

# Product Advisory - Hydra2 Hub - Patch Fix for CAL-16106

**NOTE:** This software patch only applies to Apollo and Artemis consoles running v7 software (ie: 7.0, 7.0.1 or 7.0.2) that feature one or more H2 Hubs (running Hydra2 v1.6f / v1.6f2 software).

## BACKGROUND INFORMATION

This software patch addresses an issue relating to the handling of overloading or high gain input signals fed to the console via a H2 Hub. Any input ports (IO boxes) with a direct connection to a Calrec router will not suffer from this issue.

By default, once an input signal reaches 0dBFS, there is a set amount of additional headroom before distortion (saturation) will occur (the specific amount depends on the chosen operating levels). A bug in the H2 Hub firmware caused this headroom to be entirely ignored, causing saturation to occur immediately. Additionally this saturation was not handled correctly, instead causing high distortion.

This firmware fix corrects the headroom and ensures that saturation is handled correctly when IO boxes are connected via a H2 Hub.

## PATCH FIX

Current Console Software Version	Current Hydra2 Software Version	Current Hydra2 Firmware	Patched Hydra2 Firmware
7.0	1.6f	1.6.8	2.0.9
7.0.1	1.6f1	1.6.8	2.0.9
7.0.2	1.6f2	1.6.8	2.0.9

This patch applies to the component named **Firmware** which runs on each of the two Hydra Modules within a H2 Hub. IO does not need to be upgraded, however it is necessary that each Hydra2 Hub is operating in “contained mode”, with valid primary and secondary links to the primary and secondary router cards within a Calrec console core.

## PREREQUISITS

**Before beginning this installation process please ensure you have enough access time to complete the work. Please allow for up to an hour for this procedure.**

Please inspect and note the positions of the 8 DIP switches on the rear of each H2 Hub that is to be upgraded.

If two H2 Hubs are being used in split mode, before upgrading it is necessary to carry out the following steps:

- Revert the H2 Hubs to “Contained” mode
- Select “Pri” on each H2 Hub
- Connect and upgrade each H2 Hub one at a time

If multiple H2 Hubs are owned, but each is operating in “Contained” mode with different IDs, all H2 Hubs may be upgraded at once.

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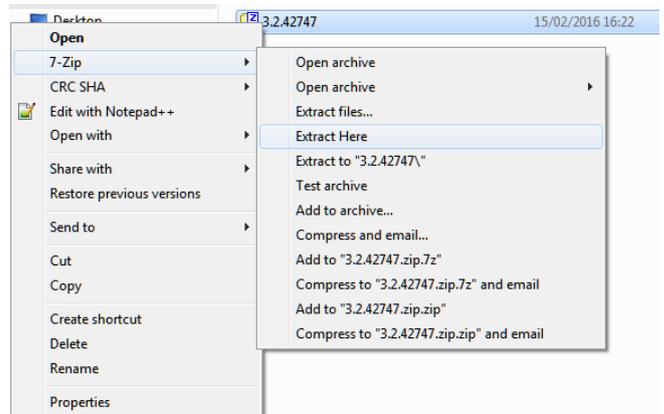
## APPLYING THE PATCH FIX

N.B. The instructions below refer to "Hydra2 v1.6f". Depending on the version of software installed on your system, please substitute for "Hydra2 v1.6f1" or "Hydra2 v1.6f2" where appropriate.

To install this patch please follow the steps below:

1. Login to the Console PC user account **CalrecAudioAdmin** (default password: **calrec**)
  - If the default password does not work please consult your local administrator for the correct password

2. The patch is supplied as a zip file, with the file name **H2Hub Firmware CAL-16106 patch.zip**. Copy this file to the desktop of the console PC using a USB memory device.

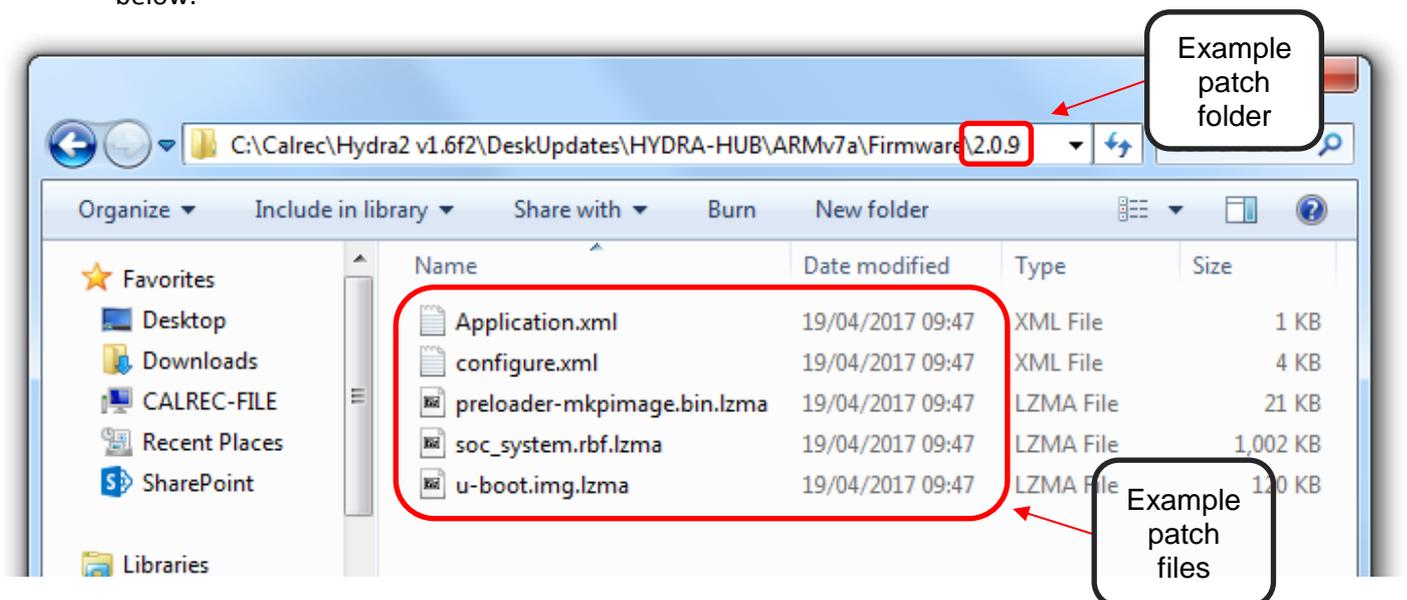


3. Right-click on the zip file. In the menu select **7-zip**, then **Extract Here**. This will create a folder called **2.0.9** on the desktop

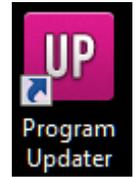
4. Copy the unzipped **2.0.9** patch folder and its contents into the following directory:

**C:\Calrec\Hydra2v1.6f\DeskUpdates\HYDRA\_HUB\ARMv7a\Firmware**

- You will notice that another similar folder (1.6.8) already pre-exists in this directory, there is no requirement to delete or change this folder.
- Once copied, open the **2.0.9** folder and ensure that the directory structure is the same as in the image below:

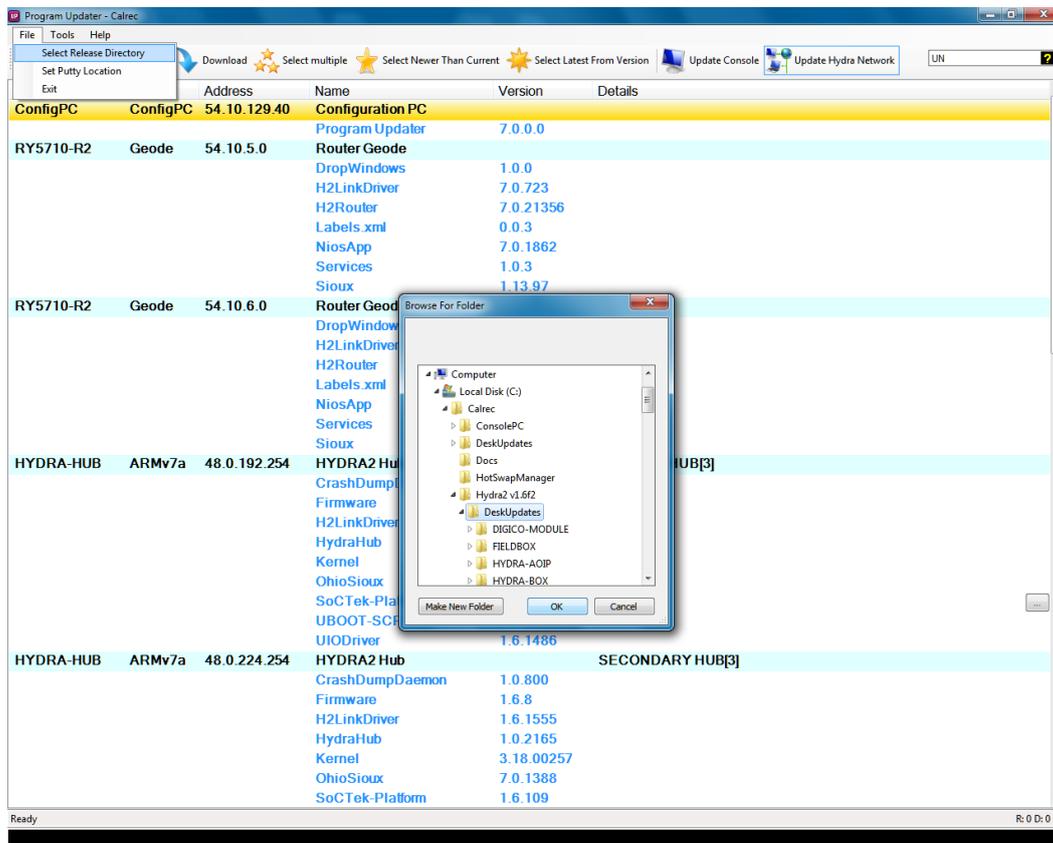


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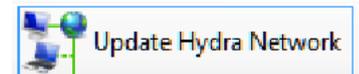


- 5. Close all open windows, then run the **Program Updater** application (from the desktop or start menu)
  - When Program Updater opens it will populate a list of all devices in the system. Please wait for this list to populate.
- 6. On the top menu bar, go to **File** then **Select Release Directory**. In the popup window make sure the following directory is selected, then click **OK**:

C:\Calrec\DeskUpdates\Hydra2 v1.6f\DeskUpdates



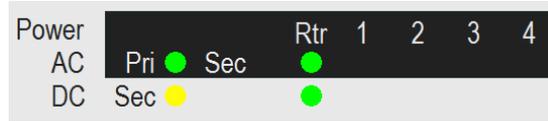
- 7. On the main icon bar, click on the icon labelled **Update Hydra Network**
  - Program Updater will now populate a list of all Hydra devices in the system. Please wait for this list to populate.
- 8. Inspect the list and verify the presence of two entries for each connected H2Hub as follows:
  - HYDRA-HUB    HYDRA2 Hub    PRIMARY HUB [#]
  - HYDRA-HUB    HYDRA2 Hub    SECONDARY HUB [#]



Where [#] is the ID of the H2 Hub as set via the DIP switches (this will be the same ID for the primary and secondary of the same H2 Hub).

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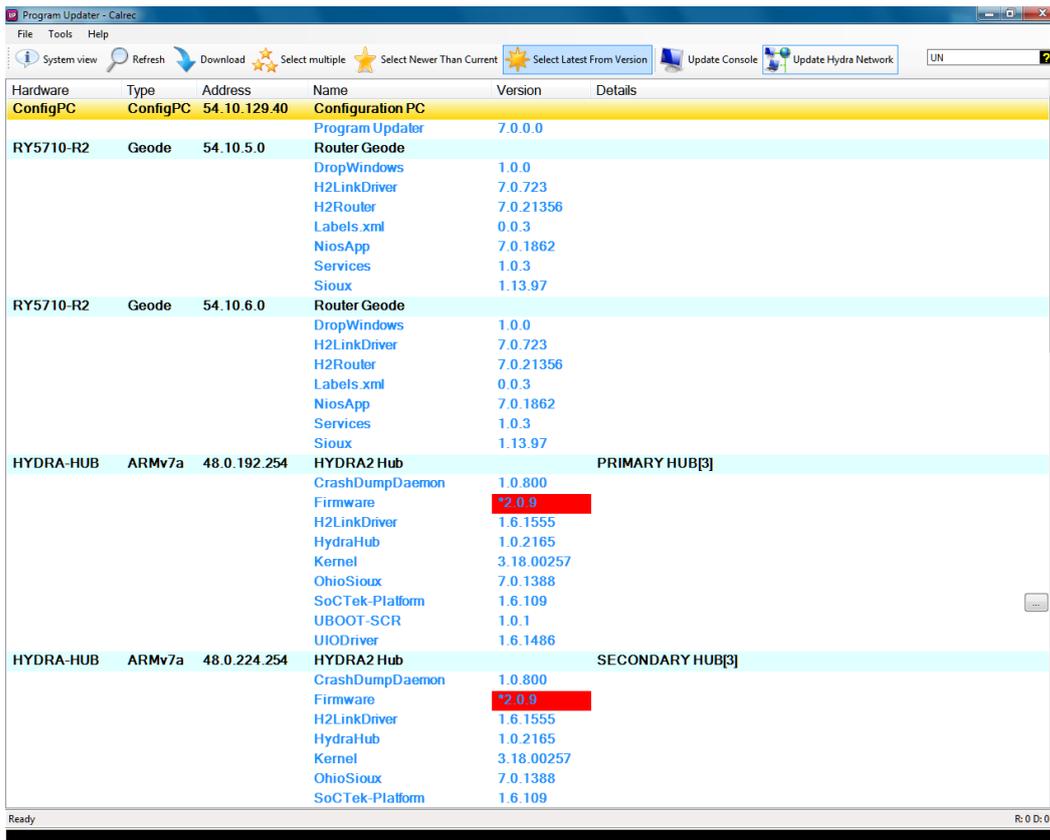
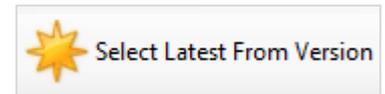
9. If only one or no entries are listed for the H2 Hub, please inspect the LEDs on the front of the H2Hub:



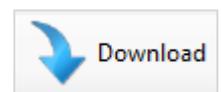
- **Pri** and **Sec** should flash green and yellow respectively to show that the two Hydra Modules within the H2 Hub are running OK.  
If this is not the case, inspect the DIP switches and ensure that the H2 Hub is running in “Contained” mode
- **Rtr** pri and sec should both flash green to show valid connections to an upstream router (ie: the primary and secondary routers in the console core).  
If this is not the case, please verify that both cables and all SFPs are good, and that the cables are not switched (ie: must be primary to primary and secondary to secondary)

10. Click on the button labelled **Select Latest From Version**

- This will cause Firmware component listed under the Hydra Hub to be highlighted red (both primary and secondary), as below:



11. Click on the button labelled **Download**, the applications highlighted in red will now be updated. A green bar will display the progress of these upgrades:



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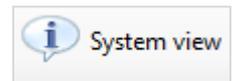
12. When all downloads are complete (Program Updater will display **Rebooted**), please wait for the H2 Hub to automatically reboot.

13. Once the H2 Hub has rebooted (LEDs flashing as described in 9, above), click **Refresh** in Program Updater. Inspect the two H2 Hub entries and for each, verify that the **Firmware** version number has been updated to **2.0.9**.



14. Click the button labelled **System view** to generate a text file.

- Please save this file and email it to [support@calrec.com](mailto:support@calrec.com) to allow a support engineer to verify all software versions and update Calrec’s records.



15. If two H2 Hubs are being used in split mode, please disconnect the first H2 Hub before connecting the second H2 Hub. Please click **Refresh** in Program Updater, then continue again from step 8.

16. If it was necessary to temporarily change any DIP switch settings on the rear of the H2 Hub, please power off the H2 Hub before reverting to the original settings.

### APPENDIX



H2 Hub – front view



H2 Hub – rear view