

K2 WST® ENCLOSURE

USER MANUAL

VERSION 1.1



SAFETY INSTRUCTIONS

1. **Read this manual**
2. **Follow all SAFETY INSTRUCTIONS as well as DANGER and OBLIGATION warnings**
3. **Never incorporate equipment or accessories not approved by L-ACOUSTICS®**
4. **Read all the related PRODUCT INFORMATION documents before exploiting the system**
The product information document is included in the shipping carton of the related system component.
5. **Read the RIGGING MANUAL before installing the system**
Use the rigging accessories described in the rigging manual and follow the associated procedures
6. **Beware of sound levels**
Do not stay within close proximity of loudspeakers in operation and consider wearing earplugs.
Loudspeaker systems are capable of producing very high sound pressure levels (SPL) which can instantaneously lead to permanent hearing damage to performers, production crew and audience members. Hearing damage can also occur with prolonged exposure to sound: 8 h at 90 dB(A), 30 min at 110 dB(A), less than 4 min at 130 dB(A).

SYMBOLS

The following symbols are used in this document:



DANGER

This symbol indicates a potential risk of harm to an individual or damage to the product.

It can also notify the user about instructions that must be strictly followed to ensure safe installation or operation of the product.



OBLIGATION

This symbol notifies the user about instructions that must be strictly followed to ensure proper installation or operation of the product.



INFORMATION

This symbol notifies the user about complementary information or optional instructions.



WELCOME TO L-ACOUSTICS®

Thank you for choosing the L-ACOUSTICS® K2 WST® enclosure.

This document contains essential information on using the system properly. Carefully read this document in order to become familiar with the system.

As part of a continuous evolution of techniques and standards, L-ACOUSTICS® reserves the right to change the specifications of its products and the content of its document without prior notice.

Please check the L-ACOUSTICS® web site on a regular basis to download the latest document and software updates: www.l-acoustics.com.

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1 K2 VARIABLE CURVATURE WST® SYSTEM

The L-ACOUSTICS® K1 system has achieved international recognition and is today the prime choice of engineers for the largest stadium tours and outdoor festivals. Its sonic performance, its fully integrated system package and its rider friendliness are considered as the industry benchmarks. With K2, L-ACOUSTICS® offers K1 performance in a rescaled package. The K2 system flexibility makes it suited to both permanent installation and touring applications, from theatre to stadium productions.

The main system components are as follows:

- K2, full-range element, with adjustable horizontal directivity, operating from 35 Hz to 20 kHz
- K1-SB, low-frequency element, reinforcing LF contour down to 30 Hz or LF throw down to 35 Hz
- SB28, low-frequency element, extending the operating bandwidth down to 25 Hz
- LA4X/LA8 amplified controllers or LA-RAK, touring rack fitted with three LA8

The 3-way quad amplified design, the transducers resources are among the characteristics giving K2 an exceptional ability to perform in many applications and with a record-breaking performance/weight ratio. Any on-site deployment can be easily and quickly achieved thanks to an extremely ergonomic, fast and captive rigging system.

A K2 line source utilizes the unrivalled characteristics of Wavefront Sculpture Technology®. Inter-element angles can be set with laser like accuracy up to a generous 10°, allowing the optimization of the vertical coverage with SPL smoothly spread across the audience. Horizontally, the K2 coverage pattern can be adjusted to sector and match any audience or specific room geometries. Four different settings are possible: two symmetric (70° or 110°) and two asymmetric (90° as 35°/55° or 55°/35°).

Thanks to its full range capability, the K2 enclosure can be deployed as a standalone line source. For applications demanding extreme LF impact (contour mode), or maximized LF projection (throw mode), K2 can be arrayed with its dedicated and flyable K1-SB LF extension. The K2 system can also address applications with demanding infrasonic reproduction when combined to the SB28 subwoofer. Before installation, any system configurations can be acoustically and mechanically modeled with SOUNDVISION 3D simulation software.

For touring applications, K2 can be associated to the LA-RAK, a universal distribution platform for power, audio signals and network which facilitates cross rental between rental companies. LA-RAK houses three LA8 amplified controllers and can be flown onto a K2 array. Other applications can feature LA8 amplified controllers. For high-end installation projects, K2 can also be driven by the LA4X amplified controller. The scheme authorizes fully discrete DSP treatment per section and maximum power headroom for the best possible sonic performance.

Thanks to dedicated factory presets, the LA8/LA4X amplified controller constitutes an extremely advanced and precise drive system for the enclosures. All L-ACOUSTICS® amplified controllers feature the L-DRIVE, a thermal and over-excursion protection circuit.

Up to 253 LA8/LA4X amplified controllers can be connected together via the Ethernet-based L-NET protocol. The LA NETWORK MANAGER software allows online remote control and monitoring of all the connected units, via a user-friendly and intuitive graphic interface, and features the Array Morphing EQ. This exclusive tool allows the engineer to quickly adjust the tonal balance of the system to reach a reference curve or to ensure consistency of the sonic signature.

2 SYSTEM COMPONENTS

The system approach developed by L-ACOUSTICS® consists in offering a global solution that guarantees the highest and most predictable level of performance at any step of loudspeaker system deployment: modeling, installation, and operation. A complete L-ACOUSTICS® system includes enclosures, amplified controllers, cables, rigging system, and software applications.

2.1 Loudspeaker enclosure

K2 Full range (35 Hz – 20 kHz), 3-way active, variable curvature WST® line source.

K1-SB LF element arrayable with for K1 and K2 (down to 34 Hz).

SB28 Subwoofer (down to 25 Hz).



Loudspeaker system design

Sound design aspects are beyond the scope of this document. However, the various applications of the system will be based on the loudspeaker configurations presented in this document.

2.2 Powering and driving system

LA4X, LA8 or LA-RAK Amplified controller with DSP, preset library and networking capabilities



Operating instructions

Refer to the **LA4X, LA8** and **LA-RAK user manual**.

2.3 Loudspeaker cables

DO cables (DO.7, DO10, DO25) 8-point PA-COM® loudspeaker cables (4 mm² section).
Respective lengths of 1.1 m/2.3 ft, 10 m/32.8 ft, and 25 m/82 ft.

DOSUB-LA8 Breakout cable for four passive enclosures.
8-point PA-COM® to 4 × 2-point SpeakON® (4 mm² section).

SP cables (SP.7, SP5, SP10, SP25) 4-point SpeakON® loudspeaker cables (4 mm² section).
Respective lengths of 1.1 m/2.3 ft, 5 m/16.4 ft, 10 m/32.8 ft and 25 m/82 ft.

SP-Y1 Breakout cable for two passive enclosures.
4-point SpeakON® to 2 × 2-point SpeakON® (2.5 mm² section).
Provided with CC4FP adapter.



Information about the connection of the enclosures to the LA amplifiers is given in this document. Refer to the **LA4X, LA8** and **LA-RAK user manuals** for detailed instructions about the whole cabling scheme, including modulation cables and network.

2.4 Rigging element



Rigging elements or procedures are not presented in this document. Refer to the **K2 rigging manual**.

2.5 Software application

SOUNDVISION Proprietary acoustical and mechanical 3D modeling software.

LA NETWORK MANAGER Remote control and monitoring of amplified controllers



Using L-ACOUSTICS® software

Refer to the **SOUNDVISION user manual** and the **LA NETWORK MANAGER tutorial**.

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K2



SB28



KI-SB



LA-RAK



LA4X



DO.7



SPY1



SP.7



LA8



DO10



SP5



DOSUB-LA8



DO25



SP10



SP25



Soundvision



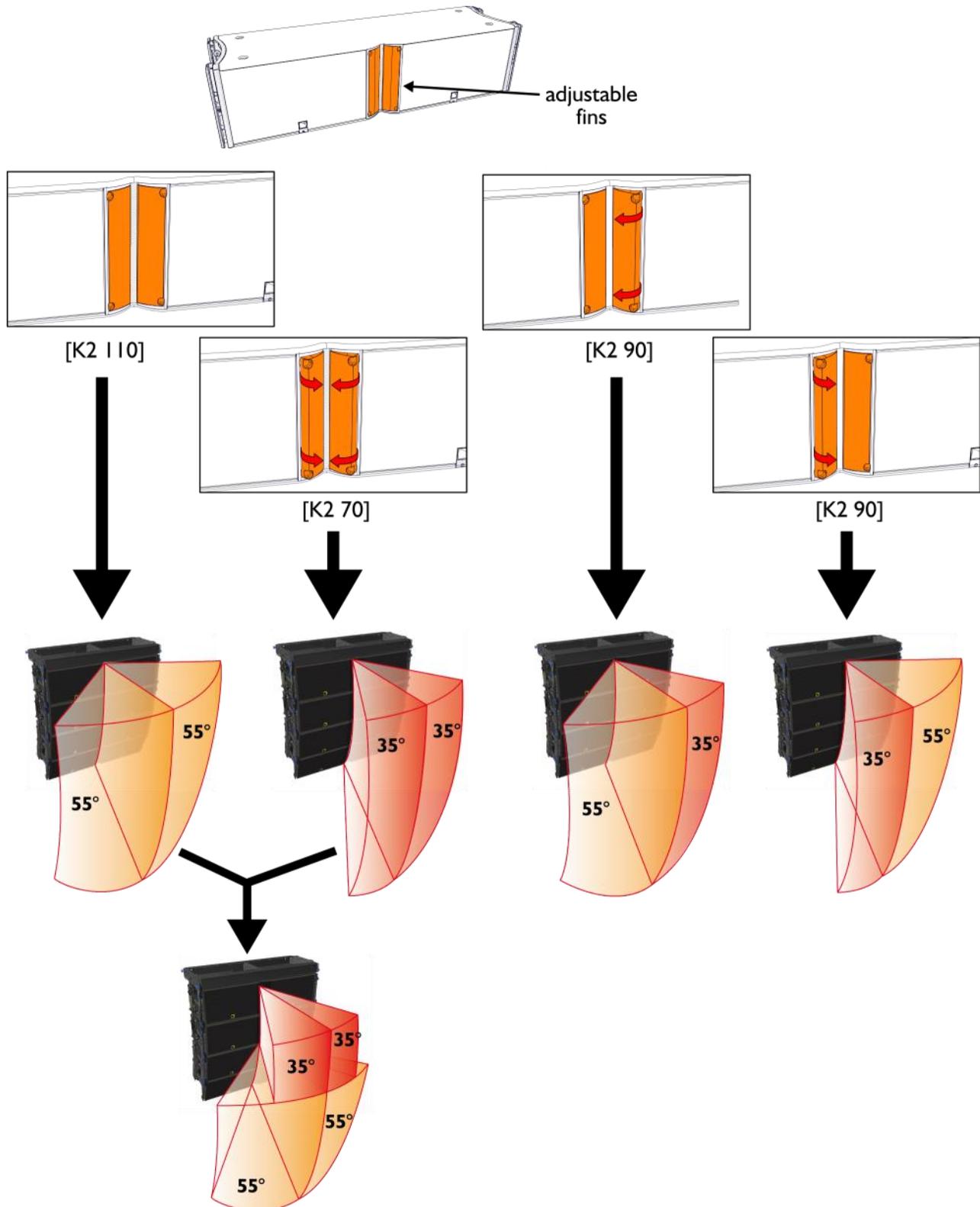
LA Network Manager

K2 system components (excluding rigging elements and modulation cables)

3 K2 HORIZONTAL DIRECTIVITY SETTINGS

The K2 enclosure features an adjustable horizontal directivity system. Using the adjustable fins, horizontal directivity can be adjusted with four different settings: 110° and 70° symmetric or 90° asymmetric, i.e., 35° + 55° or 35° + 55°. A specific K2 preset must be used for each directivity setting.

Within a line source, different directivity settings can be combined to better the coverage of the audience geometry.



4 LOUDSPEAKER CONFIGURATIONS

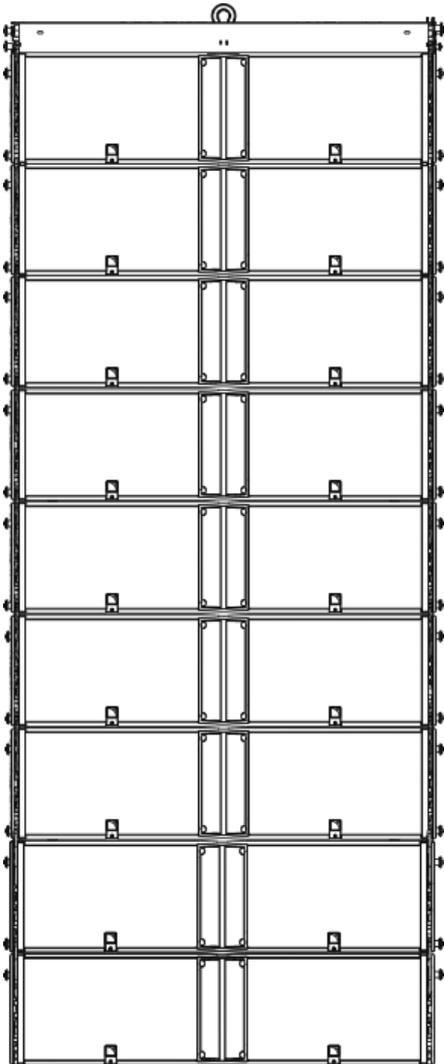
4.1 Line source

Deployed as a standalone line source, a K2 system operates over the nominal bandwidth of the K2 enclosure, with an adjustable horizontal directivity.

The [K2 70], [K2 90] and [K2 110] presets allow for a reference frequency response in long throw applications. Each preset is dedicated to a horizontal directivity setting.

The K2 enclosure is driven by the LA4X or LA8 amplified controller.

Standalone K2 line source



Enclosure | **[PRESET]**
K2 | ► [K2 70] / [K2 90] / [K2 110]

Frequency range (-10 dB)

35 Hz – 20 kHz

4.2 Line source with low-frequency element

Deployed as a line source with coupled K1-SB subwoofers, a K2 system operates with augmented LF resources.

Two configurations are available:

- LF throw: for enhanced LF projection.
- LF contour: for reinforced LF contour.

4.2.1 LF throw

In this configuration the LF throw capability is enhanced.

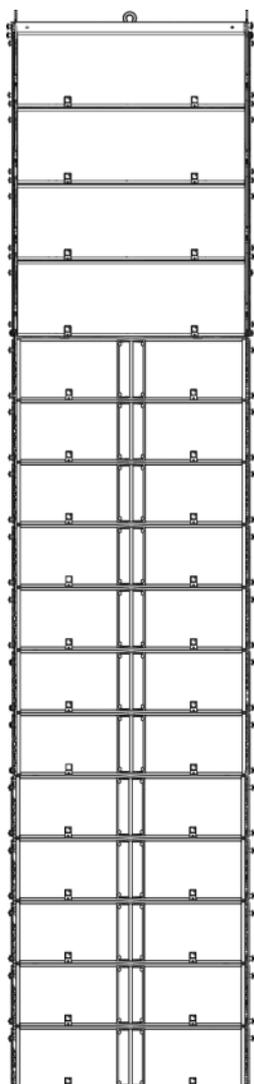
The [K2 70], [K2 90] and [K2 110] presets allow for a reference frequency response in long throw applications. Each preset is dedicated to a horizontal directivity setting.

The [K1SB_X K2] preset provides the K1-SB enclosure with the same bandwidth as the K2 low section to increase the length of the sub-low line source.

The K2 enclosures are driven by the LA4X or LA8 amplified controller.

The K1-SB enclosures are driven by the LA8 amplified controller.

K2 + coupled K1-SB



<u>Enclosure</u>	<u>[PRESET]</u>
K2	▶ [K2 70] / [K2 90] / [K2 110]
K1-SB	▶ [K1SB_X K2]

Frequency range (-10 dB)
34 Hz – 20 kHz

Recommended ratio
1 K1-SB: 3 K2

Minimum line length
4 K1-SB + 12 K2



Delay values

When using [K2] with [K1SB_X K2], do not add any delay value between the K2 and K1-SB elements of a same line.

4.2.2 LF contour

In this configuration the LF contour is reinforced and the bandwidth is extended in the low end. Depending on the deployment SPL rejection can be produced.

The [K2 70], [K2 90] and [K2 110] presets allow for a reference frequency response in long throw applications. Each preset is dedicated to a horizontal directivity setting.

The [K1SB_60] preset provides the K1-SB line source with an upper frequency limit at 60 Hz for an optimal frequency coupling with the K2 line source.

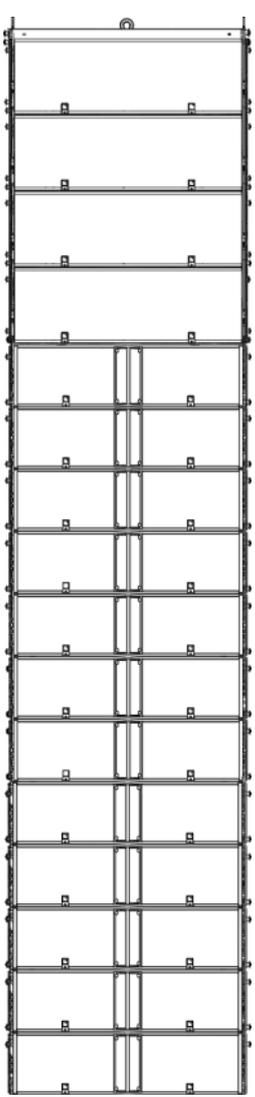
Three deployments are available in this configuration:

- K1-SB **on top** of K2
- K1-SB **beside** K2: side LF rejection (polarized)
- K1-SB **behind** K2: rear LF rejection (cardioid)

The K2 enclosures are driven by the LA4X or LA8 amplified controller.

The K1-SB enclosures are driven by the LA8 amplified controller.

K2 line source + coupled K1-SB on top



Enclosure ▶ **[PRESET]**

K2 ▶ [K2 70] / [K2 90] / [K2 110]

K1-SB ▶ [K1SB_60]

Frequency range (-10 dB)
30 Hz – 20 kHz

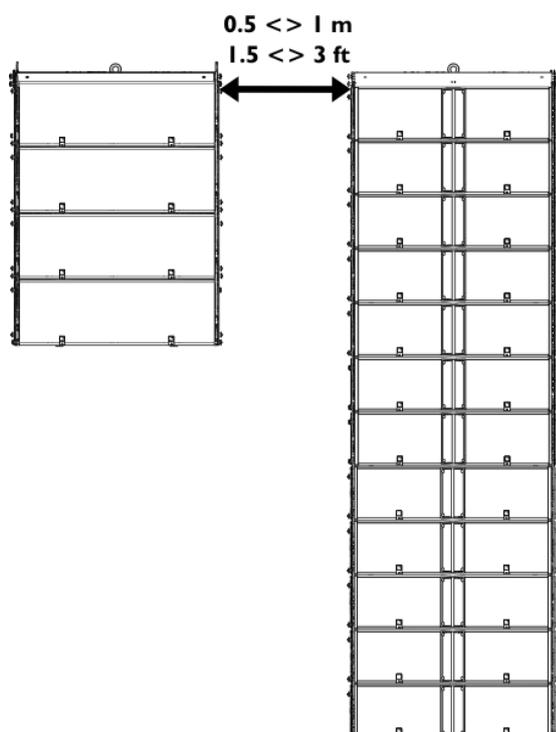
Recommended ratio
1 K1-SB: 3 K2

Maximum line length
4 K1-SB + 12 K2

 Do not forget to add the **pre-alignment and geometric delays** depending on the configuration

Pre-alignment values
[K2] + [K1SB_60] K2 = 6 ms K1-SB = 0 ms

K2 line source + coupled K1-SB beside



Enclosure ▶ [PRESET]

K2 ▶ [K2 70] / [K2 90] / [K2 110]

K1-SB ▶ [K1SB_60]

Frequency range (-10 dB)

30 Hz – 20 kHz

Recommended ratio

1 K1-SB: 3 K2

Optimal distance for coupling

0.5 <> 1 m

1.5 <> 3 ft

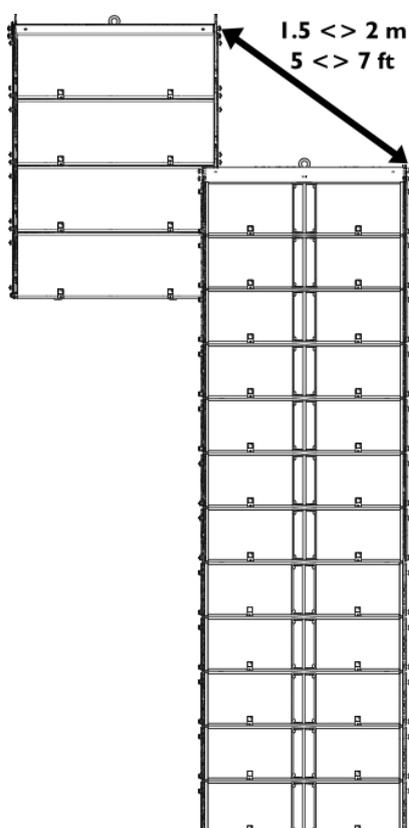


Do not forget to add the **pre-alignment and geometric delays** depending on the configuration

Pre-alignment values

[K2] + [K1SB_60] K2 = 6 ms K1-SB = 0 ms

K2 line source + coupled K1-SB behind



Enclosure ▶ [PRESET]

K2 ▶ [K2 70] / [K2 90] / [K2 110]

K1-SB ▶ [K1SB_60]

Frequency range (-10 dB)

30 Hz – 20 kHz

Recommended ratio

1 K1-SB: 3 K2

Optimal distance for coupling

1.5 <> 2 m

5 <> 7 ft



Do not forget to add the **pre-alignment and geometric delays** depending on the configuration

Geometric values

1.5 m (5 ft) = 4.5 ms

2 m (7 ft) = 6 ms

Pre-alignment values

[K2] + [K1SB_60] K2 = 6 ms K1-SB = 0 ms

4.3 Additional subwoofer system

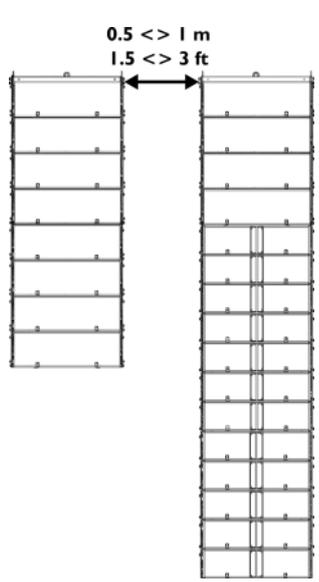
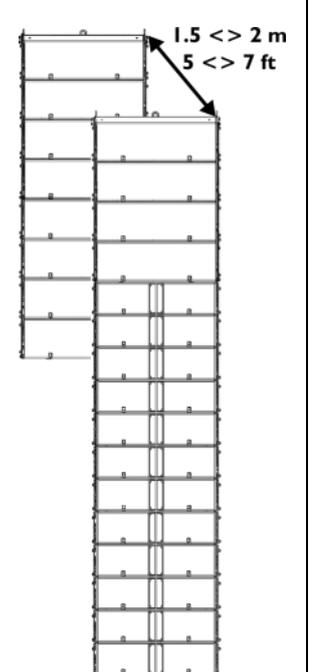
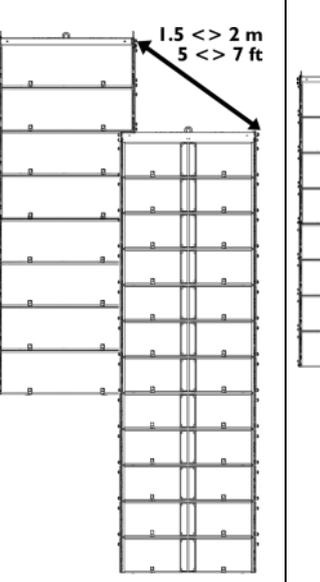
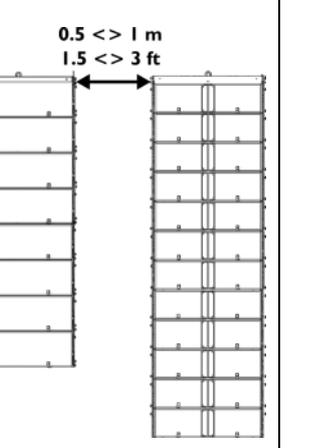
All the configurations described in the previous sections can be deployed with additional K1-SB or SB28 subwoofer enclosures to provide increased sub-low resources to demanding applications.

SB28 enclosures are ground-stacked. K1-SB enclosures are flown on the side or behind the system.

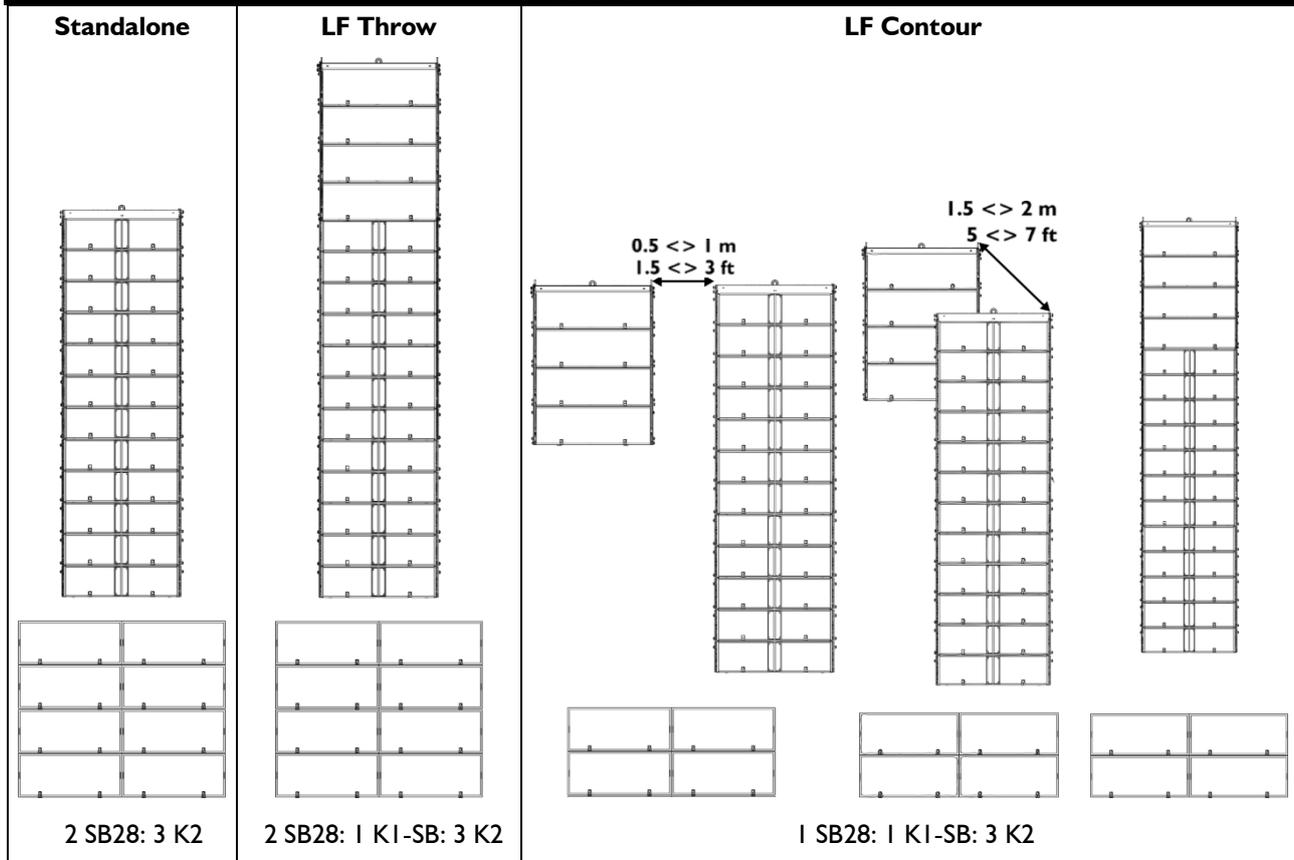
The available configurations are described below, along with the recommended ratios corresponding to each K2 configuration.

The [SB28_60] and [K1SB_60] presets provide the SB28 and K1-SB enclosures with an upper frequency limit at 60 Hz, for an optimal frequency coupling with any of the configuration.

The SB28 and K1-SB enclosures are driven by the LA8 amplified controller.

K1-SB subwoofers			
LF throw		LF contour	
Additional K1-SB beside	Additional K1-SB behind	Additional K1-SB behind	Additional K1-SB beside
			
Recommended ratio		Recommended ratio	
3 K2: 1 K1-SB: 2 additional K1-SB		3 K2: 2 K1-SB	
Enclosure	<ul style="list-style-type: none"> ▶ [PRESET] ▶ [K1SB_X K2] ▶ [K1SB_60] 		LF extension (-10 dB)
K1-SB in THROW configuration Additional K1-SB enclosures			30 Hz
<div style="display: flex; align-items: center;"> <div style="font-size: 2em; margin-right: 10px;">!</div> <div>Do not forget to add the pre-alignment and geometric delays depending on the configuration</div> </div>			
Pre-alignment values			
LF throw	[K2] + [K1SB_X K2] + [K1SB_60]	K2 = 6 ms	K1-SB = 6 ms K1-SB = 0 ms
LF contour	[K2] + [K1SB_60]	K2 = 6 ms	K1-SB = 0 ms

SB28 subwoofers



Enclosure	▶ [PRESET]	Grouping subwoofers Place the subwoofer enclosures side by side. If not possible, the maximum distance between two adjacent acoustic centers must be 2.8 m for an upper frequency limit on 60 Hz.
SB28	▶ [SB28_60]	
<u>LF extension (-10 dB)</u> 25 Hz		

Do not forget to add the **pre-alignment and geometric delays** depending on the configuration

Pre-alignment values

Standalone	[K2] + [SB28_60]	K2 = 0 ms	SB28 = 6 ms
LF throw	[K2] + [K1SB_X K2] + [SB28_60]	K2 = 0 ms	K1-SB = 0 ms SB28 = 6 ms
LF contour	[K2] + [K1SB_60] + [SB28_60]	K2 = 8 ms	K1-SB = 2 ms SB28 = 0 ms

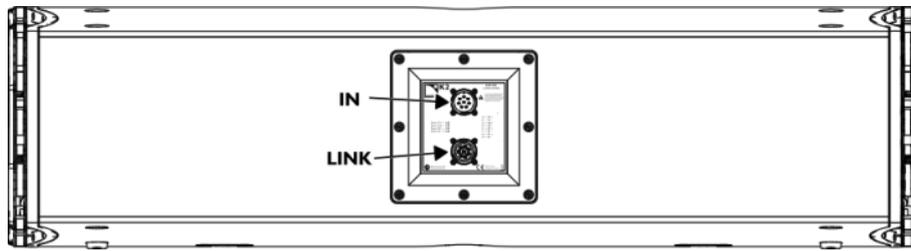
Use [SB28_60_C] with an SB28 subwoofer array in cardioid configuration
 The cardioid configuration consists in reversing 1 element in an array of 4 subwoofers.
 Refer to the **SB28 user manual** for more details.

Pre-alignment values

Standalone	[K2] + [SB28_60_C]	K2 = 0 ms	SB28 = 0.5 ms
LF throw	[K2] + [K1SB_X K2] + [SB28_60_C]	K2 = 0 ms	K1-SB = 0 ms SB28 = 0.5 ms
LF contour	[K2] + [K1SB_60] + [SB28_60_C]	K2 = 13.5 ms	K1-SB = 7.5 ms SB28 = 0 ms

5 LOUDSPEAKER CONNECTION

5.1 Connectors



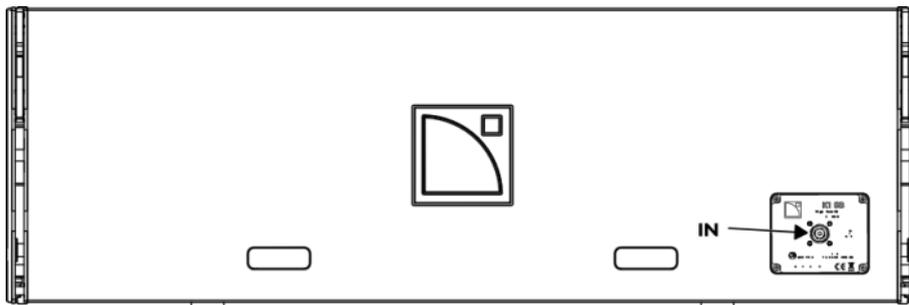
K2

The K2 enclosure is equipped with two PA-COM® connectors wired in parallel.

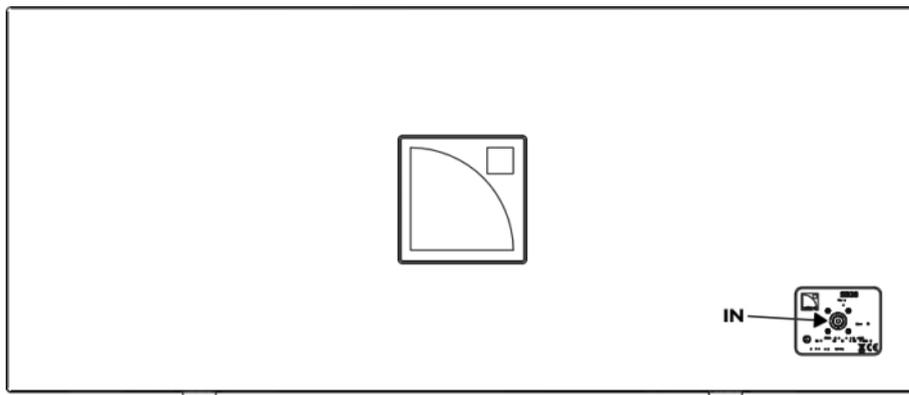
The IN connector allows receiving the audio signals, whereas the LINK connector allows routing them to another similar enclosure in parallel.

i **Internal pinout for L-ACOUSTICS® K2 enclosures**

PA-COM® points	A/B	C/D	E/F	G/H
Transducer (as seen from the front)	Left LF speaker	Right LF speaker	MF section	HF section



KI-SB



SB28

The KI-SB and SB28 are equipped with one 4-point SpeakON® connector.

i **Internal pinout for L-ACOUSTICS® KI-SB and SB28 enclosures**

SpeakON® points	1+	1-	2+	2-
Transducer connectors	LF+	LF-	Not used	Not used

5.2 Connecting K2 to LA4X



Maximum of 1 enclosures per LA4X

A single LA4X amplified controller can drive 1 K2 enclosure.



Impedance load

LF	MF	HF
8 Ω	8 Ω	16 Ω

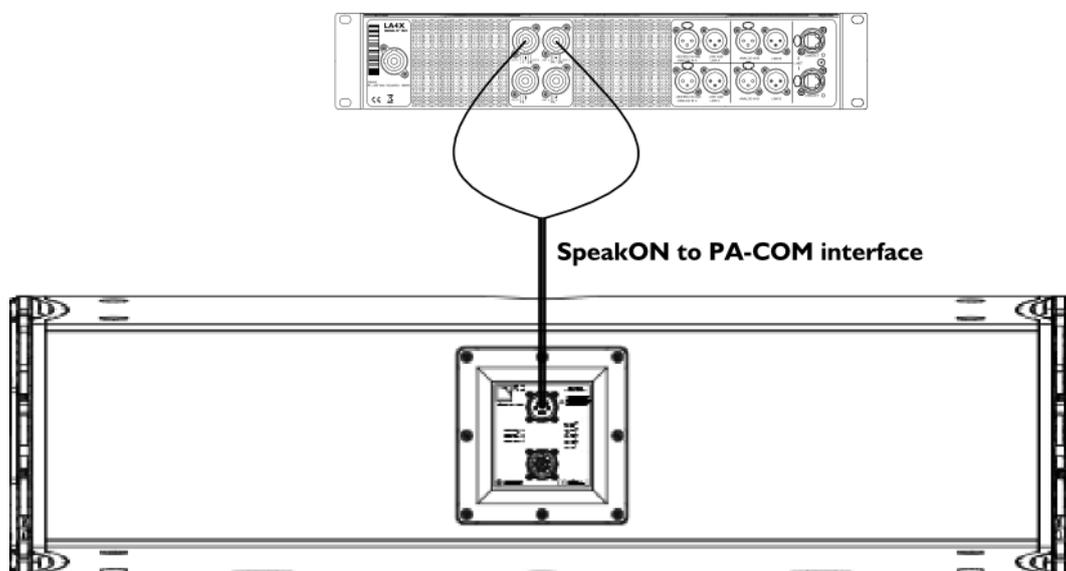
- Use a SpeakON[®]-to-CA-COM[®] interface to connect the LA4X SpeakON[®] 1-2 and 3-4 connectors to the K2 **IN** connector.



L-ACOUSTICS does not supply the SpeakON[®]-to-CA-COM[®] interface.

It must be built using two 4-point SpeakOn[®] connectors and a female 8-point CA-COM[®] connector with no cable clamp.

Refer to the **APPENDIX B** for recommendation on speaker cables.



5.3 Connecting K2 to LA8



Maximum of 3 enclosures per LA8

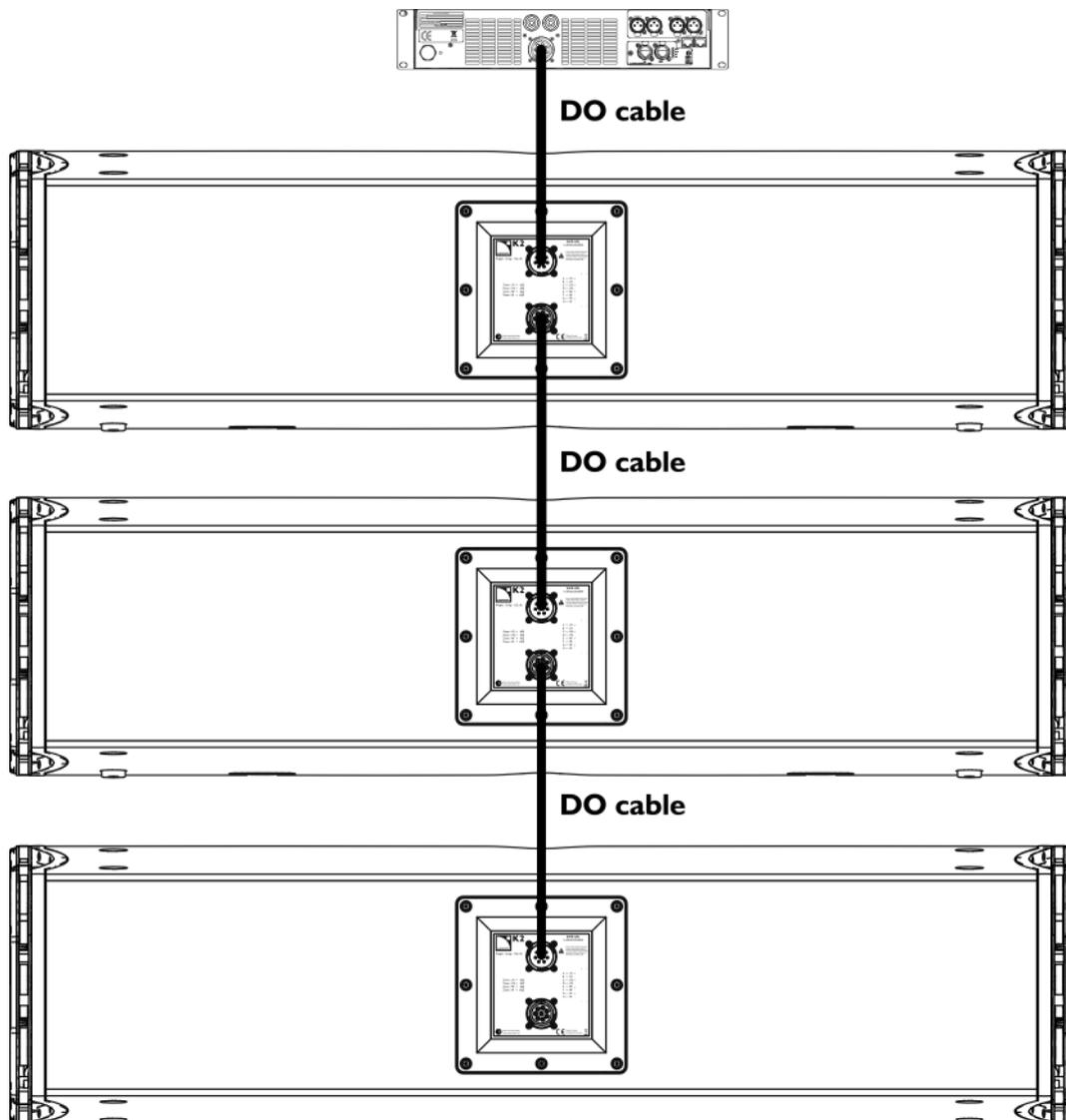
A single LA8 amplified controller can drive up to 3 enclosures in parallel.



Impedance load

	LF	MF	HF
1 enclosure	8 Ω	8 Ω	16 Ω
2 enclosures	4 Ω	4 Ω	8 Ω
3 enclosures	2.7 Ω	2.7 Ω	5.2 Ω

- ▶ Use a **DO** cable (DO.7, DO10 or DO25) to connect the LA8 PA-COM® connector to the K2 **IN** connector.
- ▶ Use **DO** cables to connect additional K2 enclosures in parallel with the first one.



5.4 Connecting KI-SB or SB28 to LA8



Maximum of 4 enclosures per LA8

1 KI-SB or SB28 can be connected to each output channel on the LA8. Therefore, a single LA8 amplified controller can drive up to 4 enclosures.



CARDIOID mode with SB28

Connect the reversed subwoofer to OUT 1.



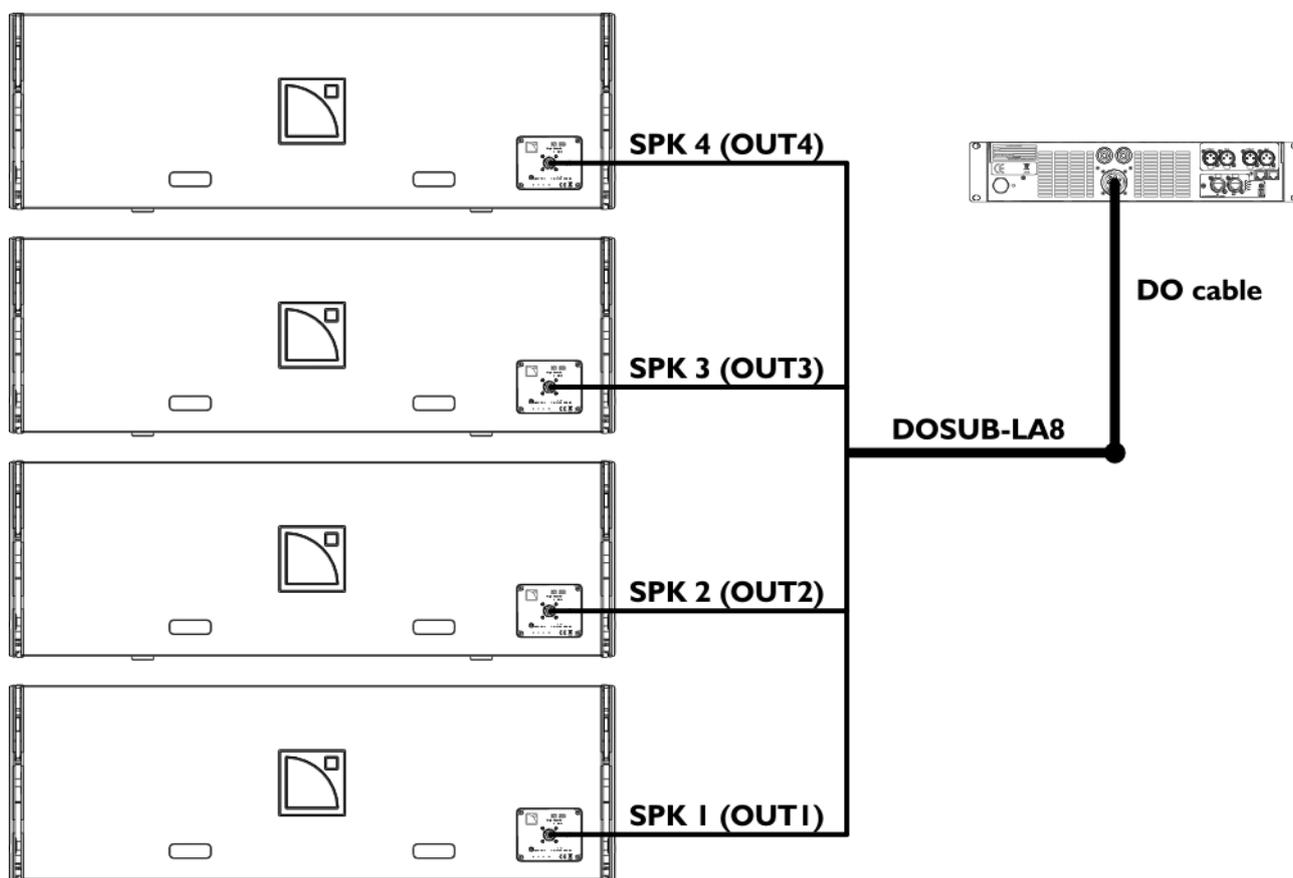
Impedance load

4 Ω for 1 enclosure

There are two options available to connect KI-SB or SB28 to LA8.

Option A

- ▶ Connect a **DO** (DO.7, DO10 or DO25) cable to the LA8 PA-COM[®] connector.
- ▶ Use the **DOSUB-LA8** to split the audio signals into four channels, each one feeding one subwoofer.



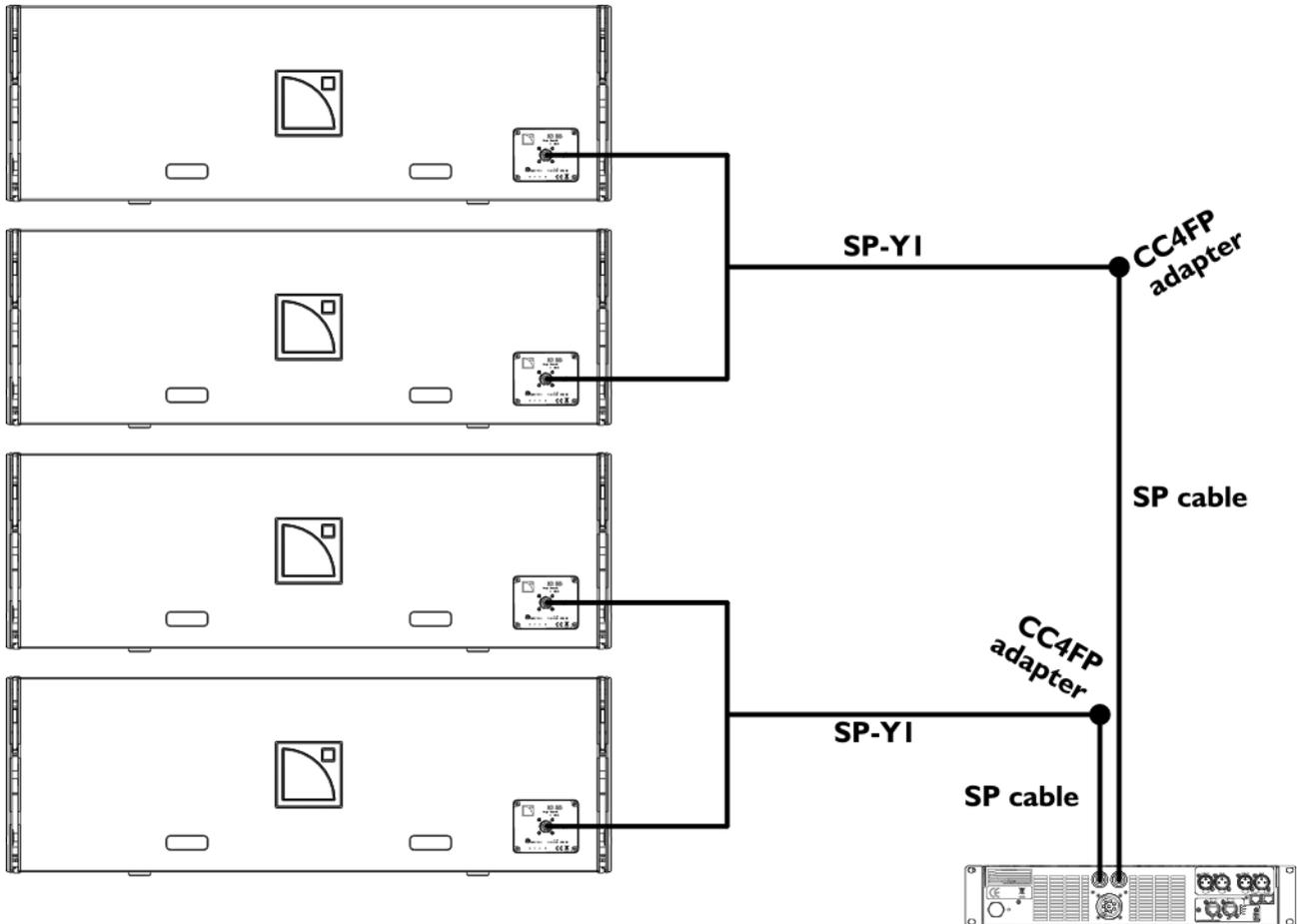
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Option B

- ▶ Connect an SP cable (SP.7, SP5, SP10 or SP25) to one of the SpeakON[®] connectors of the LA8.
- ▶ Use an SP-YI cable and a CC4FP adapter to split the audio signals into two channels, each one feeding one subwoofer.



APPENDIX A PRESET DESCRIPTION

[K2 70] [K2 90] [K2 110]

The [K2 70], [K2 90] and [K2 110] presets allow for a reference frequency response in long throw applications. . Each preset is dedicated to a horizontal directivity setting.

Loudspeaker elements		Amplifier outputs	Channels	Default parameters				
				Routing	Gain	Delay	Polarity	Mute
K2	Left LF	OUT 1	LF	IN A	0 dB	0 ms	+	ON
	Right LF	OUT 2	LF					ON
	MF	OUT 3	MF					ON
	HF	OUT 4	HF					ON

* Left/right when looking at the front face of the enclosure.

[K1SB_X K2] and [K1SB_60]

The [K1SB_X K2] preset provides the K1-SB enclosure with the same bandwidth as the K2 low section to increase the length of the sub-low line source.

The [K1SB_60] preset provides the K1-SB line source with an upper frequency limit at 60 Hz, for an optimal frequency coupling with the K2 line source.

Loudspeaker elements	Amplifier outputs	Channels	Default parameters				
			Routing	Gain	Delay	Polarity	Mute
K1-SB	OUT 1	SB	IN A	0 dB	0 ms	+	ON
K1-SB	OUT 2	SB	IN A	0 dB	0 ms	+	ON
K1-SB	OUT 3	SB	IN A	0 dB	0 ms	+	ON
K1-SB	OUT 4	SB	IN A	0 dB	0 ms	+	ON

[SB28_60]

The [SB28_60] preset provides the SB28 enclosures with an upper frequency limit at 60 Hz, for an optimal frequency coupling with the K2 line source.

Loudspeaker elements	Amplifier outputs	Channels	Default parameters				
			Routing	Gain	Delay	Polarity	Mute
SB28	OUT 1	SB	IN A	0 dB	0 ms	+	ON
SB28	OUT 2	SB	IN A	0 dB	0 ms	+	ON
SB28	OUT 3	SB	IN B	0 dB	0 ms	+	ON
SB28	OUT 4	SB	IN B	0 dB	0 ms	+	ON

[SB28_60_C]

The [SB28_60_C] preset provides the SB28 enclosures with an upper frequency limit at 60 Hz, for an optimal frequency coupling with the K2 line source. It features optimized delay settings for SB28 arrays in cardioid configuration.

Loudspeaker elements	Amplifier outputs	Channels	Default parameters				
			Routing	Gain	Delay	Polarity	Mute
Reversed SB28	OUT 1	SR*	IN A	0 dB	0 ms	+	ON
SB28	OUT 2	SB					ON
SB28	OUT 3	SB					ON
SB28	OUT 4	SB					ON

* reversed subwoofer

APPENDIX B RECOMMENDATION FOR SPEAKER CABLES



Cable quality and resistance

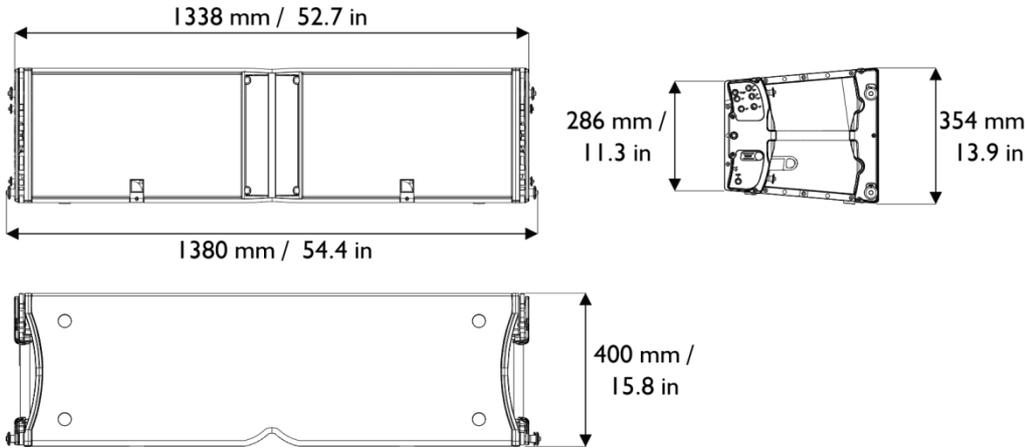
Only use high-quality fully insulated speaker cables made of stranded copper wire.
 Use cables of gauge offering low resistance per unit length and keep the cables as short as possible.

The following table provides the recommended maximum length depending on the cable cross-section and on the impedance load connected to the amplifier.

Cable cross-section			Recommended maximum length					
			8 Ω load		4 Ω load		2.7 Ω load	
mm ²	SWG	AWG	m	ft	m	ft	m	ft
2.5	15	13	30	100	15	50	10	33
4	13	11	50	160	25	80	17	53
6	11	9	74	240	37	120	25	80
10	9	7	120	390	60	195	40	130

APPENDIX C SPECIFICATIONS

K2

Description	3-way active enclosure, quad-amplified by LA8		
Usable bandwidth (-10 dB)	35 Hz - 20 kHz ([K2 70] preset)		
Maximum SPL¹	145 dB ([K2 70] preset)		
Coverage angle (-6 dB)	Horizontal : 110° / 70° symmetric or 90° asymmetric (35° / 55° or 55° / 35°) Vertical : dependent upon number of elements and array curvature		
Transducers	LF: 2 × 12", weather-resistant , bass-reflex		
	MF: 4 × 6.5", weather-resistant , bass-reflex		
	HF: 2 × 3", diaphragm compression driver, DOSC [®] waveguide		
Nominal impedance	LF = 2 × 8 Ω, MF = 8 Ω, HF = 16 Ω		
RMS power handling	LF: 2 × 450 W		
	MF: 320 W		
	HF: 160 W		
Connectors	IN: 1 × 8-point PA-COM [®] LINK: 1 × 8-point PA-COM [®]		
Rigging components	Captive 4-point rigging system Inter-enclosure angles: 0.25°, 1°, 2°, 3°, 4°, 5°, 7.5° or 10°		
Dimensions	 <p>Top view: 1338 mm / 52.7 in (width), 1380 mm / 54.4 in (depth)</p> <p>Side view: 286 mm / 11.3 in (height), 354 mm / 13.9 in (depth)</p> <p>Front view: 400 mm / 15.8 in (height)</p>		
	Weight (net):	56 kg / 123.2 lb	
	Cabinet:	First grade Baltic birch plywood	
	Finish:	Dark Grey brown (Pantone 426C) Pure white RAL 9010 [®]	
Physical data	Front:	Steel grill with polyester anti-corrosion coating Airnet [®] acoustically neutral fabric	
	Protection Rating:	IP45	
	Rigging component:	High grade steel with polyester anti-corrosion coating	

¹ Peak level at 1 m under free field conditions using 10 dB crest factor pink noise with specified preset.

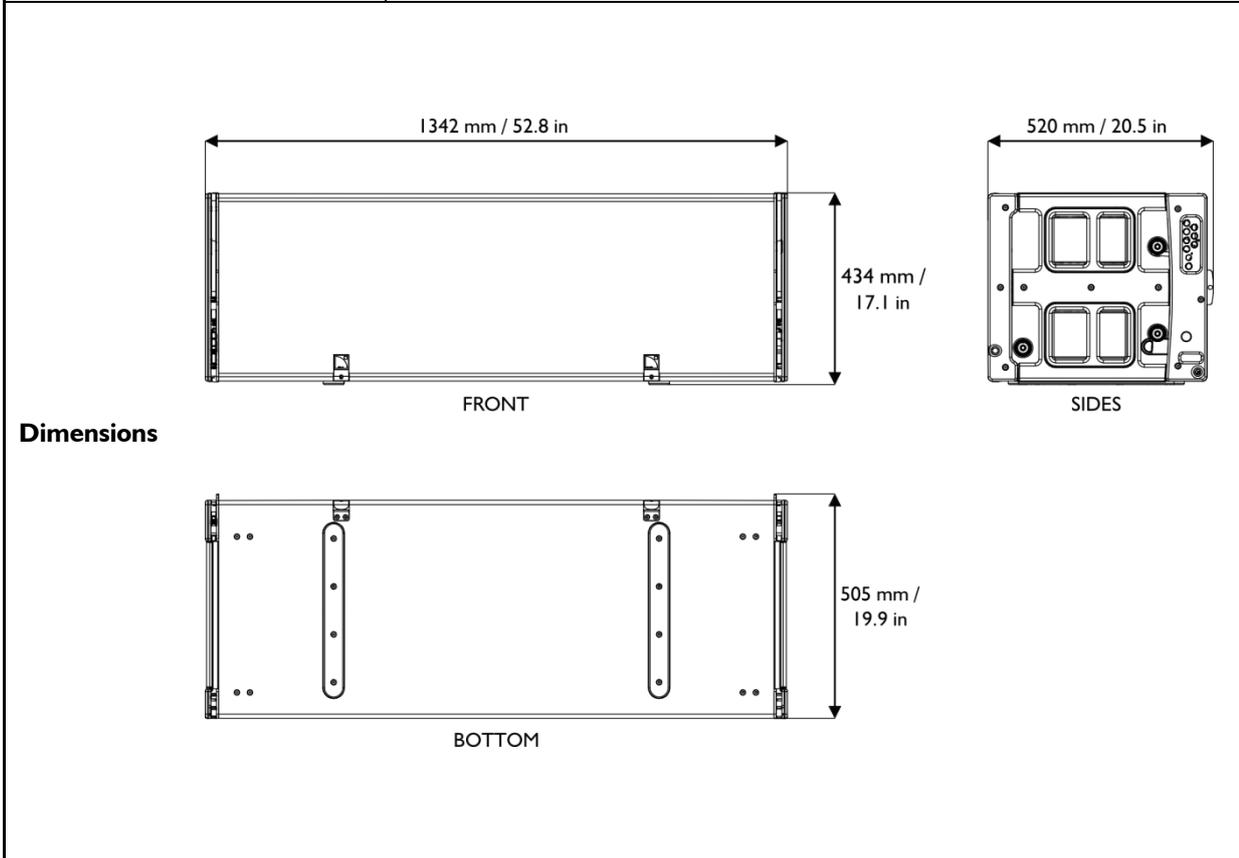
K2 WST® ENCLOSURE

USER MANUAL

VERSION 1.0

KI-SB

Description	Subwoofer enclosure, amplified by LA8
Low frequency limit (-10 dB)	34 Hz ([KISB_X] preset)
Maximum SPL¹	143 dB ([KISB_X] preset)
RMS power handling	1200 W
Transducer	2 × 15", weather-resistant, bass-reflex 4" coil, magnesium die-cast basket, vented magnet design
Nominal impedance	4 Ω
Connectors	IN: 1 × 4-point SpeakON®
Rigging components²	Captive 4-point rigging system Inter-enclosure angles: 0°, 0.5°, 1°, 1.5°, 2°, 2.5°, 3°, 4° or 5° Handles integrated in the cabinet

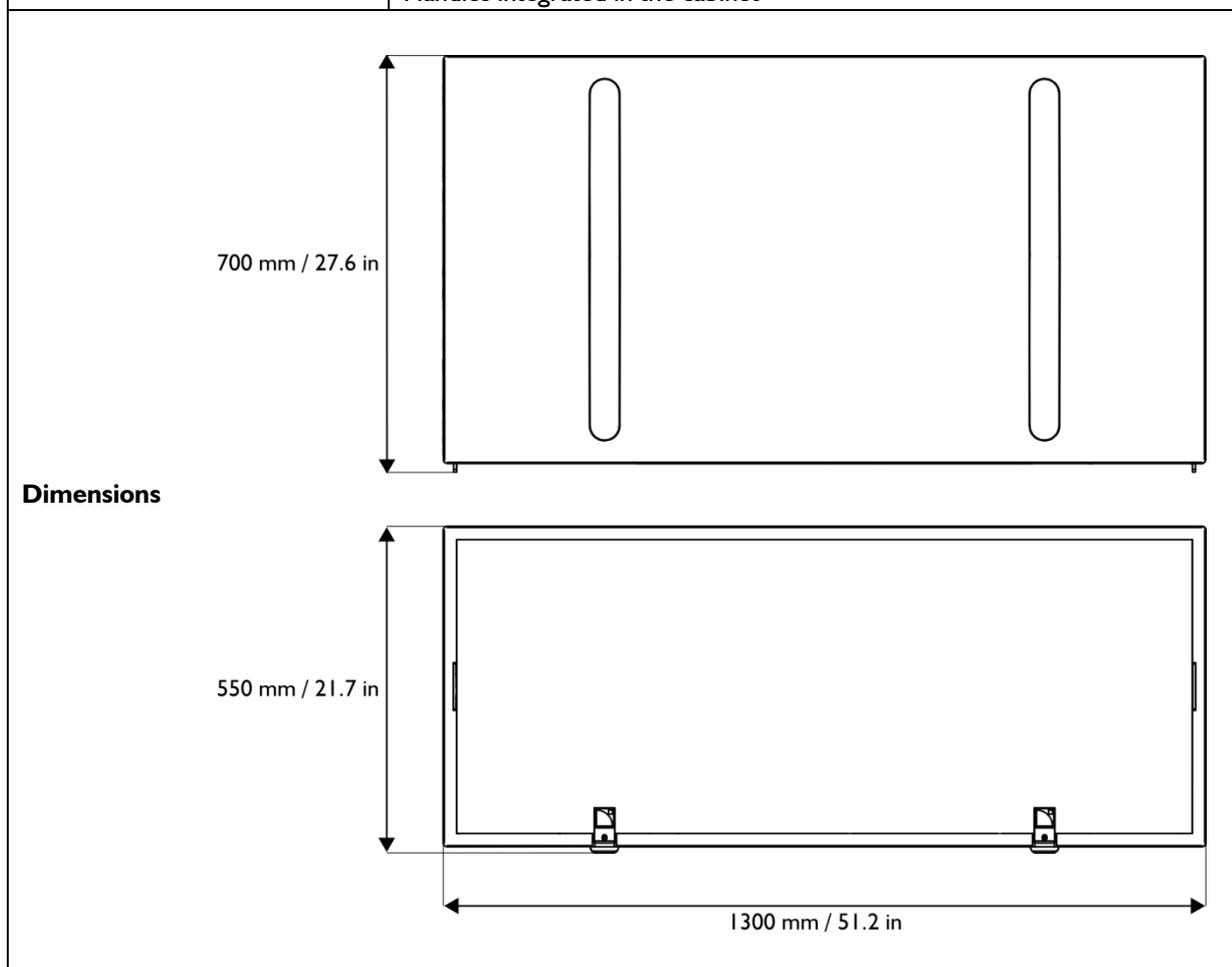


Physical data	Weight (net):	83 kg / 183 lb
	Cabinet:	Baltic birch plywood
	Finish:	Dark Grey brown (Pantone 426C) Pure white RAL 9010®
	Front:	Steel grill with anti-corrosion coating Airnet® acoustically neutral fabric
	Protection Rating:	IP45
	Rigging components:	High strength steel with anti-corrosion coating

¹ Peak level at 1 m under half-space conditions using 10 dB crest factor pink noise with specified preset.

SB28

Description	Subwoofer enclosure, amplified by the LA8
Low frequency limit (-10 dB)	25 Hz ([SB28_100] preset)
Maximum SPL¹	140 dB ([SB28_100] preset)
RMS power handling	1255 W
Transducers	2 × 18" neodymium, weather-resistant, direct radiation, bass-reflex
Nominal impedance	4 Ω
Connectors	IN: 1 × 4-point SpeakON [®]
Rigging components	Integrated rigging system Handles integrated in the cabinet



Physical data	Weight (net):	93 kg / 205 lb
	Cabinet:	Baltic birch plywood
	Finish:	Dark Grey brown (Pantone 426C) Pure white RAL 9010 [®]
	Front:	Steel grill with anti-corrosion coating Airnet [®] acoustically neutral fabric
	Rigging components:	Aluminium

¹ Peak level at 1 m under half-space conditions using 10 dB crest factor pink noise with specified preset.



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