

LEA Speaker Tunings

23 September 2024

LEA Speaker Tunings are suitable for use with **Connect Series ADSP** amplifiers running firmware 4.0.0.0 or later. The presets use arbitrary FIR filters to implement the precise temporal (time domain) filters that are responsible for the remarkable benefits of TQ processing. For more information on TQ processing please see the *TQ Explained* and *Implementing TQ Processing* white papers on the Fulcrum Acoustic website.

This document briefly describes how to import a Speaker Tuning into your amplifier. Images shown are from LEA SharkWare amplifier control software. The user interface and functionality may be different when using LEA Web UI to control your amplifiers. Please download and read your amplifier's User Manual and Spec Sheet to learn about all functions and features of Connect Series ADSP amplifiers:

<https://leaprofessional.com/products/connect-series-adsp/>

To load Speaker Tunings first unzip the contents of the "LEA SharkWare Speaker Tunings 23Sep24.zip" file to a convenient location for recall in Step 2B below.

1) See *Figure 1*.

- A) Select the EQ / X-Over tab of an output channel in the amplifier control panel.
- B) Click the **Import Tunings** button.

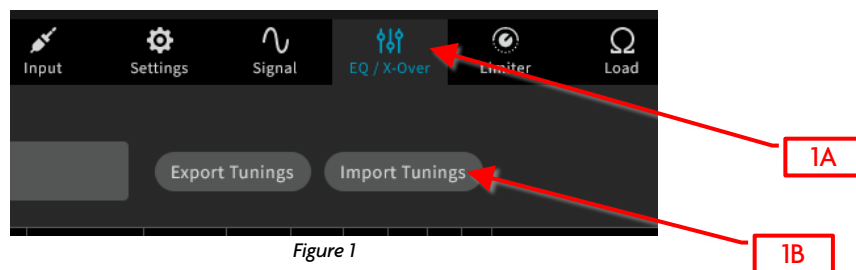


Figure 1

2) See *Figure 2*.

- A) Click the **Choose File...** button.
- B) Browse to and select the desired Speaker Tuning stored in the chosen location on your control device (e.g. laptop). The Speaker Tuning file name will appear immediately below the **Choose File...** button.
- C) Click the **Import** button to load the Speaker Tuning.
- D) Repeat this procedure until all desired Speaker Tunings are loaded.

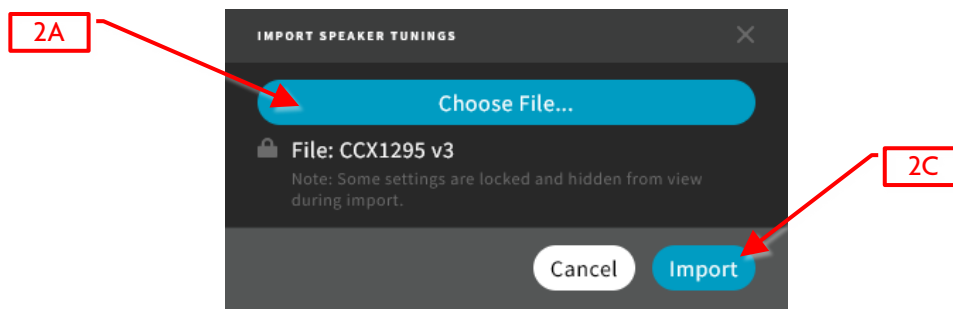


Figure 2

3) See Figures 3a and 3b.

- A) Full range and the low frequency section of bi-amplified loudspeakers have a user adjustable high pass frequency available. Do not set the frequency below the default setting. FIR and PEQ filters integral to the Speaker Tuning are locked.
- B) Subwoofers have a user adjustable low pass frequency available. HPF and PEQ filters integral to the Speaker Tuning are locked.

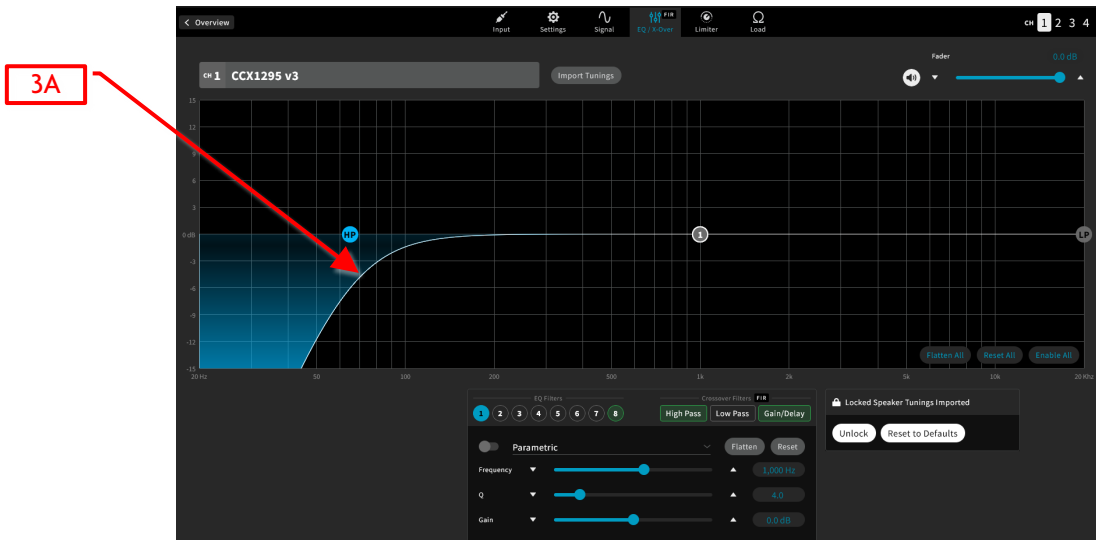


Figure 3a



Figure 3b

Notes

- Bi-amplified loudspeakers require recall of two presets: an LF channel and an HF or HF_LF (coax) channel. Be sure to set the Input Sensitivity of both amplifier channels to the same value, i.e. 26 dB or 34 dB. This setting is found on the amplifier's Input tab.
- The low frequency and coaxial transducers in the DX12/15 Series, M, and L bi-amplified loudspeakers both cover the full bandwidth of the loudspeaker. The high pass filter for each transducer must be set to the same values when crossing into a subwoofer.
- Factory limiter settings in the Speaker Tunings are selected to provide optimum sound quality and a healthy measure of system protection with minimal sacrifice of maximum SPL. They are intended to provide an added measure of reliability when a system is used responsibly; not to protect against wanton abuse. *In the event of component damage standard warranty conditions apply.*

Please send any questions to info@fulcrum-acoustic.com , or give us a call at +1 866 234 0678.

Changes since last release:

- This is a new release of SharkWare Speaker Tunings.