

## Powersoft X Series & Ottocanali Series Level 1 Speaker Configurations

15 December 2016

Powersoft Level 1 Speaker Configuration files (\*.spk2) were created using *Armonía Version 2.8.1* software. They are suitable for use with X Series and Ottocanali 4K4, 8K4, and 12K4 amplifiers. These 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.

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To load Speaker Configuration files (\*.pam) using Armonía software:

- 1) Unzip the contents of the "Powersoft Speaker Configurations 15Dec16.zip" file to:  
C:\Users\Public\Documents\Powersoft\Armonía\SpeakersLibrary
- 2) Add all online amplifiers to the Workspace and wait for their settings to sync to software. Amplifiers will have a green box around them when this process is complete.
- 3) Double-click an amplifier to open its main screen. Click the *Speaker Configuration* button in the upper left corner of the screen.



Figure 1

- 4) See *Figure 2* and *Figure 3* on the following page.
  - A) Select a Speaker Configuration from the list on the right side of the screen. It will highlight yellow. Click the *<-Load* button in the center of the screen.
  - B) Use the *Preset to Load* drop-down boxes to assign the Configuration to one or more output channels.
  - C) For bi-amplified loudspeakers you must first assign a pair of output channels to a single input. Ctrl-click two adjacent Physical Outputs (outputs 3 & 4 in this example).
  - D) Click the *Join* button in the center of the screen.
  - E) Assign available band passes to appropriate Physical Outputs using the *Preset to Load* drop-down boxes.
  - F) When all assignments are made click the *Apply* button in the center of the screen.
- 5) Close the Speaker Configuration window. You will see all loudspeaker assignments in the Spk EQ column on the main screen.

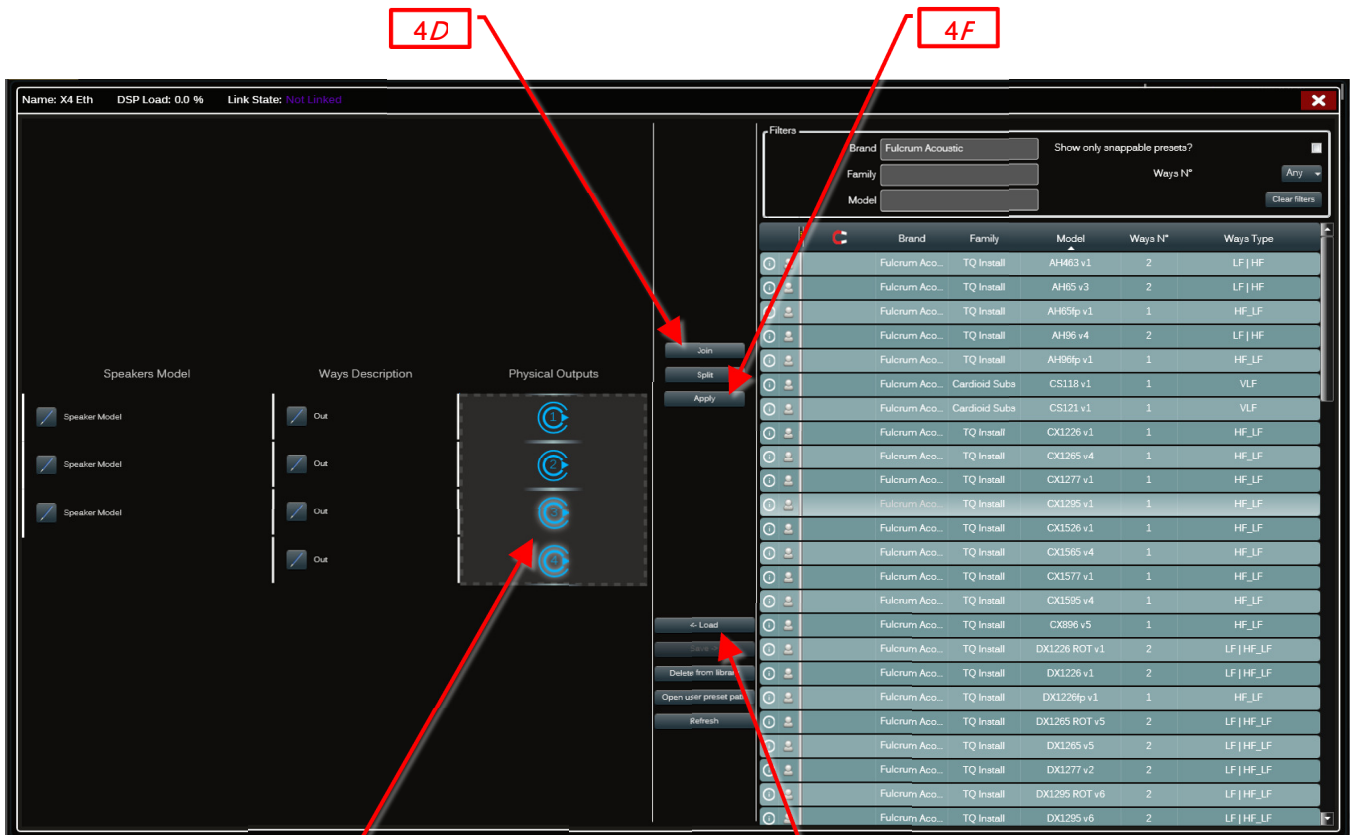


Figure 2

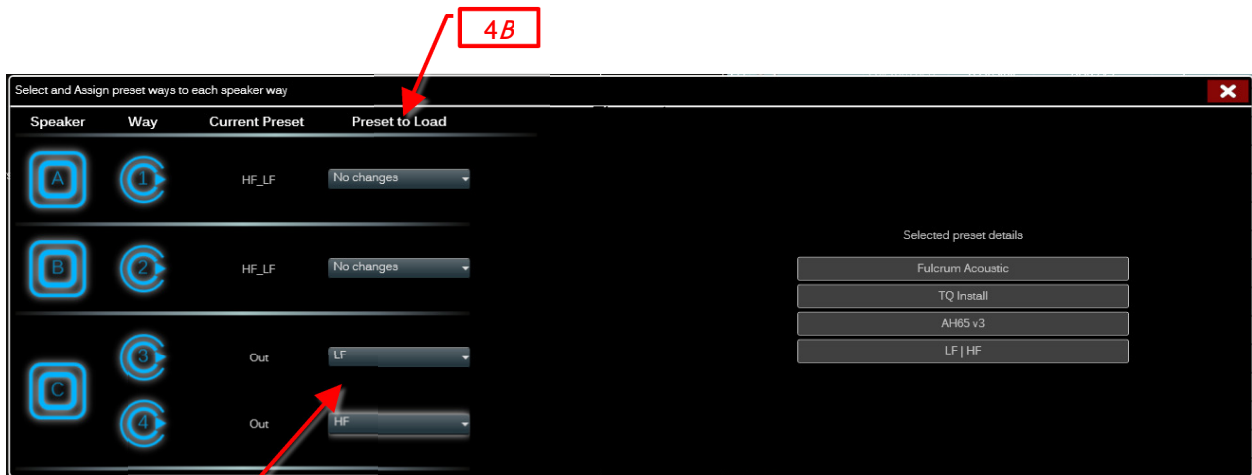


Figure 3

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## Notes

High pass filters for all loudspeakers are open for editing. Minimum recommended high pass frequencies are given for each loudspeaker in the *Preset Info* table at the end of this document.

The coaxial and low frequency transducers in bi-amplified 3-way loudspeakers both operate over the full bandwidth of the loudspeaker. When crossing into a subwoofer be sure to change the LF and HF/LF high pass filter frequencies for the following loudspeakers:

- DX1226 / DX1265 / DX1277 / DX1295
- DX1526 / DX1565 / DX1577 / DX1595
- L
- M
- RM22 / RM25

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Limiter settings are open for editing. Default values are optimized to provide maximum performance to owner / operators. You may choose to reduce limiter thresholds up to 3 dB for rental systems or other uncontrolled environments.

Our limiter settings 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.*

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Amplifier voltage gain is set to 32 dB in all Presets but RM22 and RM25, which are set to 26 dB.

Custom routings are available. Please send all inquiries to [info@fulcrum-acoustic.com](mailto:info@fulcrum-acoustic.com) , or give us a call at +1 866 234 0678 ext 1.

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### Changes since last release:

- This is a new release of X Series & Ottocanali Series Speaker Configurations.

## Preset Info

Preset Name	Minimum HPF	Notes
AH463 v1	56 Hz, 24 dB Butterworth	
AH65 v3	69 Hz, 24 dB Butterworth	
AH96 v4	69 Hz, 24 dB Butterworth	
CS118 v1	28 Hz, 24 dB Butterworth	
CS121 v1	28 Hz, 24 dB Butterworth	
CX896 v5	70 Hz, 24 dB Linkwitz/Riley	
CX1226 v1	65 Hz, 24 dB Linkwitz/Riley	
CX1265 v4	65 Hz, 24 dB Linkwitz/Riley	
CX1277 v1	65 Hz, 24 dB Linkwitz/Riley	
CX1295 v4	65 Hz, 24 dB Linkwitz/Riley	
CX1526 v1	50 Hz, 24 dB Linkwitz/Riley	
CX1565 v4	50 Hz, 24 dB Linkwitz/Riley	
CX1577 v1	50 Hz, 24 dB Linkwitz/Riley	
CX1595 v4	50 Hz, 24 dB Linkwitz/Riley	
DX896 v2	60 Hz, 24 dB Linkwitz/Riley	
DX1226 v1	45 Hz, 24 dB Linkwitz/Riley	
DX1226 ROT v1	45 Hz, 24 dB Linkwitz/Riley	Use when coax is rotated 90 degrees
DX1226fp v1	45 Hz, 24 dB Linkwitz/Riley	
DX1265 v5	45 Hz, 24 dB Linkwitz/Riley	
DX1265 ROT v5	45 Hz, 24 dB Linkwitz/Riley	Use when coax is rotated 90 degrees
DX1277 v2	45 Hz, 24 dB Linkwitz/Riley	
DX1295 v6	45 Hz, 24 dB Linkwitz/Riley	
DX1295 ROT v6	45 Hz, 24 dB Linkwitz/Riley	Use when coax is rotated 90 degrees
DX1295fp v1	45 Hz, 24 dB Linkwitz/Riley	
DX1526 v1	38 Hz, 24 dB Linkwitz/Riley	
DX1526 ROT v1	38 Hz, 24 dB Linkwitz/Riley	Use when coax is rotated 90 degrees
DX1565 v5	38 Hz, 24 dB Linkwitz/Riley	
DX1565 ROT v5	38 Hz, 24 dB Linkwitz/Riley	Use when coax is rotated 90 degrees
DX1577 v1	38 Hz, 24 dB Linkwitz/Riley	
DX1595 v5	38 Hz, 24 dB Linkwitz/Riley	
DX1595 ROT v5	38 Hz, 24 dB Linkwitz/Riley	Use when coax is rotated 90 degrees
FA12 v2	42 Hz, 24 dB Linkwitz/Riley	
FA12-SM v2	42 Hz, 24 dB Linkwitz/Riley	Use for stage monitor application
FA15 v1	32 Hz, 24 dB Linkwitz/Riley	
FA15-SM v1	32 Hz, 24 dB Linkwitz/Riley	Use for stage monitor application
FA28 v1	40 Hz, 24 dB Linkwitz/Riley	
FA28-SM v1	40 Hz, 24 dB Linkwitz/Riley	Use for stage monitor application
FL283 – 1 Box v2	40 Hz, 24 dB Linkwitz/Riley	
FL283 – 4 Boxes v2	40 Hz, 24 dB Linkwitz/Riley	
FL283 – 6 Boxes v2	40 Hz, 24 dB Linkwitz/Riley	
FL283 – 8 Boxes v2	40 Hz, 24 dB Linkwitz/Riley	
FL283 – 12 Boxes v2	40 Hz, 24 dB Linkwitz/Riley	
FLS115 v1	35 Hz, 24 dB Butterworth	
FX896 v1	70 Hz, 24 dB Linkwitz/Riley	
FX1295 v1	70 Hz, 24 dB Linkwitz/Riley	
GX1226 v1	40 Hz, 24 dB Linkwitz/Riley	
GX1265 v2	40 Hz, 24 dB Linkwitz/Riley	
GX1277 v1	40 Hz, 24 dB Linkwitz/Riley	
GX1295 v1	40 Hz, 24 dB Linkwitz/Riley	
GX1526 v1	35 Hz, 24 dB Linkwitz/Riley	
GX1565 v1	35 Hz, 24 dB Linkwitz/Riley	
GX1577 v1	35 Hz, 24 dB Linkwitz/Riley	
GX1595 v1	35 Hz, 24 dB Linkwitz/Riley	

<b>Preset Name</b>	<b>Minimum HPF</b>	<b>Notes</b>
L v2	30 Hz, 24 dB Linkwitz/Riley	
M v6	45 Hz, 24 dB Linkwitz/Riley	
P v4	80 Hz, 24 dB Linkwitz/Riley	
RM22 v4	40 Hz, 12 dB Butterworth	
RM25 v4	30 Hz, 12 dB Butterworth	
RX599-16 v1	80 Hz, 24 dB Linkwitz/Riley	Use for 16 $\Omega$ operation
RX699-16 v2	70 Hz, 24 dB Linkwitz/Riley	Use for 16 $\Omega$ operation
RX699-70V v2	70 Hz, 24 dB Linkwitz/Riley	Use for 70 V operation
S v5	65 Hz, 24 dB Linkwitz/Riley	
Sub112 v3	38 Hz, 24 dB Butterworth	
Sub115 v3	30 Hz, 24 dB Butterworth	
Sub118 v1	26 Hz, 24 dB Butterworth	
Sub215 v7	26 Hz, 24 dB Butterworth	
Sub218 v1	26 Hz, 24 dB Butterworth	
Sub218L v1	25 Hz, 24 dB Butterworth	
TS212 v1	30 Hz, 24 dB Bessel	
TS215 v2	31 Hz, 24 dB Butterworth	
TS221 v1	24 Hz, 24 dB Butterworth	
US208 v1	33 Hz, 24 dB Butterworth	
US212 v2	40 Hz, 24 dB Butterworth	
US221-2 v2	28 Hz, 24 dB Butterworth	
US221-4 v2	28 Hz, 24 dB Butterworth	
XL v6 [CLUB]	65 Hz, 24 dB Linkwitz/Riley	
XL v7 [FLAT]	65 Hz, 24 dB Linkwitz/Riley	