

Third-Party Integrations

LG TV Settings

for the care.ai® R2 Sensor

Overview

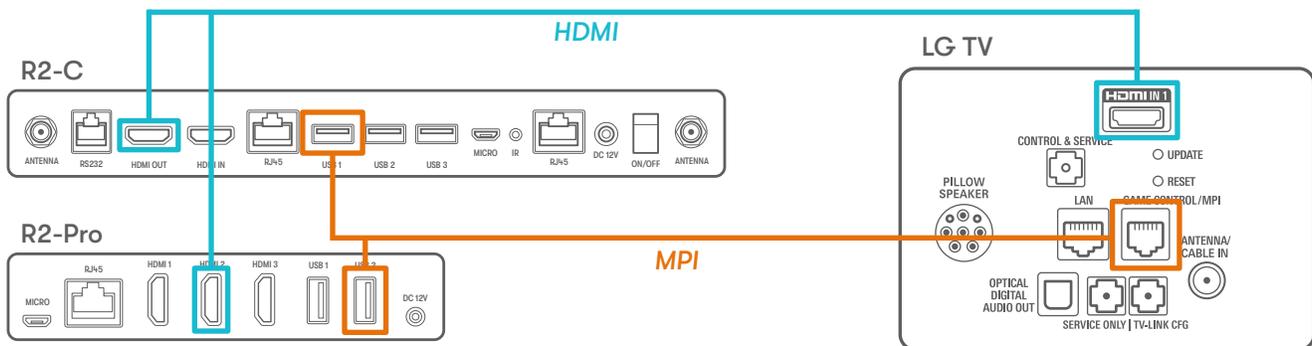
The care.ai® Smart Care Facility Platform offers a high degree of intergration with LG brand hospitality-grade televisions. In order for the care.ai® R2 Sensor to communicate and manage inputs properly on LG TVs, the following integration settings must be configured.



Cable Connections

There are **two cables** connecting the care.ai® R2 device to the LG TV:

- **MPI (Multiple Protocol Interface)** – When the proper settings are configured in the Installer Menu (see below), the R2 sends commands to the LG TV through the **MPI cable** to switch the input to HDMI1 and turn the LG TV on if it is in the off state.
- **HDMI (High Definition Multimedia Interface)** – the R2 uses the **HDMI cable** to display the Virtual Care video interface on the LG TV.



Note: for some LG TV models, the HDMI input may be located on the side of the TV.

Once the cable connections are made, the LG TV can now be configured for integration with the R2 sensor,

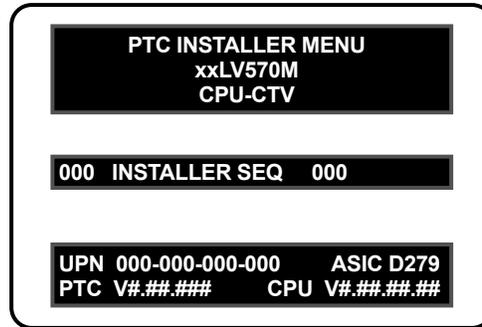
Accessing the LG TV Installer Menu

In order to access the needed integration settings, users will navigate to the **LG TV Installer Menu**:

- Using the LG Remote, **press MENU repeatedly** until the on-screen display of the TV setup menu no longer toggles
- Enter the **Installer Menu password** (typically 9-8-7-6) and **press OK** to access the Installer Menu

NOTE: 9876 is the LG factory default password; this code may have been changed when the TVs were set up.

When the Installer Menu appears, you will need to make note of specific device information, specifically the **PTC and CPU version numbers**:

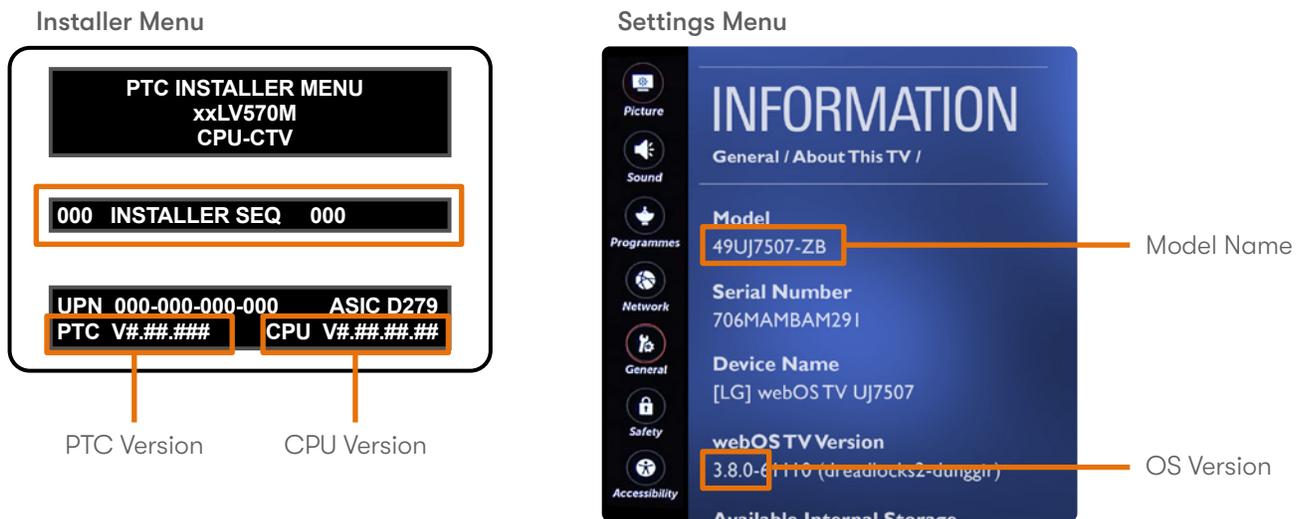


LG TV Installer Menu

Required Firmware Settings for LG TVs

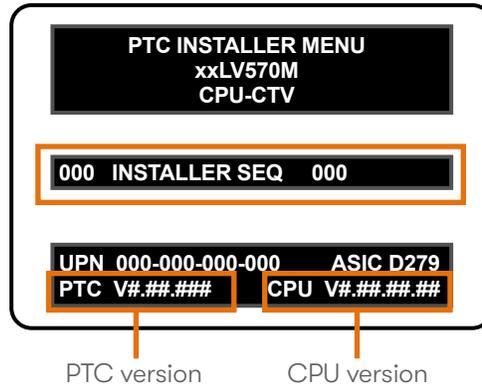
In order to make the necessary Installer Menu configurations for the R2 device to control the LG TV, the following **minimum firmware versions** are required:

- **webOS 5.0 or above** (viewable in Settings > General > TV Information or About this TV > Model)
- **PTC 1.00.022 or above** (viewable in the Installer Menu)
- **CPU 3.11.40 or above** (viewable in the Installer Menu)



Changing/Verifying Installer Menu Settings

Access the **Installer Menu** (as in the previous section). The available menu items are displayed in the center of the screen:



Navigating the Installer Menu and Verifying/Making Changes

- Use the **Up/Down arrow keys** on the Remote to sequence through the available menu items until you get to the desired item. Use the **Left/Right arrow keys** on the Remote to change the value of the item, if needed. **Do not press OK**, simply move Up/Down to the next item to change.

Item	Function	Default	care.ai® Setting	Description
002	AC ON	0	002	(OPTIONAL) When set to 002 it enables the Instant ON feature that leads to a quicker boot-up process for the TV.
004	STRT CHANNEL	255	anything between 1–125	Used to determine the initial Major Start Channel number when the TV is turned ON. This feature is useful for an in-house information channel, as the TV would always select this channel when it is ON.
030	EXTCTL/ACK MASK	0	2	Used to determine the available external control port & enable ACK, an MPI communication parameter. <i>NOTE: on older models this may be listed as just ACK MASK, and setting it to 2 may not be an option. If that is the case, just skip this setting.</i>
035	HDMI1 ENABLE	1	1	Used to configure the HDMI1 port on the TV
041	SIMPLINK	0	0	Enables auto-sensing for all available Aux inputs
047	AUX STATU	0	1	Controls the MPI status channel response for Aux sources
118	POWER SAVINGS	3	1	Controls the power to the MPI port. <i>NOTE: this may not be available in the Installer Menu on older models; if that is the case, just skip this setting.</i>

Changing/Verifying Installer Menu Settings (cont'd)

Confirming & Saving the Changes Made

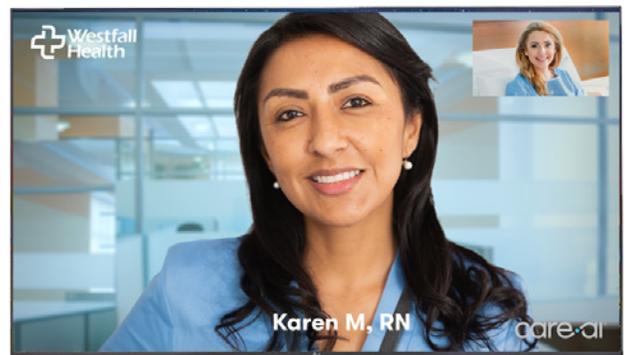
- After you have made all desired Installer Menu item changes, **press OK once** on the Installer Remote to save changes.
- **Press OK again** to exit the Installer Menu.
- Turn the TV **off and back on**.

NOTE: These settings do not take into consideration any existing settings that may be in place for pillow speakers, cable TV boxes, etc. Please discuss any questions or concerns with care.ai®.

Recommended New TV Setup Process

When setting up a TV for the first time or following a factory reset, care.ai® recommends following these steps to configure the LG TV:

1. **Exit** the First Use Wizard that appears when you turn on the TV
2. Access the **Installer Menu** (refer to previous section)
 - a. Configure/verify the settings needed for the care.ai® R2 device (refer to previous section)
 - b. Configure the TV for the **pillow speaker** (more info below)
3. **Exit** the Installer Menu
4. Perform the **Channel Scan** from the Settings Menu



Changing/Verifying Installer Menu Settings (cont'd)

Configuring the Pillow Speaker

- In the Installer Menu, go to 027 HOSPITAL MODE. Set according to the chart below.

Value	Speaker	Pillow Speaker Code/Voltage	Hospital IR Code
000	Determined by Item 020 setting	Zenith (+12v)	Determined by Item 020 setting
001	pillow only	Zenith (+12v)	Zenith Bed #1
002	pillow only	Zenith (+12v)	Zenith Bed #2
017	pillow only	Philips (+5v)	Zenith Bed #1
018	pillow only	Philips (+5v)	Zenith Bed #2
033	pillow only	RCA (-5v)	Zenith Bed #1
034	pillow only	RCA (-5v)	Zenith Bed #2
065	TV only	Zenith (+12v)	Zenith Bed #1
066	TV only	Zenith (+12v)	Zenith Bed #2
081	TV only	Philips (+5v)	Zenith Bed #1
082	TV only	Philips (+5v)	Zenith Bed #2
097	TV only	RCA (-5v)	Zenith Bed #1
098	TV only	RCA (-5v)	Zenith Bed #2
129	both pillow & TV	Zenith (+12v)	Zenith Bed #1
130	both pillow & TV	Zenith (+12v)	Zenith Bed #2
145	both pillow & TV	Philips (+5v)	Zenith Bed #1
146	both pillow & TV	Philips (+5v)	Zenith Bed #2
161	both pillow & TV	RCA (-5v)	Zenith Bed #1
162	both pillow & TV	RCA (-5v)	Zenith Bed #2
254	TV only	Disabled (0v)	Zenith Bed #2

Note: In the Installer Menu, an informational code is displayed at the right of each Hospital Mode value. Each code consists of three characters. The first character—T, P, or B—identifies the speaker: TV, Pillow, or Both. The second character—Z, P, R, or D—identifies the pillow speaker code: Zenith, Philips, RCA, or Disabled. The third character—1 or 2—identifies the bed number. In the table above, each bolded character represents an element of the Hospital Mode code.

Troubleshooting Tips

If you are unable to access the Installer Menu by entering 9-8-7-6:

- Luckily, LG only allows 4 different Installer Menu passwords. If 9876 doesn't work, try these other three: **4321, 1478 or 3698**.
- To change the Installer Menu password **back to 9876** (strongly recommended), go to setting **000 INSTALLER SEQUENCE** in the Installer Menu and **change it to 0**. This will set the password back to the default 9876.

If your Installer Menu changes are not saving:

More than likely, the TV is in an operating mode that is not allowing the changes.

Determine the TV Operating Mode

- Using an Installer Remote, access the **Installer Menu**. The menu displayed depends on the operating mode. The most common modes are:

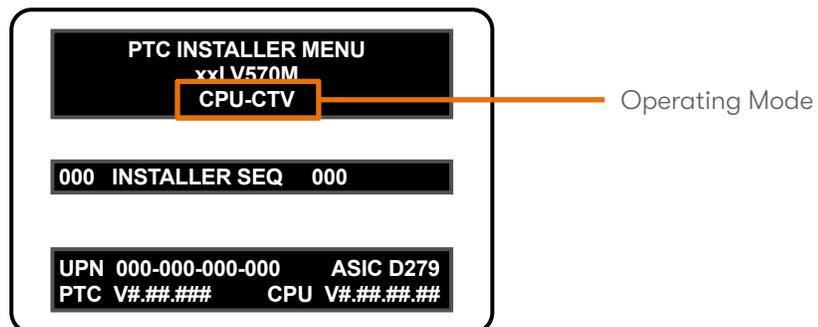
CPU-CTV – **Pass-through mode** with channel lineup in CPU

PTC-CTV – **Pass-through mode** with channel lineup in PTC

CPU-FTG – Free To Guest mode via CPU

EBL-LNT – SONIFI PPV mode

EBL-FTG – Free To Guest mode via EBL



The TV must be in one of the two Pass-Through modes above for the Installer Menu changes to be saved.

Troubleshooting Tips (cont'd)

Performing a factory reset on the LG TV:

If the TV is not in Pass-Through Mode, you must perform a **factory reset** on the TV to return it to Pass-Through Mode. This will erase any configurations that may have been made for the channel lineup and/or pillow speakers.

- Using an Installer Remote, access the **Installer Menu**.
- Use the **Up/Down arrow keys** on the Remote to sequence through the available menu items until you get to **117 FACT DEFAULT**, or access a menu item *directly* by keying the item number **117** and then pressing **MENU**.
- To change an Installer Menu item value, use the **Left/Right arrow keys** on the Remote to select the value **413**, or directly enter **413**.

NOTE: Some TV models may have a different value for resetting to the factory default. To save the new settings, press OK once on the Remote. You should get prompted for a password. That password is 0413 (the leading zero is critical).

Refer to the previous **Recommended New TV Setup Process** section for next steps.

If the TV does not switch over to HDMI1 when a Virtual Call is placed:

- Check that the **MPI cable is firmly connected** both to the correct USB port on the R2 device and the MPI port on the TV (most LG TVs have an RJ45 LAN port near the MPI port; be sure the MPI cable isn't connected to the LAN port)
- Verify that the LG TV is **programmed correctly**
- **Power cycle** the R2 device
- Contact **care.ai® Support**

If the TV switches to HDMI1 but a 'No Input Detected' or similar message appears on the TV screen:

- Check that the HDMI cable is **firmly connected** both to the HDMI Out port on the R2 device and the HDMI1 In port on the TV
- Contact **care.ai® Support**

