



## Harmonica 3s

### GENERAL DESCRIPTION

The CSC Harmonica 3s is a two-way bi-amped line array element designed to meet the stringent criteria of wavefront sculpture technology, as set by the Audio Engineering Society. It addresses inter-cabinet interference in the vertical dispersion by maintaining constant gaps between adjacent waveguides using precise rigging and waveguide geometry. This design ensures minimal interference and a flat wavefront at the exit, providing excellent phase response and frequency control. The Harmonica 3s's design features controlled horizontal dispersion with LF drivers mounted behind the horn, achieving accurate directivity control despite the compact size of the HF section. This makes it a versatile and high-performance solution for both permanent installations and demanding touring applications.

At the heart of the line array element are two powerful customised dual 10-inch (300mm) neo low-frequency transducers with a 3-inch (77mm) voice coil. The 80° x 15° dispersion isophasic horn ensures a flat wavefront. The heart of the high-frequency section is a powerful 1.4" (34 mm) compression driver using a 3-inch (77 mm) voice coil. Its smooth response ensures a bold and upfront vocal propagation.

Crafted in Baltic birch, the Harmonica 3s is designed for live bands, large auditoriums, and stadiums where serious SPLs are intended, keeping vocal propagation in mind. A smart design with clever construction contributes to its relatively compact size.

Harmonica 3s is perfectly tuned for live application; the use of a CSC Maestro MS 26 controller is recommended. It is a perfect match with the Harmonica 3s cardioid subwoofer, Contrabass CR-218s, RRH-218s, and RR-218s subwoofers.

As standard, it has a 16-sWG grill for protection. Metal hardware is embedded into the cabinet side walls as standard hardware. It is available in nontoxic, black-textured paint with a top hat. It has NL-4 connectors as input and link.

#### FEATURES:

- ▶ Compact two-way line array
- ▶ Horn 80° x 15°
- ▶ Flying hardware embedded into the cabinet walls.
- ▶ Innovative integrated flying hardware for easy setup

#### SYSTEM APPLICATIONS:

- ▶ Live bands and concerts
- ▶ Large club installs
- ▶ Auditoriums
- ▶ Places of Worship
- ▶ Stadiums

SYSTEM SPECIFICATIONS	Harmonica 3s
Type	Bi-amped two-way Line array element.
Frequency Response (1)	55 Hz-19.5 kHz $\pm$ 3 dB
Drivers	LF: 2 x10" (300 mm) neo with a 3" (77 mm) voice coil, HF: 1.4" (34 mm) compression driver with a 3" (77 mm) voice coil
Recommended Amplifier Up to	Depending on array length
Sensitivity (1 Watt/1 meter)	LF 97 dB (single cabinet) + HF 110 dB (single cabinet)
Maximum SPL (9)	129 dB continuous, 134 dB Max
Nominal Impedance	8/8 Ohms
Dispersion	80° x 15°
Crossover	HPF 110 Hz
Enclosure	Baltic birch ply
Finish	Textured black paint
Protective Grille	Perforated steel
Connectors	2 x Neutrik NI4
Pin Connections	Input LF: $\pm$ 1, Link through LF: $\pm$ 2
Standard Colour	Black
Wave guide	Isophasic horn
Dimensions - Product	(W) 732mm x (H) 665 mm x (D) 418mm
Dimensions - Including packing	(W) 780mm x (H) 695mm x (D) 455mm
Grill	Treated and coated steel grill with acoustically neutral fabric
Rated Continuous Power AES	900 Watt
Rated Maximum Power/Program Power	1800 Watt
Peak Power	3600 Watt
Accessories	Flying frame felted waterproof covers, Flying hardware
Net Weight	35 kgs
Shipping Weight	40 kgs

Mid highs measured on axis in full space @ 1 watt/1 meter using band limited pink noise.

In the en-deavour to continuously improve the product with design refinements introduced into existing products. Any current CSC product may differ in some respect from its published description. However, this will always equal or exceed the original design specifications. Every CSC product is built to the highest standards and tested to ensure that it meets the performance criteria specified.

## SAFETY INSTRUCTIONS

- ▶ When flying speakers, use appropriate hardware and techniques for safely suspending the enclosures.
- ▶ Follow all instructions that appear on specific loudspeaker datasheets.
- ▶ Inspect all speaker hardware and flying apparatus for any visual or mechanical failure.
- ▶ When using flying frames, ensure the ground is flat and the speaker is stable. Leave adequate distance between speakers and the audience. Refer to local health and safety guidance before using loudspeaker systems.
- ▶ Get the CSC digital controller programmed by a CSC-authorized technician. Always use the appropriate controller and programme while using all CSC loudspeaker systems. A warranty is void if a system fails due to an incorrect controller programme.
- ▶ Protect your speakers and electronics from ice or exposure to humidity, water, or rain.
- ▶ CSC loudspeakers and electronics are covered against defects in workmanship or materials for a period of two years from the original date of purchase. The CSC warranty does not cover any item that, in CSC's opinion, has failed due to user abuse, accidents, or modifications.
- ▶ The defective item will be repaired or replaced with no charge for materials or labour. However, the item should be adequately packed and dispatched, pre-paid, to a CSC-authorized distributor or service centre.

