



Control Contractor Expansion Series FIR Tuning Set Instructions for Crown DCI Amplifiers

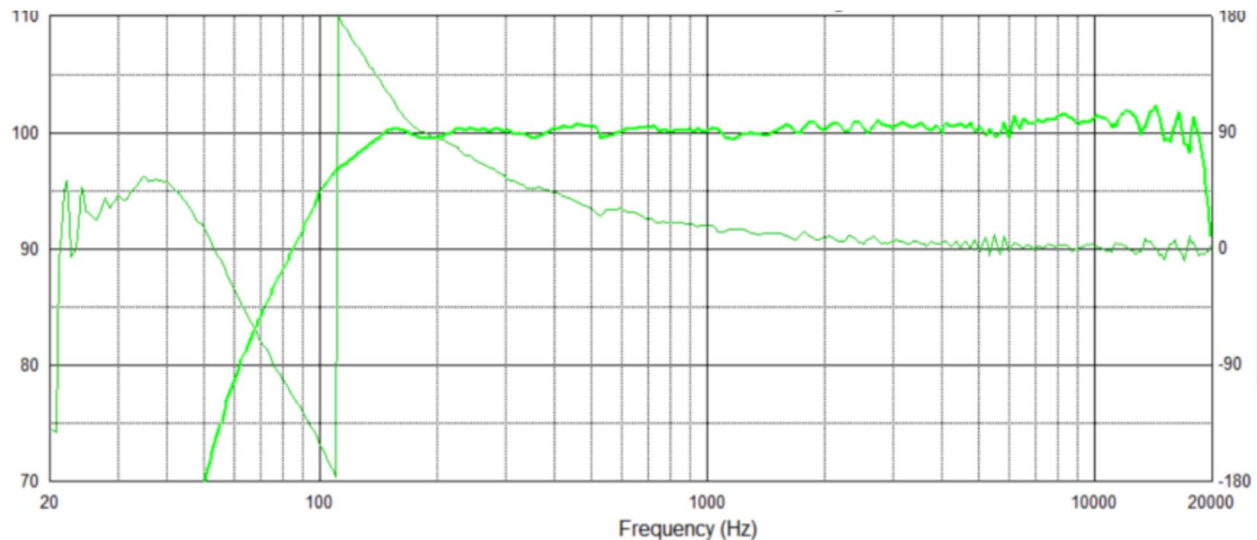
Rev 2023-09-07

FIR (Finite Impulse Response) tunings provide linear-phase filtering, which optimizes frequency response and phase response independently and to a finer degree of precision than is possible with standard IIR (Infinite Impulse Response) “parameter-based” filters. The result is overall enhanced loudspeaker sound quality and improvements in coverage pattern consistency.

JBL PROFESSIONAL V6 FIR TUNINGS

V6 FIR loudspeaker tunings represent the next generation of FIR filters for the JBL Control Contractor Series of loudspeakers. New features for the V6 generation of FIR tunings include:

- Matched gain to allow for smooth system tuning and subwoofer integration,
- Improved linearized phase response above 300 Hz,
- Improved signal coherence, and
- Equalization to a neutral target
 - This allows users to use EQ to fit the specific voicing needs of their install
 - An example phase and magnitude chart is shown below.



(above) The magnitude (dark green) and phase (light green) response of the COL600 FIR tuning

These tunings are specifically for use with Crown DCi amplifiers. Direct links to Control Contractor Expansion Series Speaker Tunings for any of the AE Series models listed below can be found on the applicable jblpro.com product page in the 'Downloads' > 'Speaker Tunings' section. Applying these tunings requires HARMAN's free [Audio Architect](#) software.

MODELS & MODES

"[CCE2_FIR_Tunings.DCi Series.SpeakerTuning](#)" file contains FIR tunings for the following models.

COL Series Passive Loudspeakers:

COL 600 & COL 800

GSF Series Ground Stake Passive Loudspeakers:

GSF3 & GSF6

SLP Series Passive Loudspeakers:

SLP12 & SLP14

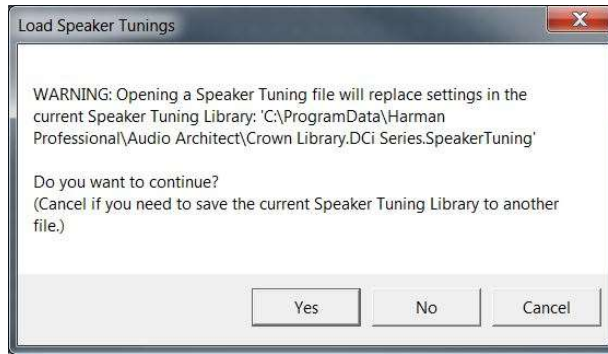
Control 68HP Pendant Passive Loudspeakers

Locked and Unlocked Functions – These FIR Tunings are locked for Crossover Filter, Output EQ, and Driver Delay. Some other settings – such as limiter – contain settings but are not locked (although we highly recommend leaving them as-is). All the rest of the channel settings – Source Routing, Input Delay, Input EQ, Output Limiter (although this is pre-set at the recommended value), and Channel Monitor Settings –are unlocked and user-adjustable.

If Not FIR Tunings on All Amplifier Channels -- Implementing one of these FIR tunings on a DCi amplifier channel will lock these functions for all channels, whether they are set for a tuning or not. Therefore it's advisable to implement the desired settings for the other channels first, and then choose the FIR tuning for the desired channel last.

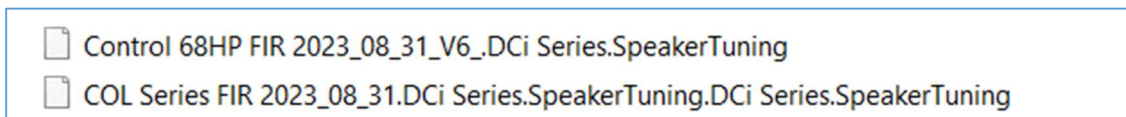
HOW TO LOAD THE CONTROL CONTRACTOR EXPANSION TUNINGS

1. Download the 'Control Contractor Expansion Series' Speaker tuning file(s). Extract the files.
2. Place the extracted ".speakertuning" files in: **C:\ProgramData\Harman Professional\Audio Architect**. This is the default location that Audio Architect looks at for speaker tuning files.
3. In Audio Architect, pull a DCI-N or DCI-DA amplifier into the Room. Double click on that Amplifier icon.
4. On the Device panel, click File > Open > Speaker Tuning.
5. Click "Yes" when prompted with the following message.



Above screen capture is taken from Audio Architect V2.50. GUI is subject to change in future updates to Audio Architect

6. Audio Architect opens the folder: [C:\ProgramData\Harman Professional\Audio Architect](#).
7. Highlight the CCE Series speaker tuning file that has the speaker model you're using. Click 'Open'.



(Note: If you did not follow step 2, you may have to navigate to the location where the file was stored.)

The tuning is now loaded but has not yet been selected for a channel of the amplifier.

8. To select this tuning for a channel of the amplifier, double-click on the 'SPKR' Processing Object on the Amplifier panel for that amplifier channel (highlighted in red, below).



9. Click the 'Recall' button and choose the matching tuning for the loudspeaker that is connected to that particular amplifier channel and/or the mode. Click OK. Repeat this step for all channels connected to Control Contractor Series Loudspeakers.



Note that for multi-way modes (i.e., bi-amp) you need to select the tuning that lists the speaker and the frequency band that is connected to that amplifier channel.

10. The preset will populate with the FIR filter as well as any additional settings for the limiter, crossover, and EQ settings that are part of that preset. The preset is now active for that channel of the power amplifier.

Important: Since it is an FIR filter, you will not see any filters above 300Hz on the various screens, as they don't manifest themselves the same way an IIR filter does. However, the filter(s) will be engaged. In addition, you will have plenty of additional accessible filters and delays for making suitable, on-site adjustments for the requirements of the listening space, acoustic boundary loading conditions, etc.