

Hydra 7.1

Super horn-loaded subwoofer



Introduction

Super horn loaded subwoofer with circular section development, characterized by extreme sensitivity, dynamics and emission power, made with an incredibly rigid and light structure in durable composite materials.

Unlike all other alternatives currently available, this low frequency loudspeaker has been realized without technical and dimensional compromises, being fully developed both in terms of length and radiating surface. Thus it achieves maximum acoustic performance combined with an elegant design and personality, always keeping dynamics and control front and center.

Nearly scratch proof surfaces and resistance to atmospheric agents combined with extremely high efficiency and world class sensitivity allow the Hydra to perform favorably compared with any product from the main competing brands.

Hydra SP 7.1 guarantees the perfect loading of low frequencies in sensitivity, depth, control and SPL expressed by the usage of few watts.

The most common subwoofers on the market (wooden box type) are horn loaded speakers with several internal turns, non-optimized sections and reduced length, leading to lower sensitivity, reflections that create distortions and ripples, and uneven loading. Therefore they need corrections by DSP with consequent mechanical stress caused by the excursion of the transducer, which creates more distortions while using the enormous amount of energy needed by the amplifier to obtain SPL. Hydra SP 7.1 uses a single hi-quality transducer of 18" (460mm)

The structure is rigid, very light (considering the whole weight and the rate dB/Kg)

The scenic impact is extraordinary and absolutely exclusive and unique on the professional sound market.

The Scorpion Hydra DP 8.1 dual-twisted tail version is compact and reduced in height compared to the SP version, without losing performance.



Features

- Super impact horn
- Very high power sound emission
- Very limited rear emission problems
- Extreme sensitivity
- High energy efficiency with huge sound
- Unbeatable listening dynamics
- Excellent sound quality at all levels of listening
- Perfect adaptability to any musical genre
- Heavy duty composite construction, resistant to scratches and bumps
- All weather resistant
- Engineered for easy maintenance and repair
- Technologically advanced design
- Light weight for easy transport
- Simple installation and interface
- Customization of color and surface
- Unique design and appearance
- Reduced energy consumption compared to other powerful systems
- Cost per dB of SPL very reduced

Applications

Large club spaces
Outdoor events
Medium scale live events requiring high sound quality
Impact events

Max Size of audience within the range of dispersion with two Hydra SP 7.1:
Indoor 1500
Outdoor 1000
(recommendations will vary depending on the musical genre)



Architectural Specifications

Hydra SP 7.1 is a super-charged horn subwoofer that achieves very high performance. Built from high quality composite materials, highly resistant to damage from scratches and bumps. Absolute resistance to rain and sun. All metal parts are built from stainless steel.

Hydra sensitivity starts from 110dB 1W/1m, reaching peaks of 114 dB 1W/1m depending on the configurations of the external environmental loading such as walls etc.

Hydra SP 7.1 use a single hi-quality transducer of 18" (460mm). All of this with a deep and controlled quality to the bass frequencies, with a reduced excursion of the 18" transducer that decreases distortion and mechanical stress. The woofer is an 18" (460 mm) neodymium inside slug, 8ohm or 4ohm (depending on the versions); 1700w nominal power handling , 3400w power on continuous program.

Hydra SP 7.1 have a specific efficiency ratio 1.33 db/Kg with 1W, and huge sensitivity 110 (114) db 1w/m; power ratio for 1024 W RMS = 140dB

The above statistics show clearly a very low cost per DB of SPL.

The frequency response has a neutral environment, is linear and uniform, with no need for equalization corrections via DSP.

Continuous power handling is 3400 W 8 Ohm or 4 Ohm (depending on the versions), is the recommended amplifier power to exploit, fully, the transducer without any clipping in the amplifier.

A Full Fat Audio FFA 10000 is the recommended amplifier for this solution.

Size of the audience with two Hydra SP 7.1 would be indoor 1500 pp, outdoor 1000 pp. This varies depending musical preferences.

Warning: this is a professional audio system with very high efficiency and sensitivity with acoustic emissions that could potentially cause hearing damage. Installation and use intended for experienced and qualified personnel. Safety DSP devices with a limiter function are recommended

TYPE	Supercharged horn subwoofer
FREQUENCY RESPONSE	28 Hz - 140 Hz
TOTAL SENSITIVITY	110 dB 1W/m
NOMINAL IMPEDANCE	8 Ohm or 4 Ohm (depending on the version)
POWER HANDLING	1700 W nominal, 3400 W power continuous program
MANAGE	Amp. 3400 W 8 Ohm or 4 Ohm depending on te version
RECOMMENDED AMPLIFIER	Full Fatt Audio FFA 10000
DISPERSION	Specialized for frontal, reduced posterior
CONSTRUCTION MATERIALS	Fiber-reinforced composite, stainless steel
FINISH	all ral color and texture on order
PROTECTIVE GRILLES	stainless steel on request
CONNECTORS	1x Neutrik NL4 or custom preference
DIMENSIONS (with support)	(W) 1400 mm (H) 3950 mm (D) 1700 mm (W) 55 inch (H) 155 inch (D) 67 inch
WEIGHT	83 Kg (183 lb) mounted w/o support, 43 Kg + 40 Kg



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