TruMotion

Apply to all inputs

Reset

Sound

Select Mode

Sound Out

Use TV Speaker

Use Wired Speaker

Optical Out Device

HDMI (ARC) Device

Wired Headphones

Use Wireless Speaker

Bluetooth Device

Mobile Device

Use External Speakers with TV Speaker

Bluetooth Device + TV Speaker

Optical Out Device + TV Speaker

Wired Headphones + TV Speaker

Advanced Settings

Balance

Equalizer

Apply to all Inputs

Reset

Installation Type

Stand (not recommended)

Wall-mounted

Automatic Volume Adjustment: Enable/disable

Match Screen and Sound

TV Speaker Delay

Bypass

Select HDMI Input Audio Format at

HDMI 1

Bitstream

PCM

HDMI 2

Bitstream

PCM

HDMI 3

Bitstream

PCM

LG Sound Sync: Enable/disable

Digital Sound Output

Pass through

Auto

PCM

eARC Support: Enable/disable

General

AI Service

Voice Recognition Help

Guide for voice commands

Voice Recognition Settings

Voice Response: Enable/disable

AI Recommendation

Smart Tips: Enable/disable

Next Picks: Enable/disable

Reser Usage Data

Game Optimizer

Enable/Disable Game Optimizer Settings

Game Tab

Game Genre

Standard

FPS (First Person Shooter)

RPG (Role-playing Game)

RTS (Real-time Strategy)

Sports

Reduce Blue Light

Off

Level 1

Level 2

Dark Room Mode

Off

Level 1

Level 2

Game Dashboard: Enable/Disable

Picture Tab

Game Genre

Standard

FPS (First Person Shooter)

RPG (Role-playing Game)

RTS (Real-time Strategy)

Sports

Black Stabilizer: 0-20

White Stabilizer: 0-20

Reset

Family Settings

Reset Password

Usage Limit Setting

On/Off

Start Time

End Time

Repeat

Eye Care Mode (reduce blue light): On/ Off

Volume Limit Mode: On/ Off

Screen Time Report

Channels

Channel Tuning

Auto Tuning

Manual Tuning

Channel Manager

Edit all channels

Edit favorites

Devices

TV Management

Home/ Store Mode

Quick Start+: On/ Off

TV Information

Device Name

Model

Serial Number

webOS TV Version

Total Power On Time

Available Internal Storage

Patent Information

MAC Address (Wired)

MAC Address (Wireless)

ESN

VSN

Widevine

External Devices

Connect Bluetooth Controller

Universal Control Settings

HDMI 1

HDMI 2

AV

Optical

Audio out/headphones

Bluetooth

Manage Settings

HDMI Settings

HDMI Deep Color: On/ Off

SIMPLINK (HDMI- CEC): On/ Off

Network

Wired Connection (Ethernet)

Wi-Fi Connection

IP Control (hidden menu)

On/ Off

Generate Key Code

Wake- On- LAN: On/ Off

System

Language

Menu Language

Audio Language

Keyboard Languages

Location

Zip Code

Services Country

Time and Timer

Set automatically

Time

Date

Time Zone

Timers

Sleep Timer

Power On Timer

Power Off Timer

Auto Power Off after 4 Hours: On/ Off

Safety

Enable the function: On/ Off

TV Program Locks

TV Lock

Children Age

Fantasy Violence

General Age

Sexually Suggestive Dialogue

Adult Language

Sexual Situations

Violence

Movie Lock (G, PG, PG- 13, R, NC- 17, X)

Downloadable Rating

Channel Locks

All

Antenna

Cable

LG Channels

Application Locks

Input Locks

Reset Password

LG Account

Additional Settings

Notifications

Home Settings

Home Auto Launch

Home Promotion

Content Recommendation

Standby Light: On/ Off

Screen Saver Promotion: On/ Off

Pointer Options

Tracking Speed (Slow, Normal, Fast)

Pointer Size (Small, Medium, Large)

Advertisement

Reset AD ID

Limit AD Tracking: On/ Off

LivePlus: On/ Off

Settings Help: On/ Off

Set ID

Reset to Initial Settings

Energy Saving

Energy Saving Setup (Off, Min, Med, Max)

Screen Off

Accessibility

Audio Guidance

Enable the function: On/ Off

Speed

Volume

Pitch

Learn Remote Control

TV Power Sound: On/ Off

Enjoy TV Sound Together

Off, Bluetooth Device, HDMI (ARC) Device

High Contrast: On/ Off

Grayscale: On/ Off

Invert Colors: On/ Off

Closed Caption

Closed Caption: On/ Off

Analog Mode

CC1- CC4, TEXT1- TEXT4

Digital Mode

HD Mode (Off, Service1-Service6)

HD Mode Option

Style (Set by Program , Custom)

Size

Font

Text Color

Text Opacity

Background Color

Background Opacity

Edge Type

Edge Color

Window Color

Window Opacity

Position Settings (Position, Reset)

Support

Software Update

Software Version

Auto Update: On/ Off

Check for Updates

User Guide

Privacy and Terms

User Agreements

Legal Notice

Open Source Software Notice

Do Not Sell My Personal Information: On/ Off

Edit Mode

Live TV

You may tune live TV channels either automatically or manually. The Channel Manager allows you to edit all channels (lock/unlock, delete/restore) and edit a favorite channels list.

Automatic Tuning (Scan)

All Settings > General > Channels > Channel Tuning > Auto Tuning

Manual Tuning

All Settings > General > Channels > Channel Tuning > Manual Tuning

Channel Manager

All Settings > General > Channels > Channel Manager

Screen Sharing

SunBrite webOS supports several types of screen sharing and mirroring technologies, which allow users to display content from their devices on the TV screen. Here are the primary methods:

- Apple AirPlay 2
- Chromecast is available, but limited, for specific video sites.

Bluetooth

Your SunBrite TV can pair with Bluetooth devices such as speakers, headphones, keyboards, etc. If maximum number of paired devices is reached, another device must be unpaired before pairing a new device.

Certain Bluetooth devices may experience compatibility issues.

Pairing a Bluetooth device

Before pairing your Bluetooth device, ensure it's in pairing mode (see its manual for instructions) and within range of the TV. After pairing is completed, the TV saves data for the connected device.

To pair a Bluetooth speaker, for example, perform the following steps:

1. Navigate to All Settings > Sound > Sound Out > Use Wireless Speaker
2. Follow the onscreen instructions to connect to the device.

USB Storage Devices

Connect a USB storage device (USB stick or digital camera) to the TV's USB port to view the stored media on your TV.

Please use only USB storage devices formatted as FAT32, exFAT, or NTFS.

We recommend that you use an external USB device with a rated voltage of 5V or less and a rated current of 500mA or less. If you use a device requiring a higher voltage/current than the rated voltage/current, it may not operate properly.

 **Note:** Certain digital cameras may not be compatible with the TV.

For details and tips, refer to the TV's built-in User Guide (All Settings > Support > User Guide).

Media Player

To access the Media Player, first insert a valid USB storage device, then press the Input button on the remote, and select the USB input.

The media player plays most popular media formats with the ability to play multiple files in a loop.

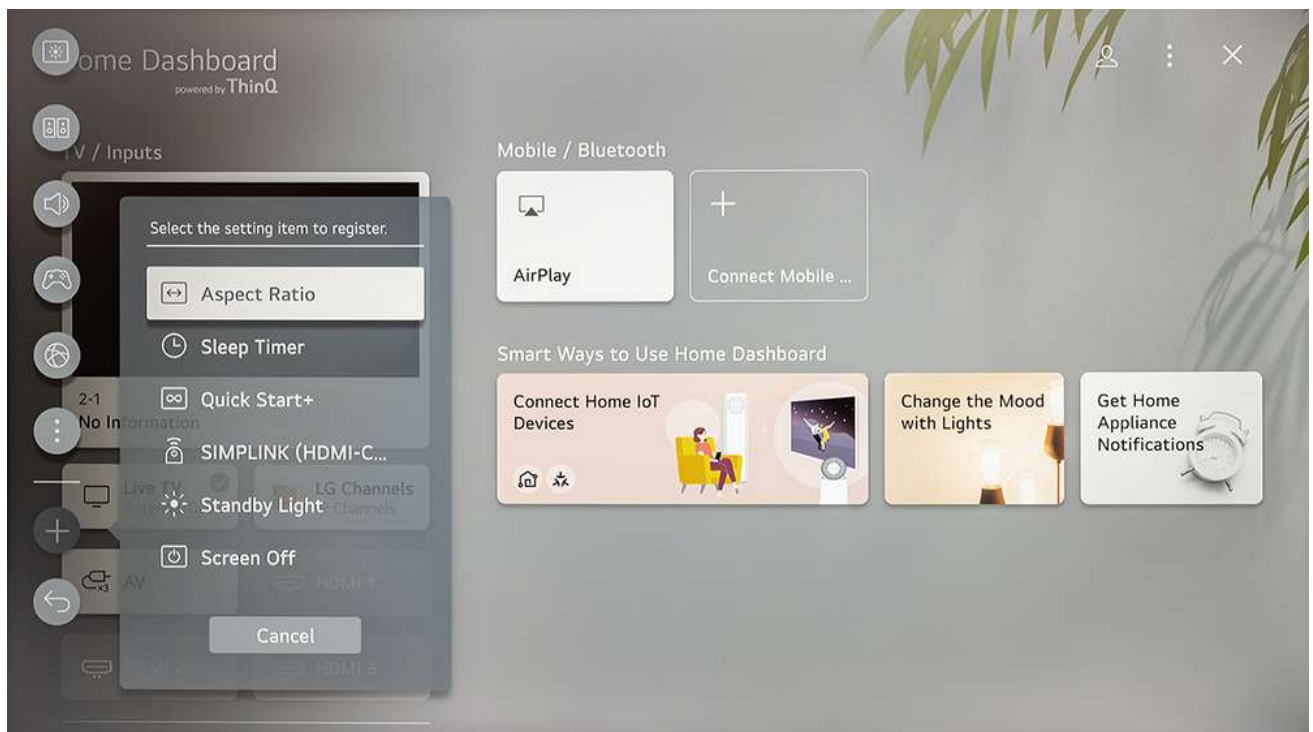
Popular supported media formats

- Video formats: MOV, M4V, MP4, and others
- Image formats: JPG and others
- Audio formats: MP3, WAV, and others

 **Note:** While playing video **via a USB storage device**, this TV does not support 4K (3840 × 2160) resolution video at **60 frames per second (fps)**. However, this TV *does* support 4K video at **30 fps** via USB storage device.

Setting Shortcuts

Upon pressing the Settings (gear icon), several shortcuts will appear on the display. Shortcuts may be added or removed by going into Edit Mode (pencil icon).

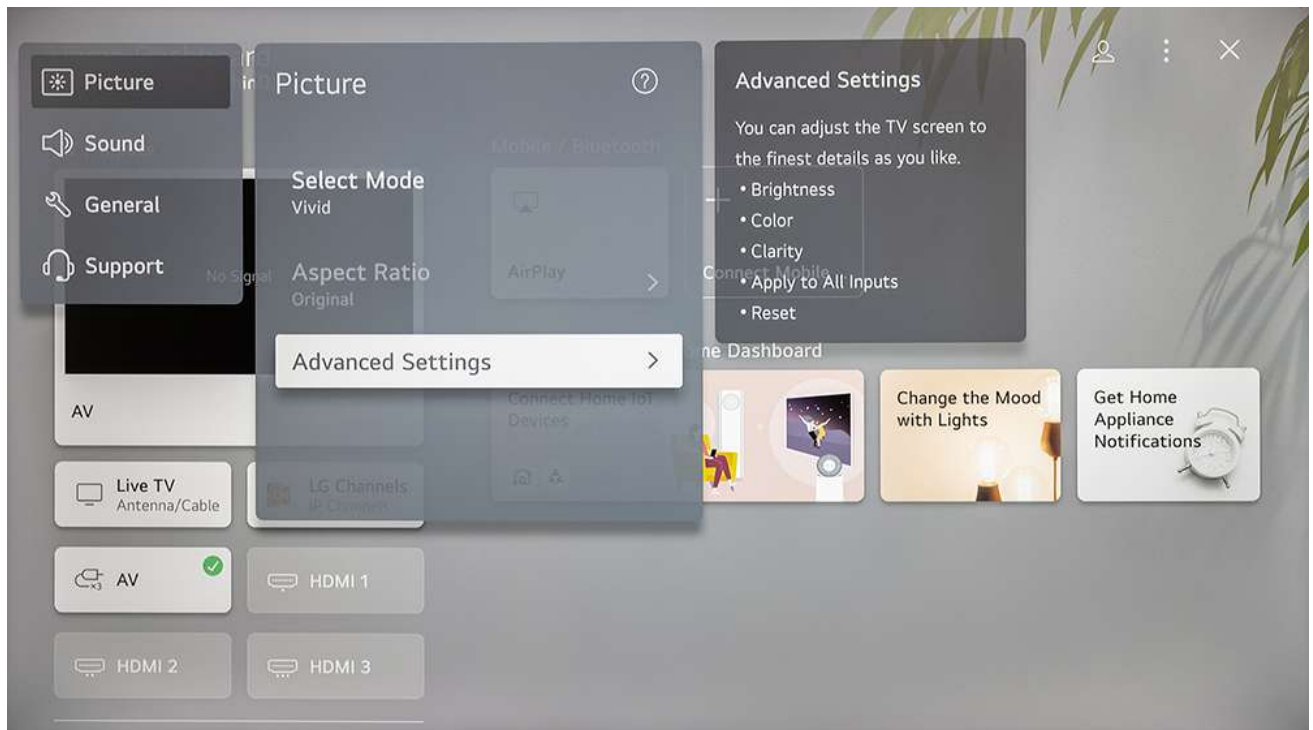


Editing in Edit Mode

Picture Settings

Picture settings include Mode, Aspect Ratio, Brightness, Color, and Clarity.

All settings > Picture



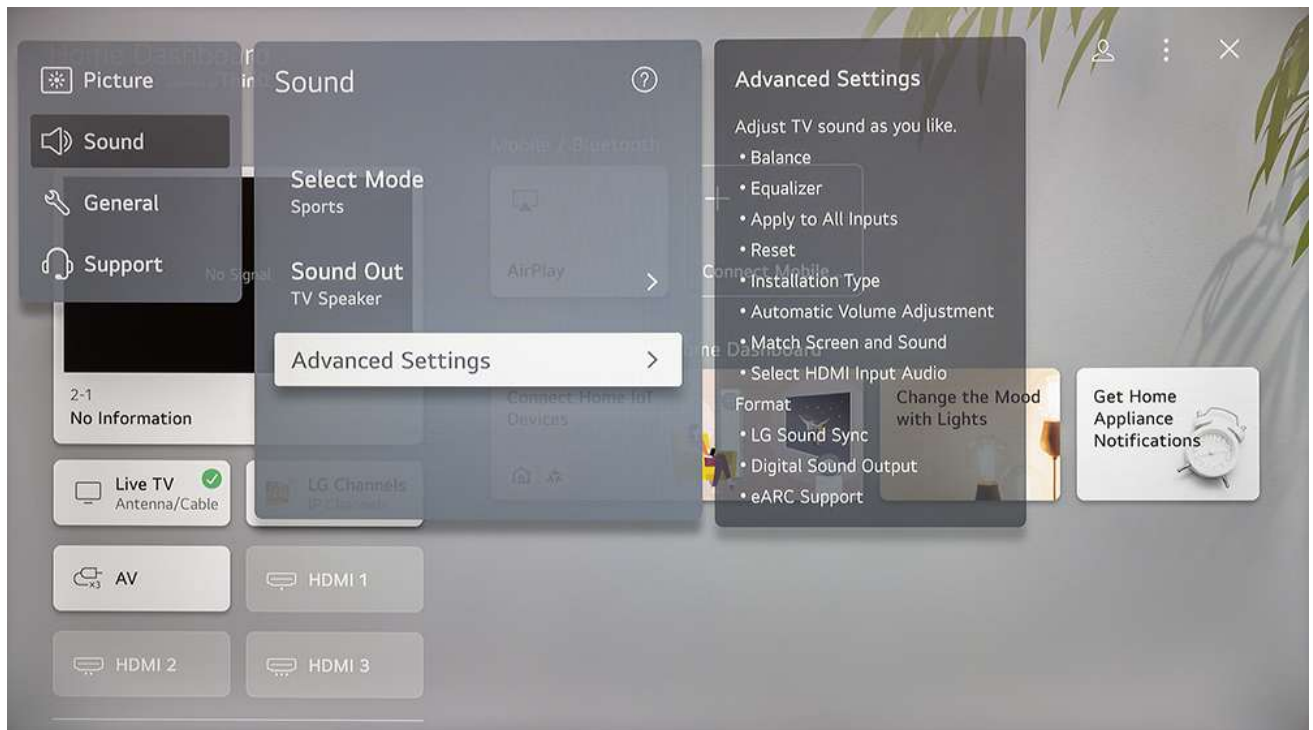
Pro Tip: Customize one of the existing picture modes to best suit nighttime outdoor viewing. Set the Panel Brightness (backlight) to a very dim level, etc.

Pro Tip: For automation, picture mode can be changed using the control API to switch to your custom nighttime mode after sunset and back to a daytime picture mode during the day.

Sound Settings

Sound settings include Mode, Sound Out, Balance, Equalizer, Installation Type, Automatic Volume Adjustment, Match Screen and Sound, LG Sound Sync, Digital Sound output, and eARC support.

All settings > Sound



Sound Out

Listening to the TV through Bluetooth devices

To listen to the TV through Bluetooth devices, navigate to:

All Settings > Sound > Sound Out > Use Wireless Speaker

Follow the onscreen instructions to connect to the device.

HDMI(ARC) Device

CEC & ARC are referred to as SIMPLINK on this TV. SIMPLINK (HDMI-CEC) must be enabled on the TV for ARC to work.

If you enable Sound Out > HDMI (ARC) Device, the TV automatically turns on CEC (Simplink).

Otherwise, to enable CEC, navigate to the following setting:

All Settings > General > Devices > HDMI Settings > SIMPLINK (HDMI-CEC)

Basic operation of CEC allows a CEC source HDMI device to turn your SunBrite TV on / off. This is generally off by default on your source device, consult the help manual for your source device to enable this feature.

SIMPLINK (HDMI-CEC) will also control the volume level of a compatible amplifier using the TV's remote.

ARC allows audio to be returned to an amplifier using HDMI2.

eARC

To use eARC, navigate to All Settings > Sound > Advanced Settings > eARC Support and enable the setting.



Note: Older ARC-enabled amplifiers may not be compatible with eARC. If you're experiencing audio problems with an older amplifier, disable eARC in your TV.

Advanced Settings

All Settings > Sound > Advanced Settings

Multiple sound presets are provided along with an equalizer for fine tuning sound output.

Apply to all Inputs: Apply the current Balance and Equalizer settings to all input.

Reset: Sets the sound settings to default.

Installation Type: Select Stand or Wall-Mounted per your preferences.

Automatic Volume Control: Enable to prevent the perceived volume from changing when you switch TV channels.

Match Screen and Sound: Adjust the digital audio output delay time to sync sound from an external speaker with the images on the TV. This is only applicable when Audio Output is set to ARC or when external audio players are connected via the Digital Audio Out jack.

Select HDMI Input Audio Format: Select Bitstream or PCM for any of the HDMI inputs.

LG Sound Sync: This makes connecting a sound bar to your TV easy and wire free using Bluetooth technology.

Digital Sound Output: (PCM, Auto, or Passthrough) Select the digital audio output format that best suits the audio device type. This is only applicable when Audio Output is set to ARC.

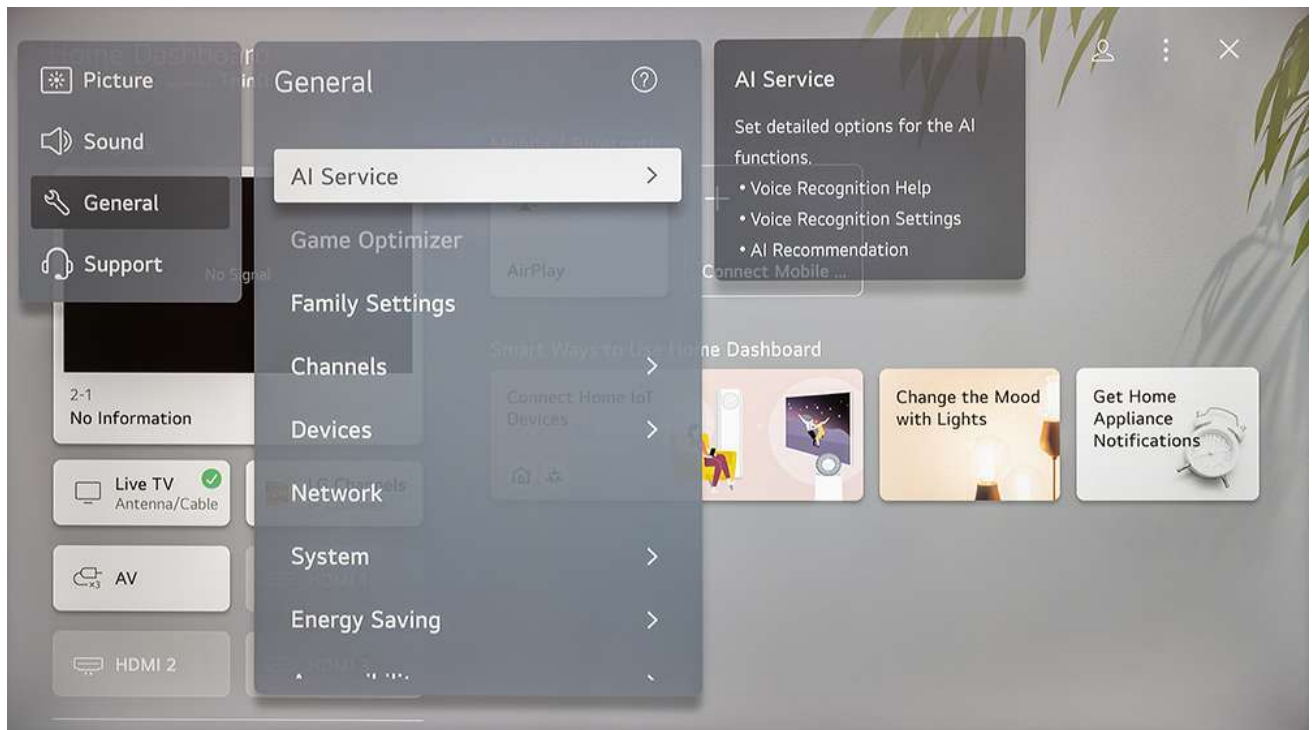
eARC Support: Enable/disable

 **Note:** Be aware of the TV's Sound Out setting as it is easy to accidentally change the Sound Out setting. If you end up with no audio, check the Sound Out setting first.

General Settings

General settings include, AI Service, Game Optimizer, Family Settings, Channels, Devices, Network, System, Energy Saving, and Accessibility.

All settings > General



AI Service

Includes voice recognition settings and AI recommendations.

Game Optimizer

All Settings > General > Game Optimizer

These settings allow you to fine tune your gaming experience with game genre selection, blue light reduction, dark room mode, and more.

Set the TV's picture mode to Game Optimizer before changing settings.

Family Settings

Includes Usage Limits, Eye Care Mode, Volume Limit Mode, and Screen Time Reports.

Channels

Includes settings for managing related broadcast channels.

Devices

Includes settings for setting up the TV and external devices connected to the TV.

TV Information: Displays Device name, model, serial number, webOS TV version, total power on time, available internal storage, patent info, MAC addresses, ESN, VSN, and Widevine.

 **Note:** For Bluetooth audio, see Sound > Sound Out section.

Accessibility & System

Accessibility

All Settings > General > Accessibility

The Accessibility menu provides options to aid the visually or hearing impaired.

Here you can customize your caption style, configure your closed-caption options, and set up various accessibility services.

Audio Guidance reads whatever words are on the screen.

Learn Remote Control allows you to use another remote control to control your TV.

TV Power Sound plays a sound when the TV is turned off, when enabled.

Enjoy TV Sound Together: Sound is produced by the TV speaker and an external speaker simultaneously. Volume can be controlled separately by each device.

High Contrast, Grayscale, and Invert Colors: Various color options are provided.

Closed Caption: Various closed caption options are provided.

Voice Control

You can easily and quickly access the TV's various functions with voice control. Voice Control requires the WebOS Remote, which must be paired to the TV.

1. Press and hold the Voice Recognition button on the WebOS Remote and say the function you want to launch or the keyword you want to use for your search. We recommend pronouncing the words in a slow, accurate manner about 4 inches from the WebOS Remote's mic.
2. Release the Voice Recognition button after you speak and the corresponding function is launched.

Menu Language must be set as the official language of the country in Location to see correct search results. If Menu Language is not set as the official language, some functions may be limited.

You can change the language in All Settings > General > System > Language > Menu Language.

The languages available for voice recognition features may be changed in accordance with Service Operation Policy.

Details of service may vary by model.



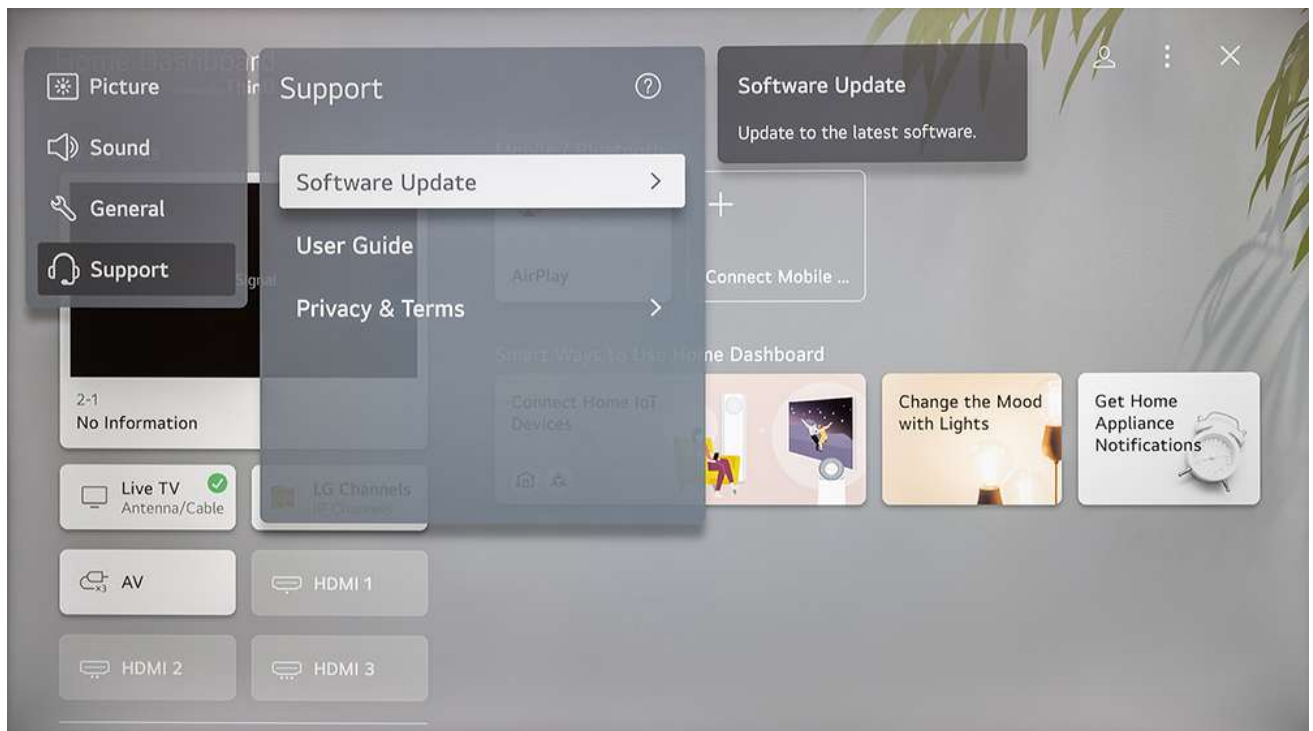
Note: Please note that the services enabling voice commands, voice recognition, and other smart features may be changed, removed, or terminated, without notice by LGE or its third-party providers.

You can change the voice-related settings or see which features are available to be used with the voice in All Settings > General > AI Service > Voice Recognition Settings/Voice Recognition Help.

Support Settings

Includes Software Update, internal User Guide, and Privacy & Terms.

All settings > Support



Software Update

Update your TV to the latest firm ware.

User Guide

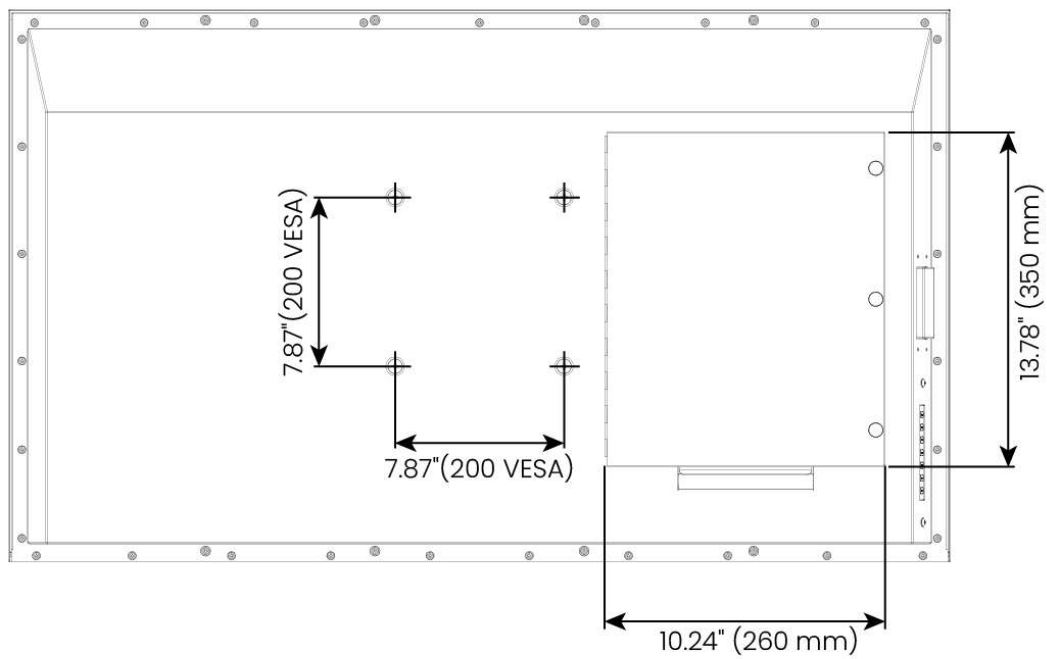
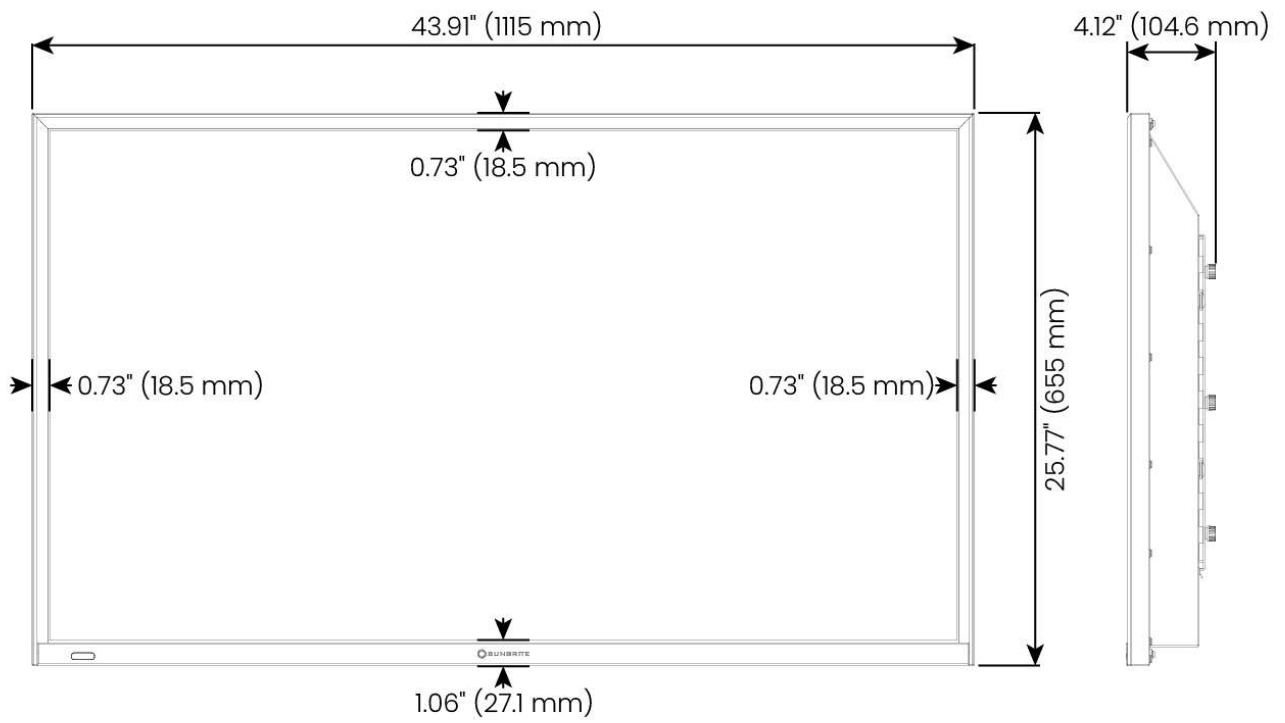
Check descriptions for all the TV's functions.

Solis, 49" Model Specifications

Screen size	48.5-inch diagonal, LG Display UHD panel, RGBW (M+)
Screen resolution	3840x2160
Screen finish	Hard coating (2H), Anti-glare treatment of the front polarizer (Haze 28%(Typ.))
Exterior	Powder-coated aluminum
Colors	Black only
Viewing angles	R/L 178°, U/D 178°
Brightness	1500 nits (cd/m ²)
Contrast ratio	1100:1
Frame rate	60 Hz standard
Viewing angles	R/L 178°, U/D 178°
Response time	8 milliseconds
TV formats	2160p (HDMI only), 1080p, 1080i, 720p, 720i, 480p, 480i
RF input connector	Antenna/ CATV (NTSC/ ATSC 2/ QAM) x1
HDMI input connector	3 inputs (Supports HDMI 2.1, HDMI 2.0, HDMI 1.4, HDCP 1.4, HDCP 2.2) (eARC on HDMI 2)
Video composite input connector	Composite Video x1, L/R Audio Inputs x1 (Requires Adapter, not included)
Control set	Direct IR control, IP control
Audio out	2 x 8W down firing internal speakers (included) or Speaker bar (not included)

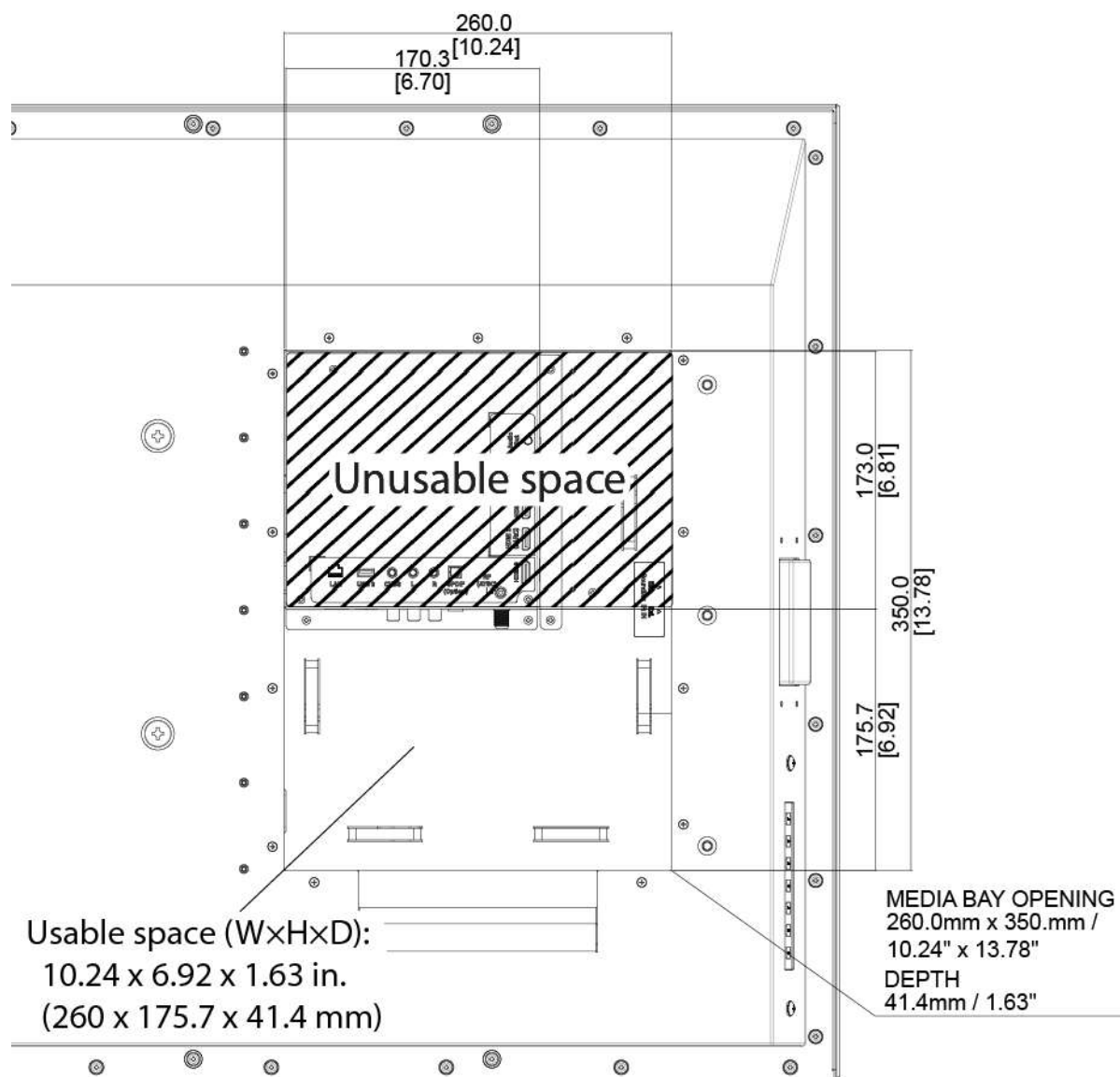
	Toslink optical audio (fixed) Analog 3.5mm (variable)
Color gamut	NTSC 72%
Back light	Direct LED
Smart TV	LG WebOS 22
Network	Wi-Fi: 2.4/5 GHz 10/100 Ethernet Bluetooth 5.0
Exterior	Powder-coated aluminum
Color	Black only
Input power	GCFI protected 100-240 VAC, 50/60Hz, 4.7A max (See AC Power Requirements, above, for details)
Operating temperature	32° to 122° F. (0° to 50° C)
Non-operating temperature	-24° to 140° F. (-31° to 60° C)
SunBrite Solis is designed for continuous use of 16 hours per day, seven days a week. Solis can be used 24/7 without affecting the warranty, doing so may influence the overall longevity and lifespan of the product.	
Weatherproof rating	IP55
TV dimensions (W×H×D)	44 × 26 × 4.25 in. (1118 × 660 × 108 mm)
Media bay dimensions (W×H×D)	10.25 × 14 × 1.67 in. (260 × 356 × 42 mm) (See detailed media bay drawing)
VESA mount pattern	200×200
Shipping dimensions (W×H×D)	47.9 × 29.8 × 8.9 in. (1216 × 757 × 227 mm)
TV weight	39.4 lb / 17.9 kg
Shipping weight	51.6 lb / 23.4 kg
Residential Warranty	2 years
Commercial warranty	2 years

Solis, 49" Model Dimensions



 **Note:** For CAD and PDF drawings and other resources, visit the [snap one product page](#).

Media Bay Space



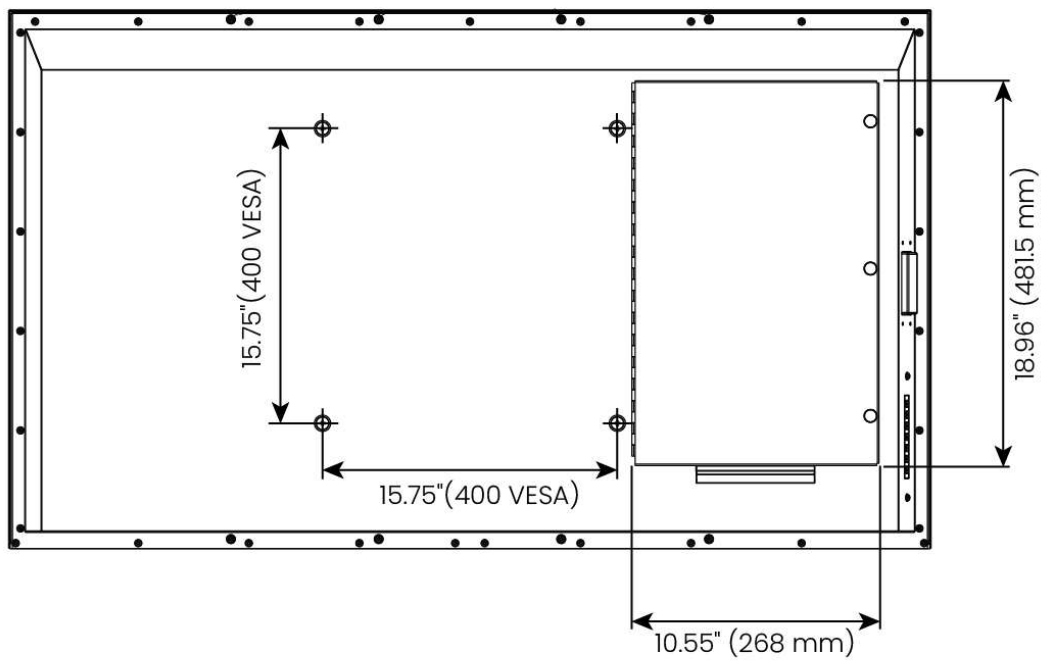
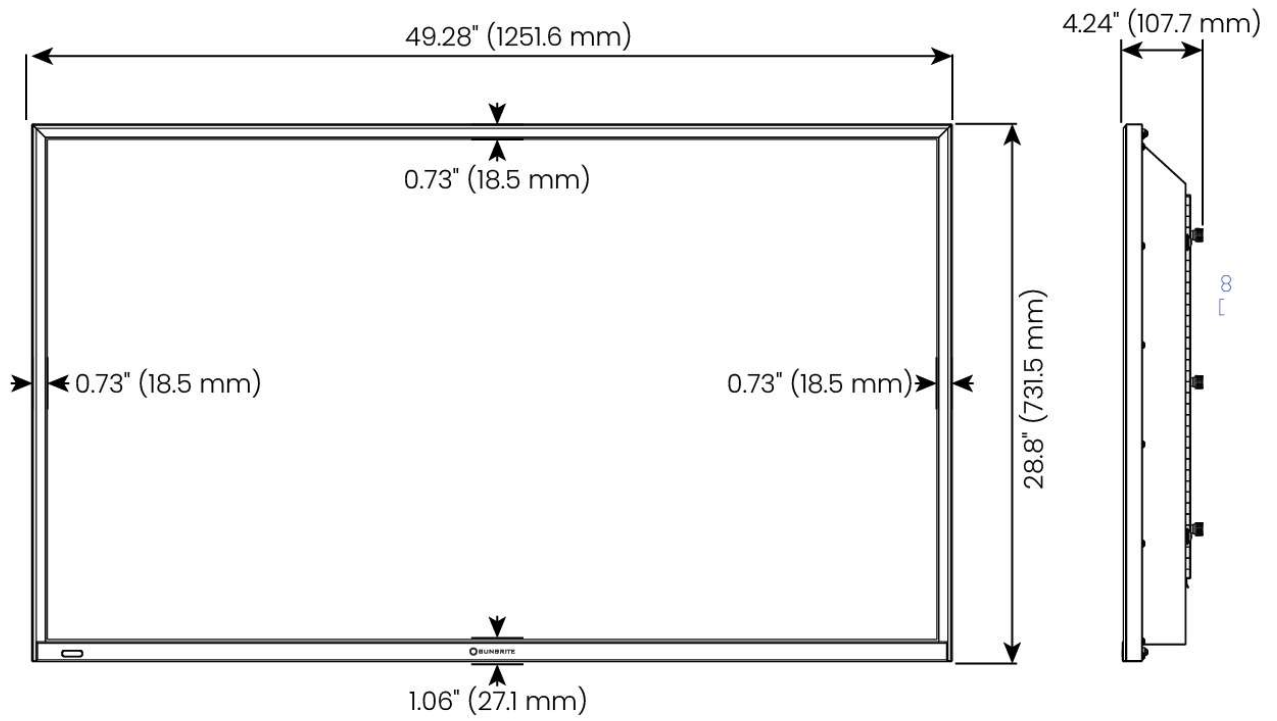
Solis, 55" Model Specifications

Screen size	54.64-inch diagonal, LG Display UHD
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	panel, RGBW (M+)
Screen resolution	3840x2160
LCD surface treatment	Hard coating(2H), Anti-glare treatment of the front polarizer (Haze 28%(Typ.))
Exterior	Powder-coated aluminum
Colors	Black only
Viewing angles	R/L 178°, U/D 178°
Brightness	1500 nits (cd/m ²)
Contrast ratio	1100:1
Frame rate	60 Hz standard
Viewing angles	R/L 178°, U/D 178°
Response time	8 milliseconds
TV formats	2160p (HDMI only), 1080p, 1080i, 720p, 720i, 480p, 480i
RF input connector	Antenna/ CATV (NTSC/ ATSC 2/ QAM) x1
HDMI input connector	3 inputs (Supports HDMI 2.1, HDMI 2.0, HDMI 1.4, HDCP 1.4, HDCP 2.2) (eARC on HDMI 2)
Video composite input connector	Composite Video x1, L/R Audio Inputs x1 (Requires Adapter, not included)
Control set	Direct IR control, IP control
Audio out	2 x 8W down firing internal speakers (included) or Speaker bar (not included) Toslink optical audio (fixed) Analog 3.5mm (variable)
Color gamut	NTSC 72%

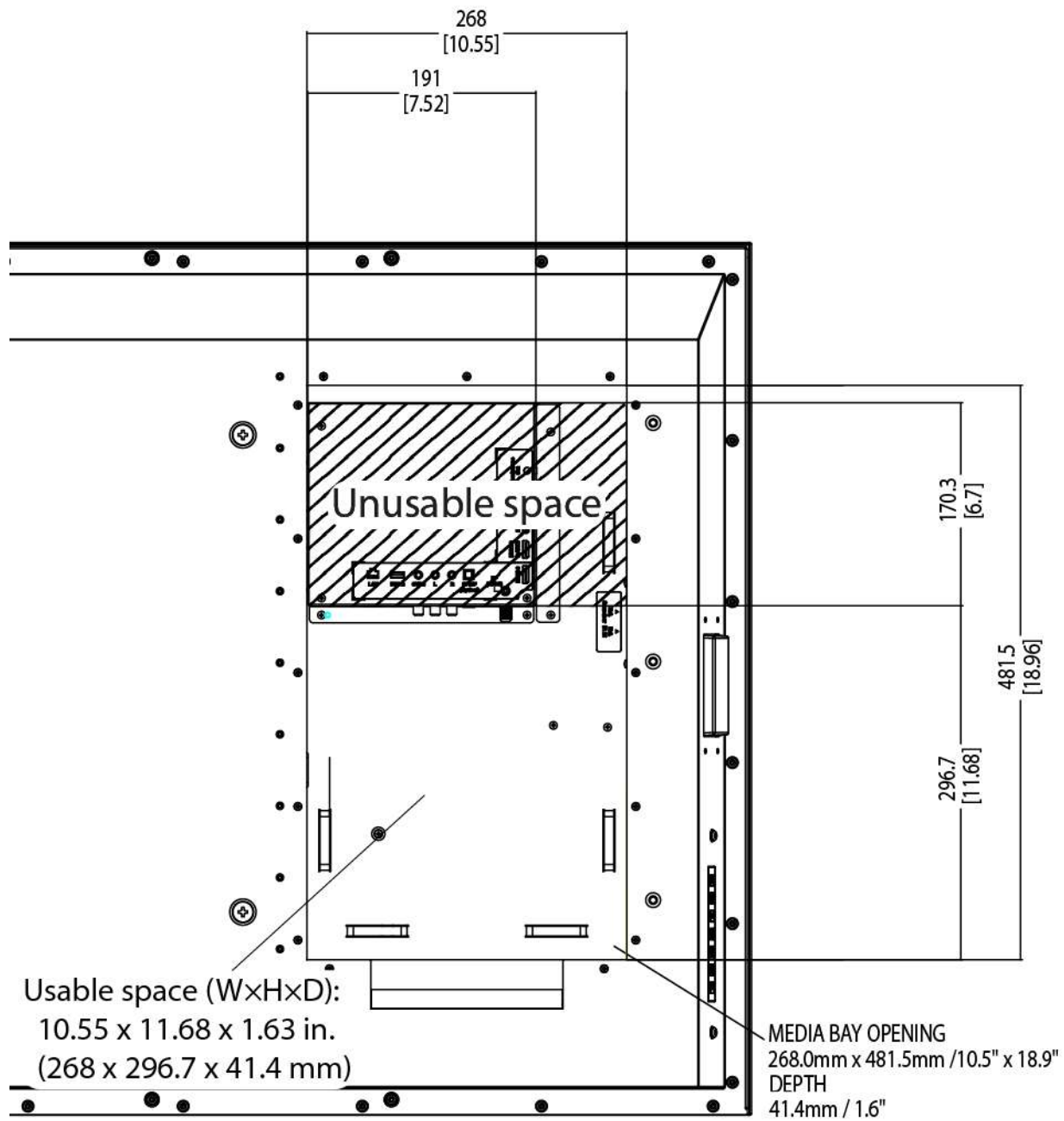
Back light	Direct LED
Smart TV	LG WebOS 22
Network	Wi-Fi: 2.4/5 GHz 10/100 Ethernet Bluetooth 5.0
Exterior	Powder-coated aluminum
Color	Black only
Input power	GCFI protected 100-240 VAC, 50/60Hz, 4.9A max (See AC Power Requirements, above, for details)
Operating temperature	32° to 122° F. (0° to 50° C)
Non-operating temperature	-24° to 140° F. (-31° to 60° C)
SunBrite Solis is designed for continuous use of 16 hours per day, seven days a week. Solis can be used 24/7 without affecting the warranty, doing so may influence the overall longevity and lifespan of the product.	
Weatherproof rating	IP55
TV dimensions (W×H×D)	49.3 × 28.8 × 4.24 in. (1251.6 × 731.5 × 107.7 mm)
Media bay dimensions (W×H×D)	10.55 × 18.96 × 1.67 in. (268 × 481.5 × 42 mm) (See detailed media bay drawing)
VESA mount pattern	400×400
Shipping dimensions (W×H×D)	53.41× 32.54 × 9.21in. (1356.6 × 826.5 × 234 mm)
TV weight	49.3 lb / 22.4 kg
Shipping weight	63.7 lb / 28.9 kg
Residential Warranty	2 years
Commercial warranty	2 years

Solis, 55" Model Dimensions



 **Note:** For CAD and PDF drawings and other resources, visit the [snap one product page](#).

Media Bay Space



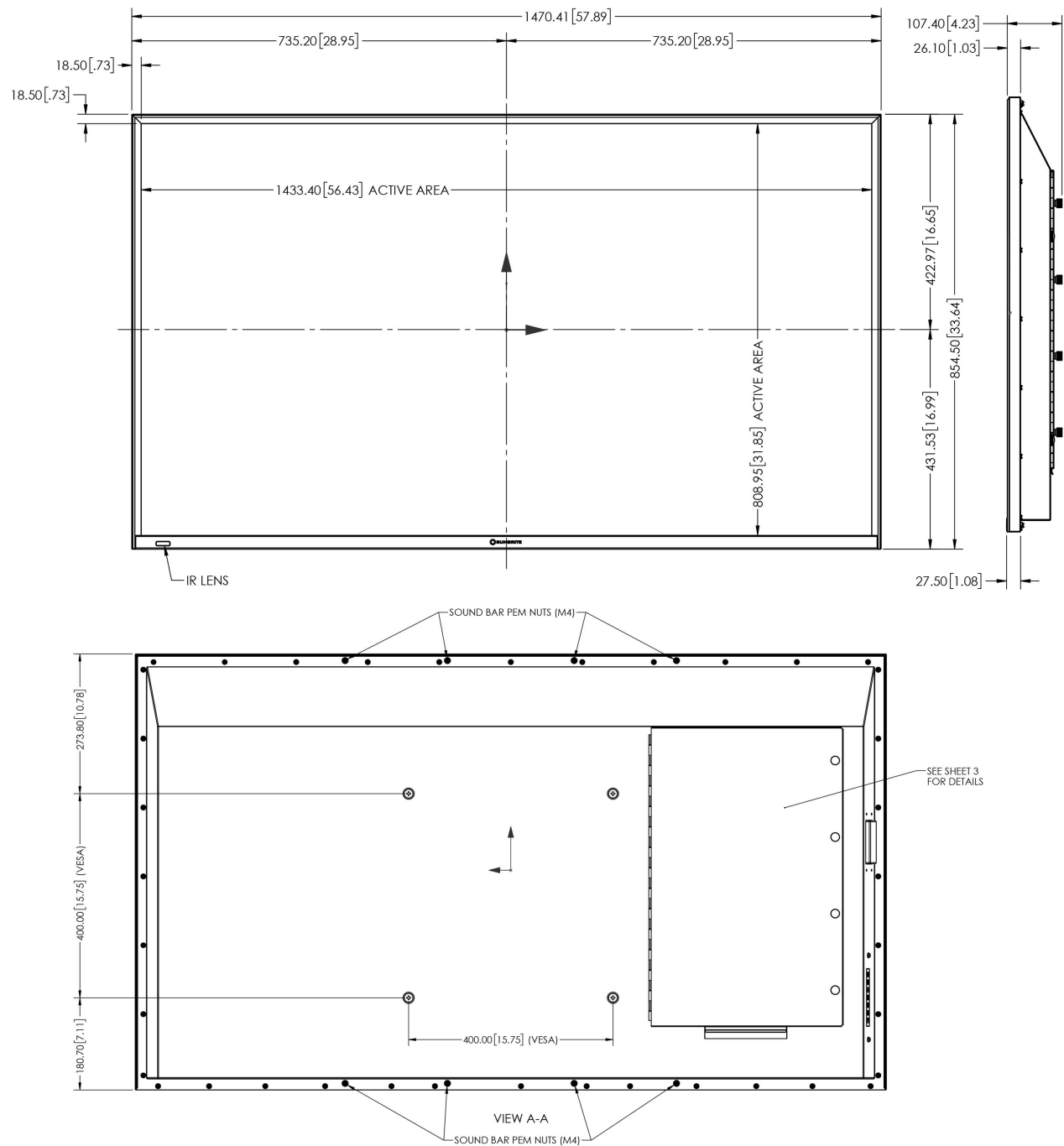
Solis, 65" Model Specifications

Screen size	64.53-inch diagonal, LG Display UHD panel, RGBW (M+)
Screen resolution	3840x2160
LCD surface treatment	Hard coating (2H), Anti-glare treatment of the front polarizer (Haze 28%(Typ.))
Exterior	Powder-coated aluminum
Colors	Black only
Viewing angles	R/L 178°, U/D 178°
Brightness	1500 nits (cd/m ²)
Contrast ratio	1100:1
Frame rate	60 Hz standard
Viewing angles	R/L 178°, U/D 178°
Response time	8 milliseconds
TV formats	2160p (HDMI only), 1080p, 1080i, 720p, 720i, 480p, 480i
RF input connector	Antenna/ CATV (NTSC/ ATSC 2/ QAM) x1
HDMI input connector	3 inputs (Supports HDMI 2.1, HDMI 2.0, HDMI 1.4, HDCP 1.4, HDCP 2.2) (eARC on HDMI 2)
Video composite input connector	Composite Video x1, L/R Audio Inputs x1 (Requires Adapter, not included)
Control set	Direct IR control, IP control
Audio out	2 x 8W down firing internal speakers (included) or Speaker bar (not included)

	Toslink optical audio (fixed) Analog 3.5mm (variable)
Color gamut	NTSC 72%
Back light	Direct LED
Smart TV	LG WebOS 22
Network	Wi-Fi: 2.4/5 GHz 10/100 Ethernet Bluetooth 5.0
Exterior	Powder-coated aluminum
Color	Black only
Input power	GCFI protected 100-240 VAC, 50/60Hz, 5.6A max (See AC Power Requirements, above, for details)
Operating temperature	32° to 122° F. (0° to 50° C)
Non-operating temperature	-24° to 140° F. (-31° to 60° C)
SunBrite Solis is designed for continuous use of 16 hours per day, seven days a week. Solis can be used 24/7 without affecting the warranty, doing so may influence the overall longevity and lifespan of the product.	
Weatherproof rating	IP55
TV dimensions (W×H×D)	57.9 × 33.6 × 4.2 in. (1470.4 × 855.0 × 107.4 mm)
Media bay dimensions (W×H×D)	11.97 × 20.83 × 1.67 in. (304 × 529 × 42 mm) (See detailed media bay drawing)
VESA mount pattern	400×400
Shipping dimensions (W×H×D)	61.85 × 37.69 × 8.9 in. (1571.0 × 957.0 × 227.0 mm)
TV weight	63.1lb / 28.6 kg
Shipping weight	81.1lb / 36.8 kg

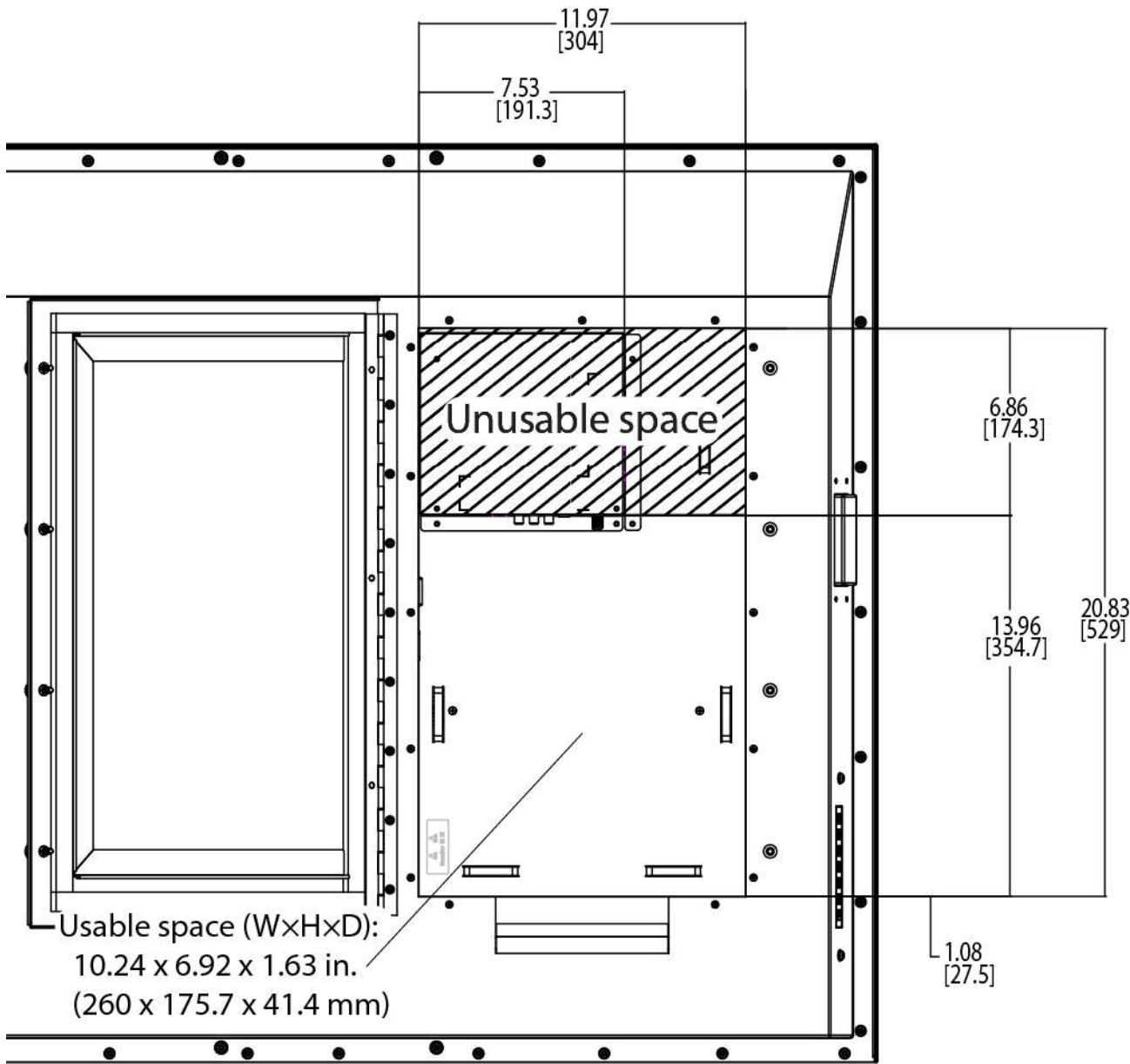
Residential Warranty	2 years
Commercial warranty	2 years

Solis, 65" Model Dimensions



Note: For CAD and PDF drawings and other resources, visit the [snap one product page](#).

Media Bay Space



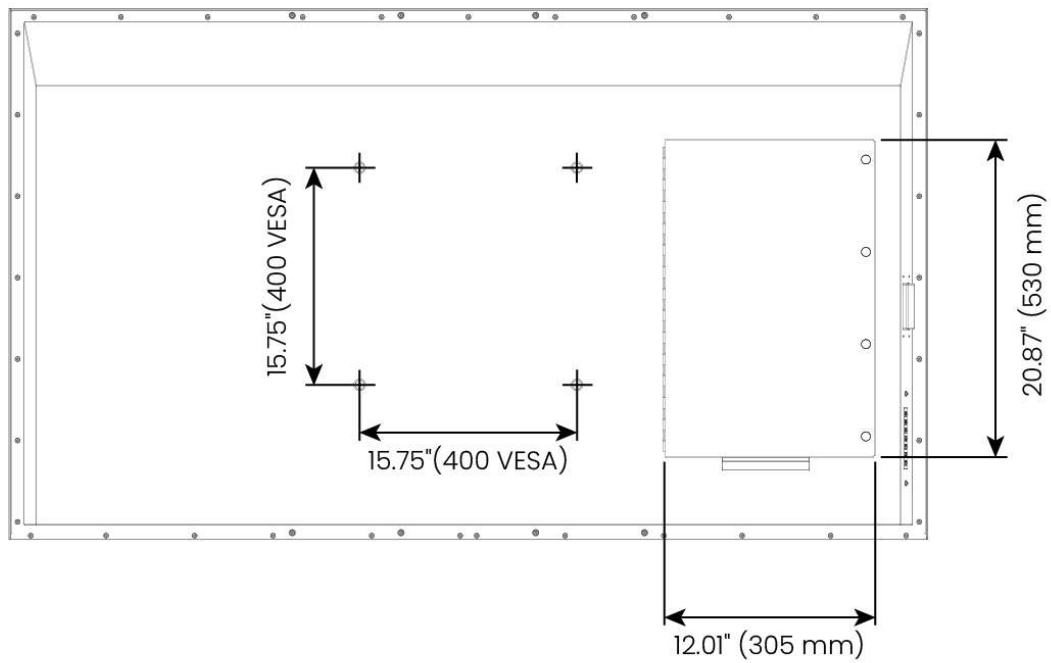
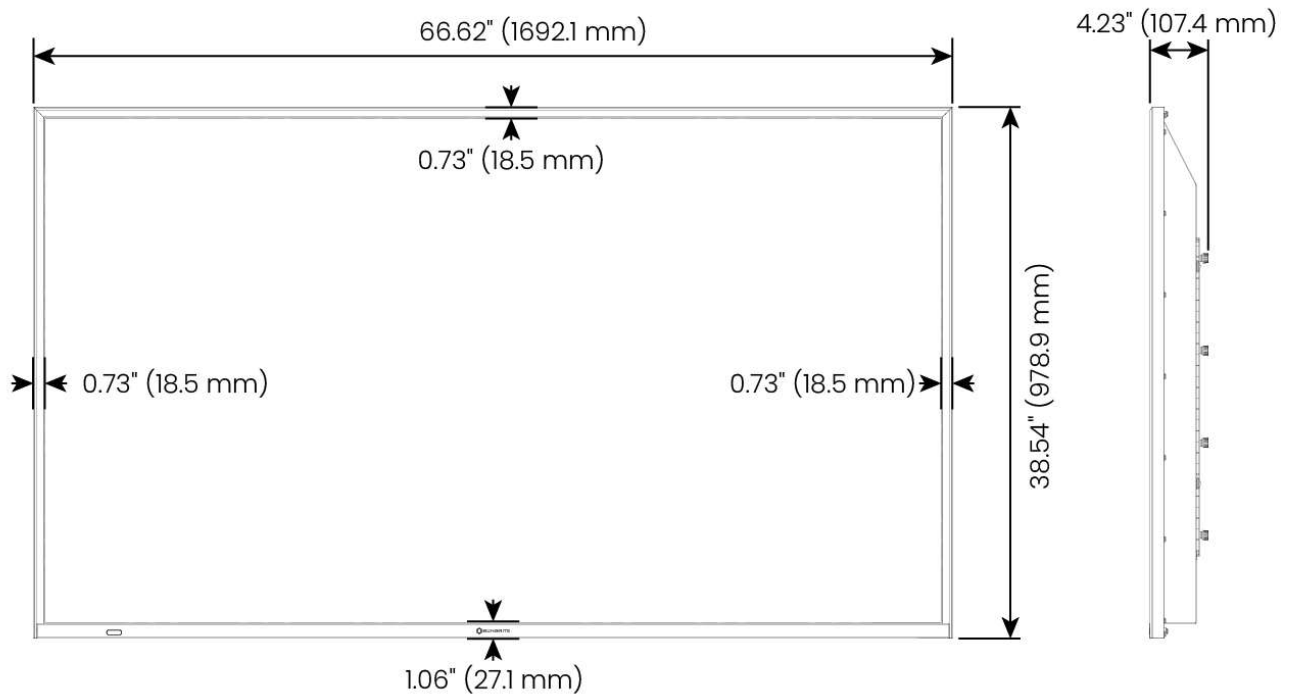
Solis, 75" Model Specifications

Screen size	74.52-inch diagonal, LG Display UHD panel, RGBW (M+)
Screen resolution	3840x2160

LCD surface treatment	Hard coating(2H), Anti-glare treatment of the front polarizer (Haze 28%(Typ.))
Exterior	Powder-coated aluminum
Colors	Black only
Viewing angles	R/ L 178°, U/ D 178°
Brightness	1500 nits (cd/ m ²)
Contrast ratio	1100:1
Frame rate	60 Hz standard
Viewing angles	R/ L 178°, U/ D 178°
Response time	8 milliseconds
TV formats	2160p (HDMI only), 1080p, 1080i, 720p, 720i, 480p, 480i
RF input connector	Antenna/ CATV (NTSC/ ATSC 2/ QAM) x1
HDMI input connector	3 inputs (Supports HDMI 2.1, HDMI 2.0, HDMI 1.4, HDCP 1.4, HDCP 2.2) (eARC on HDMI 2)
Video composite input connector	Composite Video x1, L/ R Audio Inputs x1 (Requires Adapter, not included)
Control set	Direct IR control, IP control
Audio out	2 x 8W down firing internal speakers (included) or Speaker bar (not included) Toslink optical audio (fixed) Analog 3.5mm (variable)
Color gamut	NTSC 72%
Back light	Direct LED
Smart TV	LG WebOS 22

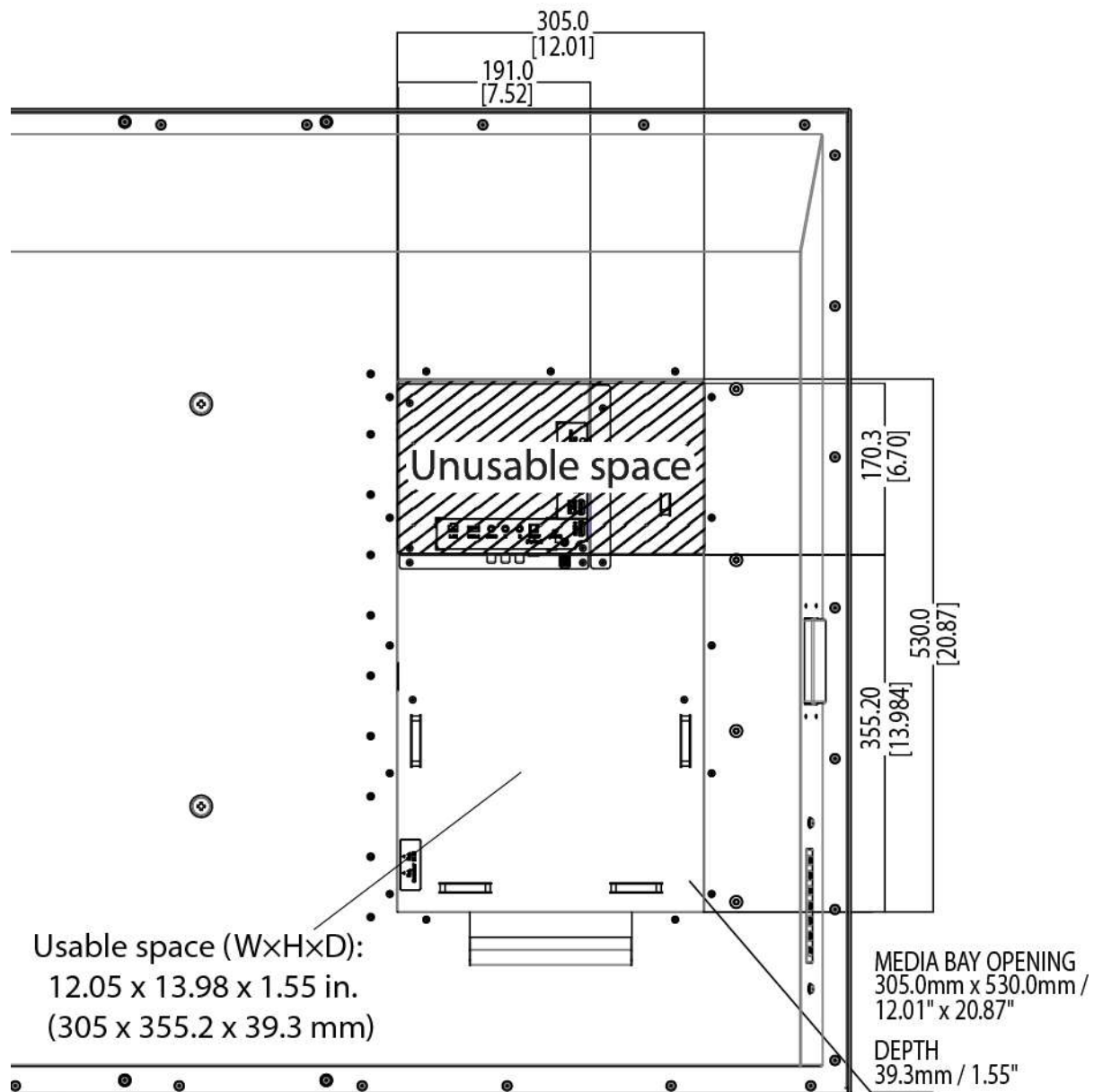
Network	Wi-Fi: 2.4/5 GHz 10/100 Ethernet Bluetooth 5.0
Exterior	Powder-coated aluminum
Color	Black only
Input power	GCFI protected 100-240 VAC, 50/60Hz, 6.1A max (See AC Power Requirements, above, for details)
Operating temperature	32° to 122° F. (0° to 50° C)
Non-operating temperature	-24° to 140° F. (-31° to 60° C)
SunBrite Solis is designed for continuous use of 16 hours per day, seven days a week. Solis can be used 24/7 without affecting the warranty, doing so may influence the overall longevity and lifespan of the product.	
Weatherproof rating	IP55
TV dimensions (W×H×D)	66.6 × 38.5 × 4.23 in. (1692.1 × 978.9 × 107.4 mm)
Media bay dimensions (W×H×D)	12.01 × 20.87 × 1.67 in. (305 × 530 × 42 mm) (See detailed media bay drawing)
VESA mount pattern	400×400
Shipping dimensions (W×H×D)	71.26 × 43.31 × 11.18 in. (1810.0 × 1100.0 × 284.0 mm)
TV weight	87.3 lb / 39.6 kg
Shipping weight	108.1 lb / 49.0 kg
Residential Warranty	2 years
Commercial warranty	2 years

Solis, 75" Model Dimensions



 **Note:** For CAD and PDF drawings and other resources, visit the [snap one product page](#).

Media Bay Space



Mounting

Ordering a Mount

To order a UL-certified SunBrite outdoor-rated mount, contact your Authorized SunBrite dealer, call SunBrite Customer Care at 866.357.8688, or visit us at www.SunBriteTV.com.

 **Caution:** To avoid blocking the media bay door, use the "X" mounting pattern (shown below) for the 49", 55", and 65" TV models. Consult the mount's instruction manual for specific installation instructions.



Single Arm Articulating Mount (SB- WM- ART1- M- BL) shown in "X" pattern

Recommended Compatibility Chart

Model	Flat Mount	Tilt Mount	Single arm articulating	Dual arm articulating
49	SB- WM- F- L- BL	SB- WM- T- L- BL	SB- WM- ART1- M- BL	SB- WM- ART2- L- BL
55	SB- WM- F- L- BL	SB- WM- T- L- BL	SB- WM- ART1- M- BL	SB- WM- ART2- L- BL

65	SB- WM- F- XL- BL	SB- WM- T- XL- BL	SB- WM- ART1- M- BL	SB- WM- ART2- XL- BL
75	SB- WM- F- XL- BL	SB- WM- T- XL- BL	n/ a	SB- WM- ART2- XL- BL

Compatible SunBrite Mounts

The following mounts will work with your TV, but be sure to verify mount specifications for size and weight compatibility with your TV.

Flat / Flat Tilt Mounts

- SB- WM- T- XL- BLK
- SB- WM- F- XL- BLK
- SB- WM- F- L- BL
- SB- WM- F- M- BL
- SB- WM- T- L- BL
- SB- WM- T- M- BL

Articulating Mounts

- SB- WM- ART2- XL- BL
- SB- WM- ART2- L- BL
- SB- WM- ART1- M- BL
- SB- WM- ART1- S- BL

Ceiling Mounts

- SB- CM- T- L- BL
- SB- CM- T- M- BL

Deck Pole (requires a mount as well)

- SB- DP46XA

VESA Patterns

The SunBrite TV has a VESA standard pattern of 200 x 200 for the 49" model and 400 x 400 for the 55", 65", and 75" models.

- Use stainless steel, VESA M8, 20mm long screws for mounting the TV.
- Torque mounting screws to 10 in-lb / 1Nm (12kgf.cm).

 **Caution:** Your TV accepts a maximum mounting screw length of 20 mm. If using screws longer than 20 mm, add washers to the screws until the mount is fastened firmly to the TV.

 **Caution:** To prevent water damage, do not install in vertical (portrait) orientation or upside down as speaker ports are located on the bottom panel.

 **Caution:** To maximize the life of your TV, do not mount it where its rear panel is subject to direct sunlight.

On a wall

Do not mount your SunBrite directly to a wall. Use a SunBrite all-weather TV mount for safety and security.

On a stand

Your TV does not come with a stand, nor do we recommend using one.

From a ceiling

Use SunBrite All-Weather Ceiling Mounts for best results.

Optional Passive Soundbar

Your TV has internal, down firing speakers. In certain cases, you may consider using a passive soundbar to redirect the sound to better suit the environment.

The optional soundbar and required adapter cable are not included with your SunBrite TV. These accessories are available through your local dealer, reseller, or at SunBriteTV.com.

 **Note:** When using a SunBrite soundbar, the internal speakers are disconnected and audio is played through the soundbar. It is not possible to use the internal speakers when using a SunBrite soundbar.

When the soundbar is connected, the internal speakers are mechanically disconnected from the internal amplifier. The internal amplifier is used to power the SunBrite passive soundbar.

 **Caution:** Before detaching (or attaching) the soundbar, turn off the TV and disconnect its power plug.

 **Caution:** The 8-32 threaded standoffs supplied with the Premium soundbar are NOT compatible with Solis metric soundbar mount points. Mount soundbar using the M4 metric screws supplied with the TV.



Soundbar (SB- SP557 or SB- SP- S- L1- BL)



Premium Soundbar (SB- AW- SNDBR- S- B or SB- AW- SNDBR- M- B)

Soundbar Compatibility Chart

For soundbar compatibility, refer to the following chart:

TV	Standard soundbar	Premium soundbar
49- inch	SB- SP557	SB- AW- SNDBR- S- B
55- inch	SB- SP557	SB- AW- SNDBR- M- B
65- inch	SB- SP- S- L1- BL	SB- AW- SNDBR- M- B
75- inch	SB- SP- S- L1- BL	SB- AW- SNDBR- M- B

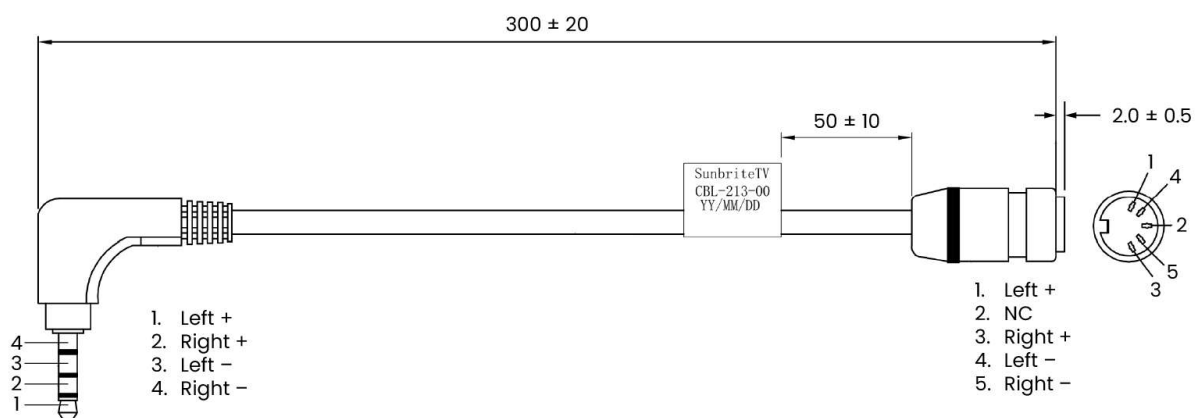
Accessories

4- conductor DIN adapter (CBL- 213- 00)

Attach the 4- conductor DIN adapter (included with soundbar) to the soundbar connector and then plug the 3.5mm plug inside the media bay into the soundbar output.



4-conductor DIN adapter



Dust Cover

Keep the TV covered with the optional SunBriteTV Outdoor Dust Cover when not in use. The fitted dust cover is designed to protect the LCD panel from harmful UV rays from direct sunlight, and keeps wind-blown objects from scratching the surface of the panel.

To order a Dust Cover, contact your Authorized SunBrite dealer, call SunBrite Customer Care at 866.357.8688, or visit us at www.SunBriteTV.com.

Dust cover SKUs:

- SB- DC- 65- GRY
 - SB- DC- 75- GRY
-

Caring for your TV

Cleaning the screen

To clean the LCD panel, turn the TV off and disconnect the power plug from the wall outlet. Gently wipe the surface of the display panel with a water- damp microfiber, cotton, or flannel cloth. If the front panel is dusty, use an anti- static brush, which is commercially available.

 **Caution:** Caution: Do not use tissues, rags, sponges, or paper towels, which can damage the screen and leave behind lint. Do not use chemical cleaners.

If the LCD panel is very dirty, mix equal parts of isopropyl alcohol and distilled water in a clean spray bottle, and spray the mixture onto a microfiber, cotton, or flannel cloth and gently wipe the panel clean. Do not spray the solution directly on the panel.

Cleaning the cabinet

Clean only with dry cloth.

Turn off the main power and disconnect the power plug from the wall outlet.

To avoid scratching the frame, use a soft, lint- free cloth for cleaning.

Ensure nothing falls into the TV while you are cleaning it.

IP Control Guide

IP Control Configuration

To enable IP Control, see [IP Control](#).

Device Discovery via SDDP

Simple Device Discovery Protocol (SDDP) is a protocol developed by Control4 to allow devices to be added to a control system. webOS TV support protocol version 1.0.

- On TV startup, TV sends NOTIFY ALIVE message.
- When Control4 SDDP is enabled on IP Control Setup screen, it generates NOTIFY IDENTIFY message.
- Before TV is powered off, it sends NOTIFY OFFLINE
- WebOS TV will also respond to SEARCH request method.

Device Discovery via SSDP

LG webOS TV supports Simple Service Discovery Protocol (SSDP) defined by UPnP Forum. There are three standard device and service types currently available for discovery:

- urn:schemas-upnp.org:device:Basic:1
- urn:schemas-upnp.org:service:dial:1
- urn:schemas-upnp.org:device:MediaRenderer:1

From the Basic device, Manufacturer, TV's IP address, and Model Number can be obtained.

Each device/services also generate SSDP NOTIFY ssdp:alive and ssdp:byebye events upon powered up and down, respectively.

Encryption Protocol for IP Control Message Exchange

Encryption Specification

For IP Control message exchange, AES (Advanced Encryption Standard) is used with following specification:

- Block Length: 128 bit
- Key length: 128 bit
- Initialization Vector (IV) length: 128 bit.
- Block Cipher Mode: Cipher Block Chaining (CBC)

Encryption Key

Eight (8) digits (alphanumeric) password will be shown on IP Control Setting menu. IP Control client encrypts the password with PBKDF2 (Password- Based Key Derivation Function 2) method. First 16 Bytes of encrypted password are AES128 key. Following parameters must be used:

- Algorithm : sha256
- Salt: 0x63,0x61,0xb8,0x0e, 0x9b,0xdc,0xa6,0x63,0x8d,0x07,0x20, 0xf2,0xcc,0x56,0x8f,0xb9 Number of Iteration: 2^{14}

TCP port number 9761 is used on TV to receive all IP control commands.

IV Generation

IV is 16 byte string and must be randomly generated for each command encryption. It can be randomized using the `secrets.token_bytes(16)` function in Python, for example.

Operation

Clear text message must be terminated with '\ r' (0x0d). Use VOLUME_MUTE on command as example.

V	O	L	U	M	E	_	M	U	T	E		o	n	\	
---	---	---	---	---	---	---	---	---	---	---	--	---	---	---	--

If the length of the message is not multiple of 16, then padding is required.

V	O	L	U	M	E	_	M	U	T	E		o	n	\r	\1
---	---	---	---	---	---	---	---	---	---	---	--	---	---	----	----

The value to be padded is the number of bytes to be padded. In this case, it is 1. The entire 16 byte text in hex is 56 4f 4c 55 4d 45 5f 4d 55 54 45 20 6f 6e 0d 01.

Apply AES- 128 encryption algorithm. This will result in the follow cipher string in hex:

d2	d3	2b	fe	ac	13	f4	43	5e	6f	2f	54	2e	ea	9c	18
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

Output of AES 128 encryption is a string of length as input with padding.

Send to receiver with IV prefixed. Since IV is 16 bytes. Total length is (16 + olen)

Encrypted IV (AES ECB)	Encrypted message (AES CBC)
0	15 (15+olen)

IV must be encrypted using AES- 128 ECB mode. If IV is 16 Os, the encrypted IV is: D2 82 1C AO AD 64 86 CB 20 56 AB 88 15 03 35 08

Send only the Encrypted message. In this case, it is byte streams: DF E7 7A 7D E0 56 03 AS 9ED5 316ECS 52 FA CI On Linux, this is can done through command echo and nc as follows:

```
echo -e '\ xd2\ xd3\ x2b\ xfe\ xac\ x13\ xf4\ x43\ x5e\ x6f\ x2f\ x54\ x2e\ xea\ x9c\ x18 Inc  
<TV IP> 9761
```

Receiver applies decryption with a received IV from TV and encrypt the message using TV side IV. Please note that this IV is generated by TV and thus different than an IV generated at 4.3.. For "VOLUME_MUTEon" command, the response from the server is: ce 53 7c e4 b8 82 98 c6 a4 3e 2189 af Sf 20 2f and after decryption:

4f 4b 0a 00 7d 7d 7d 7d 7d 7d 7d 7d 7d 7d 7d 7d.
O K '\n' } } } } } } } } } }

For now, just ignore characters after '\ n'

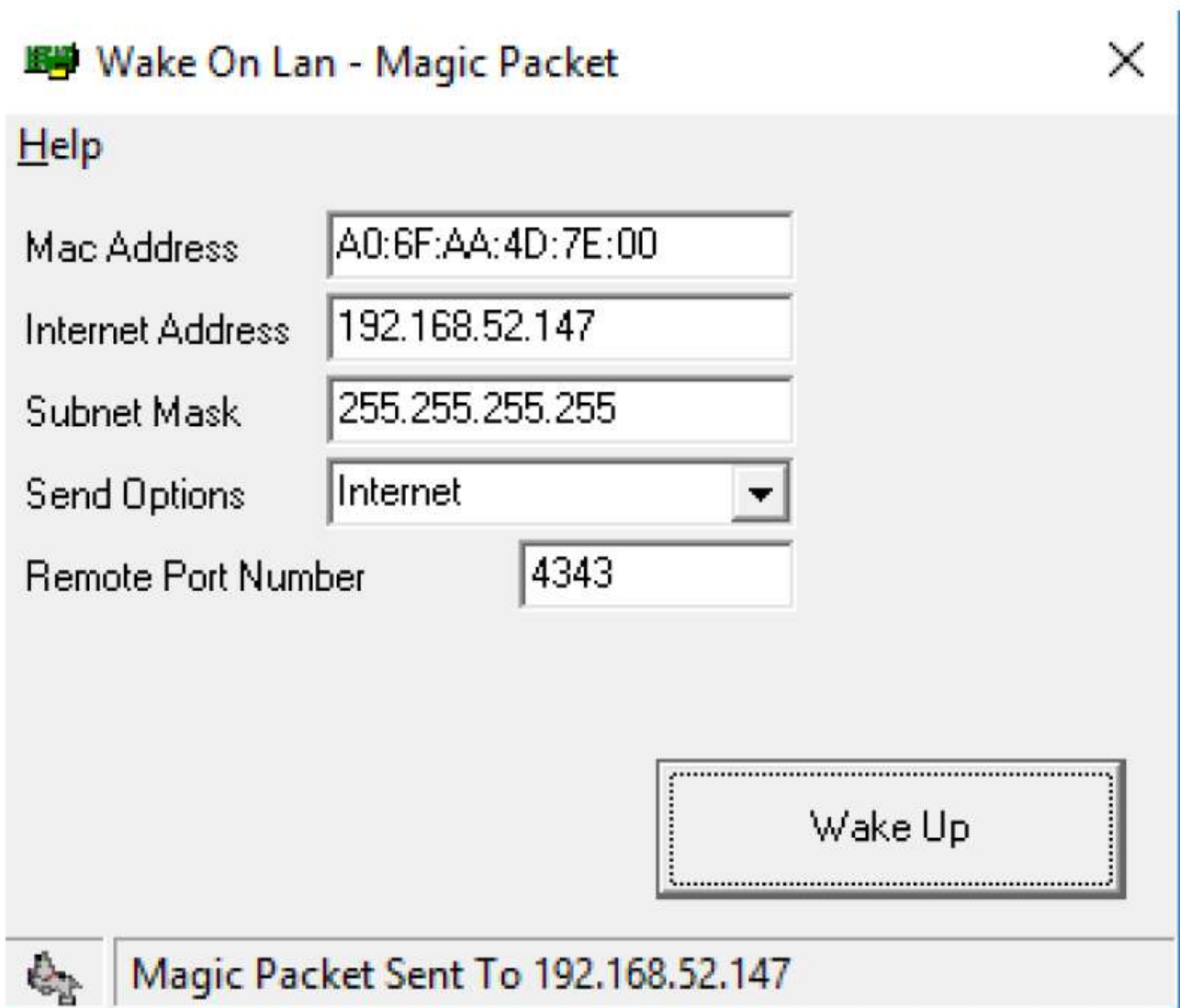
Wake- on- LAN

Wake- on- LAN (WoL) is performed by sending a magic packet to the TV's mac address to power it on. For that to work, both TV and the other device must be connected to the same subnet.

To enable WoL, go to Settings- >General- >Mobile TV On and set "Turn on via Wi- Fi" to on.



Note: Once IP Control is configured, the only way to turn the TV on from standby is with Wake- on- LAN.



The wake procedure for Wake-on-Wireless-LAN (WoWLAN) is the same as in wired case. Only you will need a Wi-Fi MAC address. The router needs to support Wireless Multimedia Extensions (WME or WMM) for WoWLAN to work.

The magic packet is a broadcast frame containing 6 bytes of all 255 (FF FF FF FF FF FF in hexadecimal), followed by sixteen repetitions of the target TV's 48-bit MAC address, for a total of 102 bytes.

Port number 4343 (Wake-on-LAN port) or any number can be used. TV's IP address or broadcast IP address can be used for destination address. For example, if your TV's IP address is 192.168.52.147, you would use 192.168.5.255.

When testing WoWLAN, you must disconnect the Ethernet cable.

New System Commands

Function	Command	Example Return Values
1 Manufacturer detail	GET_MANUFACTURER	Manufacturer: mfg name
2 Model name	MODEL_NAME	Model Name: WebOS22
3 Firm ware version	FIRMWARE_VERSION	Firm ware Version: 02.03.36
4 Firm ware available	IS_FIRMWARE_AVAILABLE	Firm ware Available: Yes / No
5 Power status	POWER_STATUS	Power Status: active / always ready
6 Current App +HDMI status	CURRENT_APP	APP: com.webos.app.hdm i1 HDCP: 14/ 2.2 Hot plug: connected / disconnected Signal: Yes / No
7 Serial number	GET_SERIAL_NUMBER	Serial Number: SKJY107
8 Audio codes	GET_CURRENT_AUDIO codec	Audio codec: PCM/ AC3
9 Signal detection: video	GET_CURRENT_VIDEO signal	Video signal type: 720x480
10 Audio output	GET_CURRENT_AUDIO output	Sound output: external_arc / tv_ speakers
11 Friendly name	FRIENDLY_NAME	Friendly name: [m fg] webOS TV WEBOS22
12 ARC signal status	ARC_STATUS	Arc State: not_ready / eARC / ARC
13 Lamp hours	LAMP_HOURS	Lamp hour: 29/ 30/ 35...

PICTURE_MODE update (2023 updates)

New Picture Mode options are added for IP Control. Now it supports multiple picture modes within HDR or Dolby Vision content playing. Note that commands do not support change among SDR, HDR, or Dolby Vision as they are set by sources.

Example

PICTURE_MODE vivid

Picture Mode	SDR	HDR	Dolby Vision
Vivid	vivid	vivid	vivid
Standard	normal	normal	normal
Auto Power Save	eco		
Cinema	cinema	cinema	cinema
Sports	sports		
Game	game	game	game

KEY_ACTION update (2023 updates)

Two KEY_ACTION commands have been added. They pause or stop the playing content accordingly.

- KEY_ACTION pause
- KEY_ACTION stop

Command Reference List

TV Control Commands

Command is composed of two parts: Main commands with capital letters (e.g. VOLUME_MUTE) and their associated subcommands (e.g. On or Off). Some main commands for settings (e.g. PICTURE_BACKLIGHT) may have integer-based parameter values (e.g. 0-100). The specific use cases will be explained in the "Note" column in the below table.

Usage: [Main command] [Sub-command / parameter value] [Sub-command 2, if any]

Examples:

- REMOTECONTROL_LOCK on
- VOLUME_CONTROL 15
- KEY_ACTION quickmenu

	Function	Command	Note
1	Power	Main command: POWER Sub-commands: off	 Note: The TV does not support Always Ready and must be turned on using Wake-on-LAN.
2	Aspect Ratio	ASPECT_RATIO 4by3, 16by9, setbyoriginal	For video mode and live TV only
3	Screen Mute	SCREEN_MUTE screenmuteon, videomuteon, allmuteoff	screenmuteon: mute OSD and video videomuteon: mute video only allmuteoff: turns off all

			mute types
4	Volume Mute	VOLUME_MUTE on, off	
5	Volume Control	VOLUME_CONTROL 0 to 100	
6	Picture Mode	PICTURE_MODE SDR: vivid, normal, cinema, game, eco, sports HDR: vivid, normal, cinema, game Dolby Vision: vivid, normal, cinema, game	IP control commands cannot switch between SDR, HDR, and Dolby Vision. That is set by the TV and content provider app/source device. If you switch an incompatible picture mode, the command will be ignored.
7	Backlight	PICTURE_BACKLIGHT 0 to 100	
8	Contrast	PICTURE_CONTRAST 0 to 100	
9	Brightness	PICTURE_BRIGHTNESS 0 to 100	
10	Color / Colour	PICTURE_COLOUR 0 to 100	Please note the spelling of "COLOUR".
11	Tint	PICTURE_TINT 0 to 100	0 = Red tint maximum 50 = No tint 100 = Green tint maximum

12	Sharpness	PICTURE_SHARPNESS 0 to 50	Note that this setting has a range of 0 to 50 unlike the rest.
13	Colour Temperature	PICTURE_COLOUR_TEMPERATURE 0 to 100	0 = Warm tone maximum 50 = Neutral tone 100 = Cold tone maximum
14	Remote Control Lock Mode	REMOTECONTROLLER_LOCK on, off	
15	Audio Balance	AUDIO_BALANCE 0 to 100	0 = Left maximum 50 = Left-Right balanced 100 = Right maximum
16	Audio Equalizer	AUDIO_EQUALIZER 1to 5: 1= 100 Hz 2 = 300 Hz 3 = 1kHz 4 = 3 kHz 5 = 10 kHz 0 to 20: 0 = -10 1= -9	Sound > Sound Mode Settings > Equalizer must be ON Example: Tuning 1kHz for 3 AUDIO_EQUALIZER 3 13

		...	
		20 = +10	
17	Energy Saving	ENERGY_SAVING Auto, screenoff*, maximum, medium, minimum, off	*screenoff may not be compatible with some newer TV models
18	Tune Command	CHANNEL_SETTING_ATSC_ATV [channel number] antenna CHANNEL_SETTING_ATSC_ATV [channel number] cable CHANNEL_SETTING_ATSC_DTV [channel number] cablemaj CHANNEL_SETTING_ATSC_DTV [major channel number] [min. channel number] antennanotphy CHANNEL_SETTING_ATSC_DTV [major channel number] [min. channel number] cablenotphy	ATV Example: CHANNEL_SETTING_ATSC_ATV 11 antenna DTV Example: CHANNEL_SETTING_ATSC_DTV 10 2 antennanotphy
19	Channel Add / Del	CHANNEL_ADD_DELETE add, delete	
20	Key	KEY_ACTION Exit, channelup, channeldown, volumeup, volumedown, arrowright, arrowleft, volumemute, deviceinput, sleepreserve, livetv, previouschannel, favoritechannel, pause, stop, returnback, captionsubtitle, arrowup,	Example (key command): KEY_ACTION returnback Example (toggle):

		arrowdown, myapp, settingmenu, ok, quickmenu, videomode, audiomode, channellist, bluebutton, yellowbutton, greenbutton, redbutton, aspectraton, audiodescription, program m order, userguide, smarhome, simplelink, fastforward, rewind, program m info, program guide, play, slowplay, soccerscreen, screenbright, number0, number1, number2, number3, number4, number5, number6, number7, number8, number9	KEY_ACTION simplelink
21	Input Select	INPUT_SELECT dtv, atv, cadtv, catv, hdm i1, hdm i2, hdm i3, hdm i4	APP_LAUNCH is the recommended method for selecting HDMI input. Example: APP_LAUNCH com.webos.app.hdm i3
22	Launch App	APP_LAUNCH appid	See Example Application Identifications, for example application IDs.
23	Launch Always Ready Smart Home Cards	LAUNCH_WEBOS_APP Art, Clock, Movements, Moments, SoundPalette, LaunchGameCard, LaunchSportsCard	<i>Veranda 4 and Solis do not support Always Ready and must be turned on using Wake-on-LAN.</i>

			Note that these subcommands contain capital letters.
--	--	--	--

Status Query Commands

	Function	Command	Note
1	MAC Address	GET_ MACADDRESS wired , wifi	
2	Mute State	MUTE_STATE	
3	Current Volume	CURRENT_VOL	
4	Current App	CURRENT_APP	
5	Get IP Control State	GET_ IPCONTROL_ STATE	Return ON if server is healthy. Otherwise, the command will time out.

Example Application Identifications (appid)

webOS has unique appids that are used with the APP_LAUNCH command.

Example: APP_LAUNCH com.webos.app.lgchannels

This command launches LG Channels Home.

The following are example appids of other system built-in apps on webOS 4.0 or later.

Applications	Identifications (ID)
Settings	com.palm.app.settings
Photo &	com.webos.app.photovideo

Video	
Music	com.webos.app.music
Guide	com.webos.service.iepg
Browser	com.webos.app.browser
HDMI	com.webos.app.hdm i1 com.webos.app.hdm i2 com.webos.app.hdm i3 com.webos.app.hdm i4

Sixty of the most popular webOS applications and their appids are listed below:

Applications	Identifications (ID)
Aha	aha
Amazon Alexa	amazon.alexa
Amazon Music	com.theadelab.am client- lg
Amazon Prim e	amazon
AMC+	com.am cplus1.app
Apple Music	com.apple.applemusic
Apple TV	com.apple.appletv
Apple TV+	com.apple.appletv.web
BritBox by BBC & ITV	com.britbox.webos
CBS News	com.app.cbsnews
discovery+	com.discovery.dplus
Disney+	com.disney.disneyplus- prod
DuplexPlay	com.duplexiptv.app
Freevee	im dbtv
Fubo	com.fubotv.app

Funimation	com.funimation.webapp
GLWiz	glwiz
Haystack Local & World News	com.haystacktv.app
HBO Max	com.hbo.hbomax
Hulu	hulu
IBO Player	iboplayer
IPTV Smarters	com.iptvsmarters.app
LG Channels	com.webos.app.lgchannels (lgchannels.us)
Max	com.wbd.stream
Movies Anywhere	com.moviesanywhere.app
Netflix	Netflix
Newsmax	newsmax
OnDemandKorea	com.ondemandkorea.ctv.webos
Pandora	pandora.lgerp.app
Paramount+	com.cbs-all-access.webapp.prod
Peacock	com.peacock.tv
Plex	cdp-30
Pluto TV	com.plutotv.app
Pure Flix	com.pureflix.smarttv
Redbox	com.twc.csg.redbox
Shahid	net.mbc.shahid-lgapp
Shop Time	com.lgshop.app
Showtime	com.showtime.app.showtime
Showtime Anytime	com.showtime.app.showtimeanytime
SiriusXM	sir.12465.3738
Sling TV	com.movenetworks.app.sling-tv-sling-

	production
Smart IPTV	sip tv
Smart STB	smartstb
SmartOne IPTV	com.smartone-iptv.app
Spotify	spotify-beehive
SSIPTV	com.ssiptv.app
STARZ	com.starz.app.starz-lgtv
TikTok TV	com.tiktok.app.tv
Tubi	com.tubitv.ott.tubi
TV Cast	de.2kit.castbrowserlg
Twitch	tv.twitch.tv.starshot.lg
Viki	com.viki.lg
Vix	vix
VUDU	vudu
WebVideo Caster	com.instantbits.cast.webvideo
Xfinity Stream	com.comcast.app
YouTube	youtube.leanback.v4
YouTube Kids	youtube.leanback.kids.v4
YouTube TV	youtube.leanback.ytv.v1
ZeeS	com.zeeS.app

IR Control

Your TV supports IR control. The TV can accept valid commands issued by another device using **"IR Hex Codes" on the facing page** for commands such as discrete power, discrete input, etc.

 **Note:** IRcontrol does not support discrete picture mode. You must use IP control instead.

 **Note:** Not all commands supported by IP control are available in IRcontrol.

Either position the IRemitter correctly on the front of the TV or connect directly to the 3.5 mm IRinput on the rear of the TV to ensure proper control.

IR Hex Codes

This TV is based on the LG TV code set. IRcommands and hex codes are provided below.

 **Pro Tip:** When copying and pasting the hex codes, use the HTML version of this manual, [here](#).

The PDF version of this document introduces extra carriage returns when copying and pasting the hex codes. You may need to clean up the codes before pasting into the final destination.

Command	Group	Hex Code
Netflix	APP Select	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 05e9 0155 0055 0016 0e33
Prime Video	APP Select	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 05ea 0155 0055 0016 0e34

Command	Group	Hex Code
DASH (-)	Channel	0000 006c 0022 0002 0155 00ab 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 05ea 0155 0055 0016 0e35
Channel Down	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e37
Channel Up	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e36
Favorite Channel	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e35
Guide	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016

Command	Group	Hex Code
		0015 0016 05eb 0155 0055 0016 0e36
Number 0	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e37
Number 1	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e37
Number 2	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e38
Number 3	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e38
Number 4	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016

Command	Group	Hex Code
		003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e36
Number 5	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e35
Number 6	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e37
Number 7	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e37
Number 8	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e37
Number 9	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016

Command	Group	Hex Code
		0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e38
SAP	Channel	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 05e9 0155 0055 0016 0e34
Tuner	Channel	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 00410015 00410015 00410015 00410015 0016 0015 00410015 00410015 0016 0015 00410015 0016 0015 00410015 00410015 00410015 0016 0015 0016 0015 00410015 0016 0015 00410015 0016 0015 0016 0015 0689 0157 0056 0015 0e94
HDMI1	Input	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 00410015 00410015 00410015 00410015 0016 0015 00410015 00410015 00410015 0016 0015 0016 0015 00410015 00410015 00410015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 0016 0015 0689 0157 0056 0015 0e94
HDMI2	Input	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 00410015 00410015 00410015 00410015 0016 0015 0016 0015 00410015 00410015 0016 0015 0016 0015 00410015 00410015 00410015 00410015 0016 0015 0016 0015 00410015 00410015 0016 0015 0016 0015 0689 0157 0056 0015 0e94
HDMI3	Input	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015

Command	Group	Hex Code
		0016 0015 00410015 00410015 00410015 00410015 00410015 00410015 0016 0015 0016 0015 00410015 0016 0015 00410015 00410015 00410015 0016 0015 00410015 00410015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0689 0157 0056 0015 0e94
AV	Input	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 00410015 00410015 00410015 00410015 0016 0015 00410015 0016 0015 00410015 00410015 0016 0015 00410015 0016 0015 00410015 0016 0015 00410015 0016 0015 0016 0015 00410015 0016 0015 00410015 0689 0157 0056 0015 0e94
Toggle Input	Input	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e35
Menu	Menu	0000 006b 0022 0002 0158 00ab 0016 0015 0016 0015 0016 0040 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0040 0016 0040 0016 0015 0016 0040 0016 0040 0016 0040 0016 0040 0016 0040 0016 0040 0016 0040 0016 0015 0016 0015 0016 0015 0016 0015 0016 0040 0016 0015 0016 0015 0016 0015 0016 0040 0016 0040 0016 0040 0016 0040 0016 0015 0016 0040 0016 05fd 0157 0055 0016 0e63
Settings	Menu	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 05ec 0155 0055 0016 0e32
Info	Menu	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016

Command	Group	Hex Code
		0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 05ea 0155 0055 0016 0e33
BACK	Navigation	0000 006c 0022 0002 0155 00ab 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 05eb 0154 0056 0016 0e31
CANCEL (EXIT)	Navigation	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 05eb 0155 0055 0016 0e37
Down	Navigation	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 05ec 0155 0055 0016 0e39
Enter	Navigation	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 05eb 0155 0055 0016 0e37

Command	Group	Hex Code
Home	Navigation	0000 006c 0000 0024 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 05ec 0155 0055 0016 05ec
Left	Navigation	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 05ed 0155 0055 0016 0e37
Right	Navigation	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 05eb 0155 0055 0016 0e37
Up	Navigation	0000 006b 0022 0002 0158 00ab 0016 0015 0016 0015 0016 0040 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0040 0016 0040 0016 0015 0016 0040 0016 0040 0016 0040 0016 0040 0016 0040 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0040 0016 0015 0016 0040 0016 0040 0016 0040 0016 0040 0016 0040 0016 0040 0016 0015 0016 0040 0016 0600 0157 0055 0016 0e68
Pause	Playback	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016

Command	Group	Hex Code
		0015 0016 05ed 0155 0055 0016 0e3b
Play	Playback	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 05ed 0155 0055 0016 0e39
Rec	Playback	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 05eb 0155 0055 0016 0e36
Power On	Power	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 00410015 00410015 00410015 00410015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 00410015 00410015 00410015 00410015 0016 0015 00410015 00410015 00410015 0016 0015 0016 0015 0689 0157 0056 0015 0e94
Power Off	Power	0000 006d 0022 0002 0157 00ac 0015 0016 0015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 00410015 00410015 00410015 00410015 00410015 0016 0015 00410015 0016 0015 0016 0015 0016 0015 00410015 00410015 0016 0015 00410015 0016 0015 00410015 00410015 00410015 0016 0015 0016 0015 0689 0157 0056 0015 0e94
Power Toggle	Power	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016

Command	Group	Hex Code
		003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 05ec 0155 0055 0016 0e36
Mute Toggle	Volume	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 05ed 0155 0055 0016 0e35
Volume Down	Volume	0000 006c 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 05ea 0155 0055 0016 0e30
Volume Up	Volume	0000 006d 0022 0002 0156 00aa 0016 0015 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 0015 0016 003f 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 0015 0016 003f 0016 0015 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 003f 0016 05e8 0155 0055 0016 0e2f

Troubleshooting

Voice control problems

Voice control is only available using the included webOS remote.

Picture problems

No picture, or black and white picture: Disconnect the TV power plug from AC outlet and re-connect after 60 seconds. Check that the Color Saturation is set to 50 or higher. Try different TV channels.

The picture is distorted: The compression of video content may cause picture distortions, especially in fast-moving pictures from sports programs and action movies. If the signal reception is weak or poor, screen distortion may be visible but it is not a malfunction. Mobile phones used close to the TV (within 1m) may cause noise on analogue and digital channels.

The picture is blurry, flickering, or cuts out momentarily: All Settings > Picture > Advanced Settings > Clarity > Adjust Sharpness. You can try to increase or decrease the Sharpness. If you use an external antenna, check the direction, position and connection of the antenna. Adjust the direction of your antenna, or reset or fine tune the channel.

The picture appears red, purple, pink, and other colors: All Settings > Picture > Advanced Settings > Color > White Balance. You can try to increase or decrease the White Balance.

The picture appears wavy and distorted: Some electrical appliances may affect the TV. If you turn off the appliance and the interference goes away, then move it further away from TV. Insert the power plug of the TV into another power outlet.

If the problem persists, check the broadcast signal strength or refer to the external device's manual.

Network problems

The TV cannot connect to your network or apps: Ensure the TV has an Ethernet or wireless connection to your network. Contact your Internet service provider and ensure your access is working.

The wireless network connection fails: Make sure you are getting a signal from your wireless modem or access point, and that it is connected to the Internet. Shut off any appliances that interfere with wireless.

The wireless network signal is too weak: Position your wireless router or access point in a more central location. Avoid putting it in a corner.

Sound problems

There is no sound or the sound is too low at maximum: Check the volume control of the device (cable or satellite box, DVD, Blu-ray, etc.) connected to your TV.

There is no sound, but the picture is normal: Check the volume settings. Ensure that the audio is not muted.

The speakers are making an odd sound: Make sure that the audio cable is connected to the correct audio output connector on the external device. For antenna or cable connections, check the signal information. A weak signal may cause distortion.

The audio is distorted: Some electrical appliances may affect the TV. If you turn off the appliance and the interference goes away, then move that appliance further away from TV. Move the TV's power plug to another power outlet.

The sound is scratchy or cuts out momentarily: If you use an external antenna, check the direction, position, and connection of the antenna. Adjust the direction of your antenna or reset or fine tune the channel.

External device connection problems

I have connected an external source to my TV but I get no picture and/or sound: Check that the connection between the external device and your TV is not loose. Ensure you have selected the correct input source.

There is no signal or weak signal in the cable box: If there is no signal occasionally, disconnect the cable from the TV and plug it back in after 60 seconds. Change to another HDMI port. Replace the HDMI cable.

There is no sound: Check if the Audio Out option in the menu is ARC/eARC, if not, you need to check whether the external power amplifier device is connected to the ARC port or optical port of the TV. Go to All Settings > Sound > Sound Out > Use TV Speaker. Check whether the power amplifier device port is connected correctly.

The remote control does not work: Confirm that TV still has power and is operational. Check that the batteries are correctly installed. Place new batteries in the remote control. If some buttons don't work, but the volume buttons work normally, the problem is likely with the application.

Media file problems

Some files can't be played: Most files can be played back.

You might experience problems with corrupted files or with files that have high bitrate, unsupported resolution, unsupported container, or unsupported codec.

App problems

Netflix won't play: Turn off the TV, wait at least 10 seconds, and turn it back on. Then, reopen Netflix. If the problem persists, reset the TV to factory settings (All Settings > System > Reset to Initial Settings).

Disney+ won't play: Turn off the TV, wait at least 10 seconds, and turn it back on. Then, reopen Disney+. If the problem persists, reset to factory settings (All Settings > System > Reset to Initial Settings).

Miscellaneous problems

The TV is hot: Watching media causes the TV to generate heat. After extended use, it may feel hot to the touch. This is not a defect and does not affect the TV's functionality.

 **Caution:** To maximize the life of your TV, do not mount it where its rear panel is subject to direct sunlight.

The TV smells of plastic: This smell is normal for a new TV and will dissipate over time.

When I turn on my TV, there is a delay of a few seconds before the picture appears: This is normal. The TV is initializing and searching for previous setting information.

Technical Support

For chat and telephone, visit snp1.co/techsupport • Email: TechSupport@SnapOne.com . Visit snp1.co/tc for discussions, instructional videos, news, and more.

Warranty and Legal Notices

Find details of the product's Limited Warranty and other resources such as regulatory notices and patent and safety information, at snapone.com/legal or request a paper copy from Customer Service at **866.424.4489**.

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