

# CODA

C O D A A U D I O



## Firmware Update Procedure

- LINUS Control v2.0.34 -





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# 1. General

Please reference the PDF 'LINUS Control Operation Manual' for information surrounding LINUS Control & physical network topologies and networking schema.

This document will detail the procedure that must be adhered to, in order to:

- Upgrade firmware from LINUS Live v1.2.x to LINUS Control v2.0.x
- Downgrade firmware from LINUS Control v2.0.x to LINUS Live v1.2.x

## 1.1. Upgrading from LINUS Live v1.2.x to LINUS Control v2.0.x

LINUS Control v2.0 is a complete departure from the previous LINUS Live v1.2 platform.

As well as new control software, new rewritten and restructured firmware has been developed to provide more stability, flexibility and features. The new firmware packaged within LINUS Control v2.0 has a very different data structure and is therefore incompatible with LINUS Live v1.2.x.

A firmware migration tool, LINUS Live v1.2.7, has been created to ensure the upgrade process is completed reliably and successfully. This tool is only required when upgrading from LINUS Live 1.2.x to LINUS Control v2.0. It will not be required thereafter, unless you wish to downgrade from LINUS Control v2.0 to LINUS Live v1.2.x streams.

*Note – LINUS 10's have a slightly modified update procedure compared to LINUS14 / LINUS CON / LINUS10-C and LINUS5-C due to their legacy 'Master' and 'Slave' relationship within LINUS Live 1.2.x.*

*For LINUS10 Update procedure, please turn to page 4.*

*For LINUS14 / LINUS CON / LINUS10-C / LINUS 5-C, please turn to page 9.*



### 1.1.1. LINUS10 – Upgrading

First it is necessary to establish a fully functional network with the amplifiers on the LINUS Live v1.2.5 software. This ensures there are no connectivity issues that could cause issues during the Firmware update procedure.

- Establish a fully functional LINUS10 network with LINUS Live v1.2.5
- Ensure LINUS Live v1.2.5 is in sync with the amplifiers (no orange flags):



- Close LINUS Live v1.2.5
- Run LINUS Live v1.2.7 – the Firmware Migration Tool.
- Go Online. The units will be shown with a Red and Grey square, stating “Update FW”:



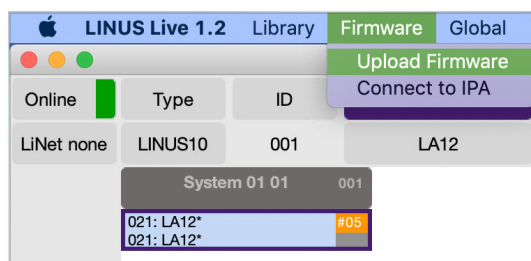
- Press the ‘Add Modules’ button:



- Select **up to** 6 Modules (12x LINUS10 Amplifiers).

*Note – If you select over 6 Modules, which is 12x LINUS10 Amplifiers, the Firmware update process will fail, and you will have to update the devices one at a time, using the Hardware Update Mode.*

- Click Firmware, then Upload Firmware, then accept the pop-up dialog.





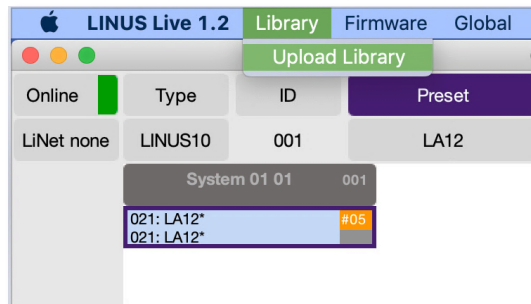
- LINUS Live v1.2.7 will close upon completion.
- Restart LINUS Live v1.2.7 and repeat, until all amplifiers have had their firmware updated.
- Restart LINUS Live v1.2.7
- Go Online. The units will be shown with a Red and Grey square, stating “Update Lib”:



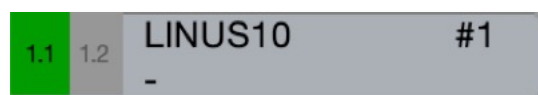
- Press the ‘Add Modules’ button:



- Select **up to** 6 Modules (12x LINUS10 Amplifiers).
- Click Library, then Upload Library, then accept the pop-up dialog:



- LINUS Firmware Migrate will close upon completion.
- Restart LINUS Firmware Migrate v1.2.7 and repeat until all amplifiers have had their libraries updated.
- Restart LINUS Live v1.2.7
- Go Online. The units will be shown with a Green and Grey square:



- Press the ‘Add Modules’ button:





- They will now all have blue 'in-sync' flags:

021: LA12	#06
021: LA12	#13
021: LA12	#15
021: LA12	#17
021: LA12	#19
021: LA12	#21

- Close LINUS Live v1.2.7.

We will now configure the LINUS10's so that they can be seen by LINUS Control v2.0.x, and the firmware can be updated to the latest stream.

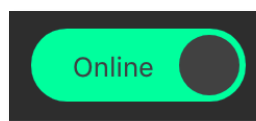
*Note – From this moment onwards during the firmware upgrade procedure, limit the amount of LINUS10's on the network to 24x at a time, using front panel ID Numbers #1 through #12.*

*After the update process is complete, there will be no limitation on simultaneous upgrades within the LINUS Control v2.0.x software / firmware streams.*

**IMPORTANT**

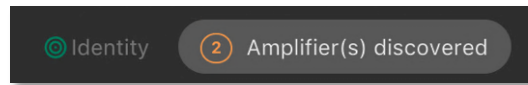
- Set all LINUS10's to MASTER on the Front Panel LCD.
- **Do NOT adjust the Front Panel ID number.**

- Launch LINUS Control v2.0.x
- Click the Online button in the top right of the window:

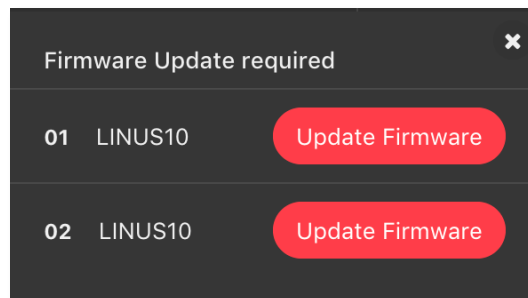




- Network scanning will now start. In the bottom taskbar, an icon will be presented, detailing how many amplifiers have been detected on the network. Click this button:



- On the left of the workspace, the amplifiers that have been detected on the network will be displayed. The LINUS10's are shown with the Red 'Update Firmware' button. Click all of these.

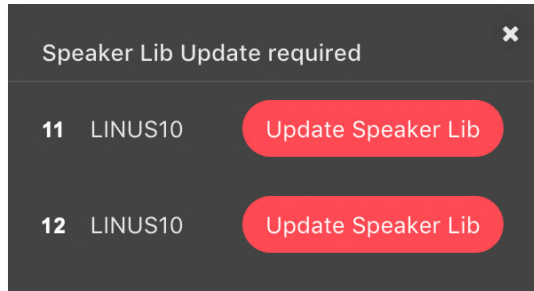


*Note – If after pressing the 'Update Firmware' button, it reappears after a short period of time, power cycle the amplifier. Once the 'Update Firmware' button is pressed, the amplifiers will disappear out of the discovery list. Please wait at least 30 seconds for the amplifiers to show up in the discovery list.*

- The Front Panel LCD may now present an error code:  
This is stating that the amplifier cannot find the Speaker Library.  
The message can be ignored or cleared with the Amplifier Front Panel 'ESC' key.

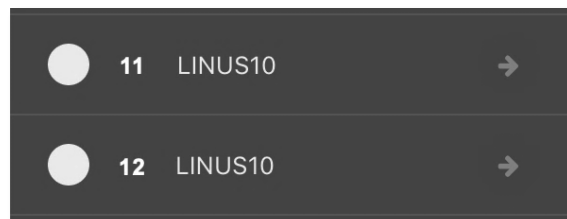


- When the firmware has been updated on these devices, they will return to the discovery list. The speaker library now needs to be updated.  
Click the red 'Update Speaker Lib' button to continue:

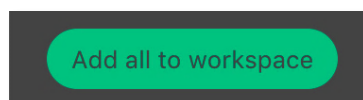


*Note – If the amplifier that was the ‘Slave’ does now show up now in the discovery list with the “Update Speaker Lib” button, you forgot to perform the step marked ‘Important’ above; whereby you should set all devices to Master & not adjust the ID. To recover the amplifiers, it is now necessary to place the master and slave in Hardware Update mode, then push the firmware to both of the amplifiers one at a time, prior to restarting this above procedure.*

- When the speaker library has been pushed to all the devices, they will now show in the discovery list, as shown below:



- Press the ‘Add all to workspace’ button to finish the process.



- The LINUS10’s are now ready to be deployed in an active system.





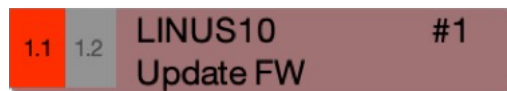
1.1.2. LINUS14 / LINUS CON / LINUS5-C / LINUS10-C - Upgrading

First it is necessary to establish a fully functional network with the amplifiers on the LINUS Live v1.2.5 software. This ensures there are no connectivity issues that could cause issues during the Firmware update procedure.

- Establish a fully functional network with LINUS Live v1.2.5
- Ensure LINUS Live v1.2.5 is in sync with the amplifiers (no orange flags):



- Close LINUS Live v1.2.5
- Run LINUS Live **v1.2.7**
- Go Online. The units will be shown with a Red square, stating "Update FW":



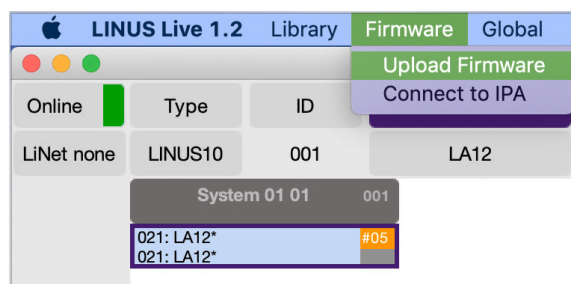
- Press the 'Add Modules' button:



- Select **up to** 12x units.

*Note – If you select over 12x units, the Firmware update process will fail, and you will have to update the devices one at a time, using the Hardware Update Mode. (Pressing and holding the encoder in, whilst applying power, then launching LINUS Live v1.2.7, then choosing Firmware \ Upload Firmware with a blank workspace.*

- Click Firmware, then Upload Firmware, then accept the pop-up dialog.





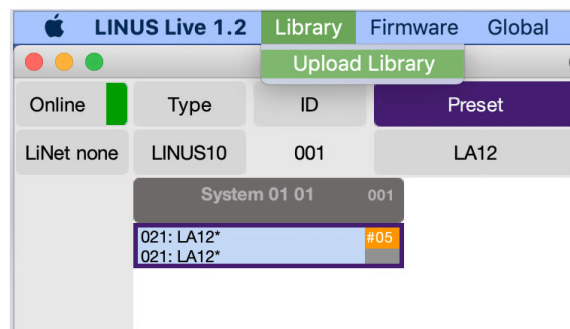
- LINUS Live v1.2.7 will close upon completion.
- Restart LINUS Live v1.2.7 and repeat, until all amplifiers have had their firmware updated.
- Restart LINUS Live v1.2.7.
- Go Online. The units will be shown with a Red square, stating “Update Lib”:



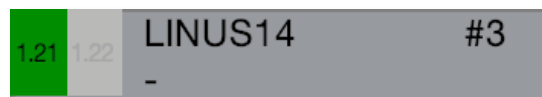
- Press the ‘Add Modules’ button:



- Select **up to** 12x units.
- Click Library, then Upload Library, then accept the pop-up dialog:



- LINUS Firmware Migrate will close upon completion.
- Restart LINUS Firmware Migrate v1.2.7 and repeat until all amplifiers have had their libraries updated.
- Restart LINUS Live v1.2.7
- Go Online. The units will be shown with a Green and Grey square:

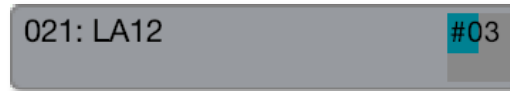


- Press the ‘Add Modules’ button:

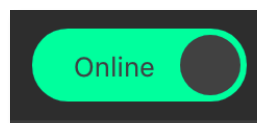




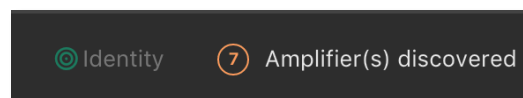
- They will now all have blue 'in-sync' flags:



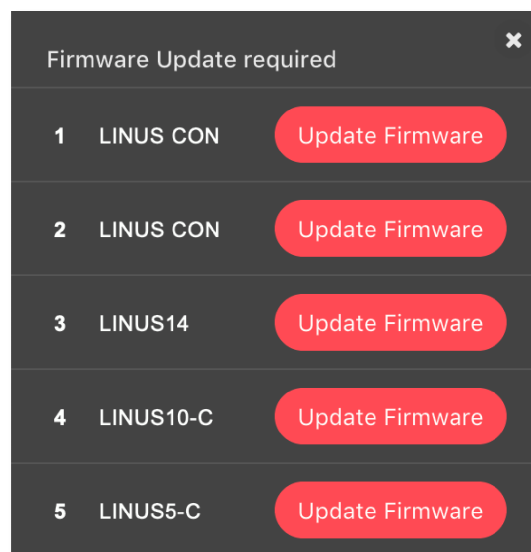
- Close LINUS Live v1.2.7.
- Launch LINUS Control v2.0.x
- Click the Online button in the top right of the window:



- Network scanning will now start. In the bottom taskbar, an icon will be presented, detailing how many amplifiers have been detected on the network. Click this button:



- On the left of the workspace, the units which have been detected on the network will be displayed. The units are shown with a Red 'Update Firmware' button beside them. Click all of these.





*Note – If after pressing the ‘Update Firmware’ button, it reappears after a short period of time, power cycle the amplifier. Once the ‘Update Firmware’ button is pressed, the amplifiers will disappear out of the discovery list. Please wait at least 30 seconds for the amplifiers to show up in the discovery list.*

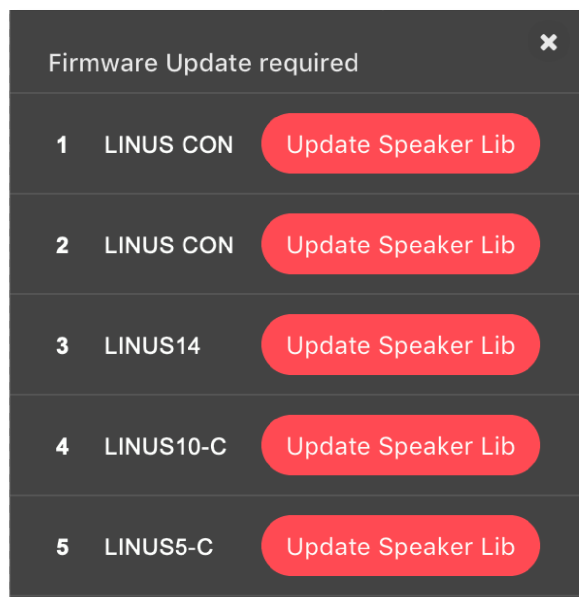
- The Front Panel LCD may now present an error code:  
This is stating that the amplifier cannot find the Speaker Library.  
The message can be ignored, or alternatively you can clear it with the Amplifier Front Panel ‘ESC’ key.



*Note – LINUS10-C’s and LINUS5-C’S will require a power-cycle at this point.*

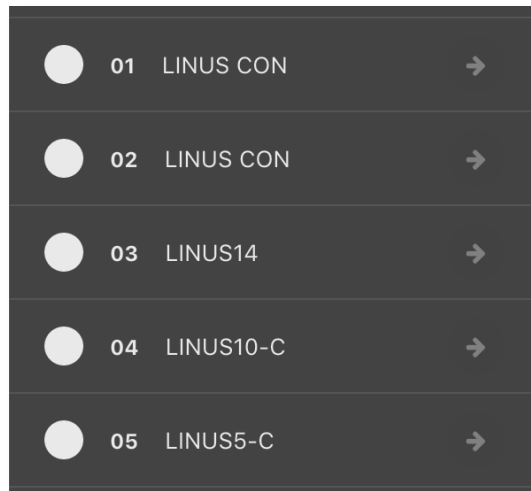
*Unplug the AC Power, wait 5 seconds, and re-insert AC Power when prompted.*

- When the firmware has been updated on these devices, they will return to the discovery list, but they will not contain the speaker library. Please proceed to click the red ‘Update Speaker Lib’ button to continue:

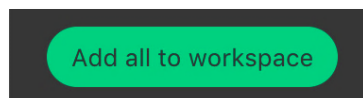




- When the speaker library has been pushed to all the devices, they will appear in the discovery list, as shown below:



- Press the 'Add all to workspace' button to finish the process.



- The units are now ready to be deployed in an active system.



## 1.2. Downgrading from LINUS Control v2.0.x to LINUS Live v1.2.x

*Note –LINUS Live 1.2.x has a different IP Schema to that of LINUS Control v2.0.x. It is only possible to downgrade 25x LINUS14 / LINUS10-C / LINUS5-C / LINUS CON simultaneously, (or 50x LINUS 10). It is important to follow the steps below in detail to ensure a successful downgrade.*

### 1.2.1. All Amplifier Models - Downgrading

- Firstly, with LINUS Control Offline, it is necessary to change the ID numbers of the Amplifiers to match the schema of LINUS Live v1.2.x.

LINUS Live v1.2.7 ID	IP Address	LINUS Control v2.0 ID	Suitable Amplifier
1	192.168.1.1	<b>1</b>	Any
(Slave of 1)	192.168.1.2	<b>2</b>	LINUS10 only
2	192.168.1.11	<b>11</b>	Any
(Slave of 2)	192.168.1.12	<b>12</b>	LINUS10 only
3	192.168.1.21	<b>21</b>	Any
(Slave of 3)	192.168.1.22	<b>22</b>	LINUS10 only
4	192.168.1.31	<b>31</b>	Any
(Slave of 4)	192.168.1.32	<b>32</b>	LINUS10 only
5	192.168.1.41	<b>41</b>	Any
(Slave of 5)	192.168.1.42	<b>42</b>	LINUS10 only
25	192.168.1.241	<b>241</b>	Any
(Slave of 25)	192.168.1.242	<b>242</b>	LINUS10 only

- To downgrade all amplifiers (apart from LINUS10's), set their ID's to:
  - 1
  - 11
  - 21
  - 31
  - 41 etc
- To downgrade LINUS10's, set their ID numbers in pairs to that of a valid LINUS Live v1.2.5 Master / Slave pair, for example:
  - 1 and 2
  - 11 and 12
  - 21 and 22
  - 31 and 32 etc

*Note – Failure to do this will result in the downgrade operation failing. LINUS Live v1.2.7 will not be able to discover the amplifiers.*

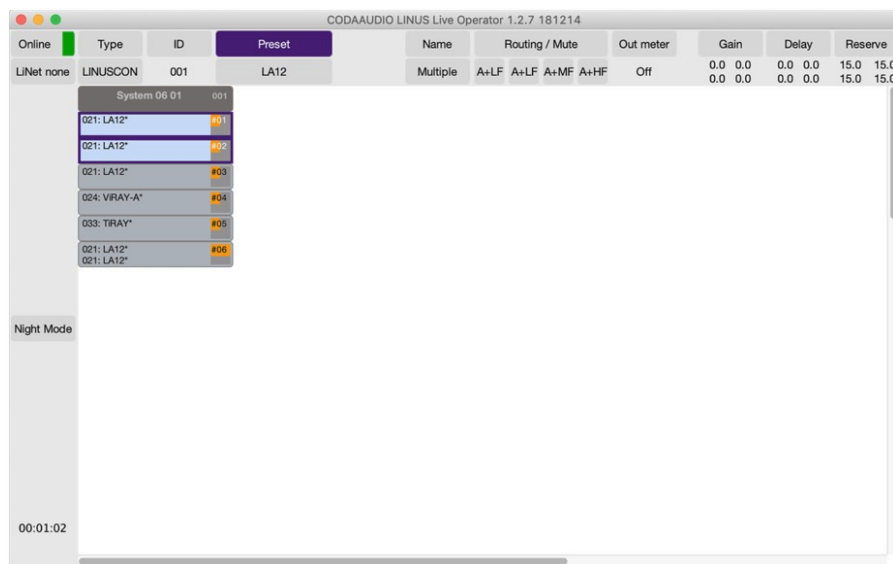
- Now, to prove the network functionality, prior to commencing with the downgrade, start LINUS Control v2.0.x and check that all devices are discoverable and can be added to the workspace.



- Launch LINUS Live **v1.2.7**
- Go Online.
  - LINUS14 / LINUS CON / LINUS10-C and LINUS5-C will be shown with a Red square.
  - LINUS10 pairs will be shown with a Red and Grey square.
  - They will all have the 'Update FW' message.
  - Press 'Add Modules'

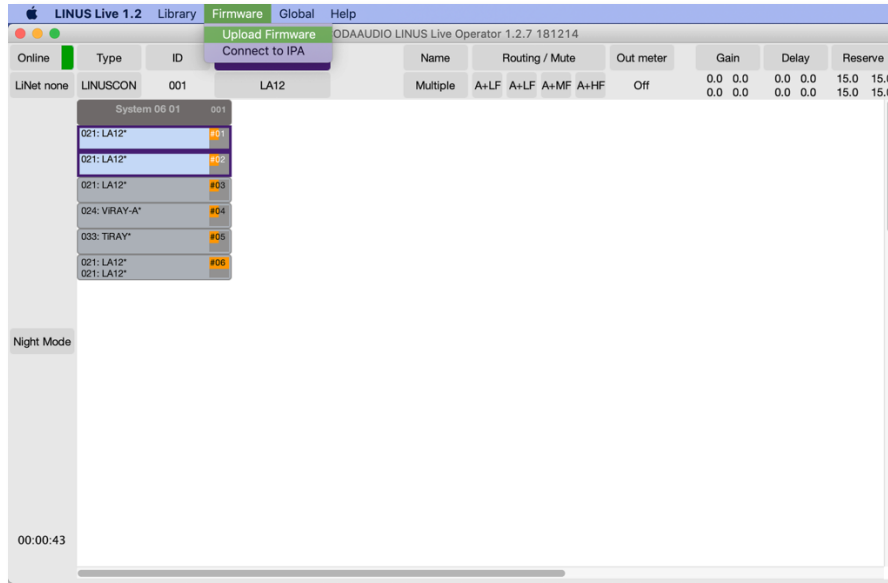


- Select up to 12 Amplifiers of the same type (6x Modules if LINUS10):

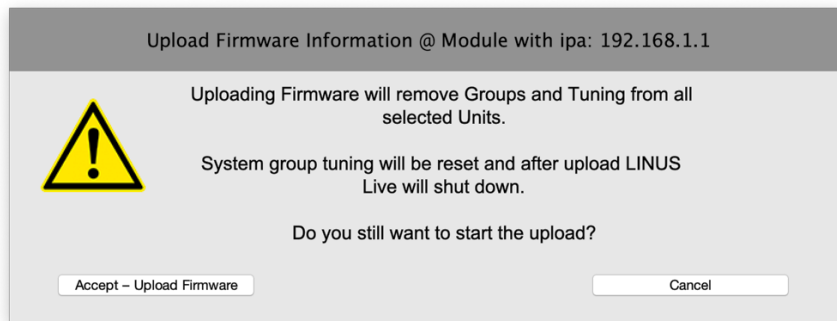




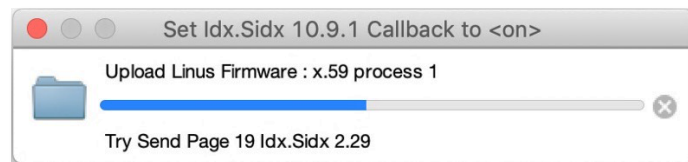
- Press “Firmware” then “Upload Firmware”:



- Press “Accept – Upload Firmware”:



- When the firmware upload is complete, this dialog will disappear, and the software will close. Re-launch LINUS Live v1.2.7 and repeat the above steps until all amplifiers have their Firmware updated.

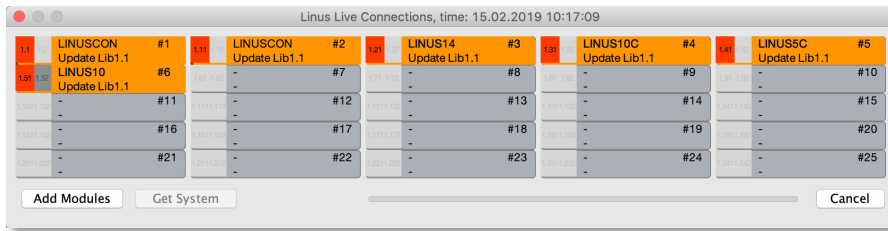


- When all of the amplifiers have had their Firmware updated, it is now necessary to Update their Library.

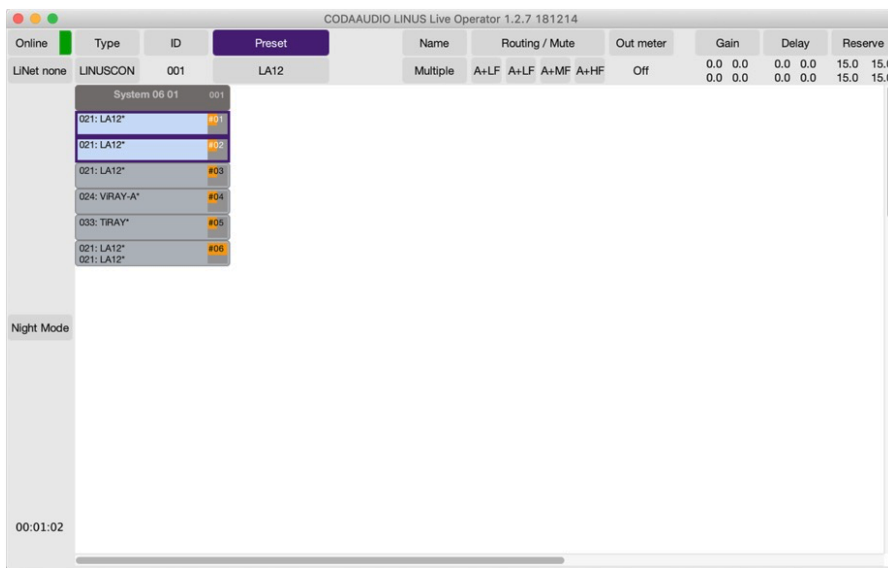




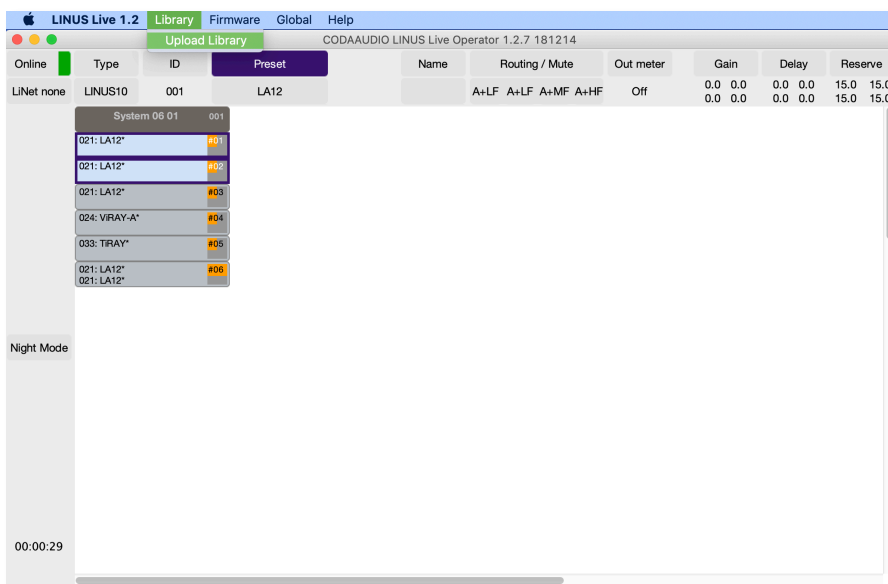
- Go Online. They will be shown with a Red square, stating “Update Lib”:
- Click “Add Modules”



- Select up to 12 Amplifiers of the same type (6x Modules if LINUS10):

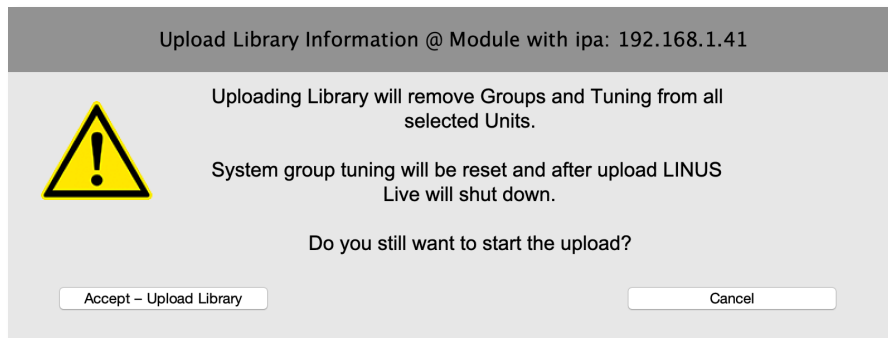


- Press “Library” then “Upload Library”:





- Press “Accept – Upload Library”:



- When the library upload is complete, this dialog will disappear, and the software will close. Re-launch LINUS Live v1.2.7 and repeat the above steps until all amplifiers have had their library updated.
- The amplifiers will now have a working Firmware and Library which is compatible with all streams of LINUS Live v1.2.x.
- Perform the update procedure once more, for the specific version of LINUS Live that you wish to use.