How to upgrade Dynacord L- and C Series amplifiers firmware to SONICUE

This document contains the following information:

- Instruction to upgrade L- and C Series amplifiers to firmware 2.x.x
- Overview on USB connection variants
- FAQ about L- and C Series amps in SONICUE

Firmware 2.x brings L- and C-Series amplifiers into the world of SONICUE a new benchmark for flexibility and efficiency in sound system control and operation. In addition, a new DSP structure provides enhanced features like doubling the channel PEQs from 5 to 10 bands and adding array processing.

Note: Firmware version 1.x and 2.x are not compatible. Amplifiers running on firmware 2.x will not be recognized in the Multi Amplifier Remote Control (MARC) software anymore.

Before you begin

You need to have the SONICUE sound system software 1.1 or higher installed on your computer.

Check the Dynacord website for the latest version of SONICUE.

In SONICUE you find in menu>settings a button to check the SONICUE firmware website for latest firmware versions.
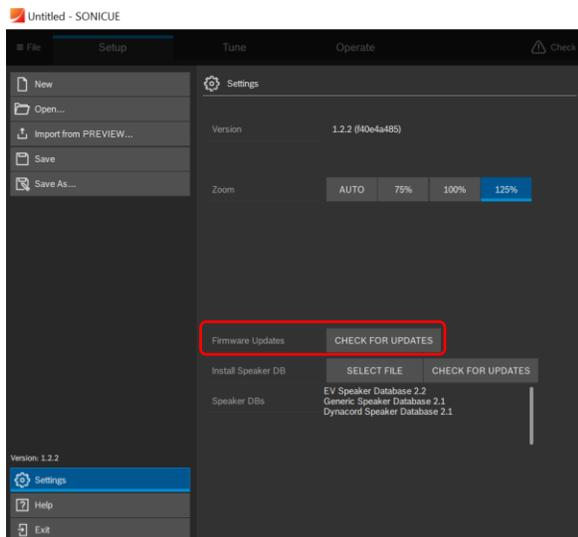
You need to have a USB (2.0) Type A to Type B cable to connect the amplifier to your computer.

Installing firmware 2.x

Connect the amplifier you want to update via USB to your computer, power it on and start the SONICUE app. The app will start with a new project. In Setup/Design, click the Discovered button.
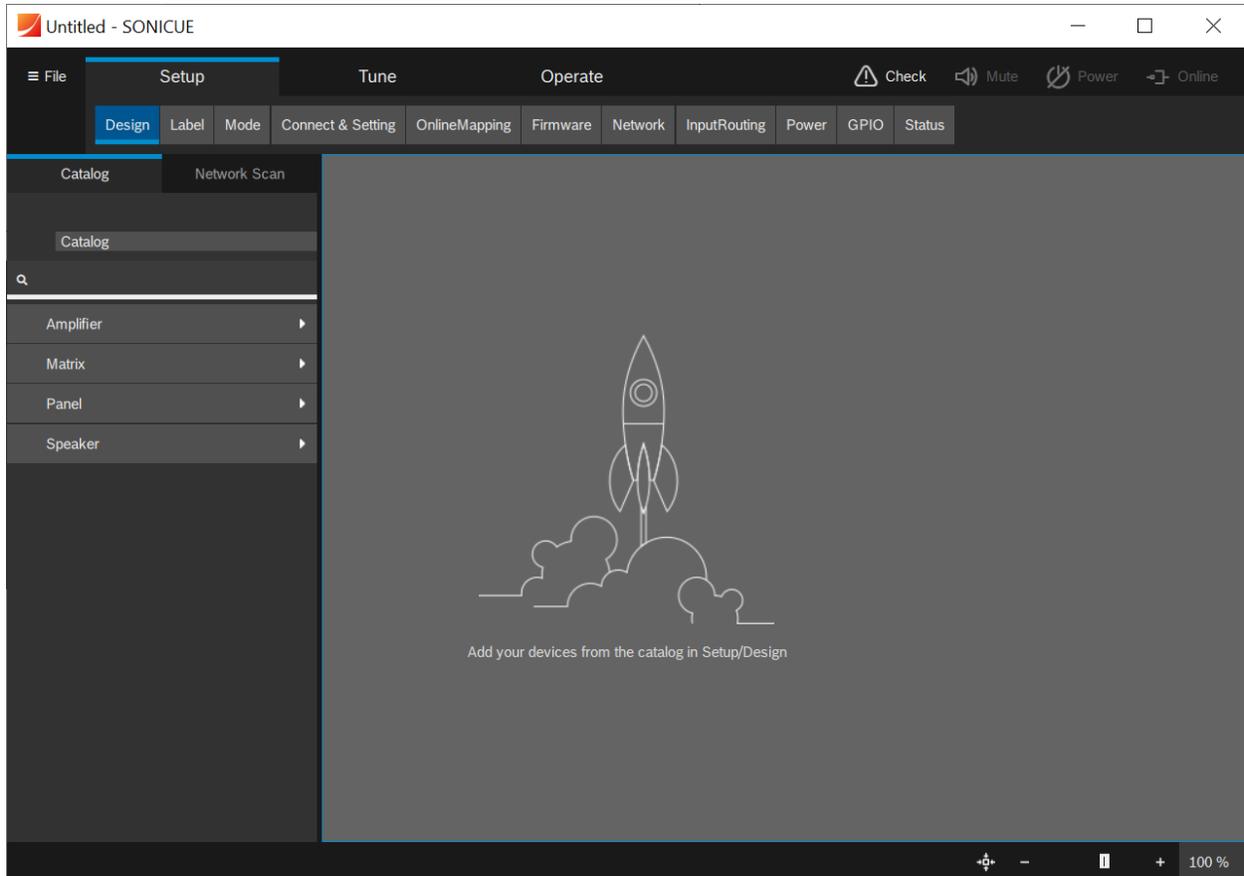
Click the "Network Scan" tab and you will see the amplifier.
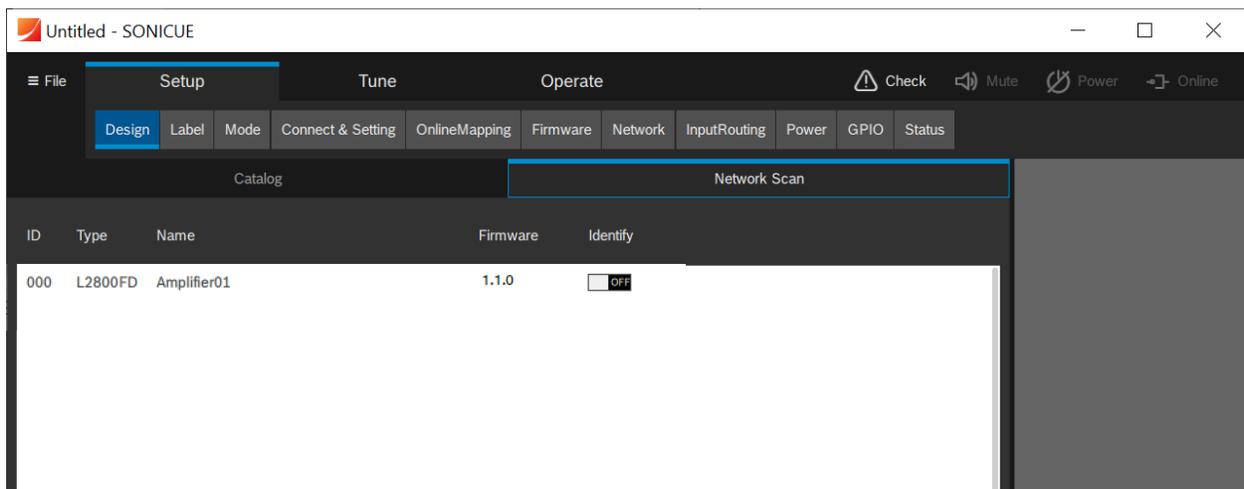
The amplifier will show up with its type, name and current firmware. Select the amplifier by clicking the line with the discovered device and use drag and drop to place the amplifier on the workspace.
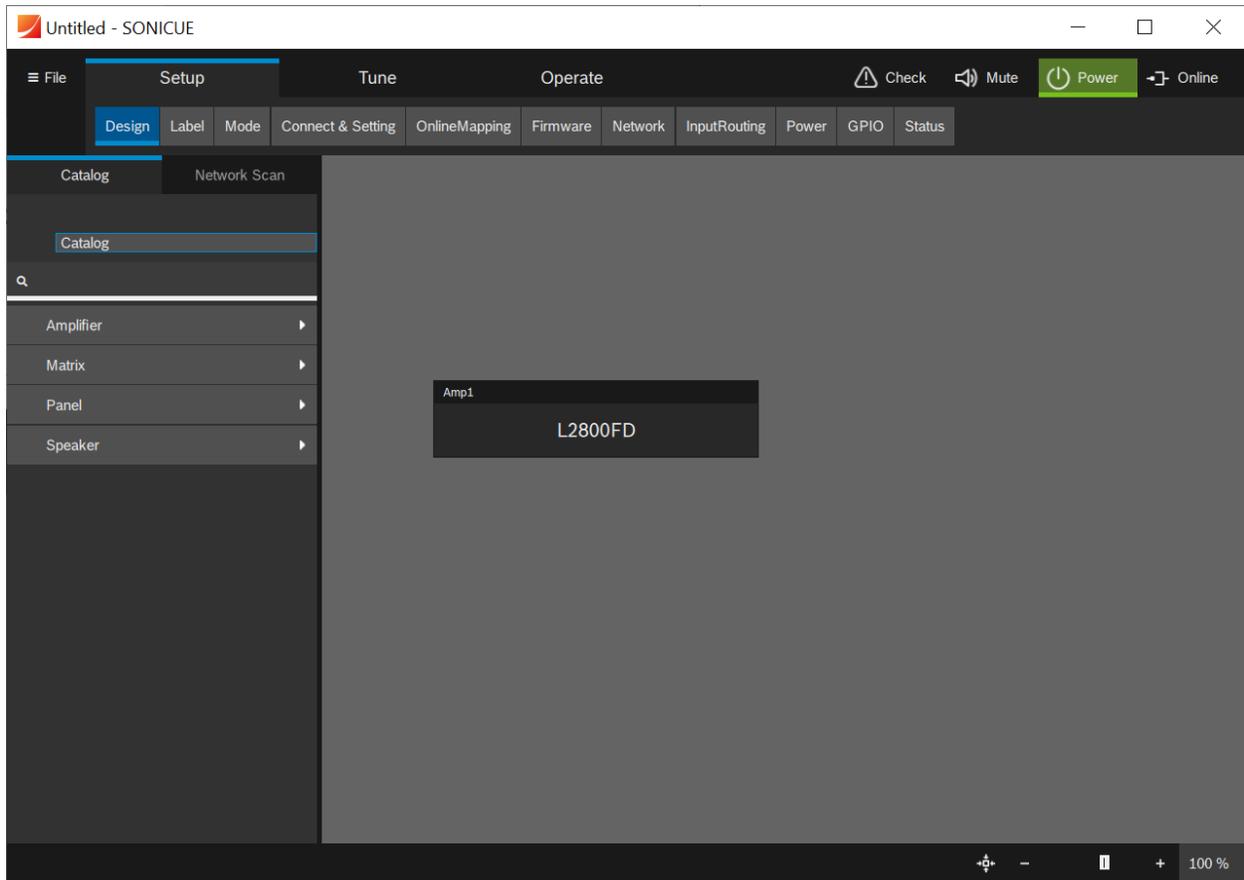
Click the tab **Firmware** and then the amplifier: the firmware flyout opens.
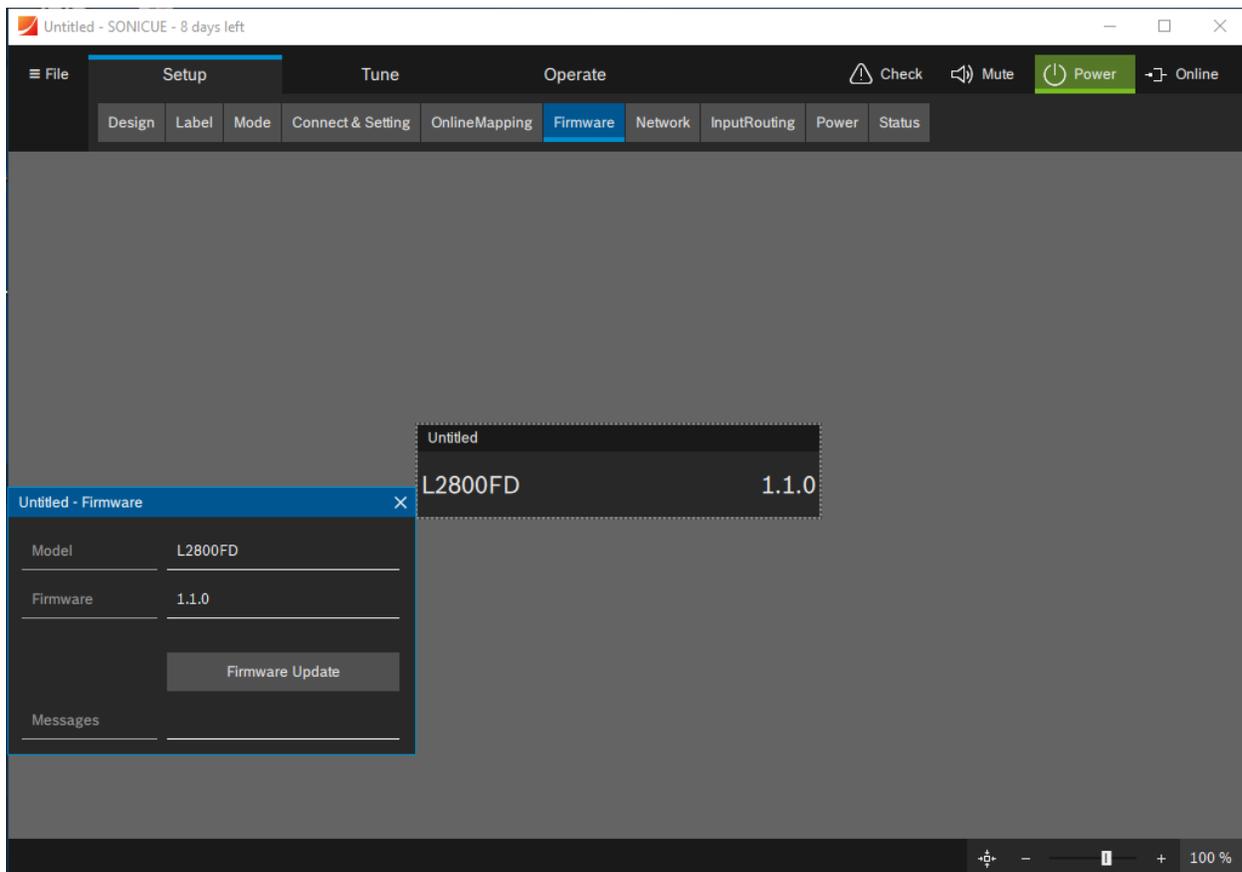
Click [Firmware Update] and browse to the location of the firmware file [...SONICUE_1.x.x > Firmware > L- and C Series_2.x].

Select the firmware file e.g. LC_Amp_Firmware _2_0_2.bin.

Click [Open] - to install the firmware on your amplifier. The installation will take about a minute. Make sure that in that time you do not lose the USB connection or power down the amplifier!

IMPORTANT NOTE

Update the firmware only for one amplifier at a time. Running firmware updates on multiple amplifiers might cause the process to stop!

As soon as the installation is completed, you will see SUCCESS in the message field and 2.x.x as current firmware on the amplifiers .
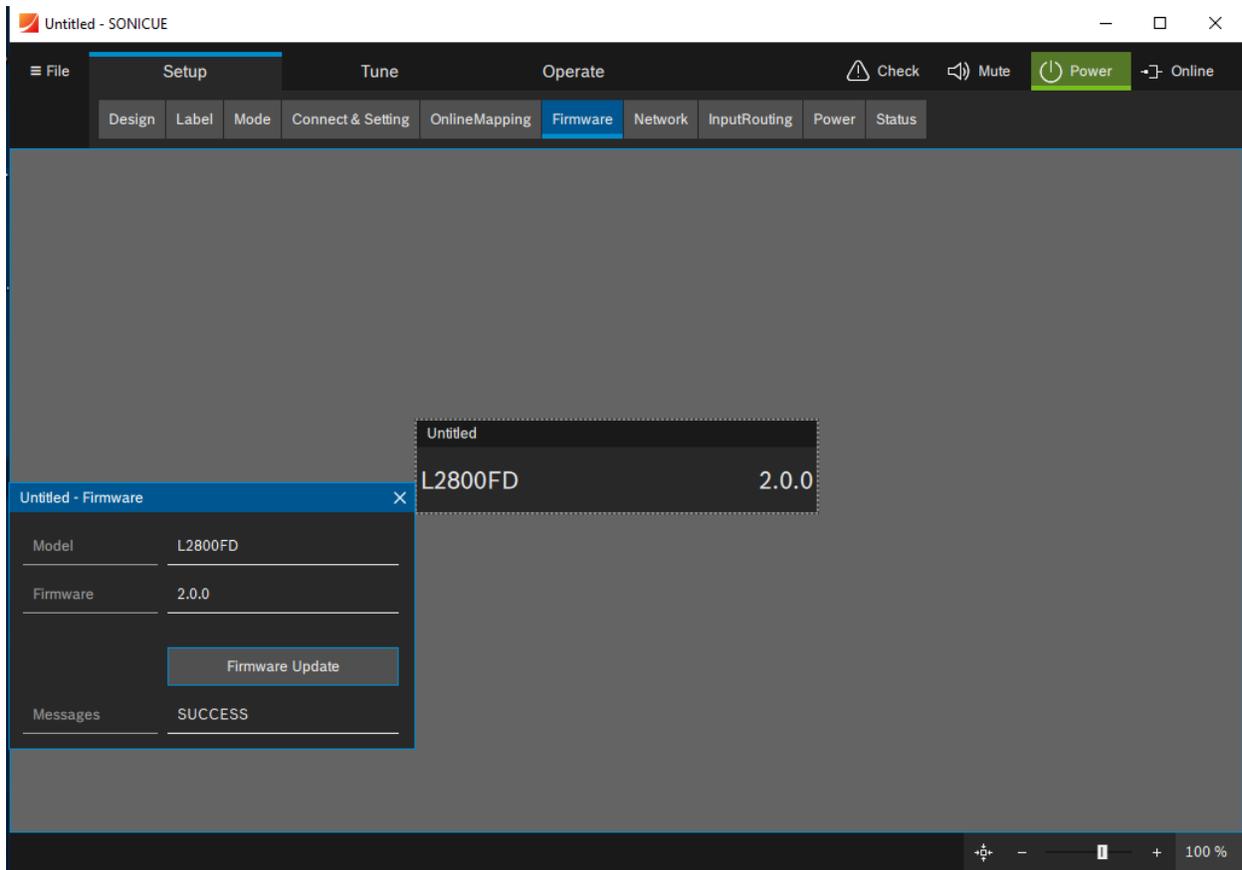
Done.

Your L- or C Series amplifier is now on firmware 2.x and can be used within SONICUE with the Dynacord TGX, IPX and amplifiers equipped with RCM-28 DSP module.

For additional information please see below some FAQs.

USB installation variants for L- and C Series Amps

A single amplifier connects with a USB (2.0, type-A, type-B) cable to a computer.
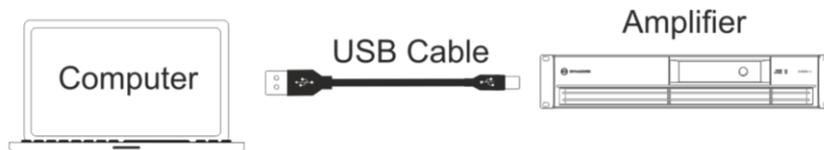
If you want to control multiple amplifiers simultaneously as a system, you can use "off-the shelf" USB hubs[*)] that use an external power supply.
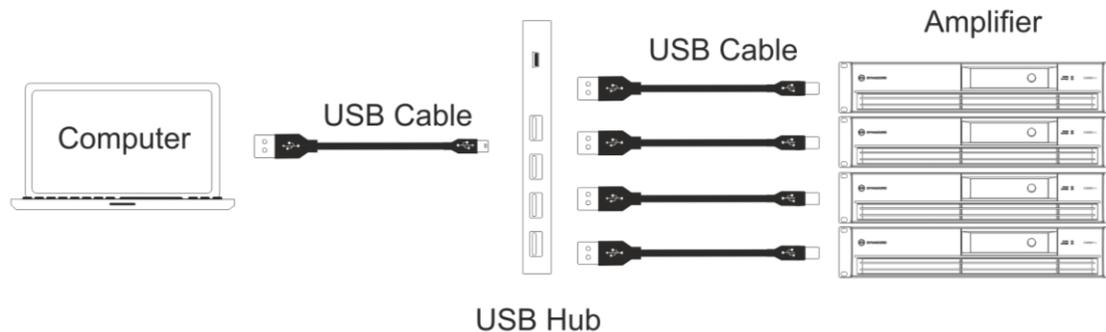
The USB 2.0 standard is restricted to a cable length of 5 meters (15 ft). If you want to control amplifiers over a wider distance, you can use USB range extenders. These extenders boost the USB signal and allow with a LAN cable distances up to 50 meters (150ft) [*)]. A USB range extender consists of a transmitter and a receiver. The transmitter is connected to the PC on a USB port, while the receiver has one or multiple USB ports to connect the amplifiers.

*) Actual range depends on manufacturer's specification, 50 m is typical.
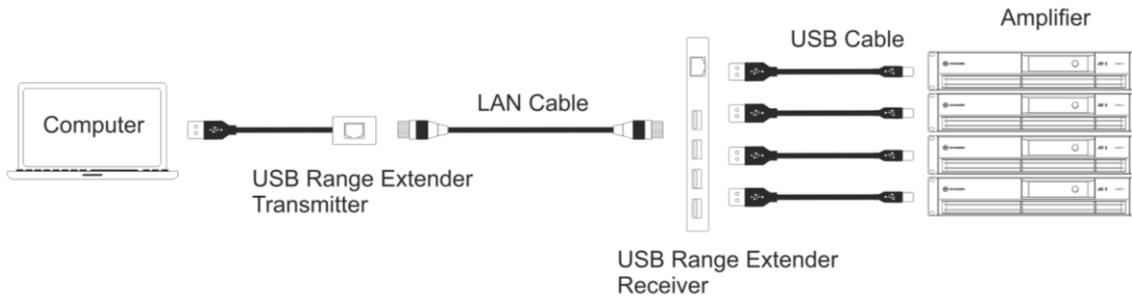
If the amplifiers are placed in different locations (e.g. stage left, stage right), you can use multiple range extenders.

USB Range Extender
Receiver

USB Range Extender
Transmitter

Amplifier

USB Cable

LAN Cable

USB Cable

Computer

USB Cable

USB Hub

LAN Cable

USB Range Extender
Transmitter

Amplifier

USB Range Extender
Receiver
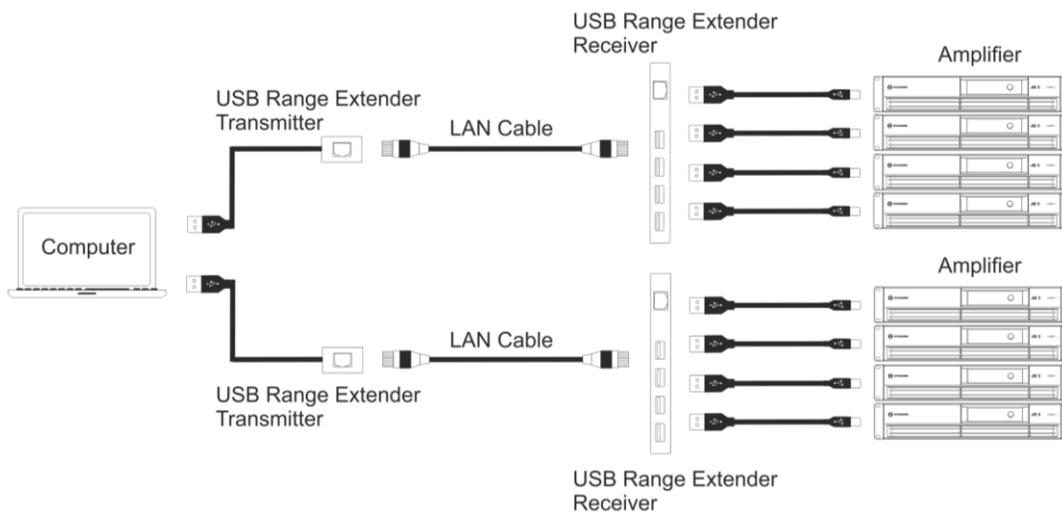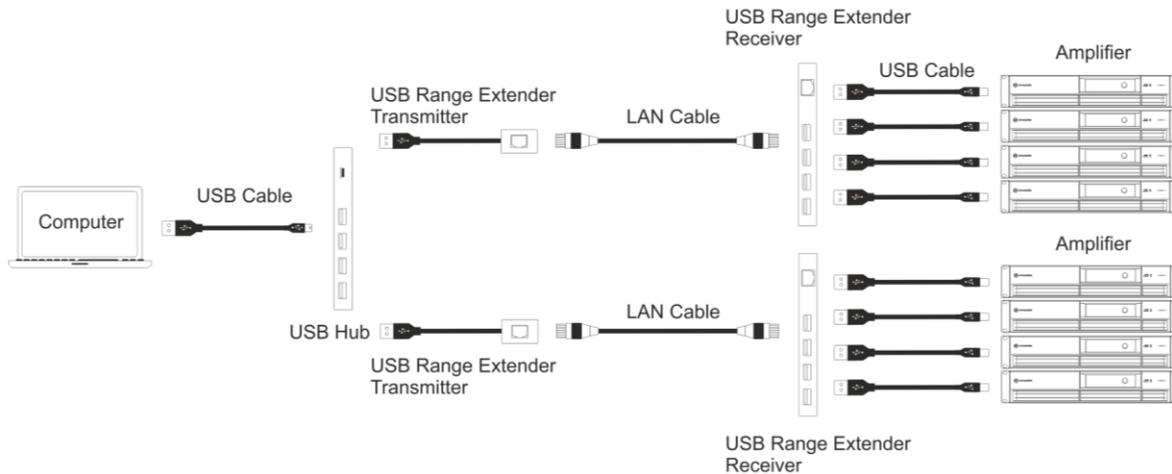
Frequently Asked Questions (FAQs)

Q: How many L- or C series amplifiers can I use in SONICUE?

A: The amount of amplifiers to be controlled via SONICUE is not limited by the software but by the capacity of the USB controller used in the computer. Laptops have usually just one USB controller and might not be able to handle more than eight amplifiers. Desk top computers with dedicated USB controllers (PCIe cards) can handle many more.

Q: Can I used SONICUE to read data from amplifiers that have programmed previously with the MARC software?

A: No, the new DSP structure makes the settings incompatible.

Q: When I connect a USB extender with multiple amplifiers I don't see all of them as discovered?

A: The issue is with USB controller. Un- and re-plugging the not discovered amps will solve the issue.

Q: Can I use L- and C series amplifiers over an Ethernet network connection, instead of point to point connection with USB extenders?

A: We created a dedicated application note regarding the use of off-the shelf USB servers located in the L&C series download section .

Q: I want to use some speakers, that don't have dedicated settings – for that I was looking to use some basic cross-over and set limiters, but I can't see how to access these functions?

A: For these cases we have the "generic speaker" device in SONICUE. Generic speakers can be added by operation mode (e.g. passive, biamp, ..) and allow to upload customized speaker settings in sps format. SONICUE has a library of common generic settings.

Q: How can I create my own speaker setting for a Generic Speaker in SONICUE?

A: For creation of speaker settings is not part of the supported workflow in SONICUE. For Speaker settings creation you can use our IRIS-Net software (latest release 4.0). To create settings for L- or C Series amplifiers use any amplifier with RCM28 module to create the setting. Export from IRIS-Net and import via the Generic speaker in SONICUE.