

flexible

coherent

efficient

compact



S830 TANGENT ARRAY MODULE

PRODUCT FEATURES

Optimized for use in vertical tangent arrays.

Integral high-precision array assembly system

High power, long excursion neodymium 8-inch woofer delivers full range output from compact enclosures.

Very light weight (10.5 kg with Array Assembly System) allow GEO tangent arrays to be hung almost anywhere.

Hyperboloid Reflective Wavesource allows the 30° S830 and the 5° S805 to be arrayed tangentially.

Directivity Phase Device enhances line source coupling in vertical arrays.

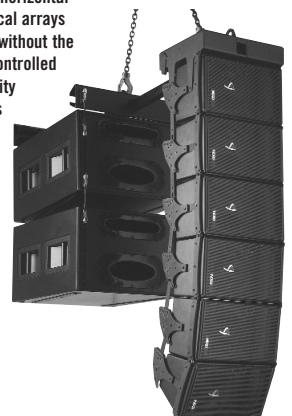
Configurable Directivity Device allows dispersion in the non-coupling plane to be changed from 120° to 80°.

GEO S SERIES APPLICATIONS

Mobile or installed sound reinforcement for arenas, clubs, A/V, theatre and themed attractions.

High output paging applications for large public spaces: transport hubs, outdoor venues, theme parks, etc.

GEO Tangent Array Modules can be used in horizontal or vertical arrays with or without the CD12 Controlled Directivity Subbass



406 mm
16"

GEO S Series Tangent Array Modules

S805
Vertical

▶ S830
Horizontal/Vertical

CD12
Hypercardioid Subbass



NX241 Digital TDC Controller

The GEO S805 is a compact, high output array module designed for use in vertical tangent arrays. The Hyperboloid Reflective Wavesource allows multiple GEO loudspeakers to radiate tangent wavefronts with coherent output. The 5° wavesource is optimized for the construction of curved vertical arrays that deliver equal power to equal coverage areas for consistent SPL from front to rear of the audience area.

The GEO S Series is the result of a three year intensive R&D project that has produced three fundamental patent applications in loudspeaker technology. The performance advantages produced by GEO innovations are easily measurable and clearly audible. With two full range tangent array modules and a hypercardioid subbass, the S Series offers total flexibility to design and deploy horizontal or vertical tangent arrays with coherent output. From high-definition musical reproduction to high-output paging systems, GEO Technology delivers optimal performance in venues of all shapes and sizes.

NEXO

I N N O V A T E

flexible coherent efficient compact



**S830 TANGENT
ARRAY MODULE**

NEXO is a world leader in the design and manufacture of loudspeaker systems for sound reinforcement. Since 1979 we have pursued practical solutions by addressing problems at fundamental levels. Each new design is generated using proprietary computer simulation software. Extensive modeling and simulation of critical parameters enables us to translate conceptual breakthroughs into significant cost and performance gains.

Nexo's comprehensive line includes the breakthrough GEO Series, based on fundamental wavesource patents, the compact, versatile PS Series, the world standard Alpha System and the Alpha e Series. Loudspeakers, analogue and digital control electronics and amplification are all designed to deliver **Sonic Innovation That Works.**

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PRODUCT FEATURES

Components: LF	1x 8" (20cm) Neodymium Hi-flux 16 Ohm Driver
HF:	1x 1" Throat Neodymium Driver on a Hyperboloid Reflective Wavesource
Height x Width x Depth	406 x 250 x 219 mm (16" x 9 7/8" x 8 5/8")
Shape	30° Trapezoid
Weight:	Net 10.5 kg (23 lbs) >14.5 kg (29 lbs) including array assembly system
Connectors	2x NL4MP SPEAKON 4 pole (In & Through)
Construction	Baltic Birch Ply finish with structured black coating. Dark grey carpet finish also available.
Fittings: Grill	Perforated Steel
Flying	Integral flying system. Intercabinet Angle Adjustments = .31° to 5° (logarithmic steps), 17.5° & 30°

SYSTEM SPECIFICATIONS GEO S805 with NX241 TDCcontroller

Frequency Response [a]	67 Hz – 19 kHz ± 3 dB
Usable Range @-6dB [a]	60 Hz – 20 kHz
Sensitivity 1W @ 1m [b]	99 dB SPL Nominal -97 dB SPL Wideband
Peak SPL @ 1m [b]	125 to 128 dB Peak for a single cabinet. Configuration dependant when arrayed [d].
Dispersion [c]	Coupling Plane: Not useable as a single cabinet. Configuration dependant [d]. Non-Coupling Plane: 120° (configurable to 80°).
Directivity Index [c]	Not useable as a single cabinet. Configuration dependant [d].
Crossover Frequency	1.8 kHz Passive
Nominal Impedance	16 ohms
Recommended Amplifiers	1500 to 3000 Watts into 4 ohms / 4 cabinets per channel. Up to 6 cabinets per channel may be connected to large amplifiers capable of operating into low impedance loads.

SYSTEM OPERATION

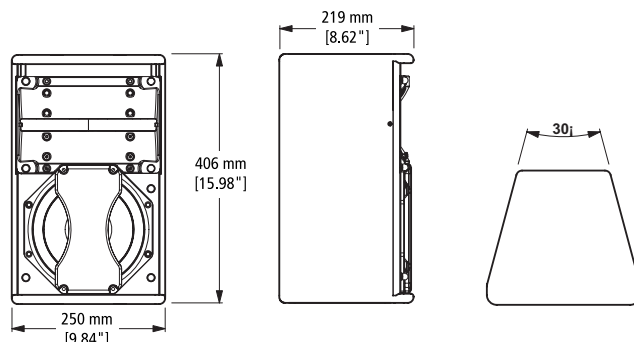
Electronic Controller	The NX241 Digital TDCcontroller presets are precisely matched to the GEO S8-Series cabinets and include sophisticated protection systems. Using GEO S8-Series cabinets without a properly connected NX241 Digital TDCcontroller will result in poor sound quality and can damage components. The GEO S805 & S830 can be used without the optional CD12 Hypercardioid Sub. In this case the NX241 can be used in stereo. With the CD12 Hypercardioid Sub each Sub channel requires two NX241 outputs and the NX241 will operate in mono.
HF Dispersion	Configuration After quick release of the front grill from its fittings, the HF Waveguide can be configured for 80° or 120° dispersion in the non-coupling plane.
Array Design	S805 and S830 cabinets, having tangent waveguides, can be mixed in the same array. Minimum configuration for Vertical Tangent Arrays is 5x S805 & 1x S830 (4x S805 for paging applications only). CD12's are optional: a ratio of 1 CD12 per 3 full range GEO modules is required for proper subbass output.
Speaker Cables	The GEO S805 and S830 are wired 1- & 1+ on both Speakon connectors, 2- & 2+ are not connected.
Rigging System	Please refer to the GEO User Manual before any operation.

SHIPPING & ORDERING

Packaging	S830s are packaged in pairs.
Shipping Weight & Volume	2x S830s: 29.2 kg (64.2 lbs) 0.135 cu m (4.8 cu ft)

As part of a policy of continual improvement, NEXO reserves the right to change specifications without notice.
[a] Response Curves and Data: Anechoic Far Field above 200 Hz, Half-space Anechoic below 200 Hz. Usable Range Data: Frequency Response Capability with TD crossover slopes removed. [b] Sensitivity & Peak SPL: will depend on spectral distribution. Measured with band limited Pink Noise. Refers to the specified +/- 3 dB range. Data are for Speaker + Processor + recommended amplifier combinations. [c] Directivity Curves and Data: 1/3 octave smoothed frequency response, normalized to On-Axis response. Data obtained by computer processing of offaxis response curves. [d] Please refer to the GEO User Manual.

CE approved product



LIMITED WARRANTY

Nexo loudspeakers and electronics are covered against defects in workmanship or materials for a period of two (2) years from the original date of purchase. At the option of Nexo, the defective item will be repaired/replaced with no charge for materials/labor. The item is to be adequately packaged and dispatched, pre-paid, to a Nexo authorized distributor/service center. Unauthorized repair shall void the warranty. This Nexo warranty does not cover cosmetics or finish and does not apply to any items which in Nexo's opinion have failed due to user abuse, accidents, modifications or any type of misuse.