



Getting Started with HCA and Google Assistant

This Guide continues from the previous “Getting Started” guides that covered installation, adding devices, checkbox control, and client-server. It is assumed that you have reviewed those guides.

In this guide, client-server is used to for control of HCA objects using the Google Assistant.

To use the Google Assistant with HCA, you must use HCA in Client-Server mode and that is only available in HCA Plus. It is not available in HCA Standard or HCA Limited.

If you have not already purchased HCA and you are looking to test drive this software, you can download a free 30-day trial of HCA Plus from the HCA support website at www.HomeControlAssistant.com.

Talk to the Google Assistant

The goal is to expose your devices to the Google Assistant so you can control them, and this guide shows you how. Before going further, these are the things you can tell the Google Assistant using "Kitchen light" as an example.

- Hey Google, turn on kitchen light
- Hey Google, turn off kitchen light
- Hey Google, brighten kitchen light
- Hey Google, dim kitchen light
- Hey Google, set kitchen light to 50%
- Hey Google, increase kitchen light by 20%
- Hey Google, decrease kitchen light by 20%
- Hey Google, is the kitchen light on?

In the case where you say “dim” or “brighten” without specifying a percent, the level is changed by 25%

There are also some thermostat related actions you can use if you have a thermostat in your design

- Hey Google, set Great Room thermostat to 72 degrees
- Hey Google, increase Great Room thermostat by 4 degrees
- Hey Google, decrease Great Room thermostat by 8 degrees

While what you say isn't quite free-form, Google is smart in that you don't have to use these exact words. These also work:

- Hey Google, Kitchen light ON

- Hey Google, OFF Kitchen light

The Google Assistant, unfortunately doesn't always match "Kitchen Lights" and "Kitchen Light" as the same thing when spoken so be careful with names like those.

Google Everywhere

One nice feature of the Google Assistant is that it is available in many places including the Google Home Speaker, the Google Home Mini, and on selected Android phones. Regardless of where you access the Google Assistant, if on that device you are connected to the account where you added the HCA action and discovered devices, Google will respond and control devices.

Friendly Names

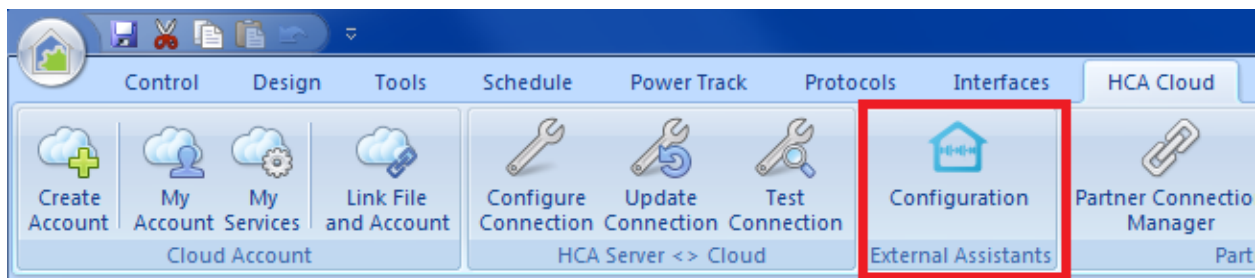
When you added devices to your HCA design you may have named them in ways that made sense and that were descriptive. For example, "Patio light northwest corner". But that's a long name to speak to the Google Assistant and it might be better to use a shorter more focused name.

In HCA these shorter names are called friendly names and act as aliases for the names given to the device.

There are these limitations on friendly names:

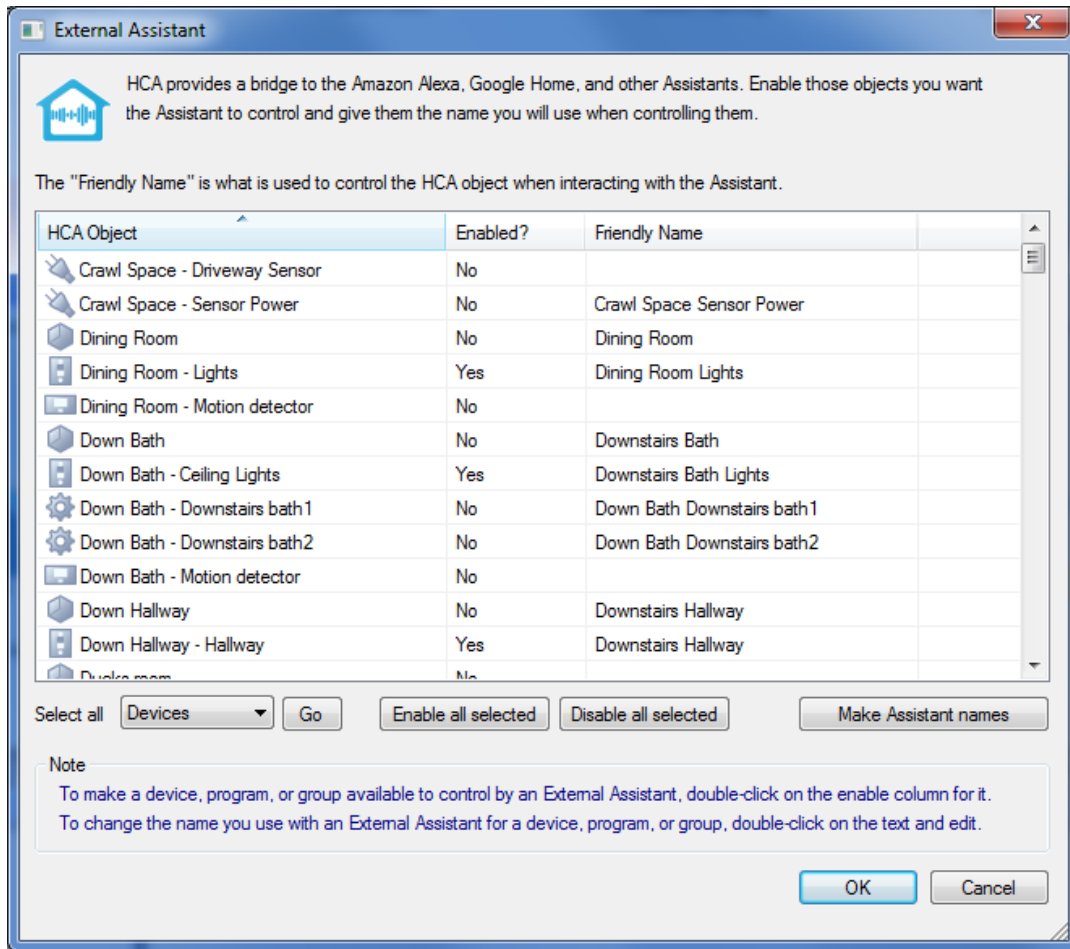
1. Names can contain only letters, numbers, and blanks.
2. Names shouldn't contain as a word – that is, embedded with blanks on both sides – that the External Assistant uses as key words. HCA points out when you have use one. Some of them are: discover, turn, on, off, brighten, dim, set, percent, stop, cancel, to, the, pause. An example name that wouldn't work would be "Kitchen dim light" since it has "dim" in it.

Google Assistant support begins with the *External Assistants Configuration* button on the *HCA Cloud* ribbon category.



The External Assistant setup dialog is the place where you can see all your design elements and assign, modify, and view their Friendly Names.

In addition to using this dialog you can also configure the friendly name and enable/disable support for an individual device, program, group, or room by opening its properties and viewing/modifying the "Friendly Name" settings on the properties dialog *Name* tab.



Create a friendly name for each device, program, or group you want to control. You can use the "Make Assistant names" button in the dialog lower right to create names that are the same as the object name. This may be a good starting point. As it says in the blue text in the image above, you can double click on the friendly name and then edit it. You can also toggle - enable / disable - support for the device by double-clicking in the Enable column on the row for the device.

The "Make Assistant names" operation creates the name from the room name and device name but modified it to meet the above criterion.

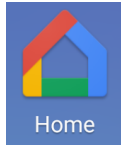
Choosing good names is important: You want names that are easy to say and unique enough to not be confused with others.

If you want to make major changes to the enable/disable settings, you can multi-select several rows and then use the "Enable all selected" or "Disable all selected" buttons. You can also use the select dropdown and the "go" button to select all objects of a type and then enable or disable them in one operation.

In addition to using this dialog you can also configure the friendly name and enable/disable support for an individual device, program, group, or room by opening its properties and viewing/modifying the Friendly Name settings on the properties dialog Name tab.

You can print a list of Friendly names and what each name does. It might be a good idea to print out a list of the names you can speak until everyone in the family gets used to this new world. You can have the printout contain only a list of External Assistant names. Select from the print menu "Printout Setup" to control what gets printed. Printing is available in the HCA application menu.

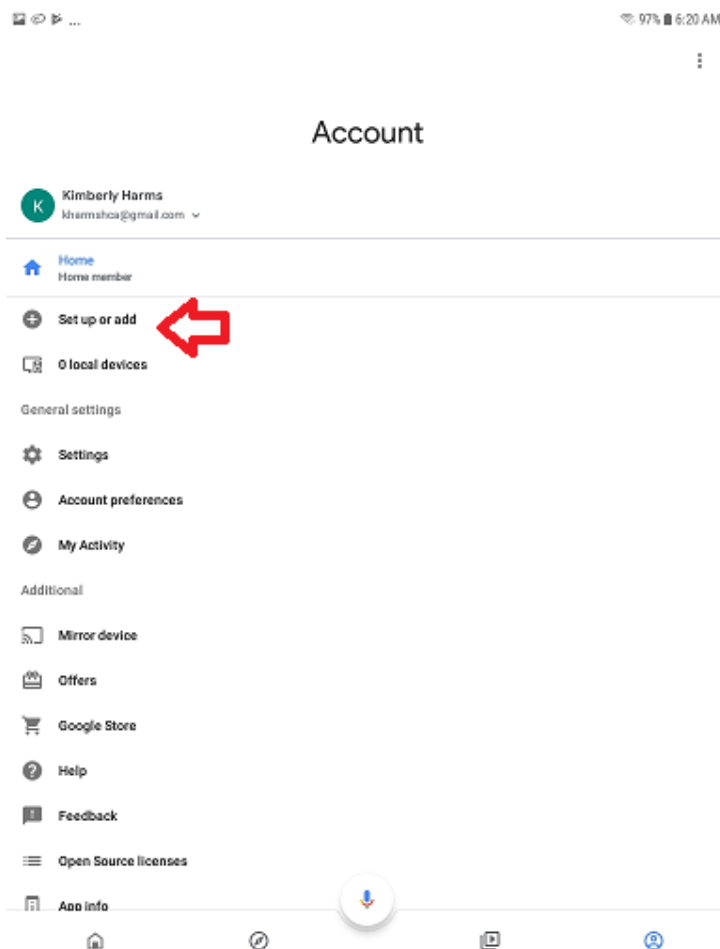
Adding HCA support in the Google Assistant application



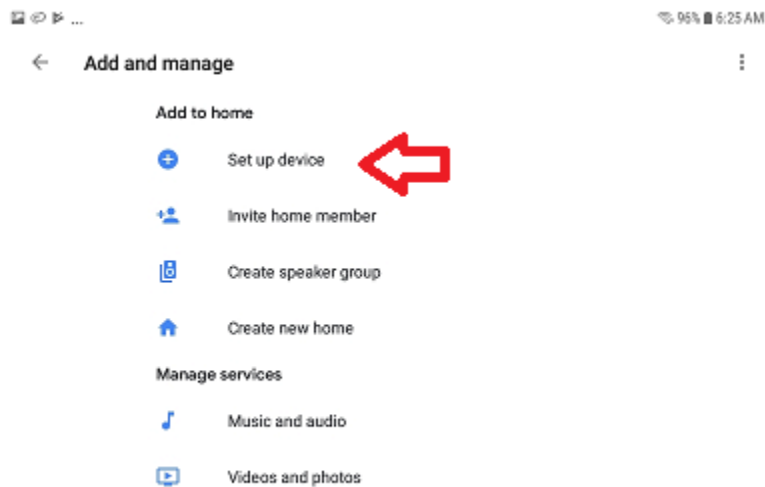
The pictures and directions here are from the Google Home app running on a tablet. From a phone, the concepts are the same but what you see, and the actions taken, may be somewhat different.

NOTE: The choice that you make to add support may seem odd, but in the instructions below you will be choosing a product called "Voice UPB Bridge". It works with HCA and can control all devices types, groups, and programs. It's just the name that was chosen and got stuck at that.

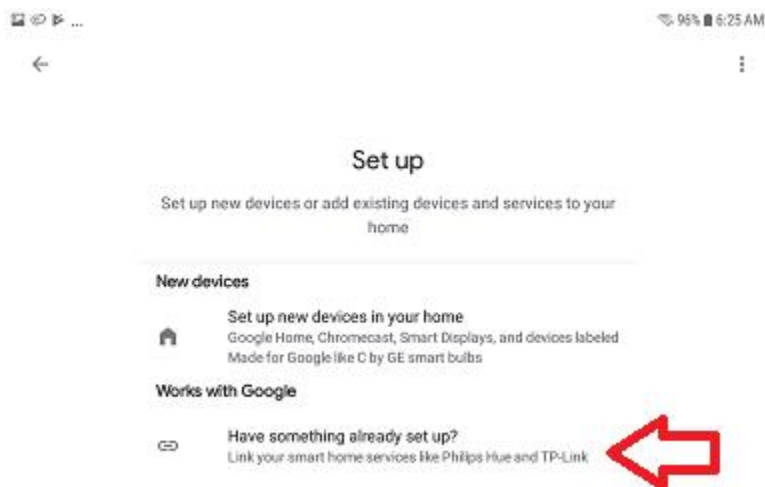
To begin, start the Google Home application on your mobile device and tap the account icon at the bottom right to open the *Account* page.



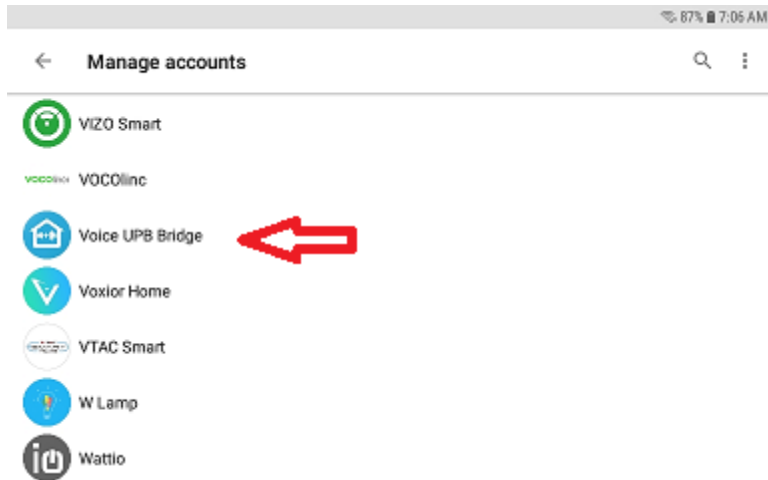
Tap on “Set up or Add” to open the *Add and Manage* page.



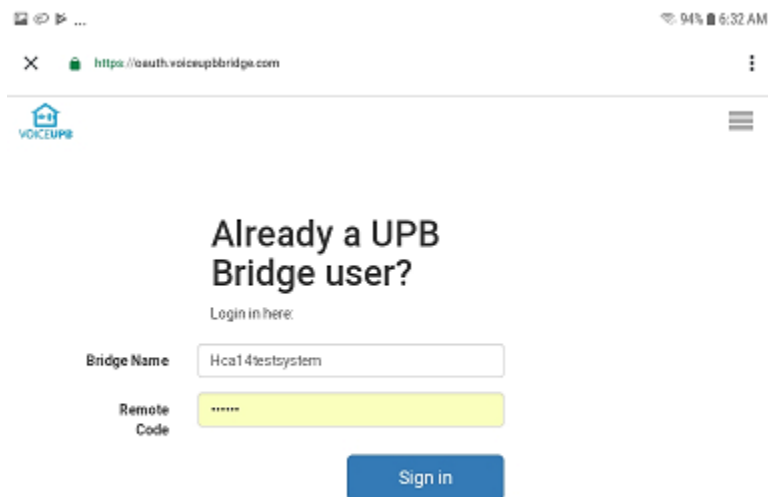
Tap on “Set up device” to open the *Set up* page.



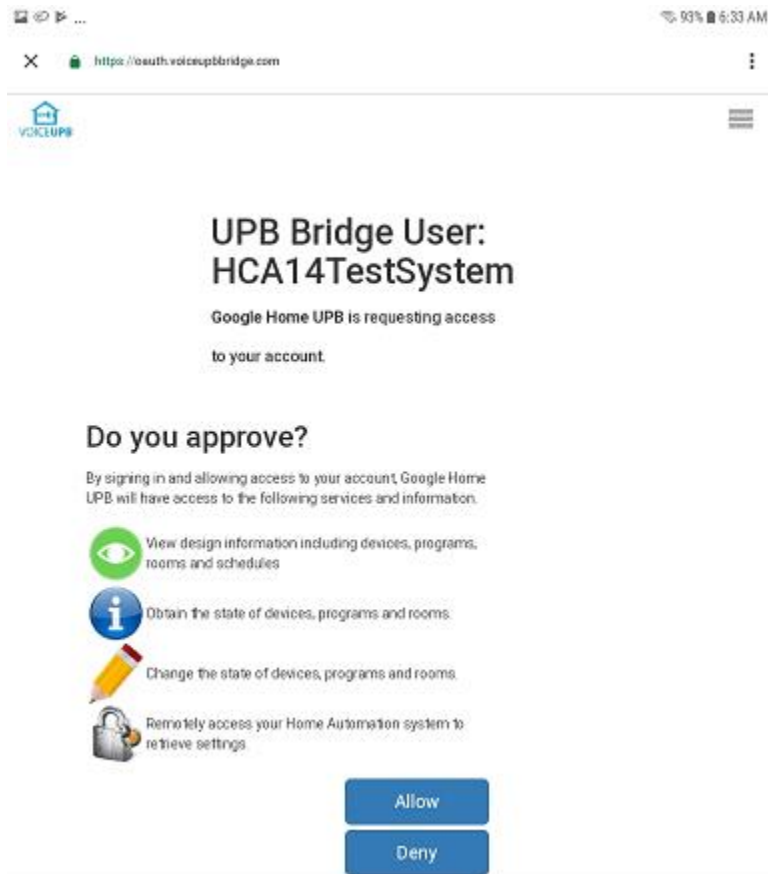
Tap on “Works with Google” to open the list of available products. Scroll down until you find “Voice UPB Bridge” and tap on that to start the linking process.



The linking process uses your HCA Cloud account user name and password so have those ready. Enter your cloud account user name as the “Bridge Name” and the cloud account password as the “Remote Code”. Then tap “Sign in”.

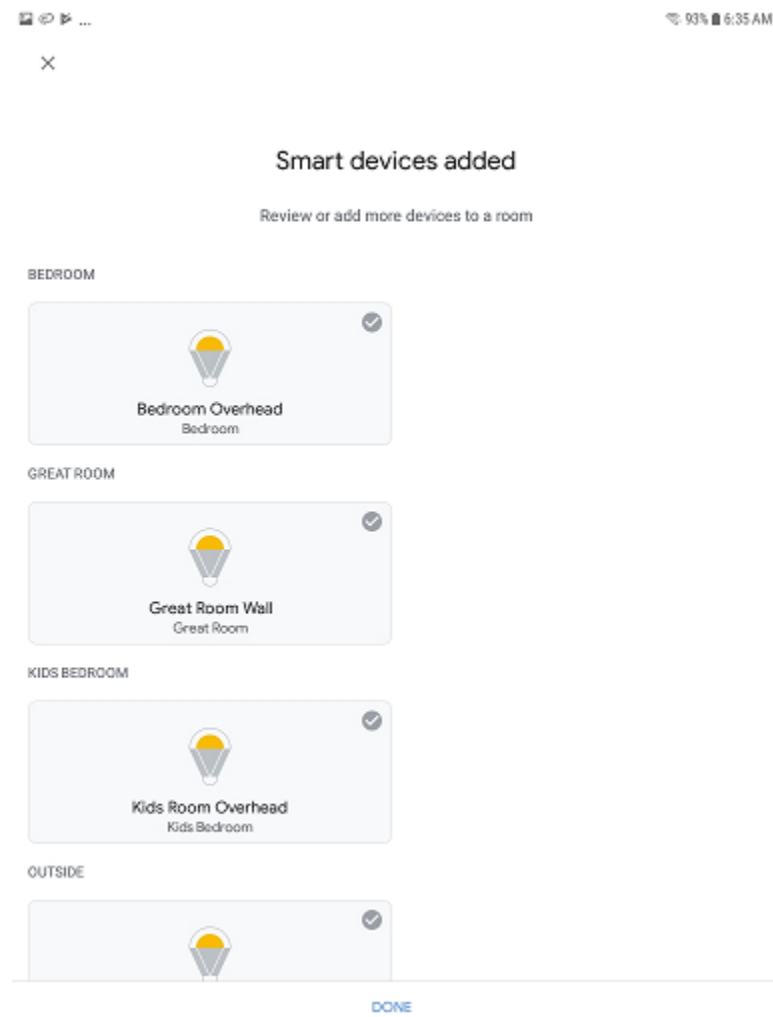


Then approval page appears:



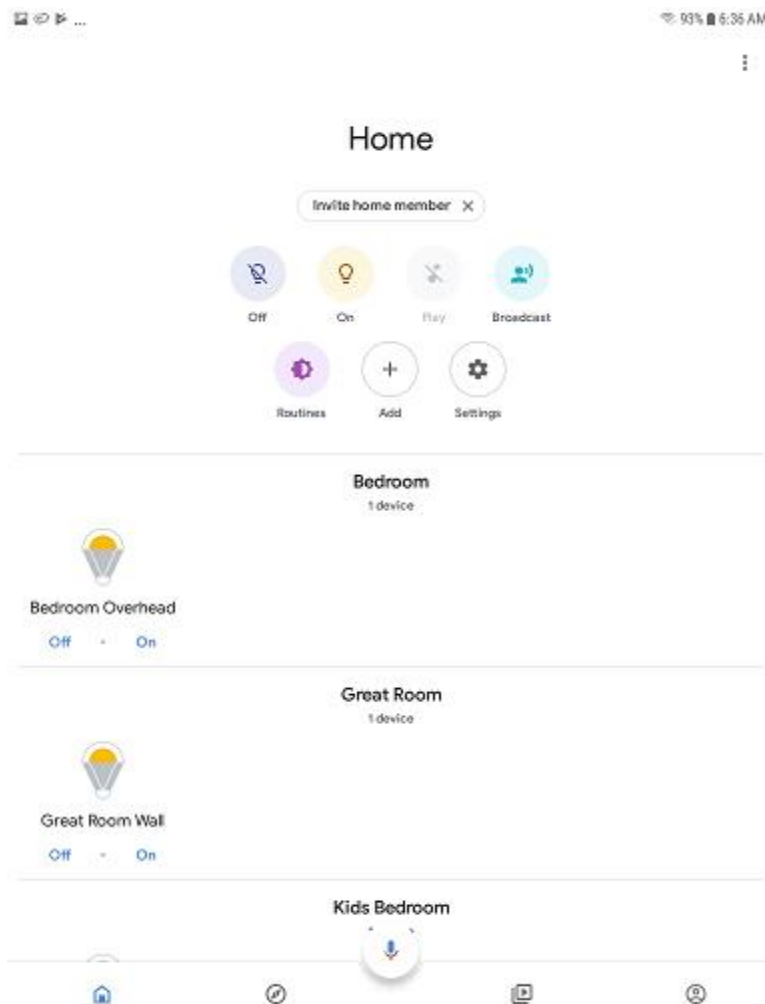
Tap the "Allow" button. A popup appears that says "Linking your Voice UPB Bridge account"

A few other popups may appear and then the “Smart devices added” page appears.



Tap on “Done” and the process is complete.

When you return to the Assistant home page, your devices are listed, and you can control them from there or using voice with the Assistant.

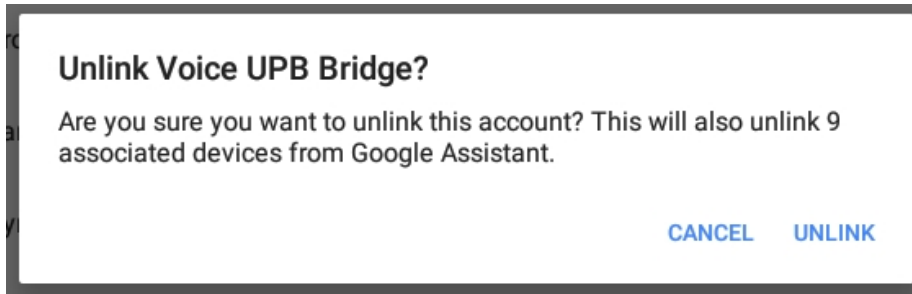


Starting Over

If you want to start over, you can unlink the Voice UPB Bridge and that removes the devices. Then you can begin the add process again. The steps are very similar to those given above:

1. Start the Assistant app
2. Tap on the Account icon at the bottom of the home page
3. Tap on "Set up or add"
4. Tap on "Set up device"
5. Tap on "Works with Google"

The Voice UPB Bridge will now appear at the start of the list as a "linked service". Tap on it to start the unlinking process.



Click on “Unlink” and all the Smart Device are removed. You can then red add and devices will be rediscovered.

Getting it to work: Resolving control problems

Unfortunately, many times the “error reports” Google says really don’t help much. Many times, it says “I don’t know how to help with that” or something similar regardless of what error HCA returns to Google.

Possible problems are:

1. Google can’t connect to the server
2. When Google asks to control a device, the server reports a security problem
3. When Google asks to control a device, the server reports that there is no such device
4. When Google asks to control a device, the server reports it can’t carry out the operation

Again, these errors may result in Google saying the same thing. So here is some help in figuring out what went wrong.

- a) Make sure you are running the HCA Server and you opened your design file. Even we sometimes forget to open the HCA file in the server.
- b) Make sure that you have configured and tested the cloud connection. In the HCA Server application menu in the Tools menu there is a “HCA Cloud Update” and a “HCA Cloud Access Test” menu choice. Use the “Update” menu choice to make sure that the HCA Cloud has your correct IP address and remote access password. Until the “Test” operation shows success, Google will not be able to access your server. You may have port forwarding incorrectly configured in your router and/or your firewall settings are wrong.

Once you have done these two things that should eliminate problem # 1 above. After this, then you must dig a bit more for more resolutions.

Next, make sure that you have all your interfaces connected and working. You can see this by opening “HCA Options” from the Server application window “Tools” menu and looking on the “Hardware” tab. Also try and control the device from a client (Windows, Android, iOS) and see if that works.

And perhaps the Google error is correct – for example trying to dim a non-dimmable device. It is unfortunate that many times Google gives only the one error statement rather than different replies to help show what the problem is.

One nice feature of the Google Assistant when working with HCA is that any time you make a change to a friendly name – modify it, give a device a friendly name that didn't have one before, or remove the friendly name from a device – Google automatically picks up that change.

OK, got it. What's next?

This is the end of the Getting Started series of guides. So, what's next? Well you now have HCA installed, added devices, configured them, created schedules and simple programs, deployed client-server, and connected a voice assistant.

What's next is wherever you want to go. You can add more devices of several types – color changing lights from Phillips Hue, LIFX, other devices like thermostats and the Ring doorbell - and create more and better programs. Or you can explore many of the other features of HCA like Power Track, Network Devices, Insteon linking, etc.

You while are probably tired of reading documentation, you may want to check the extensive list of [technical notes](#) which cover interesting applications and features that you may find useful.

Good luck, and happy automating.

##end##