



ARCS II

CONSTANT CURVATURE WST® ENCLOSURE

The ARCS II features one 15" neodymium LF driver in a bass-reflex tuned enclosure and one 3" neodymium diaphragm compression driver coupled to a DOSC® waveguide. The ARCS II is based on an active 2-way design with a nominal impedance of 8 ohms for both the HF and the LF section. The ARCS II cabinet is made of first grade Baltic birch plywood to ensure maximum acoustical and mechanical integrity.

The ARCS II enclosure operates over the 50 Hz to 20 kHz nominal frequency bandwidth. This response can be lowered down to 25 Hz with the addition of the SB28 subwoofer.

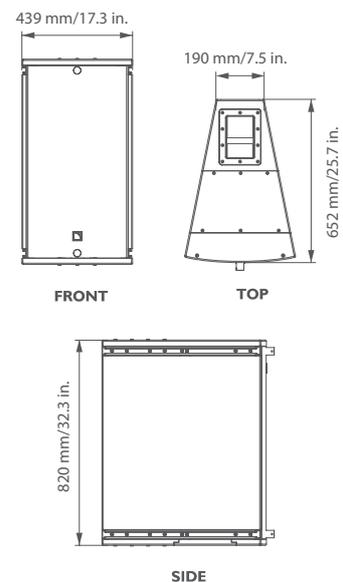
The DOSC® HF waveguide generates a 22.5° symmetric x 60° asymmetric (-20°/+40°) directivity pattern. These values correspond either to the horizontal x vertical coverage angles, for an ARCS II enclosure standing vertically, or to the vertical x horizontal coverage angles, for an ARCS II enclosure in the radial orientation.

The ARCS II rigging system allows assembling a horizontal or vertical array with a constant curvature. The DOSC® waveguide in the HF region allows the system to be arrayed without breaking the inter-element acoustic coupling. The WST® (Wavefront Sculpture Technology) criteria are then fulfilled, so that such an array can be qualified as a true line source. An ARCS II line source provides a smooth tonal response and a coverage that is free of secondary lobes over the entire frequency range.

The ARCS II enclosure is exclusively driven and bi-amplified by the LA8 amplified controller. This one ensures active system linearization, intelligent transducer protection, and optimization for the loudspeaker system. With a single factory preset designed to be used in the different operation modes of the ARCS II, the performance of the system will depend upon the choice of the physical system configuration.



Usable bandwidth (-10dB)	50 Hz - 20 kHz ([ARCS II] preset)	
Nominal directivity (-6dB)	Horizontal: 22.5° symmetric x N elements Vertical: 60° asymmetric (-20°/+40°)	
Maximum SPL¹	140 dB ([ARCS II] preset)	
RMS power handling capacity	LF: 600 W	HF: 100 W
Components	LF: 1 x 15" neodymium weather-resistant with 4" coil HF: 1 x 3" neodymium diaphragm compression driver Nominal impedance: LF = 8 ohms, HF = 8 ohms	
Rigging²	LIFTBAR certified for 6 ARCS II in a horizontal array ARCBUMP certified for 4 ARCS II in a vertical array	
Physical data	W/w x H x D: 439/190 x 820 x 652 mm 17.3/7.5 x 32.3 x 25.7 in Weight (net): 50 kg / 110 lbs Connectors: 2 x 4-pin Speakon® Cabinet: Baltic birch plywood Finish: Grey brown, RAL 8019® Front: polyester powder-coated steel grill, Airnet® acoustically neutral fabric Rigging elements: steel with dual coating (zinc and polyester powder)	



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

² Mechanical data and limits for installation are specified in SOUNDVISION software which is designed to help with L-ACOUSTICS® product implementation.



ARCS II SYSTEM

CONSTANT CURVATURE WST® LINE SOURCE



The ARCS II (Arrayable Radial Coherent System, generation II) has benefited from a design exploiting the Wavefront Sculpture Technology® in a constant curvature line source solution. Intended for the medium to large rental productions, it delivers remarkable power, bandwidth and coherence, along with a flexible and predictable coverage. Besides, it offers the audience an incomparable listening experience featuring clarity, precision and impact.

The main system components consist of the following:

- ARCS II full range active 2-way element, operating in the 50 Hz to 20 kHz bandwidth
- SB28 complementary low frequency extension operating from 25 Hz
- LA-RAK touring rack fitted with LA8 amplified controllers.

The ARCS II enclosure offers a number of improvements over the previous generation, the major of them being the KI grade transducers for more resources and lower weight. It also features a new front grill for enhanced durability and cosmetics, and is driven by a single factory preset to accommodate any applications efficiently.

An ARCS II line source can be deployed either horizontally or vertically, with a coverage angle that is proportional to the number of enclosures in the array ($N \times 22.5^\circ$). On the other plane, vertical or horizontal respectively, the ARCS II line source provides an asymmetrical coverage angle of 60° ($20^\circ/40^\circ$). The orientation of the ARCS II enclosures within the array determines the asymmetric distribution, allowing the use of a horizontal ARCS II line source either for upward or downward coverage.

ARCS II can be quickly deployed as a tightly-packed front of house system for medium throw applications with high SPL, LF impact and excellent stereo imaging. Thanks to its precise and flexible coverage capability, other applications include distributed system, center cluster for theatrical work, sidefill monitoring, flown or stacked center fill, stereo front fill, offstage fill or delay system for concert audiences in stadia and arenas.

The LA-RAK touring rack and the LA8 amplified controller preset library deliver an extremely advanced and precise drive system for ARCS II. Additional features include the L-DRIVE intelligent 2-way transducer protection circuit (PEAK and RMS limiting) and the unique Array Morphing EQ interface allowing the engineer to quickly adjust the tonal balance of the system to reach a reference curve or ensure consistency of the system sonic signature with multiple arrays of different types and sizes.

A single LA8 can drive up to 6 ARCS II enclosures in a full range mode, for lead instruments, vocals and music material without LF extension requirement. Alternatively, the LA8 can drive 3 ARCS II with 2 SB28 to extend its bandwidth down to 25 Hz.



Before installation, any ARCS II system can be acoustically and mechanically modeled with the SOUNDVISION 3D simulation software. Besides, in order to ease operation, it is possible to design a network system of up to 253 LA8 units connected together via the Ethernet-based L-NET protocol. Then, the LA NETWORK MANAGER software offers remote control and monitoring of the amplified controllers via a user-friendly and intuitive graphic interface.



ARCS II SYSTEM COMPONENTS

ARCS II¹

Full range active 2-way WST® enclosure
(provided with 2 coupling bars).
Bandwidth = 50 Hz - 20 kHz.



SB28¹

Reference subwoofer enclosure,
LF limit = 25 Hz.



LA8/LA-RAK/LA-NETWORK MANAGER¹

Amplified controller with DSP library
and networking capabilities.
Touring rack.
Remote control software.



ARCPLA/ARCS IICOV

Removable front dolly board.
Protective cover.



BUMP3

Rigging structure for flying a horizontal array.



LIFTBAR

Rigging bar to use with 2 BUMP3 for flying a
horizontal array.



ARCBUMP

Rigging structure for flying a vertical array
(provided with 2 coupling bars).



SOUNDVISION

3D electro-acoustic and mechanical simulation
software dedicated to L-ACOUSTICS® products.



¹ See product spec sheet for more details

ARCS II SYSTEM CONFIGURATION

Two operation modes are available for ARCS II: “FULL RANGE” and “LOW EXTENSION”

FULL RANGE

The “FULL RANGE” mode is adapted to standalone configurations
of the ARCS II line source. A single LA8 can drive up to 6 ARCS II from
one or two inputs.

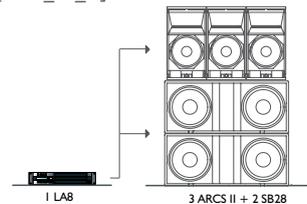
Preset: [ARCS II]



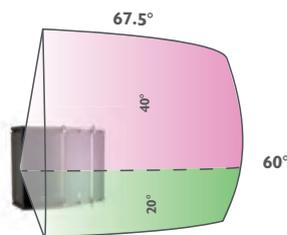
LOW EXTENSION

The “LOW EXTENSION” mode is adapted to ARCS II/SB28
configurations with a ratio of 1 SB28 to 2 ARCS II or 2 SB28 to 3
ARCS II. A single LA8 can drive up to 3 ARCS II and 2 SB28.

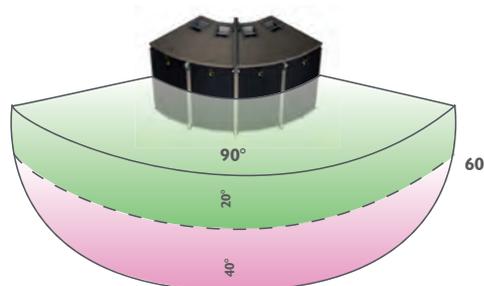
Presets: [ARCS II] + [SB28_60] or [SB28_60_C]



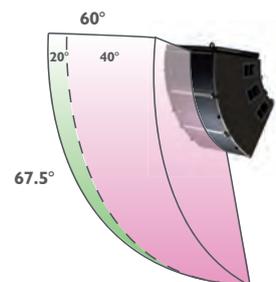
COVERAGE EXAMPLES



Horizontal - upward
3 ARCS II 67.5° x 60°



Horizontal - downward
4 ARCS II 90° x 60°



Vertical
3 ARCS II 60° x 67.5°