

## Harmony Controller instructions, for version 2.02

### Install from the App Market

This plug in is available on the MiOS App market as **Harmony Hub Control**. Use the standard Vera Install Apps to install.

### Manual upload files to Vera

If you want to try a manual install you must first upload the files except the .png files via Apps > Develop Apps > Luup files.

The icon files are on a web server so you do not need to load those, and they work when accessing your Vera remotely if you set the 'Enable Remote Icon Images' option to Yes. If you want to use local icons from the Vera you have to upload the icon files to /www/cmh/skins/default/icons (UI5), /www/cmh\_ui6/skins/default/icons (UI6) or /www/cmh/skins/default/img/devices/device\_states (UI7) using WinSCP or equivalent.

You can also upload the icon files just to /www/cmh/skins/default/icons and the file harmony\_install.sh to /etc/cmh-ludl. When you reload your Vera it will make sure the icon files end up in the right place.

### Manual Device creation

Create the device, use D\_Harmony.xml as Upnp Device Filename. You can enter the Harmony Hub IP here.

Click Create device, then hit Reload:

When installing a new plug-in the Vera needs some minutes to configure it all so be patient.

You can also use this step to create more devices when you have multiple Harmony Hubs.



The screenshot shows the 'Develop Apps' web interface. On the left, there is a sidebar with links: 'Vera developers', 'Test Luup code (Lua)', 'Edit Startup Lua', 'Luup files', 'Serial Port configuration', and 'Create device' (which is highlighted with a blue button). The main area is titled 'Create device' and contains a form with the following fields: 'Device type' (text input), 'Internal ID' (text input), 'Description' (text input), 'Upnp Device Filename' (text input with 'D\_Harmony.xml' entered), 'Upnp Implementation Filename' (text input), 'Ip Address' (text input with '192.168.178.31' entered), 'MAC' (text input), 'Room' (dropdown menu with 'no room' selected), and 'Parent device' (dropdown menu with 'no parent/Please select' selected). A 'Create device' button is at the bottom right of the form.

The device will show with an amber icon when not configured:



**Note:** The above manual steps will be done automatically when loading the plug-in from the MIOS App market. When you want to install a second hub controller in UI5, go to My Apps. Choose the Harmony and click Create another. On UI7 you must always install the second instance by creating the device manually.

## Harmony Controller instructions, for version 2.02

### Configure the Harmony Hub Control Plug-in

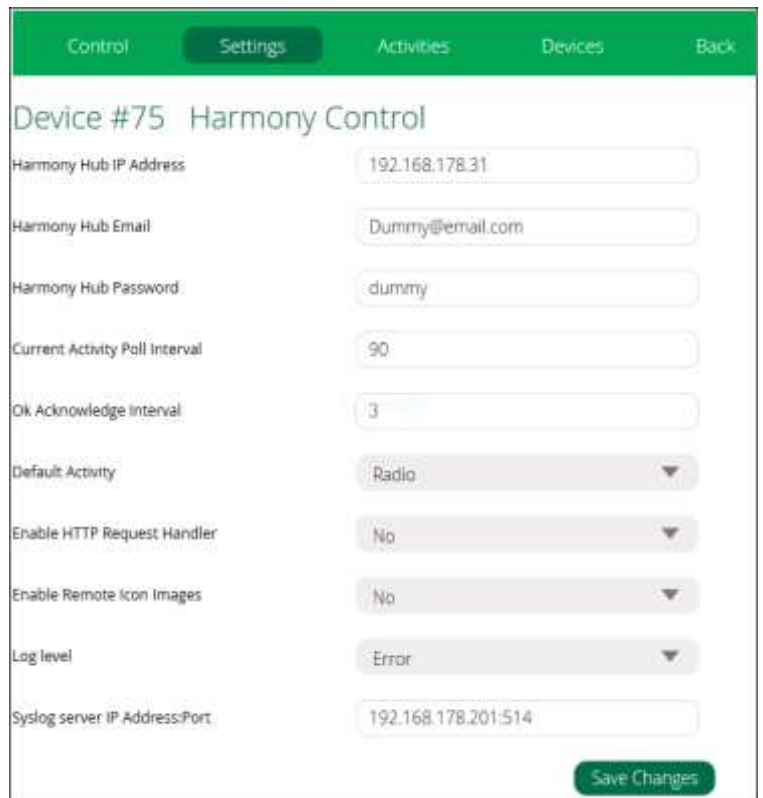
First complete the settings page.

Enter the IP address if not done yet. Enter the email and password you registered for your Hub at Harmony.

When Current Activity poll interval is not 0, the current activity and buttons on the harmony Control device will be updated automatically. This way you can trigger scenes even when controlling the Hub via the remote or Harmony Android/iOS App.

When Ok acknowledge interval is not 0, the icon will show with a green background after a command is completed for that number of seconds.

After you have defined activities, you can configure one of those as a Default Activity that will be selected when SetTarget = 1. The AuthomationHD android app can see the Harmony plug in as a switch and you can switch the default activity on and off.



The screenshot shows the 'Settings' tab for 'Device #75 Harmony Control'. The settings are as follows:

Setting	Value
Harmony Hub IP Address	192.168.178.31
Harmony Hub Email	Dummy@email.com
Harmony Hub Password	dummy
Current Activity Poll Interval	90
Ok Acknowledge Interval	3
Default Activity	Radio
Enable HTTP Request Handler	No
Enable Remote Icon Images	No
Log level	Error
Syslog server IP Address:Port	192.168.178.201:514

A 'Save Changes' button is located at the bottom right.

Set Enable HTTP Request Handler to Yes to query the harmony hub via the Vera. This is especially useful to find device commands or control via a web browser or so. See the last page for examples.

When 'Enable Remote Icon Images' is Yes the Icon images will be pulled from a remote web server rather than from you Vera. Benefits are that you will also see the Icons when accessing your Vera remotely. Drawback can be a, very minor, performance difference.

You can set your own preferred log level when you need to debug some odd behavior or just want to see how things flow in more detail.

If you have a syslog server (like a Synology NAS) you can enter its IP address and syslog port. Saves you from digging through the Vera log file. The default syslog port is 514, so for example enter 192.167.1.2:514.

When you completed the settings, it is time to configure buttons for the activities you want to control via your Vera.



The screenshot shows the 'Activities' tab in the Harmony Controller interface. The title bar says 'Harmony Controller' and the tab bar includes 'Control', 'Settings', 'Activities', 'Devices', 'Advanced', 'Logs', and 'Notifications'. The main content area has a heading 'Activities' and a sub-heading 'Configure the harmony Activities on the Activities tab before continuing'. Below this, there is a table with the following data:

Link Status	Current Activity ID	Last command	Last command time
—	—	—	—

## Harmony Controller instructions, for version 2.02

### Set up the Harmony Activities

After saving the settings you can start to configure the activities that you want as buttons on the Vera UI.

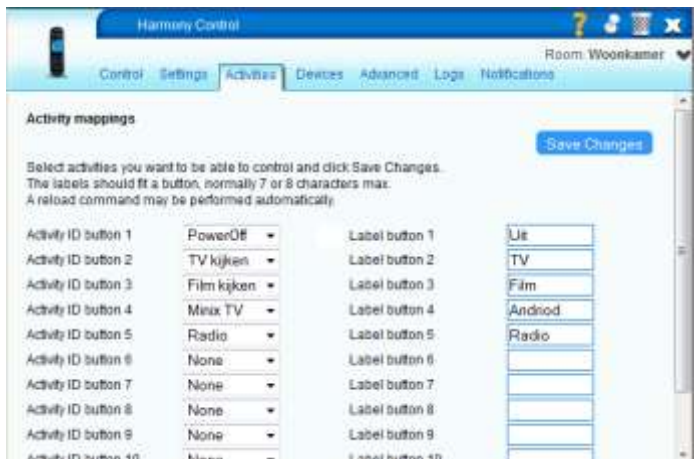
Open the Activities Tab. You can specify up to the number of buttons as you selected in your settings. The buttons will map to one of the activities you configured on your hub.

Note that opening the activities tab will take some time as the activities are read from your Harmony Hub when selecting the Tab. During this you will see the message; Loading activities from Harmony Hub. Please wait...

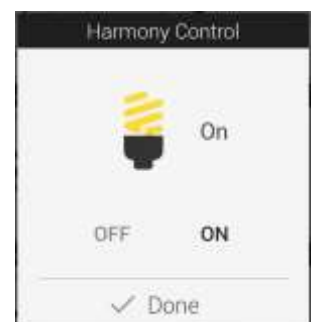
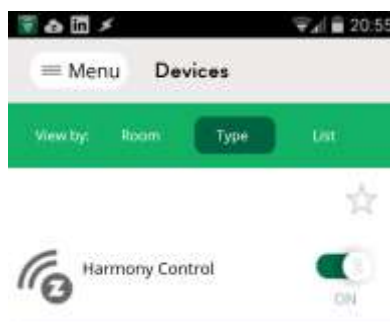
Once you selected the activities and specified the labels for the buttons, click Save Changes.

After a few seconds you will see the message; Changes to the buttons made. Your Vera will reload, so wait a minute and refresh your browser page!

The plug-in will look something like this. When the number of buttons is more then 8, the dashboard will be larger to accommodate them.



In the Vera app you can see if there is an activity (ON) or not (OFF). You cannot change the activity in the App. Only with AutoMationHD you can switch the plug on 'On' or Off. Switching from OFF to ON will mean the Default Activity gets started.



## Harmony Controller instructions, for version 2.02

### Setup Harmony Devices

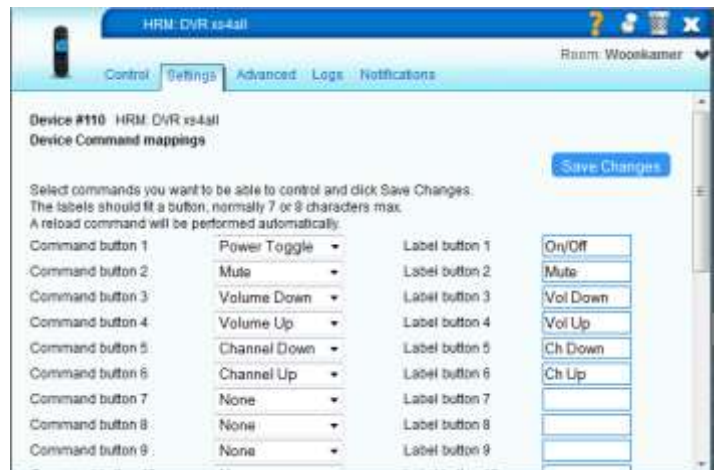
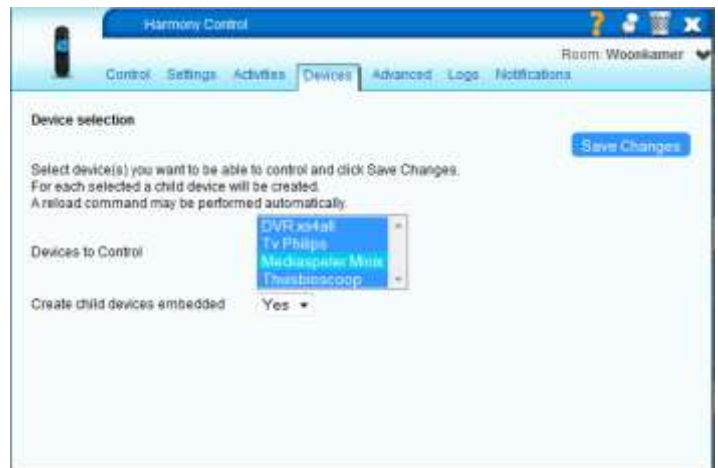
Select the Devices Tab to see the device details from your Harmony Hub.

In the dropdown you can select one, several, or all your Harmony devices. For each selected device, a child device will be created. To select multiple devices use Ctrl-click.

When Create embedded is yes, the child devices will show in the same room as the main Harmony Hub Control device. On UI7 you can always move the child devices to another room than the parent, when you try that on UI5, the child device will get recreated in the same room as the parent, and you will lose its button definitions!

After clicking Save Changes, your Vera will reload several times. This is normal behavior when adding or removing child devices.

For each child device you can configure Buttons just as for the main device. Each Button is mapped to a command of the Harmony Device the child device is created for.



## Harmony Controller instructions, for version 2.02

### Configure Scenes Triggers and Notifications

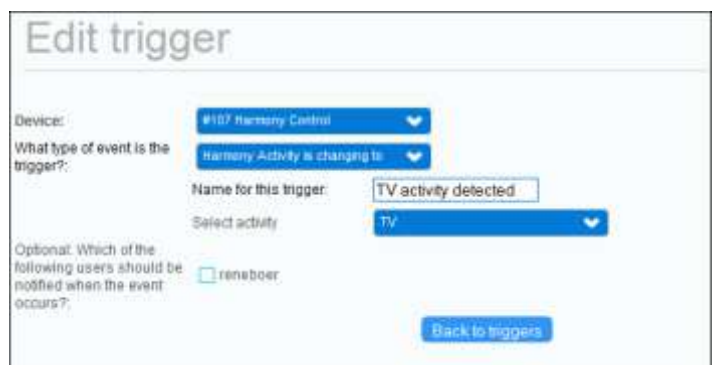
Last option you have is to configure notifications or use the Harmony Hub Control devices to trigger scenes.

For the main harmony Hub Control device, the trigger will occur when the selected activity is turned on. Either via clicking the Buttons, a Scene, a luup.call\_action command or when you start the activity via your remote or mobile App, provided Current Activity Polling is enabled.

Notifications or triggers for the child devices will only happen via clicking the Buttons, a Scene, or a luup.call\_action command.



The screenshot shows the 'Notifications' tab in the Harmony Controller interface. At the top, there's a navigation bar with 'Control', 'Settings', 'Activities', 'Devices', 'Advanced', 'Logs', and 'Notifications'. The 'Room' is set to 'no room'. Below the navigation bar, there's a section for adding a new notification. It includes a dropdown menu for 'Add notification for:' (currently showing '- Please select -'), a text input for 'Notification name:', and an 'Add' button. Below this, there's a table showing existing notifications. The first notification has a 'Name' of 'All activities Off', a 'Description' of 'Off', and a 'Notify' checkbox that is checked with the label 'reneboer'. There is a 'Remove' button next to this notification.



The screenshot shows the 'Edit trigger' page. It has a title 'Edit trigger' at the top. Below the title, there are several fields: 'Device:' with a dropdown menu showing '#107 Harmony Control'; 'What type of event is the trigger?:' with a dropdown menu showing 'Harmony Activity is changing to'; 'Name for this trigger:' with a text input showing 'TV activity detected'; 'Select activity' with a dropdown menu showing 'TV'; and 'Optional: Which of the following users should be notified when the event occurs?' with a checkbox labeled 'reneboer' that is checked. At the bottom right, there is a 'Back to triggers' button.

## Harmony Controller instructions, for version 2.02

### LUUP.Call\_action commands

In LUA you can use the following `luup.call_action` commands in scenes LUUP code or your own plug ins:

`GetCurrentActivityID`, `StartActivity`, `IssueDeviceCommand`, `SendDeviceCommand`

Use the http commands `list_activities`, `list_devices` and `list_device_commands` as described next to find out all arguments you can use with these functions.

When starting an activity or sending a command any set notifications or Scene trigger will fire.

Some `luup.call_action` examples:

Get the current activity ID;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:Harmony1",
    "GetCurrentActivityID", {}, 28)
if (rc==0) then curActID = rarg.currentActivityID end
```

Start activity with ID 10439301;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:Harmony1",
    "StartActivity", {newActivityID=10439301}, 28)
```

Send Mute command to device 21447853;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:Harmony1",
    "IssueDeviceCommand", {DeviceID=21447853, Command="Mute"}, 28)
```

or Send Mute command to child device. #30 in this example;

```
rc, rs, jb, rarg = luup.call_action("urn:rboer-com:serviceId:HarmonyDevice1",
    "SendDeviceCommand", {Command="Mute"}, 30)
```

Turn on the default activity;

```
rc, rs, jb, rarg = luup.call_action("urn:upnp-org:serviceId:SwitchPower1", "SetTarget",
    {newTargetValue=1}, 28)
```

Turn all activities off;

```
rc, rs, jb, rarg = luup.call_action("urn:upnp-org:serviceId:SwitchPower1", "SetTarget",
    {newTargetValue=0}, 28)
```

## Harmony Controller instructions, for version 2.02

### HTTP Request Commands

Using the following HTTP requests you can query your Harmony Hub configuration or control your Harmony Hub. When starting an activity or sending a command any set notifications or Scene trigger will fire.

Replace 192.168.1.1 with your Vera IP address and 66 your main plug in ID:

To List all activities;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=list_activities
```

To List all devices as a JSON string;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=list_devices&format=json
```

To List all device commands for device 21133494;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=list_device_commands&cmdp1=21133494
```

To start the activity controlled by Button 1;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=start_activity&cmdp1=1
```

To start the activity 10439329;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=start_activity&cmdp1=10439329
```

To get the current Activity ID;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=get_current_activity_id
```

To issue a device command for device;

```
http://192.168.1.1:3480/data_request?id=lr_Harmony66&cmd=issue_device_command&cmdP1=21447853&cmdP2=Mute
```