R SERIES

R6-BHMAX

VERY HIGH OUTPUT, EXTENDED RESPONSE,
WEATHER-RESISTANT BASS HORN

APPLICATIONS

Stadiums and Arenas • Racing Tracks • Concerts
Fairgrounds • Multipurpose Outdoor Venues

DESCRIPTION

The R6-BHMAX is a high output, high power low frequency system engineered to provide "No Compromises" premium music reproduction. It is designed for long throw applications in larger arenas, stadiums, and other large scale facilities requiring high output levels with superb clarity. The R6-BHMAX will array with effectively increased pattern control and, through mutual coupling, with higher efficiency at lower frequencies.

The R6-BHMAX has six, high sensitivity 12-inch drivers with powerful, heavy-duty motor structures mounted in a one-piece fiberglass, 42 Hz flare rate horn that is surrounded by a rigid fiberglass weatherproof cap. The R6-BHMAX is designed as an optimum low frequency complement to horn-loaded full-range systems (such as the R2-MAX) in terms of its output level, pattern control, frequency range and physical dimensions.

The R6-BHMAX is designed for extreme weather resistance, with the same materials and construction as the other R6 models and can withstand long-term exposure to tough environmental conditions. Proper implementation with a full-range system requires an electronic crossover and alignment signal delay along with appropriate equalization.

FEATURES

- 40% longer throw distance capability, to meet the needs of today's sporting venues
- Exceptional low frequency extension at very high output levels
- Excellent transient response and LF pattern control
- Very high power handling, long excursion, low distortion LF drivers

TECHNICAL SPECIFICATIONS[1]			
Operating Mode	Passive with DSP		
Operating Environment	Outdoor		
Operating Range[2]	44 Hz to 185 Hz		
Transducers	LF 6 x 12" inherently weather-resistant cones with 3" voice coil, neodymium motor and demodulation ring		
Continuous Power Handling[3] @ Nominal Impedance	Whole Space	120V	3600W @ 4 ohms (14400W peak)
Nominal Sensitivity[4]	Whole Space	@ 1W 107 dB	@ 2.83V 110 dB
Nominal Maximum SPL[5] (Whole Space)	Whole Space	Peak 149 dB	Continuous 143 dB
Equalized Sensitivity[6]	Whole Space	@ 1W 107 dB	@ 2.83V 110 dB
Equalized Maximum SPL[7]	Whole Space	Peak 149 dB	Continuous 143 dB
Recommended Amplifiers	Single Amp	3600W - 7200W @ 4 ohms, (120V - 170V)	
PHYSICAL			
Input Connection	(1) 16-2 SJOW 12' (3.7 m)		
Mounting Points	(4) 1/2-13 rigging points for third party suspension systems, (10) 5/16" flange holes for supplemental support (not suspension)		
Environmental	IP55 per IEC 60529, conforms with MIL-STD-810G		
Weight	237 lbs (107.5 kg) loudspeaker only PRELIMINARY		
Dimensions H x W x D	49.0" x 37.0" x 43.5" (1245 x 940 x 1105 mm)		
Finish	Hand-laminated fiberglass, light grey gelcoat		
OPTIONS			
Accessories	Pan-tilt frame available from Polar Focus		
Configure-to-Order (CTO)	Custom color, Custom cable gauge and length		

Community strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.

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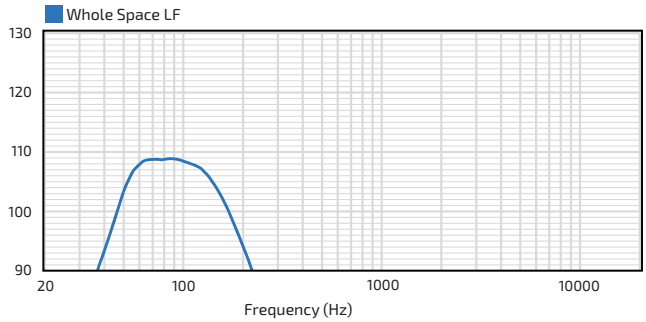
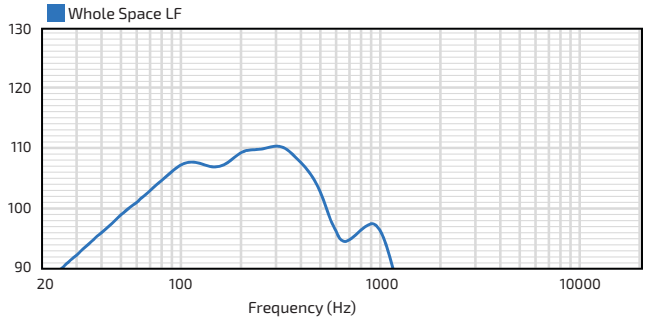
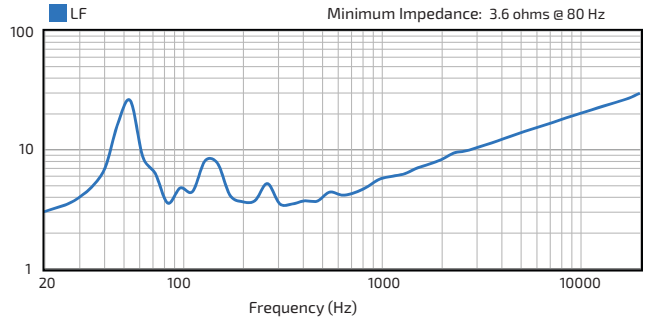
AXIAL PROCESSED RESPONSE (dB)[8]



AXIAL SENSITIVITY (dB SPL)[9]



IMPEDANCE (Ohms)



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TECHNICAL DRAWING / DIMENSIONS / FINISH

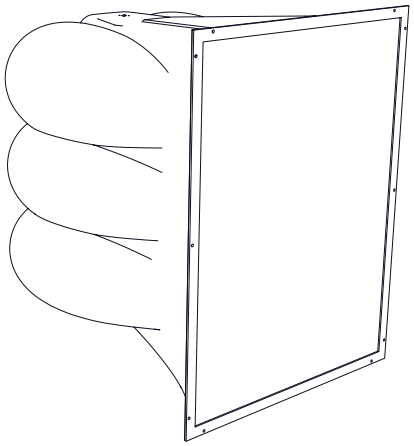
H x W x D
49.0" x 37.0" x 43.5"
(1245 x 940 x 1105 mm)

Unit Weight
237 lbs (107.5 kg) loudspeaker only

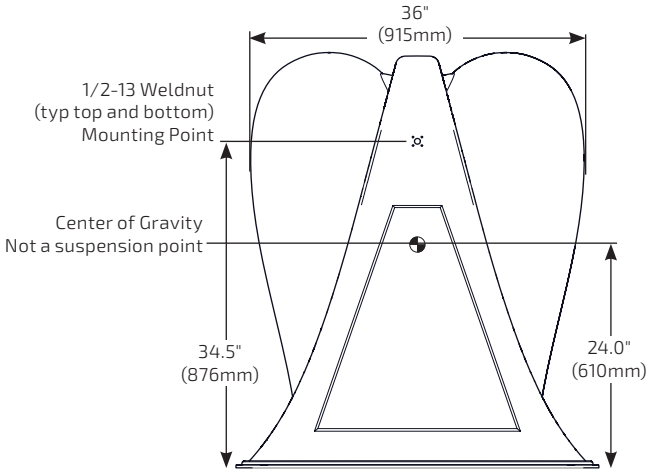
Shipping Weight
329 lbs (149.2 kg)

Grille:
3-layer Weather-Stop™ with polyester mesh, open cell foam, and zinc-rich epoxy dual-layer powder-coated perforated 16ga. steel grille, color-matched to enclosure

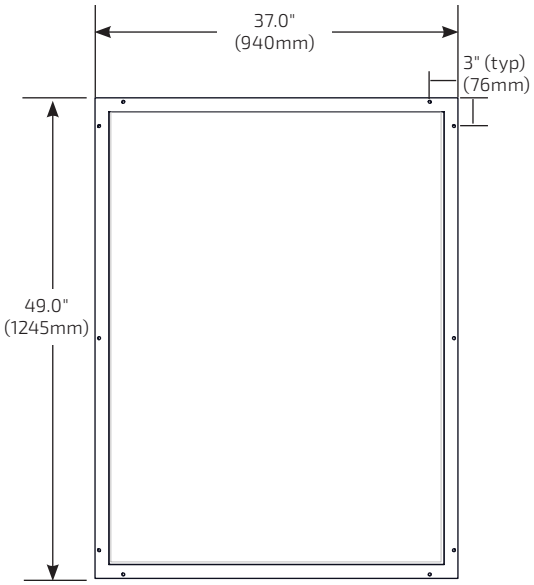
Enclosure
Hand-laminated multilayer fiberglass with black gelcoat on interior and grey gelcoat on exterior surfaces



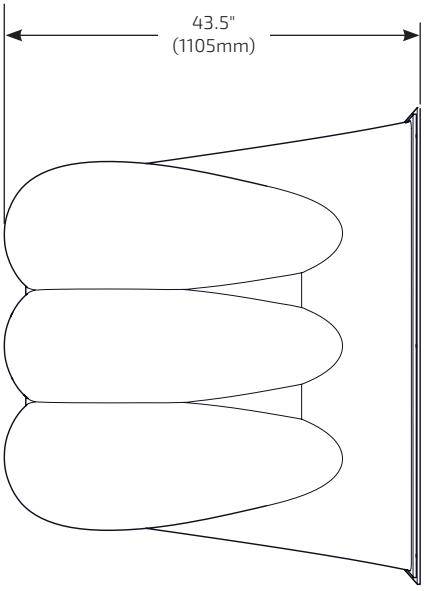
Isometric



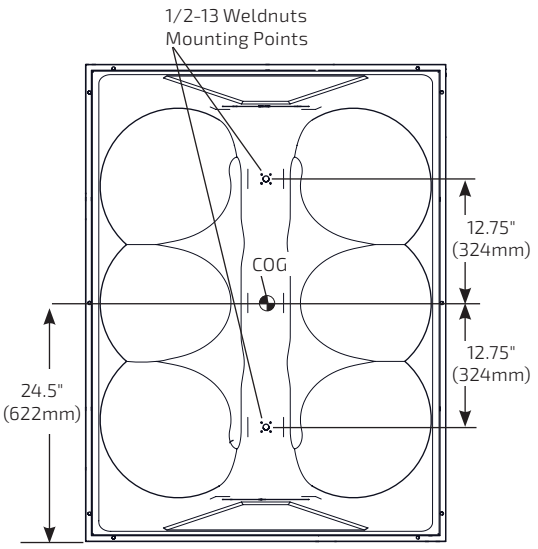
Top



Front



Sides



Rear

Notes:
- Cabinets are hand-laminated and measurements vary slightly due to the thickness of the fiberglass. Dimensions shown should not be used to fabricate hanging fixtures.
- Front flange holes at edge of grille are typically 0.3125" (7.9mm) diameter and 0.75" (19mm) from the outside edge.

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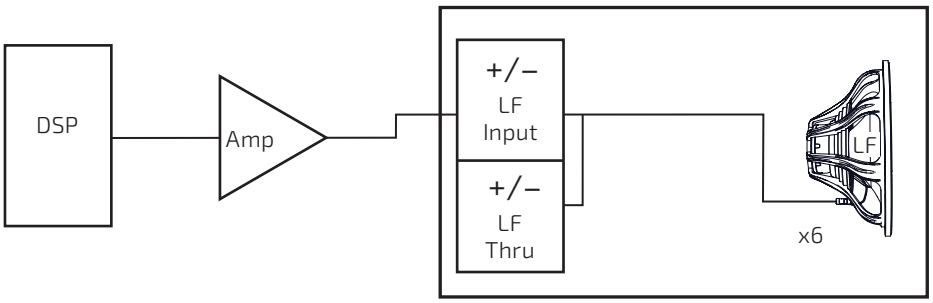
CONNECTION DIAGRAM



Single amp

ARCHITECTURAL SPECIFICATIONS

The low frequency system shall be a weather-resistant horn-loaded design with six 12", Ferrofluid-cooled LF drivers. The input connection shall be a 16 gauge 2-conductor, 12 foot (3.6m) SJOW cable with stripped ends. The loudspeaker enclosure and horn flare shall be an integral double-wall weather-sealed gray fiberglass enclosure with a three-layer weather-resistant grille. The grille shall have dual-layer powder-coated 16 gauge perforated steel backed by open cell foam and woven poly mesh. There shall be four 1/2-13 integral threaded mounting points. The system shall have an operating range of 44 Hz to 185 Hz, input capability of 120V RMS, 107 dB sensitivity at 1 Watt/1 meter, or 110 dB at 2.83V, a nominal impedance of 4 ohms. The loudspeaker shall be 49.0 in. (1245 mm) H x 37.0 in. (940 mm) W x 43.5 in. (1105 mm) D and weigh 237 lbs. (107.5 kg).

NOTES

1. *PERFORMANCE SPECIFICATIONS All measurements are taken indoor using a time-windowed and processed signal to eliminate room effects, approximating an anechoic environment, a distance of 6.0 m. All acoustic specifications are rounded to the nearest whole number. An external DSP with settings provided by Community Professional Loudspeakers is required to achieve the specified performance; further performance gains can be realized using Community's dSPEC226 loudspeaker processor with FIR power response optimization.*
2. *OPERATING RANGE The frequency range in which the on-axis processed response remains within 10dB of the average SPL.*
3. *CONTINUOUS POWER HANDLING Maximum continuous input voltage (and the equivalent power rating, in watts, at the stated nominal impedance) that the system can withstand, without damage, for a period of 2 hours using an EIA-426-B defined spectrum; with recommended signal processing and protection filters.*
4. *NOMINAL SENSITIVITY Averaged SPL over the operating range with an input voltage that would produce 1 Watt at the nominal impedance and the averaged SPL over the operating range with a fixed input voltage of 2.83V, respectively; swept sine wave axial measurements with no external processing applied in whole space, except where indicated.*
5. *NOMINAL MAXIMUM SPL Calculated based on nominal / peak power handling, respectively, and nominal sensitivity; exclusive of power compression.*
6. *EQUALIZED SENSITIVITY The respective SPL levels produced when an EIA-426-B signal is applied to the equalized loudspeaker system at a level which produces a total power of 1 Watt , in sum, to the loudspeaker subsections and also at a level which produces a total voltage, in sum, of 2.83V to the loudspeaker subsections, respectively; each referenced to a distance of 1 meter.*
7. *EQUALIZED MAXIMUM SPL The SPL produced when an EIA-426-B signal is applied to the equalized loudspeaker system, at a level which drives at least one subsection to its rated continuous input voltage limit, referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6dB) crest factor of the EIA-426-B test signal.*
8. *AXIAL PROCESSED RESPONSE The on-axis variation in acoustic output level with frequency of the complete loudspeaker system with recommended signal processing applied. 1/6 octave Gaussian smoothing applied.*
9. *AXIAL SENSITIVITY The on-axis variation in acoustic output level with frequency for a 1 Watt swept sine wave, referenced to 1 meter with no signal processing. 1/6 octave Gaussian smoothing applied.*

Data presented on this spec sheet represents a selection of the basic performance specifications for the model. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker's performance please download the CLF file from our website: communitypro.com

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CAUTION: Installation of loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting design.