

# Orion 16.1

four-way top quality system



## Introduction

Orion is a full range, 4-way, no compromise system characterized by a horn-loaded upper unit (with a High-End derived curvature) for medium-high frequencies, from closely spaced acoustic sources, and a lower, 12", direct radiation medium-bass unit with high sensitivity and dynamics. This configuration was already proven on our Kona flagship model, and the Orion retains its extremely dynamic characteristics, midrange realism, and refinement in high frequencies, as well as the ability to create an incredibly realistic three-dimensional sound stage even for listeners that are very close to the unit.

An internal crossover featuring extreme circuit design and top quality components (Air core coils, polypropylene capacitors), gives precise control over the 12" Mid freq Horn / High freq Horn combination, ensuring transparency, dynamics and realism. The subwoofer duties are entrusted to an 18" unit with high sensitivity and control, with great dynamic impact and response depth in low frequency.

All transducers (18", 12", Mid freq driver, High freq driver) are high quality, without technological or commercial compromise. The monolithic unit structure, made in composite materials, is extremely rigid and free from resonance, and relatively light considering the total size of the system. Orion allows you to get extreme levels of performance with extreme focus, realism, and power. This allows its use as both a Studio monitor, Dj monitor, or when aimed at an audience: in every application it brings the listener into the music itself, with an astonishing level of realism.



## Features

- High-end audio quality
- Perfect for monitor use (Studio, DJ monitor)
- High-end stereo system
- Very high quality Front Speakers for Home Theater
- High power sound
- Perfect integration with its lower 18" subwoofer
- Extreme sensitivity
- Unbeatable listening dynamics
- Perfect efficiency at all levels of listening
- Perfect adaptability to any musical preference
- Faithful and transparent reproduction at all frequency levels
- Heavy duty, highly resistant to scratches and bumps
- Weather resistance
- Built with high-strength and stiffness composite materials
- Easy to repair and maintain
- Cutting edge technical design
- Unbeatable lightness for easy transport
- Simple installation freestanding
- Customizable color and surface finish
- Simple acoustic calibration

## Applications

High-end stereo system  
Very high quality Front Speakers for Home Theater  
Powerful stage monitor for DJs and studio monitor  
Small club performances  
Mid to small-scale events  
Sophisticated intimate live events

Max Size of audience within the range of dispersion:  
Indoor 400  
Outdoor 300



## Architectural Specifications

The loudspeaker system Orion 16.1 is a four-way top quality system . Built from high-quality composite materials. Heavy-duty, highly resistant to scratches and bumps. Highly resistant to rain and sun. All metal parts are built-in stainless steel. Mid-low frequency direct emission component is characterized by a light structure with a highly resistant ovoid shell containing a 12" woofer with a range of 100-500 Hz and sensitivity of 100dB 1W/1m, continuous power handling 1400 W. Medium frequencies: full frontal round horn, equipped with a 2" compression driver; continuous power handling 160 W; sensitivity (coupled to the horn) of 110 dB 1W/1m . High frequencies: horn equipped with a 1" compression driver; continuous power handling 160 W; sensitivity (coupled to the horn) 109 dB 1W/1m. The loudspeaker system Orion 16.1, about its Upper Unit, is managed passively by a specific extreme design crossover . The frequency response of the system managed by the dedicated passive crossover in a neutral environment is linear and uniform, so it does not need equalization correction. Continuous power handling with this passive filter is 1000 W @ 4 Ohm with amplifier 2 Ohm stable . A Full-Fat audio FFA 6000 is the recommended amplifier for this Upper Unit. The 18" subwoofer continuous power handling is 3400W @ 4 ohm , a Full Fat Audio FF10000 is the recommended amplifier for this Subwoofer. Necessary to use a DSP to match the Upper Unit and Subwoofer.

Size of the public served in the range of dispersion: indoor 400pp, outdoor 300pp (or more), recommendations vary depending on the quantity and type of subwoofer (more than the standard 18" lower sub) and musical preferences. This system is especially recommended for use as Stage Monitor for DJs, Studio Monitor, High-end stereo system and Front Speakers for Home Theater , in those situations where the performance of the highest quality is required, with great sound pressure if needed.

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. The setting of safety DSP devices with a limiter function is recommended.

<b>TYPE</b>	4 way. Upper Unit: extreme high quality monitor/Sat (3 way with passive crossover) and Subwoofer (bass reflex)
<b>FREQUENCY RESPONSE</b>	30 Hz - 20 KHz (-3dB)
<b>TOTAL SENSITIVITY</b>	100 dB 1W/ 1m Upper Unit; (Subwoofer: 97 dB 1W/ 1m )
<b>BASS FREQUENCY</b>	18" high performance long excursion subwoofer, 4 ohm, 1700 W nominal, 3400 W continuous program
<b>LOW MIDRANGE</b>	12" high sensitivity mid-woofer, 8 ohm ,700 W nominal, 1400W continuous program
<b>MEDIUM FREQUENCY</b>	2" mid range compression driver, 8 ohm, 80 W nominal, 160 W continuous program
<b>HIGH FREQUENCY</b>	1" HF compression driver 8 ohm, 80 W nominal, 160 W continuous program
<b>NOMINAL IMPEDANCE</b>	4 Ohm Upper Unit; 4 Ohm Subwoofer
<b>POWER HANDLING</b>	Upper Unit: 1000 W @ 4 ohm with amplifier 2 ohm stable. Subwoofer: 3400 W @ 4 ohm
<b>MANAGE</b>	Stereo configuration: 4 Ch amplifier to a couple of Orion loudspeakers ( passive crossover inside provided, for each Upper Unit ) + DSP to match to subwoofer. Upper Unit: High-pass filter @100Hz, 24 dB/oct. LR. Subwoofer : High-pass filter @25Hz, 24 dB/oct But ; Low-pass filter @100-120Hz, 24 dB/oct. LR; Relative Gain +3dB, Delay 0 ms
<b>RECOMMENDED AMPLIFIER</b>	Full Fat Audio FFA 6000 (Upper Unit); Full Fat Audio FF10000 (Subwoofer) with external DSP to match each Upper Unit to its subwoofer
<b>DISPERSION</b>	60° horizontal, 60° vertical
<b>CONSTRUCTION MATERIALS</b>	Fiber-reinforced composite, stainless steel
<b>FINISH</b>	all ral color and texture on order
<b>PROTECTIVE GRILLES</b>	Orion is usually sold with these grids made of stainless steel to protect the 12" mid bass and 18" subwoofer,as standard
<b>CONNECTORS</b>	1(2)x Neutrik NL4
<b>DIMENSIONS (without support)</b>	(W) 700 mm (H) 1850 mm (D) 700 mm (W) 28 inch (H) 73 inch (D) 28 inch
<b>WEIGHT</b>	46 Kg (100 lb)



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