Powersoft Level 1 Entity Presets

21 December 2016

Powersoft Level 1 Entity Preset files (*.pam) were created using *Armonía Version 2.8.1* software. They are suitable for use with DSP-equipped K and Duecanali Series amplifiers running firmware 5.3.7 or later. 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.

To load Entity Preset files (*.pam) using Armonía software:

1) Unzip the contents of the "Powersoft L1 Entity Presets 21Dec16.zip" file to a convenient location for recall in Step 4C below.

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) Click the *View* menu and make sure the *Preset Manager* icon is highlighted (see *Figure 1* below).

4) See *Figure 2* on the following page. Click the *Preset Manager* tab at the top of the screen.

   A) Click the *K Series* tab immediately below the *Preset Manager* tab.
   B) Using the drop down box select the location to which the Entity Preset files should be written: EEPROM (internal memory) or an installed Smart Card.
   C) Click the *Import...* button for any of the 50 available preset slots. Find and select the Preset you wish to import and click *Open*. Add Presets to additional slots as desired.
   D) Online amplifiers appear in a list at the bottom of the screen. Click the *Apply to All* button at the top left side of this list to send Presets to all available amplifiers.
   E) Alternatively select and highlight a specific amplifier in the list and click the *Apply to Selected* button at the top right side of the list. The amplifier "FULCRUM K3-2" is selected in the example shown in *Figure 2*.

5) Double-click an amplifier in the Workspace and select its Presets tab at the bottom of the screen. Select an EEPROM or SmartCard Preset memory location and click its *Load* button to load the preset into active memory.

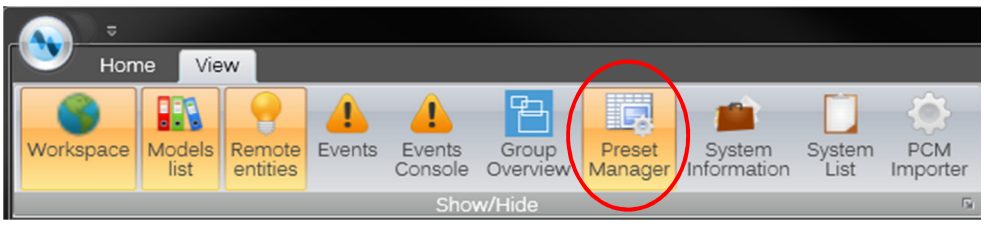

Figure 1

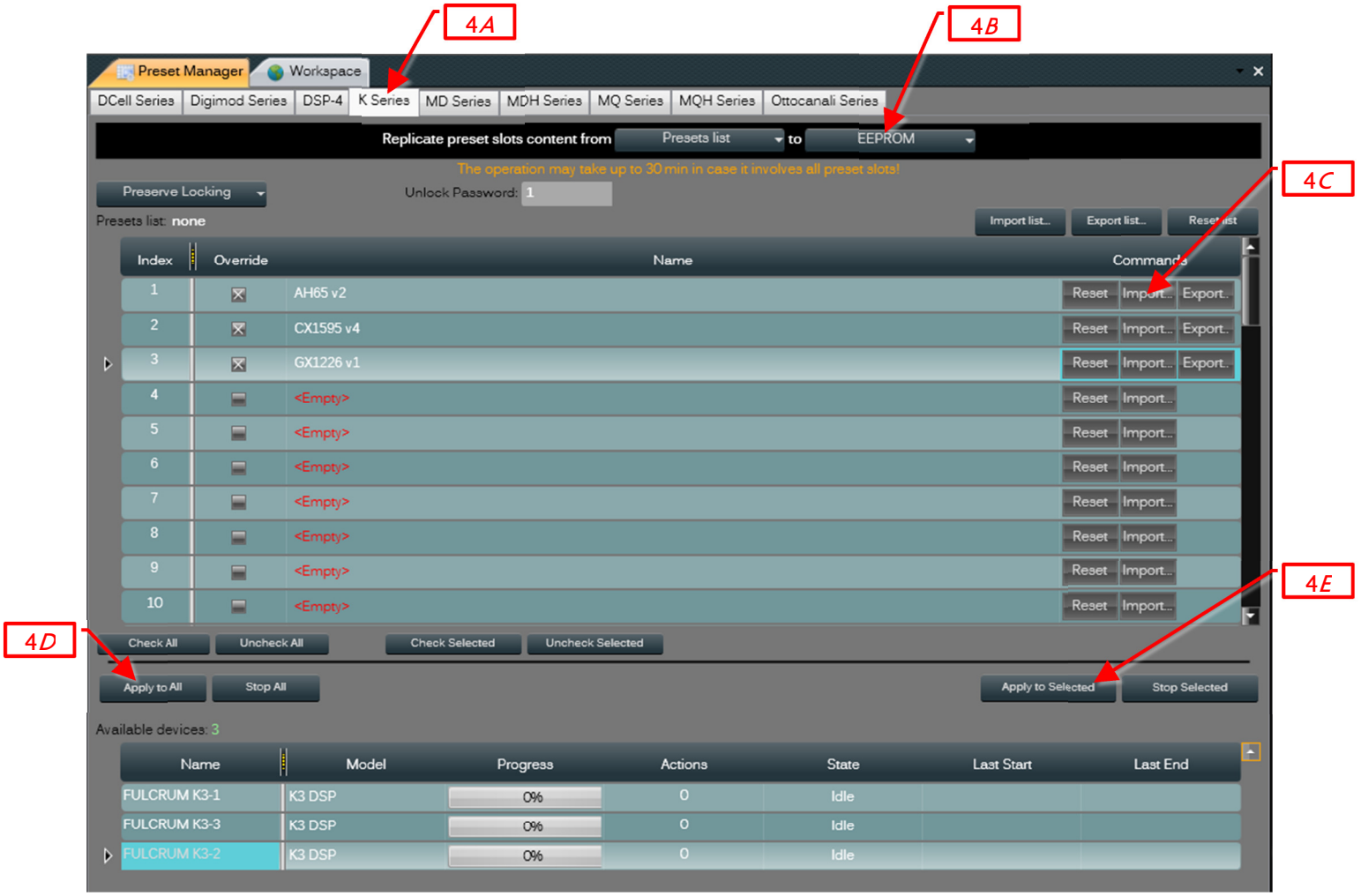

Figure 2

Powersoft Armonía Preset Manager may also be used to save and load groups of Entity Preset files in a Preset List (*.plst) file. These operations are beyond the scope of this instruction sheet. Please see the Powersoft Armonía User Guide or software Help files for details.

Notes

Bi-amplified loudspeaker Presets use amplifier CH1 IN for input. They route amplifier CH1 OUT to the LF transducer and amplifier CH2 OUT to the coaxial or HF transducer. CH1 and CH2 input processing remains independent however, so be sure to copy any filters to both channels. This may be accomplished in two ways using Powersoft Armonía software:

- Use the Input Equalizer's Copy Layer and Paste Layer functions to transfer filters to another channel *(Figure 3)*.
- Create an Advanced Group, assign the two amplifier channels to it, and use the Group's Input Equalizer to add filters to both channels simultaneously *(Figure 4)*.

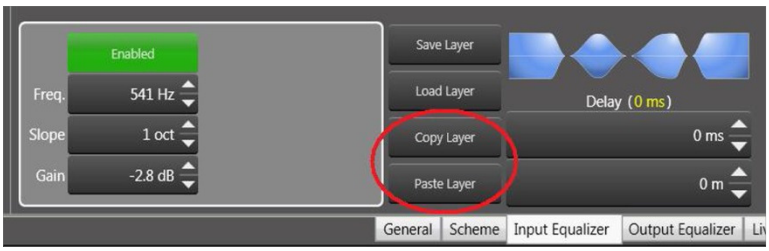

Figure 3

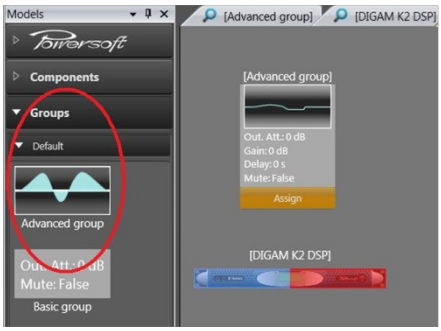

Figure 4

Please see the Powersoft Armonía User Guide or software Help files for detailed instructions on using either method.

High pass filters for all full range 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

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.*

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 , or give us a call at +1 866 234 0678 ext 1.

Changes since 01Apr15 release:

- Updated AH96 and GX1265 Entity Presets. Added CS118, CS121, FL283, and FLS115 Entity Presets.

Preset Info

Preset Name	CH1	CH2	Configuration	Minimum HPF	Notes
AH463 v1	LF	HF	Mono – use input CH1	56 Hz, 24 Btrwrth	
AH65 v3	LF	HF	Mono – use input CH1	69 Hz, 24 Btrwrth	
AH96 v4	LF	HF	Mono – use input CH1	69 Hz, 24 Btrwrth	
CS118 v1	SUB	SUB	Stereo	Locked	
CS121 v1	SUB	SUB	Stereo	Locked	
CX896 v5	HF/LF	HF/LF	Stereo	70 Hz, 24 Lnk/Rly	
CX1226 v1	HF/LF	HF/LF	Stereo	65 Hz, 24 Lnk/Rly	
CX1265 v4	HF/LF	HF/LF	Stereo	65 Hz, 24 Lnk/Rly	
CX1277 v1	HF/LF	HF/LF	Stereo	65 Hz, 24 Lnk/Rly	
CX1295 v4	HF/LF	HF/LF	Stereo	65 Hz, 24 Lnk/Rly	
CX1526 v1	HF/LF	HF/LF	Stereo	50 Hz, 24 Lnk/Rly	
CX1565 v4	HF/LF	HF/LF	Stereo	50 Hz, 24 Lnk/Rly	
CX1577 v1	HF/LF	HF/LF	Stereo	50 Hz, 24 Lnk/Rly	
CX1595 v4	HF/LF	HF/LF	Stereo	50 Hz, 24 Lnk/Rly	
DX896 v2	HF/LF	HF/LF	Stereo	60 Hz, 24 Lnk/Rly	
DX1226 v1	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	
DX1226 ROT v1	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	Use when coax is rotated 90 deg
DX1226fp v1	HF/LF	HF/LF	Stereo	45 Hz, 24 Lnk/Rly	
DX1265 v5	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	
DX1265 ROT v5	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	Use when coax is rotated 90 deg
DX1277 v2	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	
DX1295 v6	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	
DX1295 ROT v6	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	Use when coax is rotated 90 deg
DX1295fp v1	HF/LF	HF/LF	Stereo	45 Hz, 24 Lnk/Rly	
DX1526 v1	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	
DX1526 ROT	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	Use when coax is rotated 90 deg
DX1565 v5	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	
DX1565 ROT v5	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	Use when coax is rotated 90 deg
DX1577 v1	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	
DX1595 v5	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	
DX1595 ROT v5	LF	HF/LF	Mono – use input CH1	38 Hz, 24 Lnk/Rly	Use when coax is rotated 90 deg
FA12 v2	HF/LF	HF/LF	Stereo	42 Hz, 24 Lnk/Rly	
FA12-SM	HF/LF	HF/LF	Stereo	42 Hz, 24 Lnk/Rly	Use for stage monitor application
FA15 v1	HF/LF	HF/LF	Stereo	32 Hz, 24 Lnk/Rly	
FA15-SM v1	HF/LF	HF/LF	Stereo	32 Hz, 24 Lnk/Rly	Use for stage monitor application
FA28 v1	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
FA28-SM v1	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	Use for stage monitor application
FL283 - 1 Box v2	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
FL283 - 4 Boxes v2	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
FL283 - 6 Boxes v2	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
FL283 - 8 Boxes v2	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
FL283 - 12 Boxes v2	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
FLS115 v1	SUB	SUB	Stereo	Locked	
FX1295 v1	HF/LF	HF/LF	Stereo	70 Hz, 24 Lnk/Rly	
FX896 v1	HF/LF	HF/LF	Stereo	70 Hz, 24 Lnk/Rly	
GX1226 v1	HF/LF	HF/LF	Stereo	45 Hz, 24 Lnk/Rly	
GX1265 v2	HF/LF	HF/LF	Stereo	45 Hz, 24 Lnk/Rly	
GX1277 v1	HF/LF	HF/LF	Stereo	45 Hz, 24 Lnk/Rly	
GX1295 v1	HF/LF	HF/LF	Stereo	45 Hz, 24 Lnk/Rly	
GX1526 v1	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
GX1565 v1	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
GX1577 v1	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
GX1595 v1	HF/LF	HF/LF	Stereo	40 Hz, 24 Lnk/Rly	
L v2	LF	HF/LF	Mono – use input CH1	30 Hz, 24 Lnk/Rly	
M v6	LF	HF/LF	Mono – use input CH1	45 Hz, 24 Lnk/Rly	
P v4	HF/LF	HF/LF	Stereo	80 Hz, 24 Lnk/Rly	
RM22 v4	LF	HF/LF	Mono – use input CH1	40 Hz, 12 Btrwrth	HPF is bypassed by default
RM25 v4	LF	HF/LF	Mono – use input CH1	30 Hz, 12 Btrwrth	HPF is bypassed by default
RX599-16	HF/LF	HF/LF	Stereo	80 Hz, 24 Lnk/Rly	Use for 16 Ω operation
RX699-16 v2	HF/LF	HF/LF	Stereo	70 Hz, 24 Lnk/Rly	Use for 16 Ω operation
RX699-70V v2	HF/LF	HF/LF	Stereo	70 Hz, 24 Lnk/Rly	Use for 70 V operation
S v5	HF/LF	HF/LF	Stereo	65 Hz, 24 Lnk/Rly	

Preset Info

Preset Name	CH1	CH2	Configuration	Minimum HPF	Notes
Sub112 v2	SUB	SUB	Stereo	Locked	Low pass filter open for editing
Sub115 v2	SUB	SUB	Stereo	Locked	Low pass filter open for editing
Sub118 v1	SUB	SUB	Stereo	Locked	Low pass filter open for editing
Sub215 v7	SUB	SUB	Stereo	Locked	Low pass filter open for editing
Sub218 v1	SUB	SUB	Stereo	Locked	Low pass filter open for editing
Sub218L v1	SUB	SUB	Stereo	Locked	Low pass filter open for editing
TS212 v1	SUB	SUB	Stereo	Locked	Low pass filter open for editing
TS215 v2	SUB	SUB	Stereo	Locked	Low pass filter open for editing
TS221 v1	SUB	SUB	Stereo	Locked	Low pass filter open for editing
US208 v1	SUB	SUB	Stereo	Locked	Low pass filter open for editing
US212 v2	SUB	SUB	Stereo	Locked	Low pass filter open for editing
US221-2 v2	SUB	SUB	Stereo	Locked	Low pass filter open for editing
US221-4 v2	SUB	SUB	Stereo	Locked	Low pass filter open for editing
XL v6 [CLUB]	LF	HF	Mono – use input CH1	65 Hz, 24 Lnk/Rly	Use for EDM applications
XL v7 [FLAT]	LF	HF	Mono – use input CH2	66 Hz, 24 Lnk/Rly	Use for live applications