Preset Libraries
User Manual

VERSION 2.0.2.0A

LA4 preset library (V2.0)
LA8 preset library (V2.0)

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2 INTRODUCTION

This manual gathers all the information on the use of the preset libraries dedicated to the LA4 (V2.0) and LA8 (V2.0) amplified controllers. Please go to the L-ACOUSTICS® web site @ www.l-acoustics.com to download the latest versions of the libraries, firmware, and LA NETWORK MANAGER software.

Use LA NETWORK MANAGER software to install firmware or a preset library into an amplified controller (the **User Manuals** are included in the downloadable setup file packages).

To load a preset into an amplified controller, activate the LOAD PRESET menu from the amplified controller front panel and then select the desired preset. Refer to the **"LA4" or "LA8 - User Manual"** for additional instructions. The presets are also accessible using the LA NETWORK MANAGER software (refer to the **"LA NETWORK MANAGER - User Manual"**).

For more information regarding the products appearing throughout this manual please refer to the corresponding **User Manuals**.

3 PRESET GAIN STRUCTURE

All preset gains are calibrated so that all L-ACOUSTICS® enclosures (except the 8XT, KIVA, and KILO) will reach their power limits for the same value of the signal applied to the LA4 or LA8 inputs: the input signal value is +8 dBu with a representative musical signal (the value is +4 dBu for the 8XT, KIVA, and KILO enclosures).

This gain structure has been introduced as it makes easier to install a system and optimize its power resources (left/right system, subwoofer companions, side systems…).

Example including main and subwoofer systems

If the subwoofer system level is higher than required the user can reduce the number of subwoofer enclosures. Alternatively, the user can lower the subwoofer system input level to obtain even tonal balance and increased headroom. In this way the main system will reach its power limits before the subwoofer system.

On the contrary, if the subwoofer system level is not sufficient the user should increase the number of subwoofer enclosures.

4 LA4 PRESET LIBRARY (VERSION 2.0)

4.1 Preset description sheet

A complete onboard Preset Library is stored among the 89 OEM Memory Locations (from 11 to 99) of the LA4 controller to cover all principal system configurations for a selected range of L-ACOUSTICS® speakers. The Table 1 below shows the Version 2.0 of the LA4 Preset Library: 75 presets are available and each one is described with its memory location number, name, channel assignments, and family.

WST® system presets (KIVA, KILOKIVA, and ARCS families)

The [KIVA] preset is for standalone FOH applications (without subwoofers).

The [KIVA_KILO] preset is engineered for hybrid configurations using KIVA and KILO enclosures.

In the ARCS family the LO presets feature a standard HF contour and the HI presets feature an increased HF contour (3 dB HF shelving EQ difference versus the LO presets).

Coaxial system (XT and MTD families) and [KIVA_FI] presets

The [×××_FI] "FILL" presets result in nominally flat contours for use in speech reinforcement, classical music applications, or for close proximity fill enclosures.

The [×××_FR] "FRONT" presets are for standalone FOH applications (without subwoofers).

The [×××_MO] "MONITOR" presets result in nominally flat contours in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Hybrid & subwoofer enclosure presets (ARCSB118, SB118, 12XTS118, 8XTSB118, 115bPSB, 112bSB, and 108aSB families)

The presets described above can also include 100 Hz [×××_100] or 60 Hz [×××_60] high-pass filters for use with SB118 subwoofer systems respectively low-pass filtered at 100 Hz [SB118_100] and 60 Hz [SB118_60].

The [8XT_SB118] and [108a_SB118] are engineered for hybrid configurations using SB118 and 8XT or 108a enclosures, respectively. These presets include a 100 Hz crossover point.

The [12XTP_SB118], [112b_SB118], and [115bP_SB118] are engineered for hybrid configurations using SB118 and passive 12XT, MTD112b, or passive MTD115b enclosures, respectively. These presets include a 100 Hz crossover point.

The [ARCS_S118_×××] presets are engineered for hybrid configurations using ARCS® and SB118 enclosures. These presets include a 60 Hz crossover point.

The [SB118_×××_C] presets feature specific equalization settings to use the SB118 subwoofers within a "cardioid" coverage pattern array (refer to the **"SB118 - User manual"**).

In Table 1 the four output channels are labeled "××_×" where:

- The first 2 digits indicate the kind of transducer to be connected to the corresponding output channel:
  PA: passive enclosure
  LF, HF: low or high frequency transducer, respectively
  SB: subwoofer enclosure
  SR: reversed subwoofer enclosure for "cardioid" applications

- The last digit indicates which input channel the output is driven by:
  A, B: output driven by input A or B, respectively

Table 1: LA4 factory Preset Library description sheet (version 2.0)

N°	PRESET NAME	OUT 1	OUT 2	OUT 3	OUT 4	DESCRIPTION	FAMILY
11	KIVA	PA_A	PA_A	PA_A	PA_A	KIVA, full range, FOH contour	KIVA
12	KIVA_FI	PA_A	PA_A	PA_B	PA_B	KIVA, full range, FI contour	KIVA
13	KIVA_KILO	LF_A	PA_A	PA_A	PA_A	KIVA & KILO, full range, X-OVER=100 Hz, FOH contour	KILOKIVA
14	KIVA_KILO_60	LF_A	PA_A	PA_A	PA_A	KIVA & KILO, HPF=60 Hz, X-OVER=100 Hz, FOH contour	KILOKIVA
15	ARCS_LO	LF_A	HF_A	LF_B	HF_B	ARCS, full range, LO contour	ARCS
16	ARCS_LO_60	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=60 Hz, LO contour	ARCS
17	ARCS_LO_100	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=100 Hz, LO contour	ARCS
18	ARCS_HI	LF_A	HF_A	LF_B	HF_B	ARCS, full range, HI contour	ARCS
19	ARCS_HI_60	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=60 Hz, HI contour	ARCS
20	ARCS_HI_100	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=100 Hz, HI contour	ARCS
21	ARCS_S118_LO	SB_A	SB_A	LF_B	HF_B	ARCS & SB118, full range, X-OVER=60 Hz, LO contour	ARCSB118
22	ARCS_S118_HI	SB_A	SB_A	LF_B	HF_B	ARCS & SB118, full range, X-OVER=60 Hz, HI contour	ARCSB118
23	SB118_60	SB_A	SB_A	SB_B	SB_B	SB118, LPF=60 Hz	SB118
24	SB118_100	SB_A	SB_A	SB_B	SB_B	SB118, LPF =100 Hz	SB118
25	SB118_60_C	SR_A	SB_A	SB_A	SB_A	SB118, LPF =60 Hz, cardioid coverage pattern	SB118
26	SB118_100_C	SR_A	SB_A	SB_A	SB_A	SB118, LPF =100 Hz, cardioid coverage pattern	SB118
27	12XTA_FI	LF_A	HF_A	LF_B	HF_B	12XT active, full range, FI contour	12XTA
28	12XTA_FI_100	LF_A	HF_A	LF_B	HF_B	12XT active, HPF=100 Hz, FI contour	12XTA
29	12XTA_FR	LF_A	HF_A	LF_B	HF_B	12XT active, full range, FR contour	12XTA
30	12XTA_FR_100	LF_A	HF_A	LF_B	HF_B	12XT active, HPF=100 Hz, FR contour	12XTA
31	12XTA_MO	LF_A	HF_A	LF_B	HF_B	12XT active, full range, MO contour	12XTA
32	12XTA_MO_100	LF_A	HF_A	LF_B	HF_B	12XT active, HPF=100 Hz, MO contour	12XTA
33	12XTP_FI	PA_A	PA_A	PA_B	PA_B	12XT passive, full range, FI contour	12XTP
34	12XTP_FI_100	PA_A	PA_A	PA_B	PA_B	12XT passive, HPF=100 Hz, FI contour	12XTP
35	12XTP_FR	PA_A	PA_A	PA_B	PA_B	12XT passive, full range, FR contour	12XTP
36	12XTP_FR_100	PA_A	PA_A	PA_B	PA_B	12XT passive, HPF=100 Hz, FR contour	12XTP
37	12XTP_MO	PA_A	PA_A	PA_B	PA_B	12XT passive, full range, MO contour	12XTP
38	12XTP_MO_100	PA_A	PA_A	PA_B	PA_B	12XT passive, HPF=100 Hz, MO contour	12XTP
39	8XT_FI	PA_A	PA_A	PA_B	PA_B	8XT, full range, FI contour	8XT
40	8XT_FI_100	PA_A	PA_A	PA_B	PA_B	8XT, HPF=100 Hz, FI contour	8XT
41	8XT_FR	PA_A	PA_A	PA_B	PA_B	8XT, full range, FR contour	8XT
42	8XT_FR_100	PA_A	PA_A	PA_B	PA_B	8XT, HPF=100 Hz, FR contour	8XT
43	8XT_MO	PA_A	PA_A	PA_B	PA_B	8XT, full range, MO contour	8XT
44	8XT_MO_100	PA_A	PA_A	PA_B	PA_B	8XT, HPF=100 Hz, MO contour	8XT
45	12XTP_SB118	SB_A	PA_A	SB_B	PA_B	12XT passive & SB118, X-OVER=100 Hz, FR contour	12XTSI18
46	8XT_SB118	SB_A	PA_A	SB_B	PA_B	8XT & SB118, X-OVER=100 Hz, FR contour	8XTSB118

47	115XT_FI	LF_A	HF_A	LF_B	HF_B	115XT, full range, FI contour	115XT
48	115XT_FI_100	LF_A	HF_A	LF_B	HF_B	115XT, HPF=100 Hz, FI contour	115XT
49	115XT_FR	LF_A	HF_A	LF_B	HF_B	115XT, full range, FR contour	115XT
50	115XT_FR_100	LF_A	HF_A	LF_B	HF_B	115XT, HPF=100 Hz, FR contour	115XT
51	115XT_MO	LF_A	HF_A	LF_B	HF_B	115XT, full range, MO contour	115XT
52	115XT_MO_100	LF_A	HF_A	LF_B	HF_B	115XT, HPF=100 Hz, MO contour	115XT
53	115bA_FI	LF_A	HF_A	LF_B	HF_B	MTDI15b active, full range, FI contour	MTDI15bA
54	115bA_FI_100	LF_A	HF_A	LF_B	HF_B	MTDI15b active, HPF=100 Hz, FI contour	MTDI15bA
55	115bA_FR	LF_A	HF_A	LF_B	HF_B	MTDI15b active, full range, FR contour	MTDI15bA
56	115bA_FR_100	LF_A	HF_A	LF_B	HF_B	MTDI15b active, HPF=100 Hz, FR contour	MTDI15bA
57	115bA_MO	LF_A	HF_A	LF_B	HF_B	MTDI15b active, full range, MO contour	MTDI15bA
58	115bA_MO_100	LF_A	HF_A	LF_B	HF_B	MTDI15b active, HPF=100 Hz, MO contour	MTDI15bA
59	115bP_FI	PA_A	PA_A	PA_B	PA_B	MTDI15b passive, full range, FI contour	MTDI15bP
60	115bP_FI_100	PA_A	PA_A	PA_B	PA_B	MTDI15b passive, HPF=100 Hz, FI contour	MTDI15bP
61	115bP_FR	PA_A	PA_A	PA_B	PA_B	MTDI15b passive, full range, FR contour	MTDI15bP
62	115bP_FR_100	PA_A	PA_A	PA_B	PA_B	MTDI15b passive, HPF=100 Hz, FR contour	MTDI15bP
63	115bP_MO	PA_A	PA_A	PA_B	PA_B	MTDI15b passive, full range, MO contour	MTDI15bP
64	115bP_MO_100	PA_A	PA_A	PA_B	PA_B	MTDI15b passive, HPF=100 Hz, MO contour	MTDI15bP
65	112XT_FI	LF_A	HF_A	LF_B	HF_B	112XT, full range, FI contour	112XT
66	112XT_FI_100	LF_A	HF_A	LF_B	HF_B	112XT, HPF=100 Hz, FI contour	112XT
67	112XT_FR	LF_A	HF_A	LF_B	HF_B	112XT, full range, FR contour	112XT
68	112XT_FR_100	LF_A	HF_A	LF_B	HF_B	112XT, HPF=100 Hz, FR contour	112XT
69	112XT_MO	LF_A	HF_A	LF_B	HF_B	112XT, full range, MO contour	112XT
70	112XT_MO_100	LF_A	HF_A	LF_B	HF_B	112XT, HPF=100 Hz, MO contour	112XT
71	112b_FI	PA_A	PA_A	PA_B	PA_B	MTDI12b passive, full range, FI contour	MTDI12b
72	112b_FI_100	PA_A	PA_A	PA_B	PA_B	MTDI12b passive, HPF=100 Hz, FI contour	MTDI12b
73	112b_FR	PA_A	PA_A	PA_B	PA_B	MTDI12b passive, full range, FR contour	MTDI12b
74	112b_FR_100	PA_A	PA_A	PA_B	PA_B	MTDI12b passive, HPF=100 Hz, FR contour	MTDI12b
75	112b_MO	PA_A	PA_A	PA_B	PA_B	MTDI12b passive, full range, MO contour	MTDI12b
76	112b_MO_100	PA_A	PA_A	PA_B	PA_B	MTDI12b passive, HPF=100 Hz, MO contour	MTDI12b
77	108a_FI	PA_A	PA_A	PA_B	PA_B	MTDI08a passive, full range, FI contour	MTDI08a
78	108a_FI_100	PA_A	PA_A	PA_B	PA_B	MTDI08a passive, HPF=100 Hz, FI contour	MTDI08a
79	108a_FR	PA_A	PA_A	PA_B	PA_B	MTDI08a passive, full range, FR contour	MTDI08a
80	108a_FR_100	PA_A	PA_A	PA_B	PA_B	MTDI08a passive, HPF=100 Hz, FR contour	MTDI08a
81	108a_MO	PA_A	PA_A	PA_B	PA_B	MTDI08a passive, full range, MO contour	MTDI08a
82	108a_MO_100	PA_A	PA_A	PA_B	PA_B	MTDI08a passive, HPF=100 Hz, MO contour	MTDI08a
83	115bP_SB118	SB_A	PA_A	SB_B	PA_B	MTDI15b pass. & SB118, X-OVER=100 Hz, FR contour	115bPSB
84	112b_SB118	SB_A	PA_A	SB_B	PA_B	MTDI12b & SB118, X-OVER=100 Hz, FR contour	112bSB
85	108a_SB118	SB_A	PA_A	SB_B	PA_B	MTDI08a & SB118, X-OVER=100 Hz, FR contour	108aSB

4.2 Delay values for combined main and subwoofer systems

The Table 2 indicates the delay values to apply when combining a main system and a subwoofer system.

Each delay value must apply for all enclosures pertaining to the corresponding system.

Table 2: System combinations and associated delays

System combinations	Associated delays for each system	
[KIVA_KILO_60] + [SB118_60]	KIVA/KILO = 0 ms	SB118 = 5.9 ms
[KIVA_KILO_60] + [SB118_60_C]	KIVA/KILO = 0 ms	SB118 = 0.4 ms
[ARCS_*LO/HI*_60] + [SB118_60]	ARCS = 0.8 ms	SB118 = 0 ms
[ARCS_*LO/HI*_100] + [SB118_100]	ARCS = 1.4 ms	SB118 = 0 ms
[ARCS_*LO/HI*_60] + [SB28_60]	ARCS = 0 ms	SB28 = 0.6 ms
[ARCS_*LO/HI*_100] + [SB28_100]	ARCS = 0 ms	SB28 = 0.5 ms
[ARCS_*LO/HI*_60] + [SB218_60]	ARCS = 0 ms	SB218 = 0.9 ms
[ARCS_*LO/HI*_100] + [SB218_100]	ARCS = 0 ms	SB218 = 0.3 ms
[ARCS_*LO/HI*_60] + [SB118_60_C]	ARCS = 6.7 ms	SB118 = 0 ms
[ARCS_*LO/HI*_100] + [SB118_100_C]	ARCS = 7.2 ms	SB118 = 0 ms
[ARCS_*LO/HI*_60] + [SB28_60_C]	ARCS = 4.9 ms	SB28 = 0 ms
[ARCS_*LO/HI*_100] + [SB28_100_C]	ARCS = 5.0 ms	SB28 = 0 ms
[12XTA_FI_100] + [SB118_100]	12XTA = 2.6 ms	SB118 = 0 ms
[12XTA_FR_100] + [SB118_100]	12XTA = 2.6 ms	SB118 = 0 ms
[12XTA_MO_100] + [SB118_100]	12XTA = 2.5 ms	SB118 = 0 ms
[12XTP_FI_100] + [SB118_100]	12XTP = 2.4 ms	SB118 = 0 ms
[12XTP_FR_100] + [SB118_100]	12XTP = 2.4 ms	SB118 = 0 ms
[12XTP_MO_100] + [SB118_100]	12XTP = 2.4 ms	SB118 = 0 ms
[8XT_FI_100] + [SB118_100]	8XT = 3.1 ms	SB118 = 0 ms
[8XT_FR_100] + [SB118_100]	8XT = 3.2 ms	SB118 = 0 ms
[8XT_MO_100] + [SB118_100]	8XT = 3.0 ms	SB118 = 0 ms
[115XT_FI_100] + [SB118_100]	115XT = 2.6 ms	SB118 = 0 ms
[115XT_FR_100] + [SB118_100]	115XT = 2.5 ms	SB118 = 0 ms
[115XT_MO_100] + [SB118_100]	115XT = 2.9 ms	SB118 = 0 ms
[115bA_FI_100] + [SB118_100]	115bA = 2.4 ms	SB118 = 0 ms
[115bA_FR_100] + [SB118_100]	115bA = 2.5 ms	SB118 = 0 ms
[115bA_MO_100] + [SB118_100]	115bA = 2.7 ms	SB118 = 0 ms
[115bP_FI_100] + [SB118_100]	115bP = 2.1 ms	SB118 = 0 ms
[115bP_FR_100] + [SB118_100]	115bP = 2.2 ms	SB118 = 0 ms
[115bP_MO_100] + [SB118_100]	115bP = 2.8 ms	SB118 = 0 ms
[112XT_FI_100] + [SB118_100]	112XT = 2.3 ms	SB118 = 0 ms
[112XT_FR_100] + [SB118_100]	112XT = 2.3 ms	SB118 = 0 ms
[112XT_MO_100] + [SB118_100]	112XT = 2.6 ms	SB118 = 0 ms
[112b_FI_100] + [SB118_100]	112b = 2.4 ms	SB118 = 0 ms
[112b_FR_100] + [SB118_100]	112b = 2.5 ms	SB118 = 0 ms
[112b_MO_100] + [SB118_100]	112b = 3.0 ms	SB118 = 0 ms
[108a_FI_100] + [SB118_100]	108a = 3.5 ms	SB118 = 0 ms
[108a_FR_100] + [SB118_100]	108a = 3.6 ms	SB118 = 0 ms
[108a_MO_100] + [SB118_100]	108a = 4.0 ms	SB118 = 0 ms

The delay can be set from the LA NETWORK MANAGER software as it is shown in the following example. A ARCS® and SB118 three-way system can be created using the [ARCS_HI_60] and [SB118_60] presets. The Table 2 indicates a delay value of 0.8 ms to apply for the ARCS®, therefore the LA NETWORK MANAGER interface must be configured as follows:

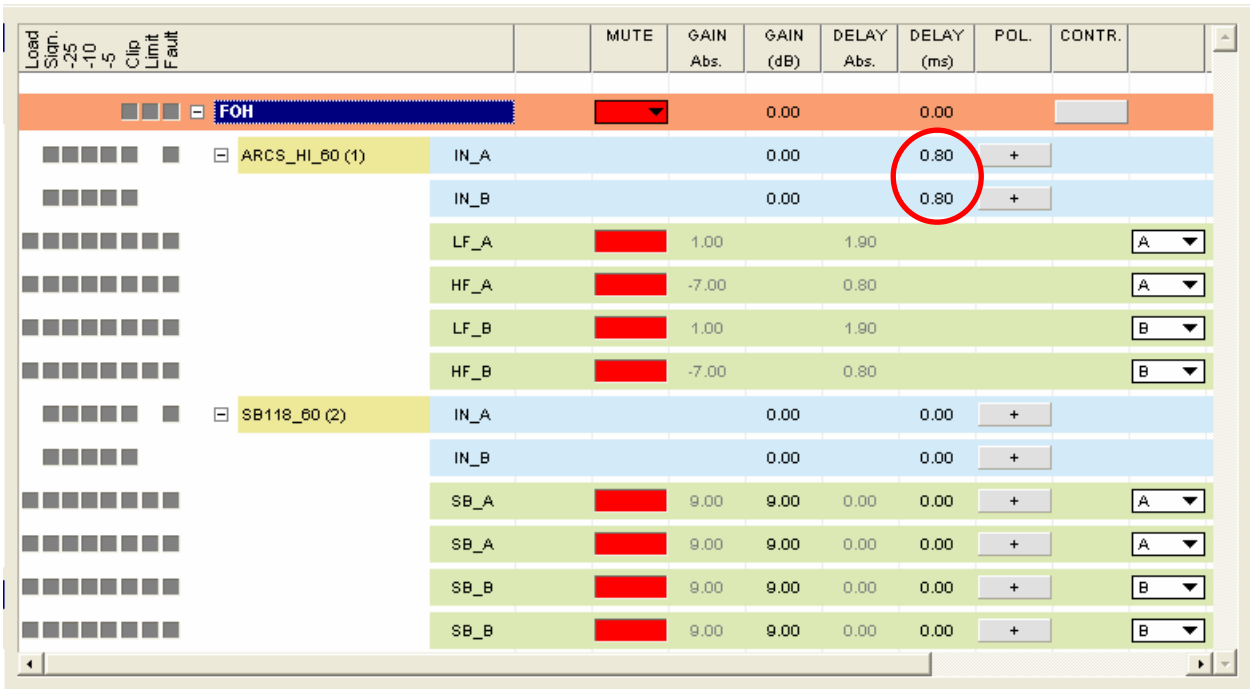


Figure 1: LA NETWORK MANAGER interface

IMPORTANT

Some "HYBRID" factory presets have been developed to combine two different presets into a single one. If a "HYBRID" preset is used the delays are already set and do **not** need any modification.

Example: If the [8XT_SB118] hybrid preset is used in place of the [8XT_FR_100] + [SB118_100] combination, the 3.2 ms delay value is already set for the 8XT.

Note: The delay can also be set from the amplified controller front panels (refer to the **"LA4"** or **"LA8 - User Manual"**).

4.3 KIVA WST® systems

4.3.1 "FULL RANGE" mode: [KIVA] and [KIVA_FI] presets

The [KIVA] preset features a dedicated system contour for mid and long throw applications within the 80-20k Hz frequency range.

Accessible parameters in [KIVA] preset are shown in the following chart:

Table 3: Accessible parameters in [KIVA] preset

LA4 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	KIVA Enclosure	PA_A	O	O	X	X
OUT 2	KIVA Enclosure	PA_A	O	O	X	X
OUT 3	KIVA Enclosure	PA_A	O	O	X	X
OUT 4	KIVA Enclosure	PA_A	O	O	X	X

* IN: input signal. A: channel A. B: channel B. PA: passive enclosure.

The [KIVA_FI] preset features a nominally flat system contour down to 80 Hz for mid throw distributed configurations. This preset is for either a single element or a pair of enclosures with inter-element angle selectable from 0° to 15°.

Accessible parameters in [KIVA_FI] preset are shown in the following chart:

Table 4: Accessible parameters in [KIVA_FI] preset

LA4 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	KIVA Enclosure	PA_A	O	O	O	O
OUT 2	KIVA Enclosure	PA_A	O	O	O	O
OUT 3	KIVA Enclosure	PA_B	O	O	O	O
OUT 4	KIVA Enclosure	PA_B	O	O	O	O

* IN: input signal. A: channel A. B: channel B. PA: passive enclosure.

4.3.2 "LOW EXTENSION" mode: [KIVA_KILO] and [KIVA_KILO_60] presets

The [KIVA_KILO] preset features a dedicated system contour designed for mid and long throw applications with a bandwidth extended down to 50 Hz. The crossover frequency between the LF and MF sections is set at 100 Hz. The recommended ratio is 3 KIVA for 1 KILO.

The [KIVA_KILO_60] preset features a dedicated system contour designed for mid and long throw applications with a high pass filter at 60 Hz. This preset is intended to use the KIVA / KILO assembly along with the SB118 subwoofer system. The recommended ratio is one 3 KIVA / 1 KILO assembly for one SB118. The bandwidth of the system is extended down to 32 Hz.

Accessible parameters in "LOW EXTENSION" mode are shown in the following chart:

Table 5: Accessible parameters in "LOW EXTENSION" mode

LA4 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	KILO Enclosure	LF_A	O	O	X	X
OUT 2	KIVA Enclosure	PA_A	O	O	X	X
OUT 3	KIVA Enclosure	PA_A	O	O	X	X
OUT 4	KIVA Enclosure	PA_A	O	O	X	X

* IN: input signal. A: channel A. PA: passive enclosure. LF: low frequency transducer.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

4.4 ARCS® WST® systems

4.4.1 "FULL RANGE" mode: [ARCS_LO] and [ARCS_HI] presets

The [ARCS_LO] and [ARCS_HI] presets feature a dedicated system contour designed for mid throw applications. The bandwidth low frequency limit is 50 Hz.

The [ARCS_LO] preset features a standard HF contour.

The [ARCS_HI] preset features an increased HF contour (3dB HF shelving EQ difference versus the [ARCS_LO] preset).

Accessible parameters in "FULL RANGE" mode are shown in the following chart:

Table 6: Accessible parameters in "FULL RANGE" mode

LA4 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	ARCS® Enclosure	LF_A	O	X	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	ARCS® Enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.

4.4.2 "HIGH-PASS" mode: [ARCS_××_60] and [ARCS_××_100] presets

The [ARCS_××_60] and [ARCS_××_100] presets feature a dedicated system contour designed for mid throw applications and include a 60 Hz or 100 Hz high-pass filter, respectively. Those presets are intended to use the ARCS® system along with the SB118, SB28, or SB218 subwoofer system. The recommended ratios are each of the following: 1 SB118/1 ARCS®, 1 SB28/2 ARCS®, or 1 SB218/2 ARCS®.

Driven by these presets the ARCS® can also be used as narrow LF bandwidth enclosures to be located in a central cluster for example.

The [ARCS_××_60] presets are intended for standalone applications or for use along with the SB118, SB28, or SB218 subwoofers respectively driven by the [SB118_60], [SB28_60], or [SB218_60] presets.

The [ARCS_××_100] presets are only intended for use along with the SB118, SB28, or SB218 subwoofers respectively driven by the [SB118_100], [SB28_100], or [SB218_100] presets.

Accessible parameters in "HIGH-PASS" mode are shown in the following chart:

Table 7: Accessible parameters in "HIGH-PASS" mode

LA4 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	ARCS® Enclosure	LF_A	O	X	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	ARCS® Enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.

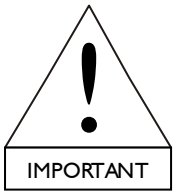
Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

4.4.3 "HYBRID" mode: [ARCS_S118_LO] and [ARCS_S118_HI] presets

In "HYBRID" mode the SB118 enclosures are coupled to the ARCS® enclosures. The frequency bandwidth of the system is extended down to 32 Hz and the crossover frequency between the SB118 and the ARCS® low sections is 60 Hz. The recommended ratio is one SB118 for one ARCS®.

The [ARCS_S118_LO] preset features a standard HF contour.

The [ARCS_S118_HI] preset features an increased HF contour (3dB HF shelving EQ difference versus the LO preset).



The [ARCS_S118_LO] preset is the association between the [ARCS_LO_60] and [SB118_60] presets.

The [ARCS_S118_HI] preset is the association between the [ARCS_HI_60] and [SB118_60] presets.

Accessible parameters in "HYBRID" mode are shown in the following chart:

Table 8: Accessible parameters in "HYBRID" mode

LA4 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	SB118 enclosure	SB_A	O	X	X	X
OUT 2	SB118 enclosure	SB_A	O	X	X	X
OUT 3	ARCS® enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. SB: subwoofer enclosure. LF: low frequency transducer. HF: high frequency transducer.

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4.5 PASSIVE coaxial enclosures

The passive coaxial enclosures are the 8XT, passive 12XT (12XTP), MTD108a, MTD112b, and passive MTD115b (MTD115bP).

The 8XT and 12XT MONITOR presets have been optimized from the 1.3 to the 2.0 version.

4.5.1 "FULL RANGE" mode: [×××_FR], [×××_FI], and [×××_MO] presets

In "FULL RANGE" mode the passive enclosures are used in standalone configurations within their nominal bandwidth, for applications not requiring low frequency extension.

The [×××_FI] "FILL" presets result in a nominally flat contour for use in speech reinforcement, classical music applications, or for close proximity fill enclosures.

The [×××_FR] "FRONT" presets are for standalone FOH applications (without subwoofers).

The [×××_MO] "MONITOR" presets result in a nominally flat contour in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Accessible parameters in "FULL RANGE" mode for PASSIVE enclosures are shown in the following chart:

Table 9: Accessible parameters in "FULL RANGE" mode for PASSIVE enclosures

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	Passive enclosure	PA_A	O	O	O	O
OUT 2	Passive enclosure	PA_A	O	O	O	O
OUT 3	Passive enclosure	PA_B	O	O	O	O
OUT 4	Passive enclosure	PA_B	O	O	O	O

* IN: input signal. A: channel A. B: channel B. PA: passive enclosure.

4.5.2 "HIGH-PASS" mode: [×××_FR_100], [×××_FI_100], and [×××_MO_100] presets

In the "HIGH-PASS" mode the passive enclosures incorporate a 100 Hz high-pass filter to allow them to be used along with the dedicated complimentary SB118 subwoofers. The bandwidth of the system is extended down to 32 Hz.

The recommended ratios are one SB118 for each of the following: one passive 12XT, one passive MTD115b, one MTD112b, two 8XT, or two MTD108a.

- The [×××_FI_100] "FILL" presets result in a nominally flat contour down to 100 Hz.
- The [×××_FR_100] "FRONT" presets are for standalone FOH applications with subwoofers.
- The [×××_MO_100] "MONITOR" presets result in a nominally flat contour down to 100 Hz in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Accessible parameters in "HIGH PASS" mode for PASSIVE enclosures are shown in the following chart:

Table 10: Accessible parameters in "HIGH-PASS" mode for PASSIVE enclosures

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	Passive enclosure	PA_A	O	O	O	O
OUT 2	Passive enclosure	PA_A	O	O	O	O
OUT 3	Passive enclosure	PA_B	O	O	O	O
OUT 4	Passive enclosure	PA_B	O	O	O	O

* IN: input signal. A: channel A. B: channel B. PA: passive enclosure.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

4.5.3 "HYBRID" mode: [×××_SB118] presets

In "HYBRID" mode the passive enclosures are coupled to the SB118 enclosures. The recommended ratios are one SB118 for each of the following: one passive 12XT, one passive MTD115b, one MTD112b, two 8XT, or two MTD108a.

The [×××_SB118] presets are for standalone FOH applications. The frequency bandwidth of the system is extended down to 32 Hz and the crossover frequency between the LF and HF sections is 100 Hz.

Accessible parameters in "HYBRID" mode are shown in the following chart:

Table 11: Accessible parameters in "HYBRID" mode

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	SB118 enclosure	SB_A	O	O	O	O
OUT 2	Passive enclosure	PA_A	O	O	O	X
OUT 3	SB118 enclosure	SB_B	O	O	O	O
OUT 4	Passive enclosure	PA_B	O	O	O	X

* IN: input signal. A: channel A. B: channel B. PA: passive enclosure. SB: subwoofer enclosure.

4.6 ACTIVE coaxial enclosures

The active coaxial enclosures to connect on the LA4 are the active 12XT (12XTA) and active MTD115b (MTD115bA).

The 12XT MONITOR presets have been optimized from the 1.3 to the 2.0 version.

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4.6.1 "FULL RANGE" mode: [×××_FR], [×××_FI], and [×××_MO] presets

In "FULL RANGE" mode the active enclosures are used in standalone configurations within their nominal bandwidth, for applications not requiring low frequency extension.

The [×××_FI] "FILL" presets result in nominally flat contours for use in speech reinforcement, classical music applications, or for close proximity fill enclosures.

The [×××_FR] "FRONT" presets are for standalone FOH applications (without subwoofers).

The [×××_MO] "MONITOR" presets result in nominally flat contours in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Accessible parameters in "FULL RANGE" mode for ACTIVE enclosures are shown in the following chart:

Table 12: Accessible parameters in "FULL RANGE" mode for ACTIVE enclosures

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	Active enclosure	LF_A	O	X**	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	Active enclosure	LF_B	O	X**	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.
** Both LF gains are unlocked for the [12XTA_MO] preset.

4.6.2 "HIGH-PASS" mode: [×××_FR_100], [×××_FI_100], and [×××_MO_100] presets

In the "HIGH-PASS" mode the active enclosures incorporate a 100 Hz high-pass filter to allow them to be used along with the dedicated complimentary SB118 subwoofers. The bandwidth of the system is extended down to 32 Hz. The recommended ratios are one SB118 for one active 12XT or one active MTD115b.

- The [×××_FI_100] "FILL" presets result in a nominally flat contour down to 100 Hz.
- The [×××_FR_100] "FRONT" presets are for standalone FOH applications with subwoofers.
- The [×××_MO_100] "MONITOR" presets result in a nominally flat contour down to 100 Hz in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Accessible parameters in "HIGH-PASS" mode for ACTIVE enclosures are shown in the following chart:

Table 13: Accessible parameters in "HIGH-PASS" mode for ACTIVE enclosures

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	Active enclosure	LF_A	O	X**	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	Active enclosure	LF_B	O	X**	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.
** Both LF gains are unlocked for the [12XTA_MO_100] preset.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

4.7 SB118 subwoofer enclosures

The complimentary SB118 enclosures are for extending the low frequency response of a main system down to 32 Hz.

4.7.1 "STANDARD" mode: [SB118_60] and [SB118_100] presets

The "STANDARD" mode consists in arraying all SB118 enclosures with front side facing the audience, so as to obtain an omni-directional coverage pattern.

As an example, the Figure 2 shows a standard line-up array. Refer to the **"SB118 – User Manual"** to get acquainted with all subwoofer arraying possibilities.

The associated standard presets are available in both LA4 and LA8 libraries.

Note: In this mode the SB118 enclosures can also be used in stereo or distributed configurations.

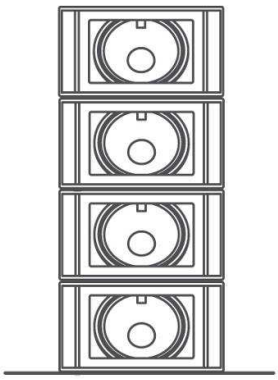

Figure 2: Standard SB118 line-up array

The [SB118_60] preset features a 60 Hz low-pass filter allowing the SB118 to be used as a subwoofer companion for KUDO®, dV-DOSC/dV-SUB, ARCS®, and KIVA/KILO systems.

The [SB118_100] preset features a 100 Hz low-pass filter allowing the SB118 to be used as a subwoofer companion for dV-DOSC, ARCS®, XT, and MTD systems.

Accessible parameters in "STANDARD" mode are shown in the following chart:

Table 14: Accessible parameters in "STANDARD" mode

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	SB118 enclosure	SB_A	O	O	O	O
OUT 2	SB118 enclosure	SB_A	O	O	O	O
OUT 3	SB118 enclosure	SB_B	O	O	O	O
OUT 4	SB118 enclosure	SB_B	O	O	O	O

* IN: input signal. A: channel A. B: channel B. SB: subwoofer enclosure.

Note: The main system enclosures must be connected to additional amplified controllers. See instructions in this manual.

4.7.2 "CARDIOID" mode: [SB118_60_C] and [SB118_100_C] presets

The "CARDIOID" mode consists in arraying the SB118 enclosures with some of them being reversed from front to rear so as to obtain a cardioid coverage pattern, providing a maximum rejection to the rear.

As an example, the Figure 3 shows a cardioid line-up array. Refer to the **"SB118 – User Manual"** to get acquainted with all subwoofer arraying possibilities.

The associated cardioid presets are available in both LA4 and LA8 libraries.

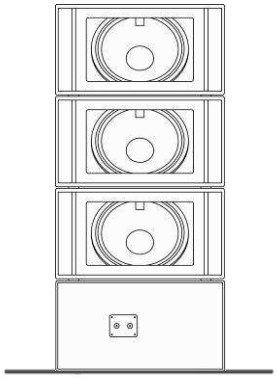

Figure 3 : Cardioid SB118 line-up array (front view)

The [SB118_60_C] preset features a 60 Hz low-pass filter allowing the SB118 to be used as a cardioid subwoofer companion for KUDO®, dV-DOSC/dV-SUB, ARCS®, and KIVA/KILO systems.

The [SB118_100_C] preset features a 100 Hz low-pass filter allowing the SB118 to be used as a cardioid subwoofer companion for dV-DOSC, ARCS®, XT, and MTD systems.

Accessible parameters in "CARDIOID" mode are shown in the following chart:

Table 15: Accessible parameters in "CARDIOID" mode

LA4 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	SB118 reversed enclosure	SR_A	O	X	X	X
OUT 2	SB118 enclosure	SB_A	O	X	X	X
OUT 3	SB118 enclosure	SB_A	O	X	X	X
OUT 4	SB118 enclosure	SB_A	O	X	X	X

* IN: input signal. A: channel A. SB: subwoofer enclosure. SR: reversed subwoofer enclosure.

Note: The main system enclosures must be connected to additional amplified controllers. See instructions in this manual.

5 LA8 PRESET LIBRARY (VERSION 2.0)

5.1 Preset description sheet

A complete onboard Preset Library is stored among the 89 OEM Memory Locations (from 11 to 99) of the LA8 controller to cover all principal system configurations for a selected range of L-ACOUSTICS® speakers. The Table 16 below shows the Version 2.0 of the LA8 Preset Library: 54 presets are available and each one is described with its memory location number, name, channel assignments, and family.

115XT HiQ coaxial system and [dV_FI] presets

The [×××_FI] "FILL" presets result in nominally flat contours for use in speech reinforcement, classical music applications, or for close proximity fill enclosures.

The [×××_FR] "FRONT" presets are for standalone FOH applications (without subwoofers).

The [×××_MO] "MONITOR" presets result in nominally flat contours in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

WST® system presets (K1, K1-SB, V-DOSC, KUDO, dV-DOSC, dV-D_dVS, and ARCS families)

The [K1SB_X] / [K1SB_60] preset is for building a "THROW" / "CONTOUR" coverage pattern along with the [K1] preset (refer to the **"K1"** or **"K1-SB - User Manual"**).

In the V-DOSC, dV-DOSC, dV-D_dVS, and ARCS families the LO presets feature a standard HF contour and the HI presets feature an increased HF contour (3 dB HF shelving EQ difference versus the LO presets).

The [KUDO50], [KUDO80], and [KUDO110] presets feature specific components equalizations to optimize the frequency response of the KUDO® system whether the K-LOUVER® directivity setting is respectively 50°, 80° or 110° (see the **"KUDO® - User Manual"**).

The [×××_60] / [×××_100] presets include a 60 Hz/100 Hz high-pass filter allowing the main systems to be used along with 60 Hz/100 Hz low-filtered subwoofer systems.

The [V-DOSC_×××_**X**] presets provide full range equalization allowing the V-DOSC® systems to be used along with 200 Hz low-filtered subwoofer systems. These presets make both V-DOSC® and subwoofer system bandwidths evenly cross in the low frequency range.

The [dV_dV-S_×××] presets are engineered for hybrid configurations using dV-DOSC and dV-SUB enclosures. The crossover frequency between the dV-SUB and dV-DOSC low section is 100 Hz.

Subwoofer system presets (dV-SUB, SB118, SB28, and SB218 families)

The [×××_60] / [×××_100] presets include a 60 Hz/100 Hz low-pass filter allowing the subwoofer systems to be used as companion for 60 Hz/100 Hz high-pass filtered main systems.

The [×××_**X**] presets include a 200 Hz low-pass filter allowing the subwoofer systems to be used as companion for full range V-DOSC® systems driven by the [V-DOSC_×××_**X**] presets. These presets make both V-DOSC® and subwoofer system bandwidths evenly cross in the low frequency range.

The [dV-S_60_×××] presets also include a 60 Hz high-pass filter allowing the dV-SUB systems to be used along with 60 Hz low-pass filtered subwoofer systems.

The [×××_C] presets feature specific equalization settings allowing the subwoofers to build a "cardioid" coverage pattern array (see the **"SB118"** or **"SB28 - User Manual"**).

In Table 16 the four output channels are labeled "××_×" where:

- The first 2 digits indicate the kind of transducer to be connected to the corresponding output channel:
  LF, MF, HF: Low, Mid, or High frequency transducer, respectively
  SB: Subwoofer
  SR: Reversed subwoofer for "cardioid" applications

- The last digit indicates which input channel the output is driven by:
  A, B: Output driven by input A or B, respectively

Table 16: LA8 factory Preset Library description sheet (version 2.0)

N°	PRESET NAME	OUT 1	OUT 2	OUT 3	OUT 4	DESCRIPTION	FAMILY
11	K1	LF_A	LF_A	MF_A	HF_A	K1, full range	K1
12	K1SB_60	SB_A	SB_A	SB_A	SB_A	K1-SB, LPF=60 Hz, optimized for [K1] preset in CONTOUR configuration	K1-SB
13	K1SB_X	SB_A	SB_A	SB_A	SB_A	K1-SB, LPF=200 Hz, optimized for [K1] preset in THROW configuration	K1-SB
14	V-DOSC_LO	LF_A	LF_A	MF_A	HF_A	V-DOSC, full range, LO contour	V-DOSC
15	V-DOSC_LO_60	LF_A	LF_A	MF_A	HF_A	V-DOSC, HPF=60 Hz, LO contour	V-DOSC
16	V-DOSC_LO_**X**	LF_A	LF_A	MF_A	HF_A	V-DOSC, full range, LO contour, optimized for SB218 & dV-SUB **X** presets	V-DOSC
17	V-DOSC_HI	LF_A	LF_A	MF_A	HF_A	V-DOSC, full range, HI contour	V-DOSC
18	V-DOSC_HI_60	LF_A	LF_A	MF_A	HF_A	V-DOSC, HPF=60 Hz, HI contour	V-DOSC
19	V-DOSC_HI_**X**	LF_A	LF_A	MF_A	HF_A	V-DOSC, full range, HI contour, optimized for SB218 & dV-SUB **X** presets	V-DOSC
20	KUDO50_25	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=25 Hz, 50° K-Louver settings	KUDO
21	KUDO50_40	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=40 Hz, 50° K-Louver settings	KUDO
22	KUDO50_60	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=60 Hz, 50° K-Louver settings	KUDO
23	KUDO80_25	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=25 Hz, 80° K-Louver settings	KUDO
24	KUDO80_40	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=40 Hz, 80° K-Louver settings	KUDO
25	KUDO80_60	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=60 Hz, 80° K-Louver settings	KUDO
26	KUDO110_25	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=25 Hz, 110° K-Louver settings	KUDO
27	KUDO110_40	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=40 Hz, 110° K-Louver settings	KUDO
28	KUDO110_60	LF_A	LF_A	MF_A	HF_A	KUDO, HPF=60 Hz, 110° K-Louver settings	KUDO
29	dV_FI	LF_A	HF_A	LF_B	HF_B	dV-DOSC, full range, FI contour	dV-DOSC
30	dV_LO	LF_A	HF_A	LF_B	HF_B	dV-DOSC, full range, LO contour	dV-DOSC
31	dV_LO_100	LF_A	HF_A	LF_B	HF_B	dV-DOSC, HPF=100 Hz, LO contour	dV-DOSC
32	dV_HI	LF_A	HF_A	LF_B	HF_B	dV-DOSC, full range, HI contour	dV-DOSC
33	dV_HI_100	LF_A	HF_A	LF_B	HF_B	dV-DOSC, HPF=100 Hz, HI contour	dV-DOSC
34	dV_dV-S_LO	SB_A	SB_A	LF_B	HF_B	dV-DOSC & dV-SUB, X-OVER=100 Hz, LO contour	dV-D_dVS
35	dV_dV-S_LO60	SB_A	SB_A	LF_B	HF_B	dV-DOSC & dV-SUB, HPF=60 Hz, X-OVER=100 Hz, LO contour	dV-D_dVS
36	dV_dV-S_HI	SB_A	SB_A	LF_B	HF_B	dV-DOSC & dV-SUB, X-OVER=100 Hz, HI contour	dV-D_dVS
37	dV_dV-S_HI60	SB_A	SB_A	LF_B	HF_B	dV-DOSC & dV-SUB, HPF=60 Hz, X-OVER=100 Hz, HI contour	dV-D_dVS
38	dV-S_60_100	SB_A	SB_A	SB_B	SB_B	dV-SUB, HPF=60 Hz, LPF=100 Hz	dV-SUB
39	dV-S_100	SB_A	SB_A	SB_B	SB_B	dV-SUB, LPF=100 Hz	dV-SUB
40	dV-S_60_**X**	SB_A	SB_A	SB_B	SB_B	dV-SUB, HPF=60 Hz, LPF=200 Hz, optimized for [V-DOSC_××_60] presets	dV-SUB
41	dV-S_**X**	SB_A	SB_A	SB_B	SB_B	dV-SUB, LPF=200 Hz, optimized for [V-DOSC_××_**X**] presets	dV-SUB
42	ARCS_LO	LF_A	HF_A	LF_B	HF_B	ARCS, full range, LO contour	ARCS
43	ARCS_LO_60	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=60 Hz, LO contour	ARCS
44	ARCS_LO_100	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=100 Hz, LO contour	ARCS
45	ARCS_HI	LF_A	HF_A	LF_B	HF_B	ARCS, full range, HI contour	ARCS
46	ARCS_HI_60	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=60 Hz, HI contour	ARCS
47	ARCS_HI_100	LF_A	HF_A	LF_B	HF_B	ARCS, HPF=100 Hz, HI contour	ARCS

48	HIQ_FI	LF_A	HF_A	LF_B	HF_B	HIQ, full range, FI contour	115XTHiQ
49	HIQ_FI_100	LF_A	HF_A	LF_B	HF_B	HIQ, HPF=100 Hz, FI contour	115XTHiQ
50	HIQ_FR	LF_A	HF_A	LF_B	HF_B	HIQ, full range, FR contour	115XTHiQ
51	HIQ_FR_100	LF_A	HF_A	LF_B	HF_B	HIQ, HPF=100 Hz, FR contour	115XTHiQ
52	HIQ_MO	LF_A	HF_A	LF_B	HF_B	HIQ, full range, MO contour	115XTHiQ
53	HIQ_MO_100	LF_A	HF_A	LF_B	HF_B	HIQ, HPF=100 Hz, MO contour	115XTHiQ
54	SB118_60	SB_A	SB_A	SB_B	SB_B	SB118, LPF=60 Hz	SB118
55	SB118_100	SB_A	SB_A	SB_B	SB_B	SB118, LPF=100 Hz	SB118
56	SB118_60_C	SR_A	SB_A	SB_A	SB_A	SB118, LPF=60 Hz, cardioid coverage pattern	SB118
57	SB118_100_C	SR_A	SB_A	SB_A	SB_A	SB118, LPF=100 Hz, cardioid coverage pattern	SB118
58	SB28_60	SB_A	SB_A	SB_B	SB_B	SB28, LPF=60 Hz	SB28
59	SB28_100	SB_A	SB_A	SB_B	SB_B	SB28, LPF=100 Hz	SB28
60	SB28_60_C	SR_A	SB_A	SB_A	SB_A	SB28, LPF=60 Hz, cardioid coverage pattern	SB28
61	SB28_100_C	SR_A	SB_A	SB_A	SB_A	SB28, LPF=100 Hz, cardioid coverage pattern	SB28
62	SB218_60	SB_A	SB_A	SB_B	SB_B	SB218, LPF=60 Hz	SB218
63	SB218_100	SB_A	SB_A	SB_B	SB_B	SB218, LPF=100 Hz	SB218
64	SB218_**X**	SB_A	SB_A	SB_B	SB_B	SB218, LPF=200 Hz, optimized for [V-DOSC_××_**X**] presets	SB218

5.2 Delay values for combined main and subwoofer systems

The Table 17 indicates the delay values to apply when combining a main system and a subwoofer system.

Each delay value must apply for all enclosures pertaining to the corresponding system.

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Table 17: System combinations and associated delays

System combinations	Associated delays for each system		
[K1] + [K1SB_**X**], THROW configuration	K1 = 0 ms	K1-SB = 0 ms	
[K1] + [K1SB_60], CONTOUR configuration, K1 beside K1-SB	K1 = 6 ms	K1-SB = 0 ms	
[K1] + [K1SB_60], CONTOUR configuration, K1 behind K1-SB	K1 = 11 ms	K1-SB = 0 ms	
[K1] + [SB28_60]	K1 = 0 ms	SB28 = 4 ms	
[K1] + [SB28_60_C]	K1 = 1.5 ms	SB28 = 0 ms	
[K1] + [dV_*LO/HI*_100], downfill configuration	K1 = 0 ms	dV-DOSC = 0 ms	
[V-DOSC_*LO/HI*_60] + [dV_*LO/HI*_100]	V-DOSC = 0 ms	dV-DOSC = 0 ms	
[V-DOSC_*LO/HI*_60] + [SB218_60]	V-DOSC = 0 ms	SB218 = 3.76 ms	
[V-DOSC_*LO/HI*_60] + [SB28_60]	V-DOSC = 0 ms	SB28 = 3.76 ms	
[V-DOSC_*LO/HI*_60] + [SB28_60_C]	V-DOSC = 1.79 ms	SB28 = 0 ms	
[V-DOSC_*LO/HI*_**X**] + [SB218_**X**]	V-DOSC = 1.79 ms	SB218 = 0 ms	
[V-DOSC_*LO/HI*_ **X**] + [dV-S_**X**]	V-DOSC = 0 ms	dV-SUB = 0.16 ms	
[V-DOSC_*LO/HI*_60] + [dV-S_60_ **X**] + [SB218_60]	V-DOSC = 0 ms	dV-SUB = 0.16 ms	SB218 = 3.66 ms
[V-DOSC_*LO/HI*_60] + [dV-S_60_ **X**] + [SB28_60]	V-DOSC = 0 ms	dV-SUB = 0.16 ms	SB218 = 3.66 ms
[V-DOSC_*LO/HI*_60] + [dV-S_60_ **X**] + [SB28_60_C]	V-DOSC = 1.84 ms	dV-SUB = 2.1 ms	SB28 = 0 ms
[KUDO*50/80/110*_60] + [SB118_60]	KUDO = 0 ms	SB118 = 3.5 ms	
[KUDO*50/80/110*_60] + [SB118_60_C]	KUDO = 2 ms	SB118 = 0 ms	
[KUDO*50/80/110*_60] + [SB218_60]	KUDO = 0 ms	SB218 = 5 ms	
[KUDO*50/80/110*_60] + [SB28_60]	KUDO = 0 ms	SB28 = 5 ms	
[KUDO*50/80/110*_60] + [SB28_60_C]	KUDO = 0.5 ms	SB28 = 0 ms	
[dV_*LO/HI*_100] + [dV-S_100]	dV = 0 ms	dV-SUB = 0.3 ms	
[dV_*LO/HI*_100] + [SB118_100]	dV = 2.2 ms	SB118 = 0 ms	
[dV_*LO/HI*_100] + [SB218_100]	dV = 0.3 ms	SB218 = 0 ms	
[dV_*LO/HI*_100] + [SB28_100]	dV = 0.3 ms	SB28 = 0 ms	
[dV_*LO/HI*_100] + [SB118_100_C]	dV = 7.7 ms	SB118 = 0 ms	
[dV_*LO/HI*_100] + [SB28_100_C]	dV = 5.8 ms	SB28 C = 0 ms	
[dV_*LO/HI*_100] + [dV-S_60_100] + [SB118_60]	dV = 0 ms	dV-SUB = 1.25 ms	SB118 = 4.5 ms
[dV_*LO/HI*_100] + [dV-S_60_100] + [SB218_60]	dV = 0 ms	dV-SUB = 1.25 ms	SB218 = 5 ms
[dV_*LO/HI*_100] + [dV-S_60_100] + [SB28_60]	dV = 0 ms	dV-SUB = 1.25 ms	SB28 = 5 ms
[dV_*LO/HI*_100] + [dV-S_60_100] + [SB118_60_C]	dV = 1 ms	dV-SUB = 2.25 ms	SB118 = 0 ms
[dV_*LO/HI*_100] + [dV-S_60_100] + [SB28_60_C]	dV = 0.5 ms	dV-SUB = 2.8 ms	SB28 = 0 ms
[ARCS_*LO/HI*_60] + [SB118_60]	ARCS = 0.8 ms	SB118 = 0 ms	
[ARCS_*LO/HI*_100] + [SB118_100]	ARCS = 1.4 ms	SB118 = 0 ms	
[ARCS_*LO/HI*_60] + [SB28_60]	ARCS = 0 ms	SB28 = 0.6 ms	
[ARCS_*LO/HI*_100] + [SB28_100]	ARCS = 0 ms	SB28 = 0.5 ms	
[ARCS_*LO/HI*_60] + [SB218_60]	ARCS = 0 ms	SB218 = 0.9 ms	
[ARCS_*LO/HI*_100] + [SB218_100]	ARCS = 0 ms	SB218 = 0.3 ms	
[ARCS_*LO/HI*_60] + [SB118_60_C]	ARCS = 6.7 ms	SB118 = 0 ms	
[ARCS_*LO/HI*_100] + [SB118_100_C]	ARCS = 7.2 ms	SB118 = 0 ms	
[ARCS_*LO/HI*_60] + [SB28_60_C]	ARCS = 4.9 ms	SB28 = 0 ms	
[ARCS_*LO/HI*_100] + [SB28_100_C]	ARCS = 5.0 ms	SB28 = 0 ms	
[HIQ_FI_100] + [SB118_100]	HiQ = 2.6 ms	SB118 = 0 ms	
[HIQ_FR_100] + [SB118_100]	HiQ = 2.6 ms	SB118 = 0 ms	
[HIQ_MO_100] + [SB118_100]	HiQ = 2.6 ms	SB118 = 0 ms	
[HIQ_FI_100] + [dV-S_100]	HiQ = 0.6 ms	dV-SUB = 0 ms	
[HIQ_FR_100] + [dV-S_100]	HiQ = 0.6 ms	dV-SUB = 0 ms	
[HIQ_MO_100] + [dV-S_100]	HiQ = 0.6 ms	dV-SUB = 0 ms	

The delay can be set from the LA NETWORK MANAGER software as it is shown in the following example. A ARCS® and SB118 three-way system can be created using the [ARCS_HI_60] and [SB118_60] presets. The Table 17 indicates a delay value of 0.8 ms to apply for the ARCS®, therefore the LA NETWORK MANAGER interface must be configured as follows:

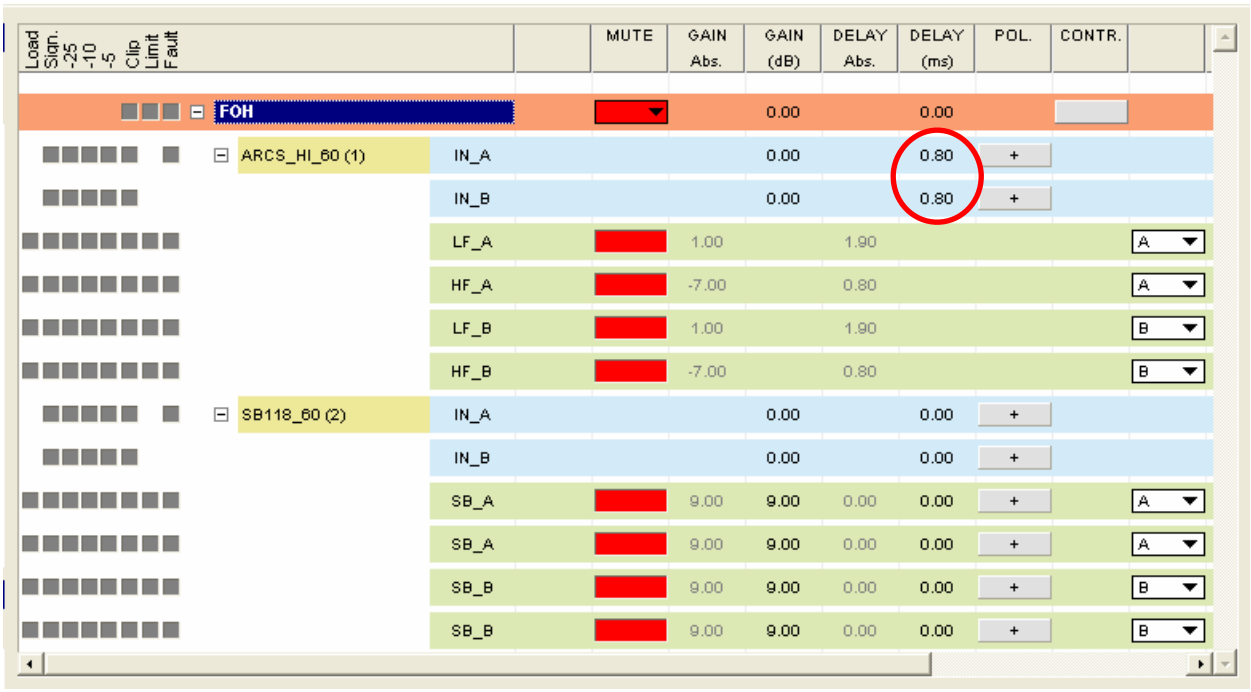

Figure 4: LA NETWORK MANAGER interface

Some "LOW EXTENSION" factory presets have been developed to combine two different presets into a single one. If a "LOW EXTENSION" preset is used the delays are already set and do **not** need any modification.

Example: If the [dV_dV-S_ LO60] + [SB118_60] preset combination is used instead of the [dV_LO_100] + [dV-S_60_100] + [SB118_60] one, the 1.25 ms delay is already set for the dV-SUB. On the contrary, the 4.5 ms delay must be set for the SB118 as it is part of an individual preset.

Note: The delay can also be set from the amplified controller front panels (refer to the **"LA4"** or **"LA8 - User Manual"**).

5.3 K1 WST® systems

5.3.1 "FULL RANGE" mode: [K1] preset

In the "FULL RANGE" mode the K1 enclosure provides maximum low frequency extension allowing standalone configurations without subwoofers in a large number of applications

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The [K1] preset features a high-pass filter for the low section combined with optimized low frequency shelving equalization resulting in 35 Hz low frequency limit.

The following table shows the parameters which are accessible in the "FULL RANGE" mode:

Table 18: Accessible parameters for the [K1] preset

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) controls			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Left LF transducer	LF_A	O	X	X	X
OUT 2	Right LF transducer	LF_A	O	X	X	X
OUT 3	MF section	MF_A	O	X	X	X
OUT 4	HF section	HF_A	O	X	X	X

* IN: input signal. A, B: channel A, B. LF: low frequency transducer. MF: medium frequency transducer. HF: high frequency transducer.

5.3.2 "EXTENDED" mode: [K1] preset combined with [K1SB_X] or [K1SB_60]

In the "EXTENDED" mode the K1 enclosure combines with the **L-ACOUSTICS® K1-SB** dedicated LF enclosure within one of the following configurations (also refer to the **"K1" or "K1-SB - User Manual"**):

- The "THROW" configuration consists in arraying K1-SB enclosures on top of a K1 line source array so as to increase the array height and thus enhance the system sub-low throw capability. Combine the [K1] and [K1SB_X] presets.
- The "CONTOUR" configuration consists in installing a K1-SB line array besides or behind a K1 line source array so as to reinforce the system sub-low frequency response and improve the side or rear LF rejection respectively. Combine the [K1] and [K1SB_60] presets.

In both configurations the combined system low frequency limit is 35 Hz and the recommended ratio is two K1 for one K1-SB. The accessible parameters in "EXTENDED" mode are show in Table 18 for the [K1] preset and in the following Table 19 for the [K1SB_X] and [K1SB_60] presets:

Table 19: Accessible parameters for the [K1SB_X] and [K1SB_60] presets

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) controls			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	K1-SB subwoofer	SB_A	O	X	X	X
OUT 2	K1-SB subwoofer	SB_A	O	X	X	X
OUT 3	K1-SB subwoofer	SB_A	O	X	X	X
OUT 4	K1-SB subwoofer	SB_A	O	X	X	X

* IN: input signal. A, B: channel A, B. SB: subwoofer enclosure.

5.4 V-DOSC® WST® systems

5.4.1 "FULL RANGE" mode: [V-DOSC_LO] and [V-DOSC_HI] presets

The [V-DOSC_LO] and [V-DOSC_HI] presets feature dedicated system contours designed for long throw applications. The bandwidth low frequency limit is 40 Hz.

The [V-DOSC_LO] preset features a standard HF contour.

The [V-DOSC_HI] preset features an increased HF contour (3dB HF shelving EQ difference versus the LO preset).

Accessible parameters in "FULL RANGE" mode are shown in the following chart:

Table 20: Accessible parameters in "FULL RANGE" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Left LF transducer	LF_A	O	X	X	X
OUT 2	Right LF transducer	LF_A	O	X	X	X
OUT 3	MF section	MF_A	O	X	X	X
OUT 4	HF section	HF_A	O	X	X	X

* IN: input signal. A: channel A. LF: low frequency transducer. MF: medium frequency transducer. HF: high frequency transducer.

5.4.2 "HIGH-PASS" mode: [V-DOSC_LO_60] and [V-DOSC_HI_60] presets

The [V-DOSC_LO _60] and [V-DOSC _HI_60] presets include a 60 Hz high-pass filter allowing the main systems to be used along with the SB218 [SB218_60] or SB28 [SB28_60] 60 Hz low-pass filtered subwoofer systems. The recommended ratios are 3 V-DOSC® for 2 SB218 or 2 SB28.

Accessible parameters in "HIGH-PASS" mode are shown in the following chart:

Table 21: Accessible parameters in "HIGH PASS" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Left LF transducer	LF_A	O	X	X	X
OUT 2	Right LF transducer	LF_A	O	X	X	X
OUT 3	MF section	MF_A	O	X	X	X
OUT 4	HF section	HF_A	O	X	X	X

* IN: input signal. A: channel A. LF: low frequency transducer. MF: medium frequency transducer. HF: high frequency transducer.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

5.4.3 "EXTENDED" mode: [V-DOSC_LO_X] and [V-DOSC_HI_X] presets

The [V-DOSC_LO_X] and [V-DOSC_HI_X] presets provide full range equalization allowing the V-DOSC® systems to be used along with the SB218 [SB218_X] or dV-SUB [dV-S_X] 200 Hz low-filtered subwoofer systems, in order to increase the system low frequency energy. Those presets make both V-DOSC® and subwoofer system bandwidths evenly cross in the low frequency range: the use of identical low-pass filters (200 Hz) for the subwoofer and low sections prevent the sound from being distorted because of phase variations.

The use of X presets is possible only when the V-DOSC® and SB218 or dV-SUB arrays are closely coupled to each other.

Accessible parameters in "EXTENDED" mode are shown in the following chart:

Table 22: Accessible parameters in "EXTENDED" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Left LF transducer	LF_A	O	X	X	X
OUT 2	Right LF transducer	LF_A	O	X	X	X
OUT 3	MF section	MF_A	O	X	X	X
OUT 4	HF section	HF_A	O	X	X	X

* IN: input signal. A: channel A. LF: low frequency transducer. MF: medium frequency transducer. HF: high frequency transducer.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

5.5 KUDO® WST® systems

5.5.1 "FULL RANGE" mode: [KUDO××_25] and [KUDO××_40] presets

The [KUDO50_25], [KUDO80_25], and [KUDO110_25] presets feature a 25 Hz high-pass filter resulting in a low frequency limit of 35 Hz.

The [KUDO50_40], [KUDO80_40], and [KUDO110_40] presets feature a 40 Hz high-pass filter resulting in a low frequency limit of 40 Hz.

The [KUDO50_××], [KUDO80_××], and [KUDO110_××] presets are specifically equalized to optimize the frequency response of the KUDO® system whether the K-LOUVER® directivity setting is respectively 50°, 80° or 110° (refer to the **"KUDO® - User Manual"**).

Always ensure that the K-LOUVER® panels are set in accordance with the selected preset.

Accessible parameters in "FULL RANGE" mode are shown in the following chart:

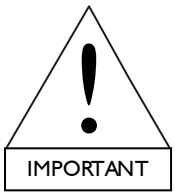
Table 23: Accessible parameters in "FULL RANGE" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Left LF transducer	LF_A	O	X	X	X
OUT 2	Right LF transducer	LF_A	O	X	X	X
OUT 3	MF section	MF_A	O	X	X	X
OUT 4	HF section	HF_A	O	X	X	X

* IN: input signal. A: channel A. LF: low frequency transducer. MF: medium frequency transducer. HF: high frequency transducer.

5.5.2 "HIGH-PASS" mode: [KUDO××_60] presets

The [KUDO50_60], [KUDO80_60], and [KUDO110_60] presets feature a 60 Hz high-pass filter and specific component equalization to optimize the frequency response of the KUDO® system whether the K-LOUVER® directivity setting is respectively 50°, 80° or 110° (refer to the **"KUDO® - User Manual"**).



Always ensure that the K-LOUVER® panels are set in accordance with the selected preset.

Those presets are engineered for the KUDO® system to be combined with the SB118, SB28, or SB218 companion subwoofers to extend the systems low frequency operating range. The recommended ratios are 3 KUDO® for each of the following: 2 SB118, 1 SB28, or 1 SB218. For applications requiring an increased energy in the sub-lo frequency range the recommended ratios become 2 KUDO® for each of the following: 2 SB118, 1 SB28, or 1 SB218.

Those presets are also suitable in standalone applications as reducing the low frequency bandwidth allow the KUDO® array to be used as a central cluster, for example.

Accessible parameters in "HIGH-PASS" mode are shown in the following chart:

Table 24: Accessible parameters in "HIGH-PASS" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Left LF transducer	LF_A	O	X	X	X
OUT 2	Right LF transducer	LF_A	O	X	X	X
OUT 3	MF section	MF_A	O	X	X	X
OUT 4	HF section	HF_A	O	X	X	X

* IN: input signal. A: channel A. LF: low frequency transducer. MF: medium frequency transducer. HF: high frequency transducer.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

5.6 dV-DOSC WST® systems

5.6.1 "FULL RANGE" mode: [dV_LO], [dV_HI], and [dV_FI] presets

The [dV_LO] and [dV_HI] presets feature a dedicated system contour designed for long throw applications. The bandwidth low frequency limit is 65 Hz.

- The [dV_LO] preset features a standard HF contour.
- The [dV_HI] preset features an increased HF contour (3dB HF shelving EQ difference versus the LO preset).

The [dV_FI] preset features a nominally flat system contour down to 100 Hz for short or mid throw distributed applications. This preset is for either a single element or a pair of enclosures with inter-element angle adjustable from 0° to 7.5°.

Accessible parameters in "FULL RANGE" mode are shown in the following chart:

Table 25: Accessible parameters in "FULL RANGE" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	dV-DOSC enclosure	LF_A	O	X	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	dV-DOSC enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.

5.6.2 "HIGH-PASS" mode: [dV_LO_100] and [dV_HI_100] presets

The [dV_LO _100] and [dV _HI_100] presets incorporate a 100 Hz high-pass filter allowing the main systems to be used along with the SB118 [SB118_100], SB28 [SB28_100], or SB218 [SB218_100] 100 Hz low-filtered subwoofer systems. The recommended ratios are 3 dV-DOSC for each of the following: 2 SB118, 1 SB28, or 1 SB218.

The [dV_LO _100] and [dV_HI_100] presets are also intended for dV-DOSC enclosures to be used in upfill or dowfill applications with V-DOSC® systems.

Accessible parameters in "HIGH-PASS" mode are shown in the following chart:

Table 26: Accessible parameters in "HIGH-PASS" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	dV-DOSC enclosure	LF_A	O	X	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	dV-DOSC enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.

Note: If complementary enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

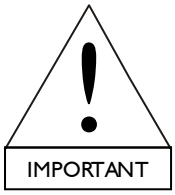
5.6.3 "LOW EXTENSION" mode: [dV_dV-S_**] and [dV_dV-S_**60] presets

In "LOW EXTENSION" mode the dV-DOSC enclosures are coupled to the dV-SUB enclosures. The system frequency bandwidth is extended down to 35 Hz and the crossover frequency between the dV-SUB and dV-DOSC low section is 100 Hz. The recommended ratio is 1 dV-SUB for 3 dV-DOSC.

The [dV_dV-S_LO] preset features a standard HF contour.

The [dV_dV-S_HI] preset features an increased HF contour (3dB HF shelving EQ difference versus the LO preset).

The [dV_dV-S_LO60] and [dV_dV-S_HI60] presets feature a 60 Hz high-pass filter allowing the dV-DOSC system to be used within an active 4-way configuration. The dV-DOSC / dV-SUB assembly is coupled with the 60 Hz low-pass filtered SB118 [SB118_60], SB28 [SB28_60], or SB218 [SB218_60] subwoofers. The recommended ratios are one 3 dV-DOSC/1 dV-SUB assembly for each of the following: two SB118, one SB28, or one SB218.



The "LOW EXTENSION" presets can be implemented by using the following preset associations:
[dV_dV-S_LO] = [dV_LO_100] + [dV-S_100]
[dV_dV-S_HI] = [dV_HI_100] + [dV-S_100]
[dV_dV-S_LO60] = [dV_LO_100] +[dV-S_60_100]
[dV_dV-S_HI60] = [dV_HI_100] +[dV-S_60_100]

Accessible parameters in "LOW EXTENSION" mode are shown in the following chart:

Table 27: Accessible parameters in "LOW EXTENSION" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	dV-SUB enclosure	SB_A	O	O	O	O
OUT 2	dV-SUB enclosure	SB_A	O	O	O	O
OUT 3	dV-DOSC enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. SB: subwoofer enclosure. LF: low frequency transducer. HF: high frequency transducer.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

5.7 ARCS® WST® systems

5.7.1 "FULL RANGE" mode: [ARCS_LO] and [ARCS_HI] presets

The [ARCS_LO] and [ARCS_HI] presets feature a dedicated system contour designed for mid throw applications. The bandwidth low frequency limit is 50 Hz. The [ARCS_LO] preset features a standard HF contour. The [ARCS_HI] preset features an increased HF contour (3dB HF shelving EQ difference versus the [ARCS_LO] preset). Accessible parameters in "FULL RANGE" mode are shown in the following chart:

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Table 28: Accessible parameters in "FULL RANGE" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	ARCS® Enclosure	LF_A	O	X	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	ARCS® Enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.

5.7.2 "HIGH-PASS" mode: [ARCS_××_60] and [ARCS_××_100] presets

The [ARCS_××_60] and [ARCS_××_100] presets feature a dedicated system contour designed for mid throw applications and include a 60 Hz or 100 Hz high-pass filter, respectively. Those presets are intended to use the ARCS® system along with the SB118, SB28, or SB218 subwoofer system. The recommended ratios are each of the following: 1 SB118/1 ARCS®, 1 SB28/2 ARCS®, or 1 SB218/2 ARCS®.

Note: Driven by these presets the ARCS® can also be used as narrow LF bandwidth enclosures to be located in a central cluster for example.

The [ARCS_××_60] presets are intended for standalone applications or for use along with the SB118, SB28, or SB218 subwoofers respectively driven by the [SB118_60], [SB28_60], or [SB218_60] presets.

The [ARCS_××_100] presets are only intended for use along with the SB118, SB28, or SB218 subwoofers respectively driven by the [SB118_100], [SB28_100], or [SB218_100] presets. Accessible parameters in "HIGH-PASS" mode are shown in the following chart:

Table 29: Accessible parameters in "HIGH-PASS" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	ARCS® Enclosure	LF_A	O	X	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	ARCS® Enclosure	LF_B	O	X	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

5.8 115XT HiQ coaxial enclosure

The 115XT HiQ MONITOR presets have been optimized from the 1.1 to the 2.0 version.

5.8.1 "FULL RANGE" mode: [HIQ_FR], [HIQ_FI], and [HIQ_MO] presets

In "FULL RANGE" mode the 115XT HiQ enclosures are used in standalone configurations within their nominal bandwidth, for applications not requiring low frequency extension.

The [HIQ_FI] "FILL" preset result in nominally flat contour for use in speech reinforcement, classical music applications, or for close proximity fill enclosures.

The [HIQ_FR] "FRONT" preset is for standalone FOH applications (without subwoofers).

The [HIQ_MO] "MONITOR" preset results in nominally flat contour in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Accessible parameters in "FULL RANGE" mode for the 115XT HiQ enclosure are shown in the following chart:

Table 30: Accessible parameters in "FULL RANGE" mode for the 115XT HiQ enclosure

LA8 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	115XT HiQ enclosure	LF_A	O	X**	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	115XT HiQ enclosure	LF_B	O	X**	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.
** Both LF gains are unlocked for the [HiQ_MO] preset.

5.8.2 "HIGH-PASS" mode: [HIQ_FR_100], [HIQ_FI_100], and [HIQ_MO_100] presets

In the "HIGH-PASS" mode the 115XT HiQ enclosures incorporate a 100 Hz high-pass filter to allow them to be used along with the dedicated complimentary SB118 subwoofers. The bandwidth of the system is extended down to 32 Hz. The recommended ratio is one SB118 for one 115XT HiQ.

- The [HiQ_FI_100] "FILL" preset results in a nominally flat contour down to 100 Hz.
- The [HiQ_FR_100] "FRONT" preset is for standalone FOH applications with subwoofers.
- The [HiQ_MO_100] "MONITOR" preset results in a nominally flat contour down to 100 Hz in half-space loading conditions (floor monitoring or wall or ceiling-mounted applications).

Accessible parameters in "HIGH-PASS" mode for the 115XT HiQ enclosure are shown in the following chart:

Table 31: Accessible parameters in "HIGH-PASS" mode for the 115XT HiQ enclosure

LA8 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	115XT HiQ enclosure	LF_A	O	X**	X	X
OUT 2		HF_A	O	X	X	X
OUT 3	115XT HiQ enclosure	LF_B	O	X**	X	X
OUT 4		HF_B	O	X	X	X

* IN: input signal. A: channel A. B: channel B. LF: low frequency transducer. HF: high frequency transducer.
** Both LF gains are unlocked for the [12XTA_MO_100] preset.

Note: If complementary subwoofer enclosures are being used with above preset, they must be connected to additional amplified controllers. See instructions in this manual.

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5.9 Subwoofer enclosures

The complimentary dV-SUB, SB118, SB218, and SB28 enclosures are for extending the low frequency response of a main system. The low frequency limit is 35 Hz with the dV-SUB, 32 Hz with the SB118, and 25 Hz with the SB218 or SB28.

5.9.1 "STANDARD" mode: [SB×××_60], [SB×××_100], [dV-S_60_100], and [dV-S_100] presets

The "STANDARD" mode consists in arraying all subwoofer enclosures with front sides facing the audience so as to obtain an omni-directional coverage pattern.

As an example, the Figure 5 shows a standard SB28 line-up array. Refer to the **"SB118"** or **"SB28 – User Manual"** to get acquainted with all subwoofer arraying possibilities.

Note: In this mode the subwoofer enclosures can also be used in stereo or distributed configurations.

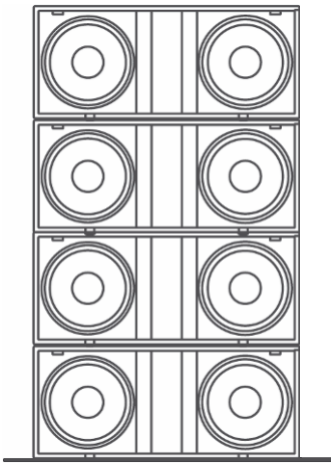

Figure 5: Standard SB28 line-up array

The [SB×××_60] and [SB×××_100] presets respectively feature a 60 Hz or 100 Hz low-pass filter allowing the SB118, SB218, or SB28 enclosures to be used as subwoofer companions for the V-DOSC®, KUDO®, dV-DOSC, or ARCS® systems.

Note: The [SB118_××] presets are also available in the LA4 preset library.

The [dV-S_60_100] and [dV-S_100] presets feature a 100 Hz low-pass filter allowing the dV-SUB enclosures to be used as subwoofer companions for the dV-DOSC systems.

The [dV-S_60_100] preset also includes a 60 Hz high-pass filter allowing the dV-SUB enclosures to be coupled to the 60 Hz low-pass filtered SB118, SB218, or SB28 subwoofers.

Accessible parameters in "STANDARD" mode are shown in the following chart:

Table 32: Accessible parameters in "STANDARD" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input signal B	IN_B	X	O	O	O
OUT 1	Subwoofer enclosure	SB_A	O	O	O	O
OUT 2	Subwoofer enclosure	SB_A	O	O	O	O
OUT 3	Subwoofer enclosure	SB_B	O	O	O	O
OUT 4	Subwoofer enclosure	SB_B	O	O	O	O

* IN: input signal. A: channel A. B: channel B. SB: subwoofer enclosure.

Note: The main system enclosures must be connected to additional amplified controllers. See instructions in this manual.

5.9.2 "CARDIOID" mode: [SB×××_60_C] and [SB×××_100_C] presets

The "CARDIOID" mode consists in arraying the subwoofer enclosures with some of them being reversed from front to rear so as to obtain a cardioid coverage pattern, providing a maximum rejection to the rear.

As an example, the Figure 6 shows a cardioid SB28 line-up array. Refer to the **"SB118"** or **"SB28 – User Manual"** to get acquainted with all subwoofer arraying possibilities.

The [SB×××_60_C] presets feature a 60 Hz low-pass filter allowing the SB118 or SB28 enclosures to be used as cardioid subwoofer companions for KUDO®, dV-DOSC/dV-SUB, ARCS®, and KIVA/KILO systems.

The [SB×××_100_C] presets feature a 100 Hz low-pass filter allowing the SB118 or SB28 enclosures to be used as cardioid subwoofer companions for dV-DOSC, ARCS®, XT, and MTD systems.

Note: The [SB118_××_C] presets are also available in the LA4 preset library.

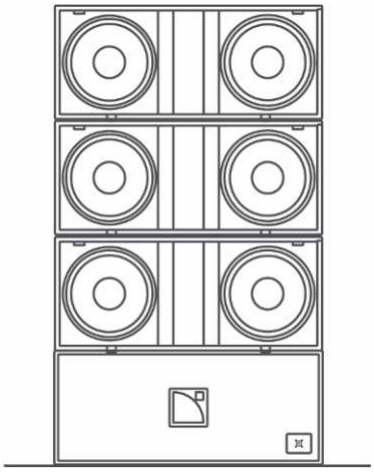

Figure 6: Cardioid SB28 line-up array (front view)

Accessible parameters in "CARDIOID" mode are shown in the following chart:

Table 33: Accessible parameters in "CARDIOID" mode

LA8 Inputs/ Outputs	Elements to connect	Preset assignments*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Reversed subwoofer enclosure	SR_A	O	X	X	X
OUT 2	Subwoofer enclosure	SB_A	O	X	X	X
OUT 3	Subwoofer enclosure	SB_A	O	X	X	X
OUT 4	Subwoofer enclosure	SB_A	O	X	X	X

* IN: input signal. A: channel A. SB: subwoofer enclosure. SR: reversed subwoofer enclosure.

Note: The main system enclosures must be connected to additional amplified controllers. See instructions in this manual.

5.9.3 "EXTENDED" mode: [SB218_X], [dV-S_60_X], and [dV-S_X] presets

In "EXTENDED" mode the subwoofer enclosures are 200 Hz low-pass filtered so as to share a common frequency bandwidth with the V-DOSC® enclosures. This will enhance the system sub-low frequency response.

The [SB218_X] and [dV-S_X] presets allow the SB218 and dV-SUB subwoofers (respectively) to be closely coupled with full range V-DOSC® systems driven by the [V-DOSC_LO_X] or [V-DOSC_HI_X] presets.

The [dV-S_60_X] preset features a 60 Hz high-pass filter allowing the dV-SUB subwoofers to be used as companions for 60 Hz high-pass filtered V-DOSC® systems driven by the [V-DOSC_LO_60] or [V-DOSC_HI_60] presets. The V-DOSC® / dV-SUB assembly can then be used along with a 60 Hz low-pass filtered subwoofer system.

The use of X presets is possible only when the V-DOSC® and SB218 or dV-SUB arrays are closely coupled to each other.

Accessible parameters in "EXTENDED" mode are shown in the following chart:

Table 34: Accessible parameters in "EXTENDED" mode

LA8 Inputs / Outputs	Elements to connect	Preset Assignment*	Accessible (O) and blocked (X) parameters			
			Mute	Gain	Delay	Polarity
IN A	Input Signal A	IN_A	X	O	O	O
IN B	Input Signal B	IN_B	X	O	O	O
OUT 1	Subwoofer enclosure	SB_A	O	O	O	O
OUT 2	Subwoofer enclosure	SB_A	O	O	O	O
OUT 3	Subwoofer enclosure	SB_B	O	O	O	O
OUT 4	Subwoofer enclosure	SB_B	O	O	O	O

* IN: input signal. A: channel A. B: channel B. SB: subwoofer enclosure.

Note: The main system enclosures must be connected to additional amplified controllers. See instructions in this manual.

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