

Dynacord SONICUE

**Preset
documentation**

Introduction

In large and complex touring and installation systems, flexible remote control and monitoring of all amplifiers is essential. SONICUE allows you to precisely set system-specific parameters of your systems with Dynacord amplifiers. The software offers an intuitive operating concept for designing, controlling and monitoring the sound reinforcement system. The loudspeaker presets developed by TWAUDIÖ provide the necessary equalisation and limiter parameters for the amplifiers in the TGX and IPX series.

This guide describes the structure of the developed preset library and presents the recommended configuration procedure in the SONICUE software using a simple example.

Please follow this guide on how to use the presets for TWAUDIÖ loudspeakers with Dynacord amplifiers of the TGX and IPX series. The files were created with SONICUE v1.3.0.

Instructions in this user manual

Strictly adhere to the instructions contained in this operating manual that are marked as follows:



This symbol in combination with the signal word „Warning“ identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to serious personal injury or product damage.



This symbol in combination with the signal word „Note“ indicates further information regarding the use of the software and the associated products. Failure to comply with this safety instruction may affect the correct functioning of the product and result in damage to the product.



This symbol in combination with the signal word “Tip” identifies additional information or notes that will simplify working with TWAUDIÖ products on the basis of practical experience.

General information

Preset documentation: Pd-Dynacord
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All information contained in this operating manual was correct to the best of our knowledge at the time of printing.

Quality warranties or assurance of suitability for a certain type of use based on the technical specifications, dimensions and weights are not granted by TWAMBO.

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TWAMBO reserves the right to update this document based on recent developments.

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1. Handling preset containers

1.1 Loudspeaker database implementation

Open SONICUE and navigate to File/Settings. In the “Install Speaker DB” section you can select and add a desired .sdb database file.

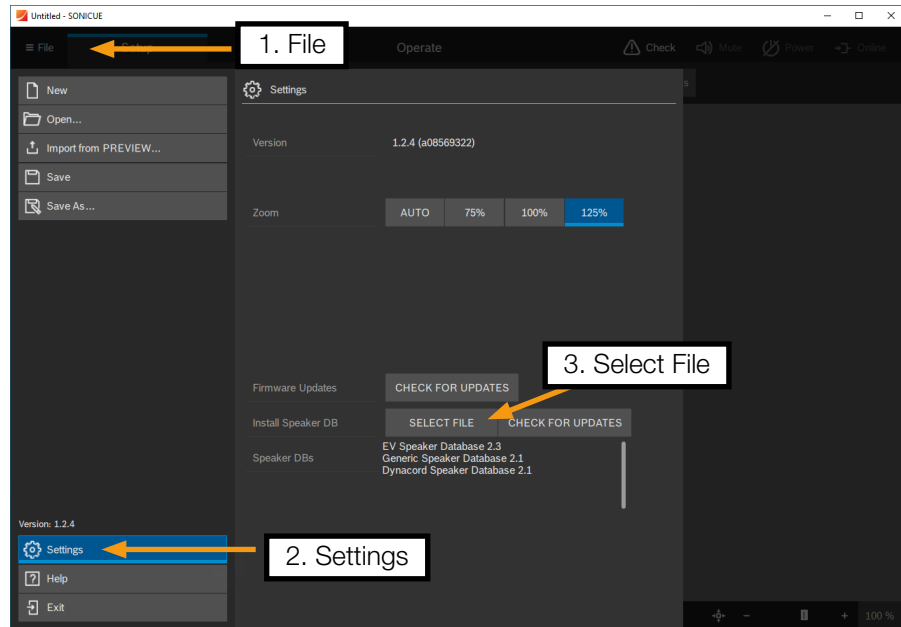


Figure 1.1.1 - Implementation of the loudspeaker database

The installed database is displayed in the list and the catalog of the menu Setup/Design now contains the TWAUDI0 brand.

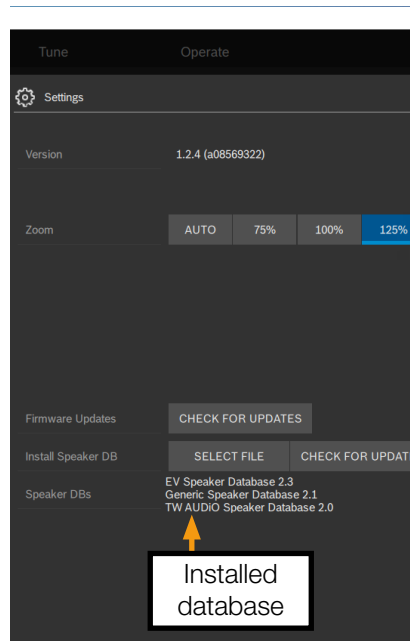


Figure 1.1.2 - Installed database

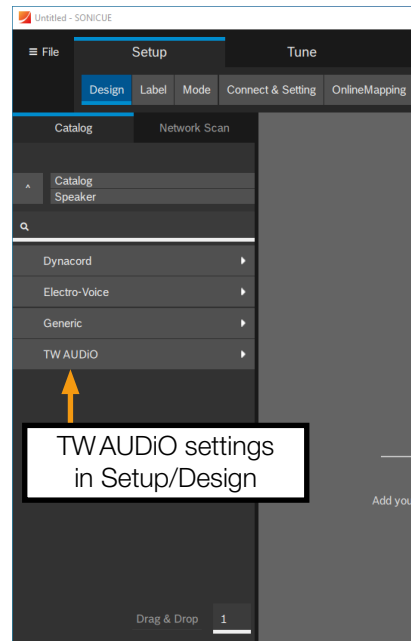


Figure 1.1.3 - Access to loudspeaker presets in the catalog

1.2 Using the preset container for tops

There are three types of preset containers available for tops: single-channel PASSIVE tops (e.g. T20, M-series), two-channel BIAMP speakers (e.g. VERA36) and single-channel PASSIVE systems (e.g. B15p and M10).

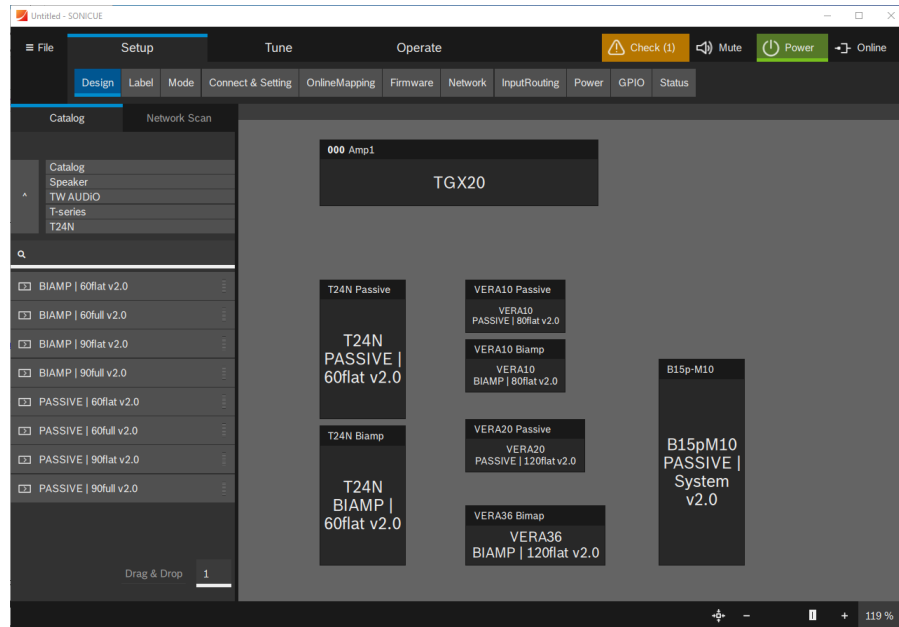


Figure 1.2.1 - Types of preset containers for tops

Corresponding channel descriptions are assigned to each way or processing channel of the preset: FR - full range, HF - high frequency and LF - low frequency.

As single-channel passive tops are electrically connected to the pins 1+/-, it is recommended to load these presets into odd-numbered amplifier channels. This results in simple cabling with the patch panels of the TWAUDI amplifier racks.



If you are using the biamp output of the amplifier or the patch panel, an additional pin reverse cable may be required.

The high-frequency drivers (HF) of two channel biamp tops are electrically connected to the pins 1+/- and the woofers or mid-range speakers (LF) to the pins 2+/- . It is therefore recommended to load the parameters of the HF path into odd-numbered amplifier channels and the parameters of the woofer or midrange speakers into even-numbered amplifier channels. In this case, use the biamp output of the patch panel of the TWAUDI amplifier rack.



Some products offer a passive and a biamp operating mode, e.g. T24N, C12, C15, VERA10. To avoid damage, be sure to load the correct preset for the operating mode in use!

Single-channel passive systems consist of a top unit and a subwoofer whose frequency ranges are separated by an internal passive crossover, usually in the subwoofer.



To ensure correct and safe operation of these systems, adjustments must be made to the passive crossover. Please contact the [TWAUDIÖ support department](#) for further information on configuration.

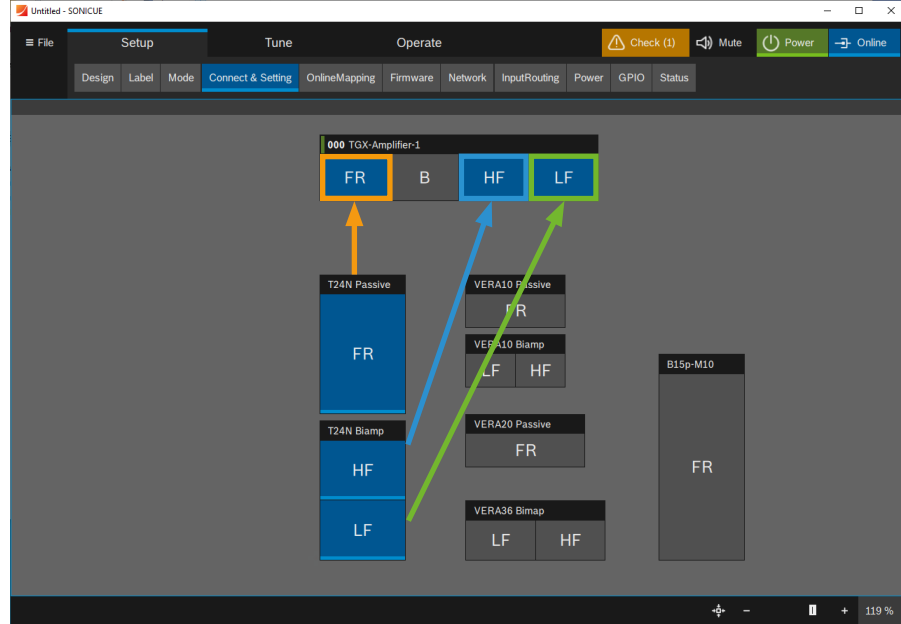


Figure 1.2.2 - Patching single-channel and biamp tops

1.3 Using the preset container for subwoofers

Three types of preset containers are available for subwoofers: single-channel SINGLE subwoofers (e.g. BS30), dual-channel DUAL subwoofers (e.g. BSX) and dual-channel DUAL subwoofers (e.g. VERA S32) with directional dispersion.

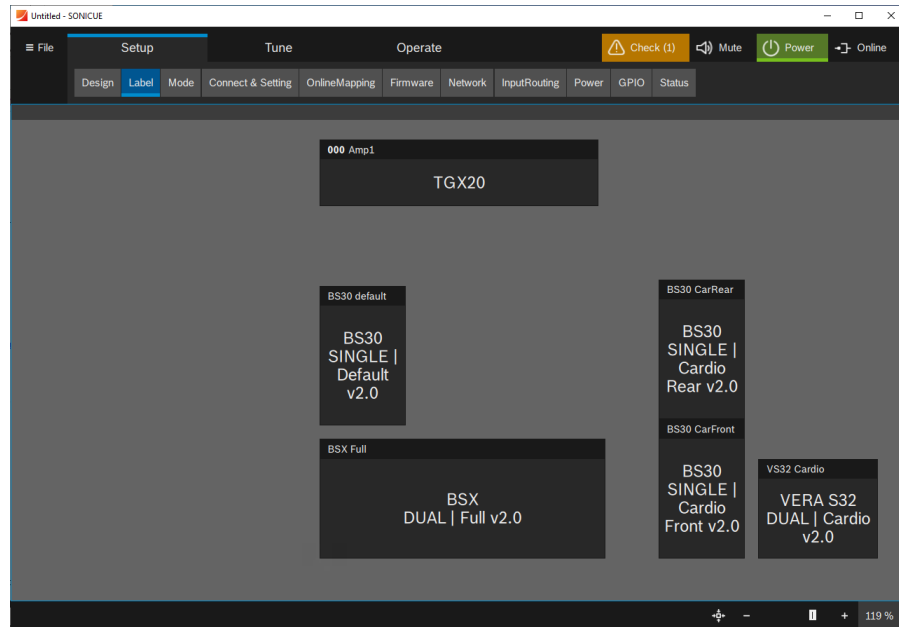


Figure 1.3.1 - Types of preset containers for subwoofers

Corresponding channel descriptions are assigned to each way or processing channel of the preset are assigned: SB - sub bass, GF - gradient front and GR - gradient rear.

Since single-channel SINGLE bass speakers (SB) and front-firing bass speakers (GF) for directional two-channel biamp configurations (e.g. VERA S32) are electrically connected to the pins 2+/-, it is recommended to load these settings into even-numbered amplifier channels.

The settings for the rear radiating elements (GR) should be loaded into odd-numbered amplifier channels. This results in simple cabling with the patch panels of the TWAUDI amplifier racks.

For a flexible setup and adjustments of directional bass speaker configurations (cardioid stacks), which consist of several elements of single-channel passive subwoofers, there is a separate preset container for each element in the stack, which must be patched separately.



Separate containers are provided for rear-facing bass speakers in cardioid stacks, which are labelled “Rear” in the SONICUE catalog. Please contact the TWAUDI support department for further information on the configuration and structure of cardioid stacks.



If you use the biamp output of the amplifier or of the patch panel, an additional pin reverse cable may be required.

For two-channel DUAL subwoofers (e.g. BSX), both channels of the container must be patched to two separate amplifier channels.

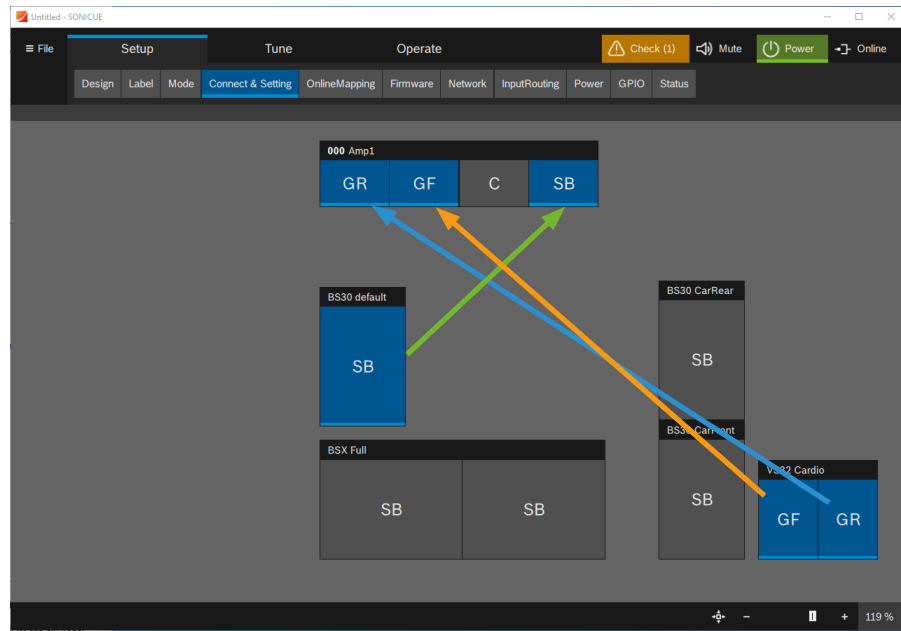


Figure 1.3.2 - Patching single-channel passive subwoofers and dual-channel subwoofers with directional dispersion

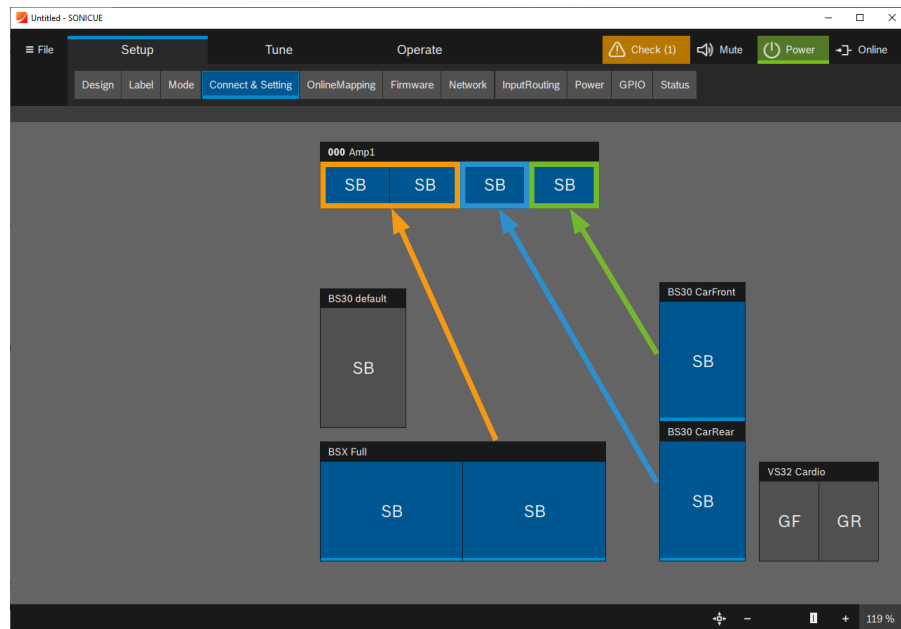


Figure 1.3.3 - Patching dual-channel subwoofers and directional subwoofer configurations (cardioid stacks)

1.4 System configuration

The following section explains the process of a system configuration in SONICUE using the example of a PA-SYS-ONE system.

The proposed structure can be adapted to the existing requirements and expanded as required. We recommend retaining this basic structure and group definition for all system configurations. It simplifies handling during configuration and subsequent system tuning.

1. Add the required loudspeaker and amplifier containers using drag & drop in the Setup/Design menu item.

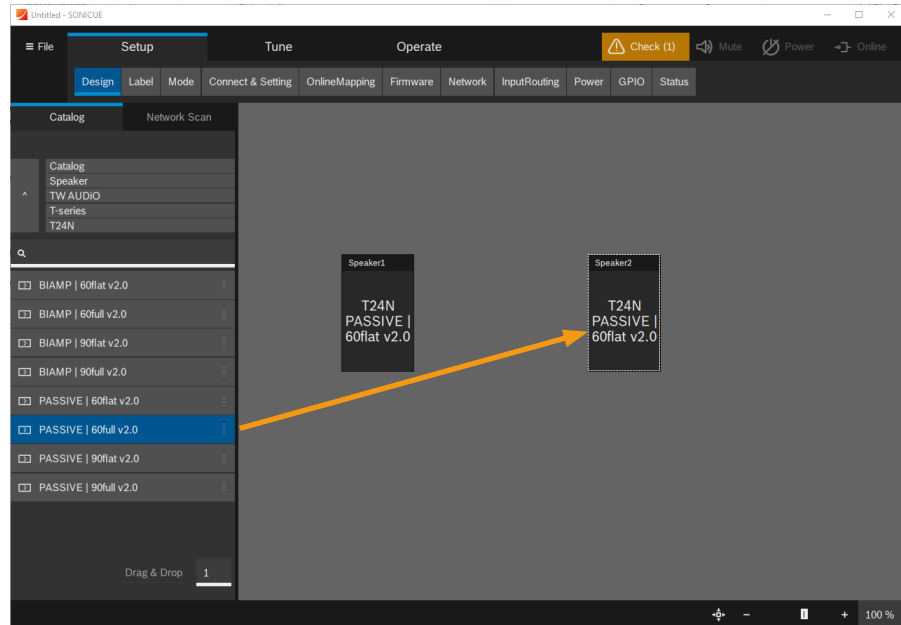


Figure 1.4.1 - Adding the preset containers

2. Adding groups makes it easier to operate the system later on.

First add a “Master“, “Left“, “Right“, “Top“ and “Sub“ group. This structure is also a good starting point for more complex system configurations.

You can add a group by selecting the associated containers in the workspace. „Group“ is displayed in the flyout menu. Click to assign all selected containers to the group. All groups and containers can then be labelled via the Setup/Label menu.

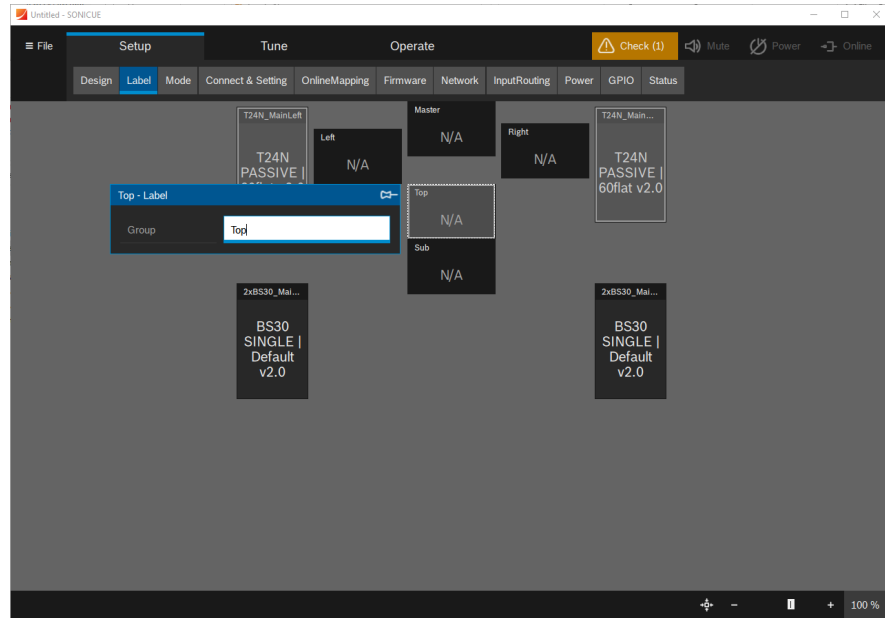


Figure 1.4.2 - Adding and renaming groups

The amplifier and channel names as well as an ID (here 001) can be changed in the amplifier’s label flyout menu.



It is recommended to define a unique ID for each amplifier in the system design.

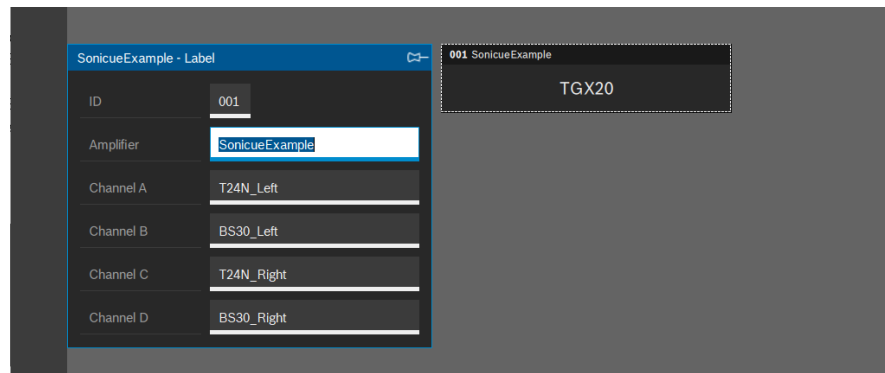


Figure 1.4.3 - Amplifier and channel labelling

3. The finished configuration can look like this.

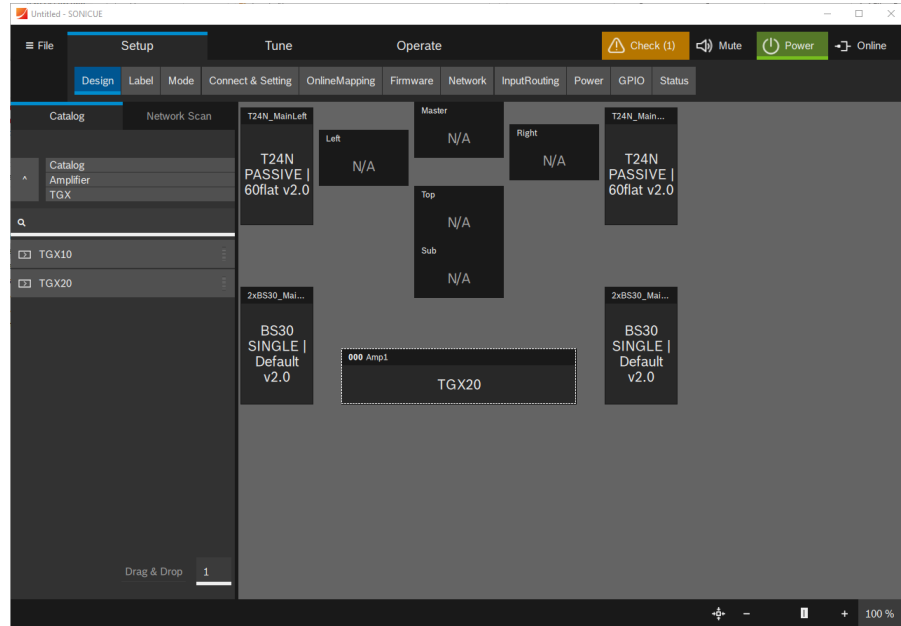


Figure 1.4.4 - Final system configuration

4. In the Design/Connect & Setting menu item the loudspeaker containers can be connected to the amplifier channels. First click on the loudspeaker container. This will get highlighted in blue. Then click on the desired amplifier channel to connect the pair. You can check the channel assignment by moving the mouse pointer over the containers.



Make sure that the containers are patched correctly. Incorrect routing can lead to damage the loudspeakers!

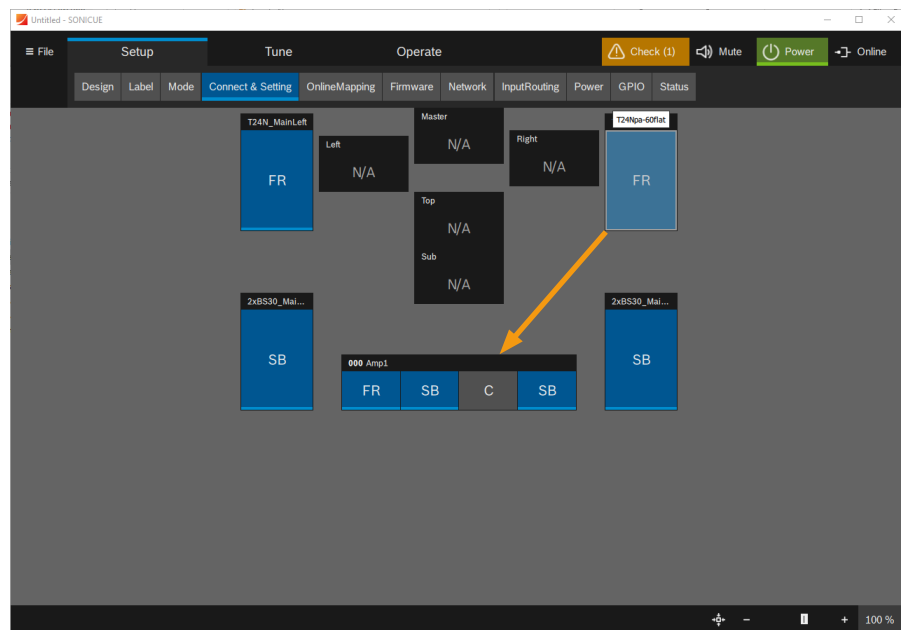


Figure 1.4.5 - Patching the speaker containers via Connect & Setting



- Before you connect the physical amplifiers, we strongly recommend that you mute all output channels with the global mute button at the top right of the SONICUE window. It will be highlighted in red when all outputs are muted.

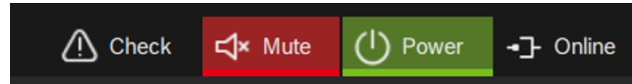


Figure 1.4.6 - Activated global muting of the system

- In the Setup/OnlineMapping menu item, the virtual amplifiers in the workspace are assigned to the physical amplifiers in the network. Click on the amplifier container and search for connected devices via “Search”.

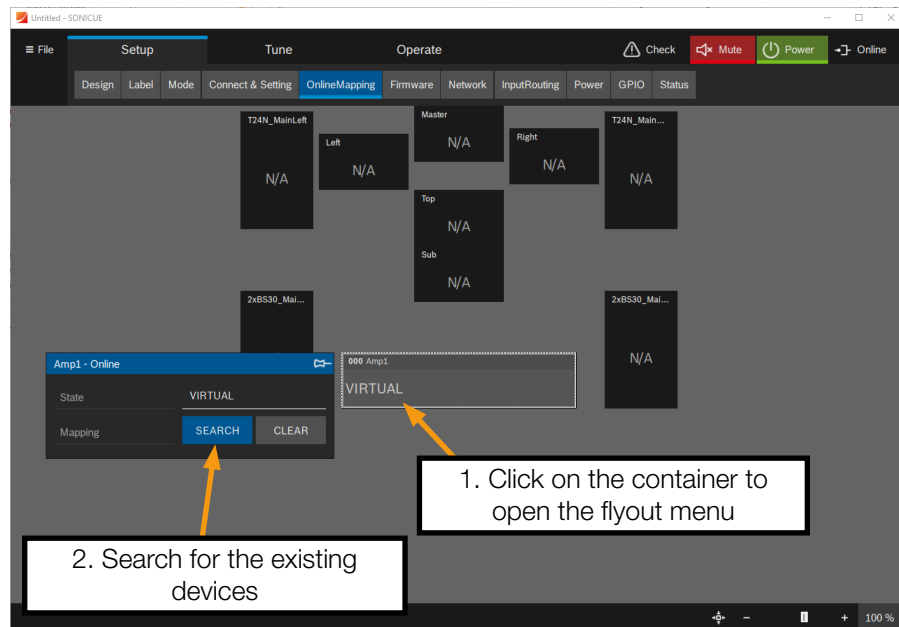


Figure 1.4.7 - Search for the existing devices in the network

- 7. A list shows the available devices that have not yet been assigned. Click on the desired amplifier.



To locate the device, you can switch on the LED on the front panel of the amplifier, by clicking on the “Id” button on the right-hand side in SONICUE.

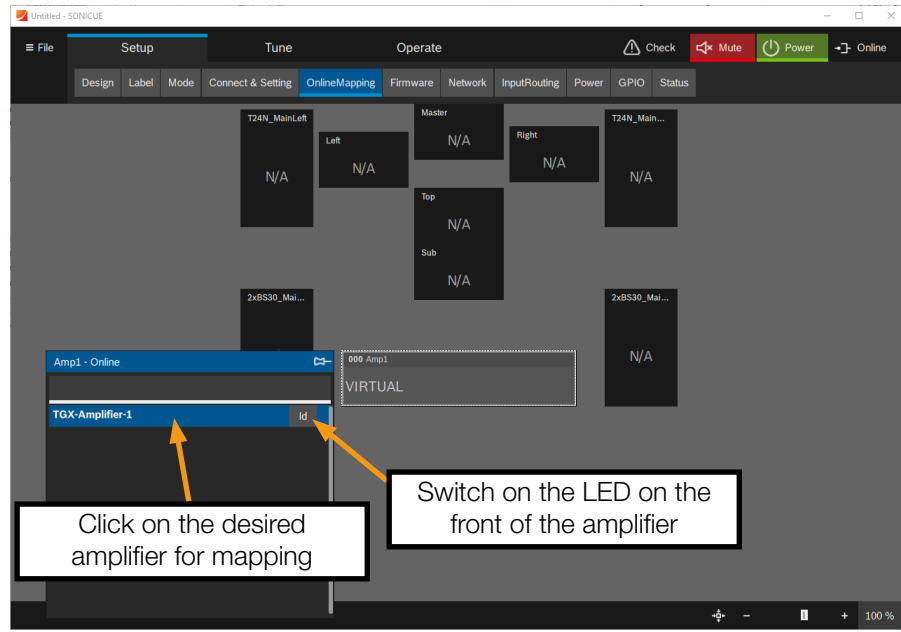


Figure 1.4.8 - Mapping the amplifier

- 8. In the next window: Click ONLINE and write the parameters to the device via WRITING.

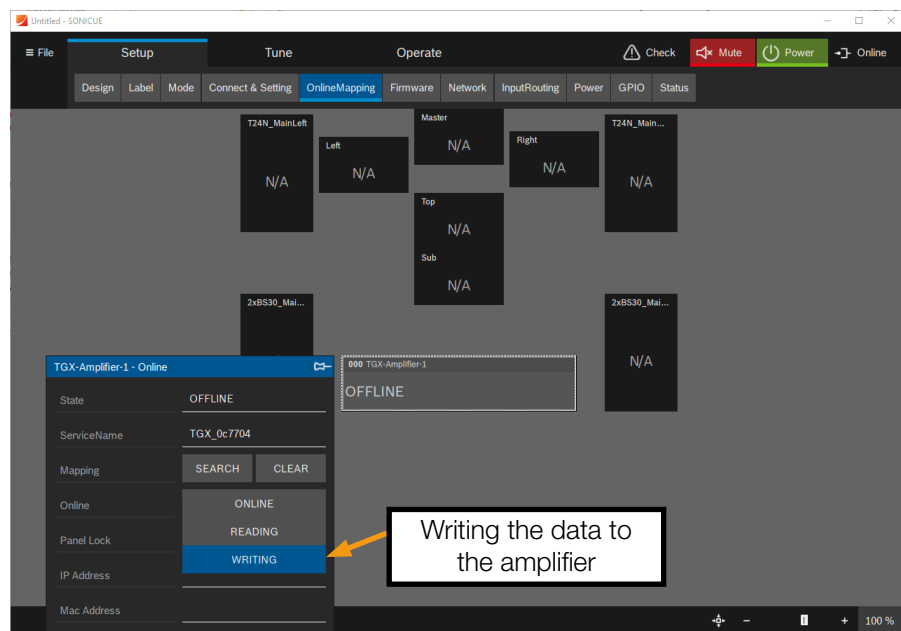


Figure 1.4.9 - Writing data to the amplifier

- The connected amplifier gets highlighted with a blue background and the IP address appears in its container. Further information on configuring and controlling the amplifier network can be found in the corresponding software documentation.

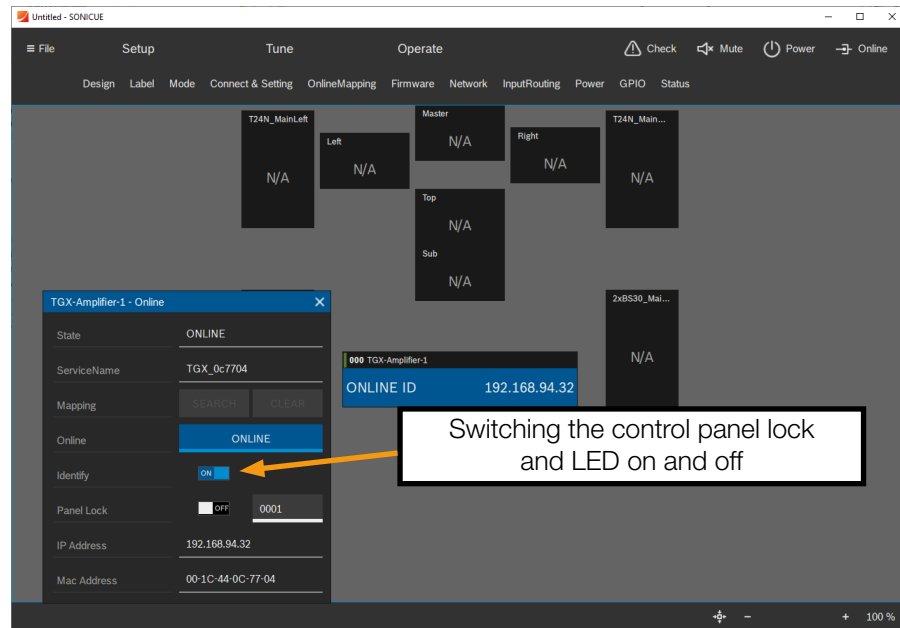


Figure 1.4.10 - Amplifier configuration

10. The input configuration can be defined in the Setup/InputRouting menu item. The control panel shows the inputs routed to the amplifier channels, groups and loudspeaker containers. Parameters that do not match are highlighted in orange.

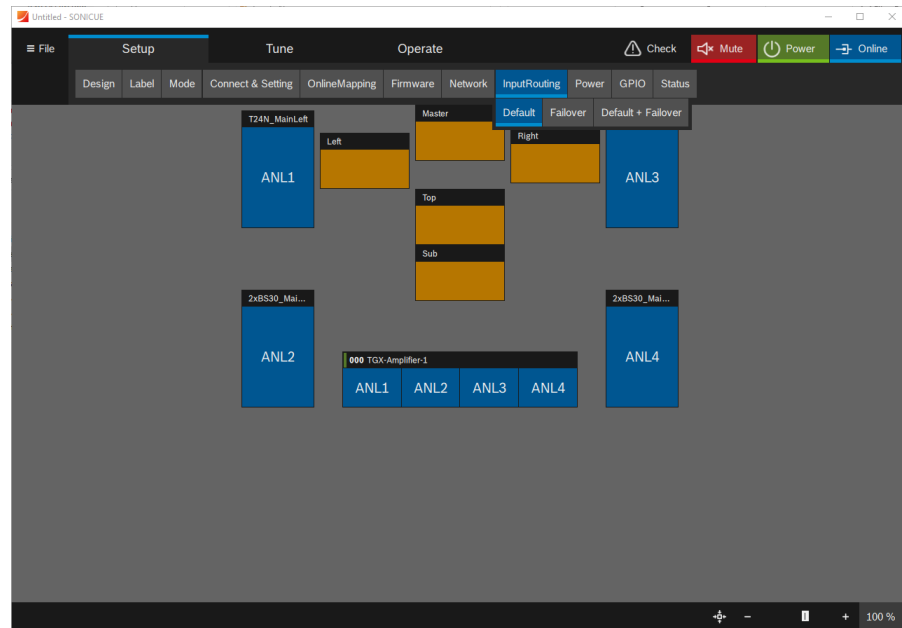


Figure 1.4.11 - Definition of the input configuration

11. If you click on one of the icons, you can assign the desired input.

We assume that the left signal of a stereo playback input is connected to analogue input 1 and the right signal is connected to analogue input 2.

You can use the “Left” and “Right” groups to conveniently select all speakers that are to be fed with a corresponding input signal. When you click on a group, a flyout menu appears.

The following images show an inconsistency in the “Left” subgroup, which can be reset by clicking the orange banner. The preferred input patch can then be set, as shown in the second image for the “Right” subgroup.



Figure 1.4.12 - Resetting the input patch

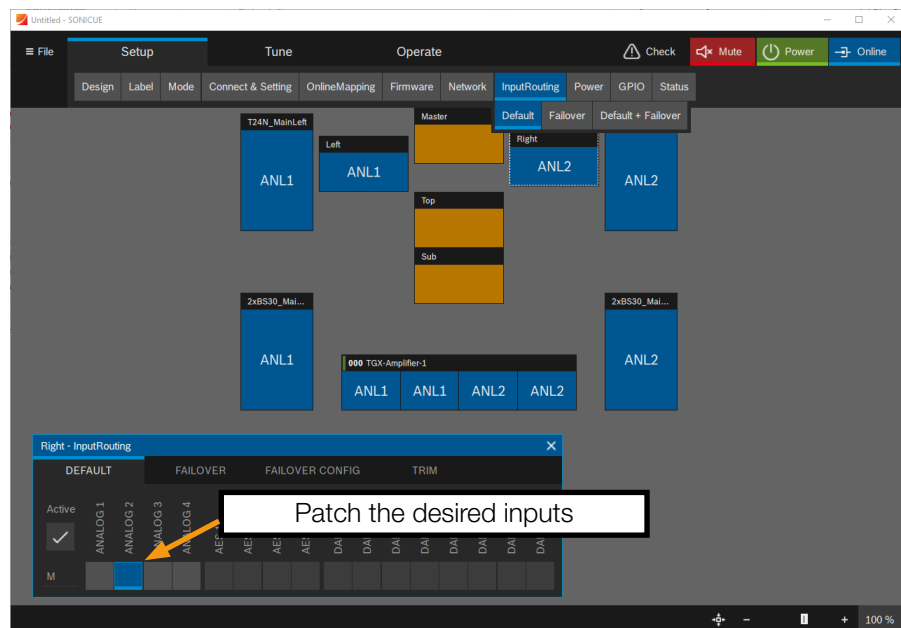


Figure 1.4.13 - Selecting the desired patch

12. In the Tune/Mute menu item, you can either mute the amplifier channels individually or a part of the entire system using the groups.

Muted elements are highlighted in red. Mismatched parameters are highlighted in orange.

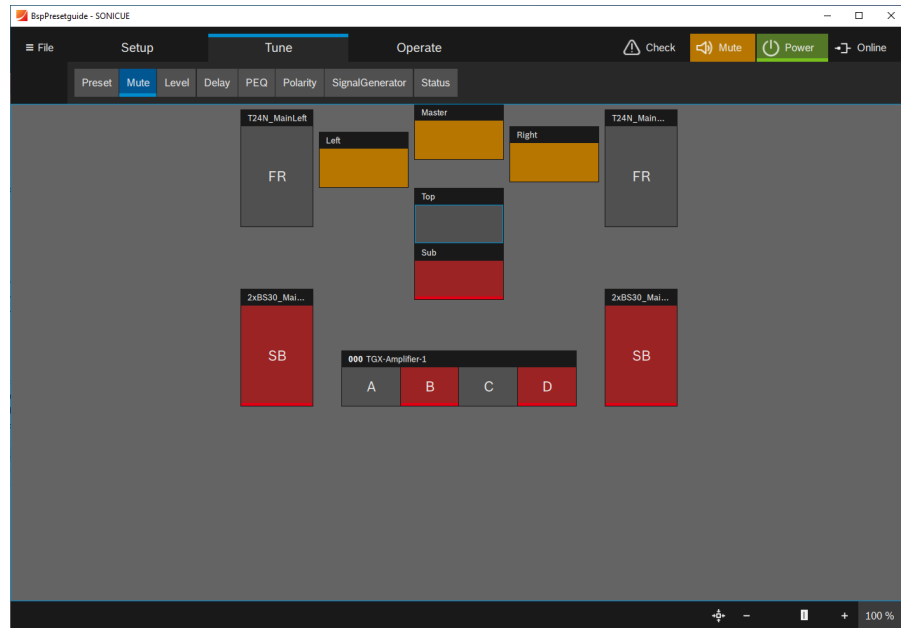


Figure 1.4.14 - Muting the system components

13. In the Tune/Level and Tune/Delay menu items, the volume and delay for the selected part of the system can be set. By clicking on a container or a group, a flyout menu appears in which the parameters can be adjusted in various resolutions.

The set parameters are displayed in the corresponding loudspeaker containers and amplifier channels. Parameters that do not match are highlighted in orange.

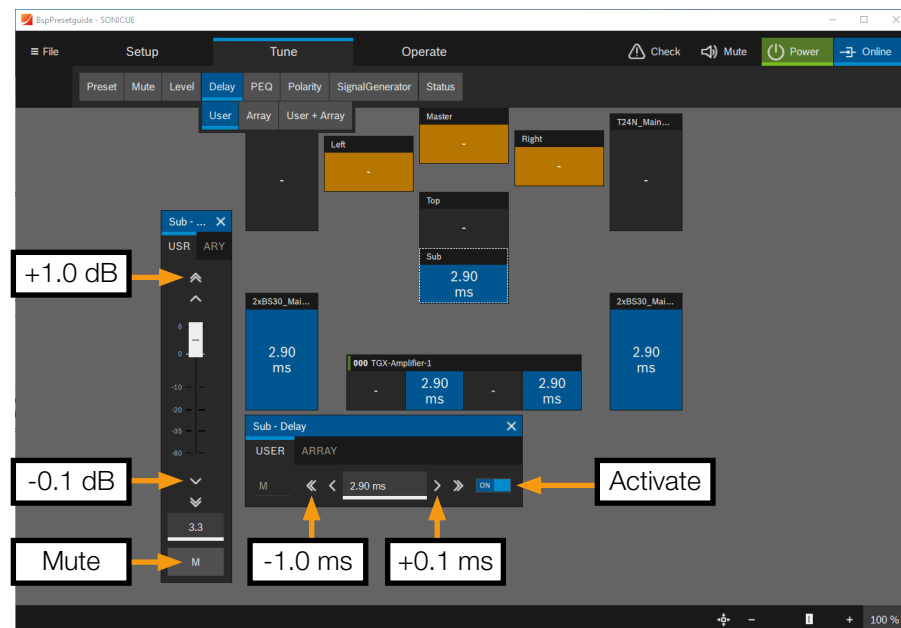


Figure 1.4.15 - Adjusting the channel parameters for level and delay

14.12 user and 5 array filters can be freely set for each amplifier channel.

Each filter can only be defined once per amplifier channel. It is therefore recommended to set filters for subgroups or individual speakers starting from the 1st filter, e.g. Top, Sub, Front Fill.

The filters of the master group are defined in descending order, starting with filter 12.



TIP

Different filter settings due to different group assignments are highlighted in orange. Non-matching parameters are not shown in the frequency response of the EQ.



NOTE

Resetting filters will reset the filter settings in all assigned amplifier channels!



Figure 1.4.16 - Filter configuration

1.5 Further informations

Further information on the system configuration in SONICUE can be found in the software documentation and in the [Video tutorials on YouTube](#).

For further information on the preset structure and system configuration of TWAUDIo loudspeaker systems, please contact the [TWAUDIo support department](#).

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