PCL Standby Settings Guide (v1)

Background

This reference sheet, prepared by Pacific Crest Labs, is intended to inform a test operator during the process of configuring a TVs Smart Wake features (i.e. Remote Start, Wake by Cast, and Wake by Smart Speaker capabilities) for units and brands that support those features. Recommendations are made in accordance with requirements of the CTA-2037-C Test Method Draft. This is not a comprehensive guide, but instead aims to help the tester avoid some of the difficulties we've faced configuring these features. This is a living document that we will update as we test additional TVs.

Operating Systems

WebOS (LG)

Remote Start

We recommend using the 1st party LG ThinQ app on an Android smartphone, and walking through the default set-up process when you connect the phone to the TV.

Wake by Cast

Download YouTube app and cast from smartphone.

Wake by Smart Speaker

Google Home is most consistent, in our experience. After connecting the TV to your LG account via the ThinQ app, Google Home and Amazon Alexa should integrate with the ThinQ app to deliver wake by smart speaker. You may need to take an additional step to ensure that the smart speaker is in the same "room" of your smart home configuration, or re-name the TV to ensure the speaker can pick up the name.

Tizen OS (Samsung)

Remote Start

We recommend using the 1st party Samsung SmartThings app, and walking through the default set-up process when you connect the phone to the TV.

Wake by Cast

Download YouTube app and cast from Smartphone. You may need to enable "Wake By Mobile" in the TV settings.

Wake by Smart Speaker

After connecting the TV to your Samsung account via the SmartThings app, Google Home and Amazon Alexa should integrate with the Samsung SmartThings app to deliver wake by smart speaker. You may need to take an additional step to ensure that the smart speaker is in the same "room" of your smart home configuration, or re-name the TV to ensure the speaker can pick up the name.

Android TV (Sony)

Ensure "Auto Shut-Off" setting has been toggled OFF. Ensure that "Remote Start" is toggled to ON.

Remote Start

The tester will need to shop around for a 3rd party app that has power on/off capabilities. Last we checked the Sony Mote app lacked this ability.

Wake by Cast

YouTube should be downloaded by default. Works intermittently

Wake by Smart Speaker

Intermittent success across both Google Home and Alexa, you may experience this too

Android TV (Hisense, TCL, etc.)

We have not tested a TV that supports these smart-wake features yet, and as such do not have recommendations. You can likely follow the same steps as on other Android TVs, though.

Remote Start

Wake by Cast

Wake by Smart Speaker

Android TV (Philips)

Ensure "Wake on Wireless Network" and "Wake on LAN" are both toggled ON.

Remote Start

We have not yet found a remote app that has power on/off capabilities.

Wake by Cast

Wake by Smart Speaker

We've configured Google Home successfully.

Roku TV (TCL, Hisense, etc.)

Remote Start

Download and use the Roku app.

Wake by Cast

When configuring the TV you may need to download and enable the YouTube channel.

Wake by Smart Speaker

Alexa devices reliably work.

SmartCast (Vizio)

Remote Start

The SmartCast app and Vizio Remote app both work for remote start. You may need to turn on QuickStart for these to wake the TV from standby.

Wake by Cast

YouTube should be loaded by default.

Wake by Smart Speaker

Alexa devices reliably work.

Network Configuration

Device Connections

UUT, Smart Speaker, Smartphone, and packet generating laptop are all connected to an otherwise isolated LAN/WAN.

If a router offers both a 2.4GHz and 5GHz network you can test standby on one while having additional devices connected to the other.
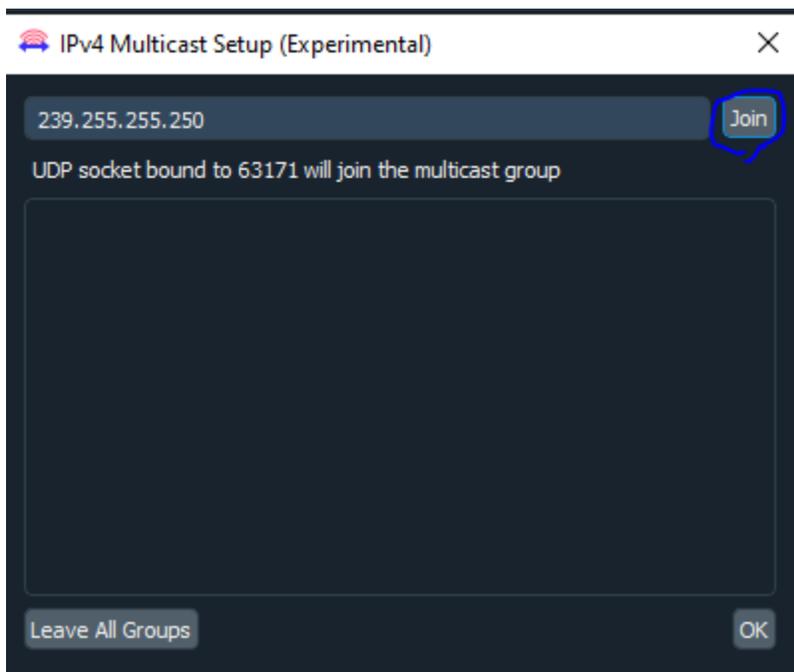
On all of these devices forget all other networks besides the one used during standby testing.

Packet Sender

1. Download and install Packet Sender from https://packetsender.com/
2. Download the Packet Sender config file prepared by PCL from https://www.pacificcrestlabs.com/software
3. Open Packet Sender. For organizational purposes you may want to delete all of the default packets before moving on to step 4.
4. Load in the packet sender config file with File->Import Database
5. For each of the six packets (configured to repeat every second):
   a. click "Send"

	Send	Name	Resend	To Address	To Port	Method
1	Send	DIAL-Multiscreen SSDP	1	239.255.255.250	1900	UDP
2	Send	UDP Multicast googlecast	1	224.0.0.251	5353	UDP
3	Send	UDP Multicast spotify connect	1	224.0.0.251	5353	UDP
4	Send	UDP Multicast wpad.local	1	224.0.0.251	5353	UDP
5	Send	UPnP MediaRenderer SSDP	1	239.255.255.250	1900	UDP
6	Send	UPnP MediaServer SSDP	1	239.255.255.250	1900	UDP

b. Click "yes" when the message prompting "Do you wish to join the multicast group?" pops up.

c. Click "join" in the top right corner of the next window that pops up, then press OK.

IPv4 Multicast Setup (Experimental) ✕

239.255.255.250   [Join]

UDP socket bound to 63171 will join the multicast group

[Leave All Groups]   [OK]

d. Leave the Packet Sender running throughout your test; to stop sending packets, you can click the "Resending" button in the bottom of the window, 5th button from the right. You can also uncheck "Log Traffic" if you do not care to see the packet log.