

SXCF115

Compact, Cardioid Flown Subwoofer



Features

- Compact, cardioid subwoofer
- Front facing 15" (380mm)/4" (100mm) voice coil driver
- Rear facing 12" (300mm)/4" (100mm) voice coil driver
- Cardioid dispersion pattern
- 28dB rear rejection at 75Hz
- High output capability
- Tour-grade plywood enclosure

Designed for touring sound and installations, the SXCF115 is a compact, high performance cardioid subwoofer which be flown as part of a WPM or TORUS 8 array, or ground-stacked separately.

SXCF115 features a 15" (380mm) forward facing driver and a 12" (300mm) rear facing driver, each driven independently by separate amplifier channels and DSP. Each driver has its own chamber with optimised bass reflex porting. This arrangement produces a cardioid dispersion pattern which maximises the front radiation and reduces unwanted radiation behind the subwoofer.

The recommended iK42 amplifier optimises the DSP parameters for front and rear drivers to maximise the rear rejection — from 21dB at 43Hz to 28dB at 75Hz. This keeps low frequencies away from stages and walls as well as reducing reverberant energy in the room — greatly improving the low frequency response accuracy and impact of the whole system.

Applications

- Live sound reinforcement
- Fixed installations including live event venues and nightclubs
- Theatre sound
- Corporate AV events
- Acoustically-challenging rooms

In front of the enclosure, the output from the two drivers is additive, delivering 137dB peak, an extra 2dB of output when compared with a conventional 1 x 15" subwoofer.

The SXCF115 integrates perfectly with WPM flown line arrays and TORUS 8 constant curvature arrays, as well an accompaniment for Martin Audio point source systems where low frequency pattern control is required. It can be used singly, stacked or flown, supported by accessories.

The enclosure is constructed from birch ply and finished with a hard-wearing textured paint. It is equipped with four grab handles and foam-backed perforated steel grilles protect the front and rear drivers. Interlocking skids prevent movement when stacked and a threaded plate in the top surface facilitates pole-mounting.

The addition of the input cover accessory makes the SXCF115 weather resistant and suitable for outdoor usage.

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Technical Specifications

TYPE	Compact, cardioid subwoofer
FREQUENCY RESPONSE (1)	44Hz – 150Hz \pm 3dB, -10dB @ 36Hz
DRIVERS	15" (380mm)/4" (100mm) voice coil, long excursion, ferrite magnet, waterproof cone 12" (300mm)/4" (100mm) voice coil, long excursion, neodymium magnet, waterproof cone
RATED POWER (2)	15": 1000W AES, 4000W peak 12": 800W AES, 3200W peak
SENSITIVITY (10)	101dB
MAXIMUM SPL (9)	137dB peak
NOMINAL IMPEDANCE	15": 8 ohms 12": 8 ohms
DISPERSION (-6dB)	Cardioid
ENCLOSURE	Multi-laminate birch ply
FINISH	Textured black paint
PROTECTIVE GRILLE	Black HEX perforated steel
CONNECTORS	2 x NL4
PIN CONNECTIONS (INPUT)	15": +1, -1; 12": +2, -2
PINS CONNECTIONS (LINK)	15": +1, -1; 12": +2, -2
FITTINGS	Two skids on base, with mating channels on top M20 top-mounted thread plate for pole mounting Two bar handles on each side 16 x M8 inserts for optional castors
DIMENSIONS (INCL SKIDS)	(W) 500mm x (H) 552mm x (D) 810mm (938mm incl castors) (W) 19.69in x (H) 21.71in x (D) 31.90in (36.94in incl castors)
WEIGHT	61.5Kg (136lbs), 65Kg (143lbs) incl castors

Architectural Specifications

The loudspeaker shall be a compact cardioid subwoofer consisting of a 15" reflex-loaded transducer radiating to the front of the enclosure and a 12" reflex-loaded transducer radiating to the rear. The transducers shall be driven independently by separate channels of a dedicated controller amplifier.

Power handling of the 15" transducer shall be 1000W AES, 4000W peak and power handling of the 12" transducer shall be 800W AES, 3200W peak. Rated impedance of each transducer shall be 8 ohms. The on-axis frequency response shall be 44Hz- 150kHz \pm 3dB and the loudspeaker shall produce a maximum SPL of 137dB peak calculated at 1 metre.

The loudspeaker enclosure shall be constructed from multi-laminate birch ply with a textured coating. The drivers shall be protected by a perforated steel grille and the enclosure shall be fitted with a threaded pole-mount plate, bar handles, skids and support for flyware. The rear connector panel shall be fitted with two NL4 type connectors.

Dimensions including skids, excluding castors (W x H x D) shall be 500mm x 552mm x 810mm (19.69in x 21.71in x 31.90in). Dimensions including skids and optional castors (W x H x D) shall be 500mm x 552mm x 938mm (19.69in x 21.71in x 36.94in). Weight excluding castors shall be 61.5Kg (136lbs). Weight including optional castors shall be 65Kg (143lbs).

The loudspeaker shall be the Martin Audio SXCF115.

Notes

- (1) Measured on-axis in half (2pi) space at 2 metres, then referred to 1 metre.
- (2) AES Standard ANSI S4.26-1984.
- (3) Measured in half (2pi) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
- (4) Measured in half (2pi) space at 2 metres using band limited pink noise, then referred to 1 metre.
- (5) Measured on-axis in open (4pi) space at 2 metres, then referred to 1 metre.
- (6) Measured in open (4pi) space at 2 metres with 1 watt input, using band limited pink noise, then referred to 1 metre.
- (7) Measured in open (4pi) space at 2 metres using band limited pink noise, then referred to 1 metre.
- (8) Measured in open (4pi) space at 2 metres with 2.83v input, using band limited pink noise, then referred to 1 metre.
- (9) Calculated at 1 metre.
- (10) Measured in half (2pi) space at 2 metres with 2.83V input, using band limited pink noise, then referred to 1 metre.

