



# 108P

## SELF-POWERED COAXIAL ENCLOSURE

### DESCRIPTION

The **108P enclosure** is the reference live monitor within the L-ACOUSTICS® self powered coaxial P range. Designed for engineers in search of WST® sonic signature, the enclosure operates over a frequency bandwidth from 55 Hz to 22 kHz which can be lowered to 40 Hz with the addition of the recommended SB15P self-powered subwoofer.

The 108P enclosure contains a bi-amplified coaxial configuration consisting of a 1.5" diaphragm compression driver loaded onto an 8" low frequency transducer integrated into a compact low profile bass-reflex tuned enclosure. This coaxial transducer arrangement produces a 100° axi-symmetric directivity output along with a smooth tonal response free of any acoustic conflicts over the entire frequency range, resulting in exceptional immunity to feedback, especially in monitoring situations.

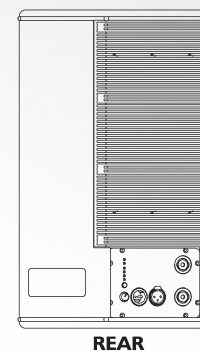
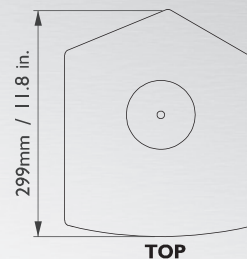
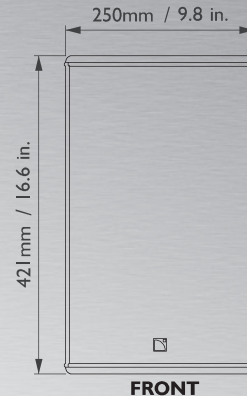
The system contains a speaker management DSP and a 2 channel power amplification module. The digital filter manages the system crossover network, driver time alignment, and thermal protection of the loudspeaker components. The unique linearization drive characteristic of the transducers is a result of comprehensive parameter management functions by the DSP.

With cabinet angle settings of 30° with regard to the vertical the wedge-shaped cabinet design makes the 108P perfectly suited for both stage monitoring, FOH, and all other sound reinforcement applications. Made of high grade Baltic birch plywood, the cabinet also features a pole mount socket, and the optional ETR8-2 bracket can be used for flown applications.

The 108P active enclosure is bi-amplified and the built-in DSP optimizes the enclosure response using 4 presets:

- The [FRONT] preset for a main FOH system applications
- The [FILL] preset for complimentary system applications
- The [MONITOR] preset for stage monitor applications
- The [XOVER] preset for use with the SB15P compact subwoofer.

The performance of the 108P enclosure depends upon the choice of preset and physical configuration of the system.



### CHARACTERISTICS

Usable bandwidth (-10dB) 55 - 22k Hz

Nominal directivity (-6dB) 100° (± 15°) Axi-symmetric

Maximum SPL<sup>1</sup> 125 dB ([FILL] preset)

Components

LF: 1 x 8" weather-resistant transducer  
 HF: 1 x 1.5" diaphragm compression driver

Electrical specifications

Input stage: balanced input, max level for 0 dB setting: + 12 dBu  
 DSP: 24 bit/48 kHz  
 Amplifier power rating: 1 x 500 W (4 ohms - LF)  
 1 x 250 W (8 ohms - HF)

Physical data

H x W x D: 421 x 250 x 299 mm  
 16.6 x 9.8 x 11.8 in

Wedge angle: 30° with regard to vertical

Weight (net): 13 kg 28.6 lb.

Connectors: 2 x XLR in parallel,  
 2 x Powercon® 120 or 230 V selectable by switch

Material: 15 mm and 18 mm Baltic birch plywood

Finish: grayish-brown RAL 8019®

Front: sandblast-coated steel grill,  
 acoustically transparent "Airmet" black cloth

Rigging: integrated pole mount socket, optional ETR8-2 bracket

<sup>1</sup> Peak level measured at 1m under free field conditions using 10 dB crest factor pink noise with specified preset and corresponding EQ settings.



## P SELF-POWERED COAXIAL RANGE

The L-ACOUSTICS® self-powered coaxial range offers a complete integrated system approach and has been designed to fulfil the highest audio expectations for a broad range of professional sound reinforcement applications. Drawing upon two decades of experience since the introduction of the original MTD coaxial series concept in 1987, the P series deliver an outstanding and unsurpassed level of performance in its category. This compact and versatile package combines all the benefits of on board amplification, digital signal processing (DSP), and contemporary coaxial transducer technology. The P series covers the needs of both the fixed installation and mobile application markets. The system range and components are as follows:

- I08P live monitoring enclosure
- I12P multi-purpose enclosure
- SB15P compact high power subwoofer.

The main advantages of coaxial technology include single point-source radiation combined with excellent phase response, total wavefront coherency at all frequencies, and axi-symmetrical directivity which produces identical coverage patterns in both the horizontal and vertical planes. The coaxial design also provides LF/HF superimposed dispersion characteristics that are free from polar lobing effects which are destructive in traditional horn and woofer combinations. The end-result is natural studio monitor sound quality which is ideal for both proximity monitoring use and semi-reverberant environments.

The P coaxial range features the latest generation of transducers and cutting-edge electro-acoustics engineering design. The end result is an outstanding sonic performance with an aural sensation of natural and transparent sound even at the highest listening levels. Setting up P enclosures is quick and easy due to the unique integrated flying hardware system which ensures precision, safety, and full compatibility with current rigging safety standards. The ability to daisy-chain signal and power links and to trim output gains via the onboard volume control also facilitates set up times.

Due to their compact wedge-shaped formats the I08P and I12P are equally suited to various sound reinforcement roles including front of house, floor monitor, side fill, and distributed system applications.

The built in combination of a high efficiency amplification module and a DSP digital speaker management system simplifies the logistics for rental businesses with regard to easier storage, handling, transportation, and inventory management. For the fixed installation market the self-powered solution drives down the installation and system set-up costs without compromising on audio performance.

As well as delivering cutting edge audio quality, the integrated amplification and DSP module offers comprehensive transducer protection, precise system drive engine, and optimized on board preset library. The presets are instantly accessible and provide the sound designer with total creative freedom for any conceivable application. In addition, for more demanding low-end reinforcement the SB15P compact subwoofer can be integrated as part of a 2 or 3 way system. Up to 4 P cabinets can be daisy-chained with the integrated A/C POWERCON® extension.



## SYSTEM COMPONENTS

### • I12P

Multi-purpose, self-powered 2 way enclosure, 50 - 20k Hz  
 1 x 12" LF transducer + 1 x 3" HF compression driver  
 90° Axi-symmetric directivity  
 Amplifier DSP 24 bit/48 kHz, 1 x 1000 W

### • I08P

Self-powered, active 2 way live monitoring enclosure 55 - 22k Hz  
 1 x 8" LF transducer + 1 x 1.5" HF diaphragm compression driver  
 100° Axi-symmetric directivity  
 Amplifier/DSP 24 bit/48 kHz, 1 x 500 W (LF), 1 x 250 W (HF)

### • SB15P

Self-powered compact subwoofer, LF limit 40 Hz  
 1 x 15" LF transducer  
 Amplifier DSP 24 bit/48 kHz, 1 x 1000 W

### • ETR12, ETR8-2, ETR15P

Adjustable rigging brackets for I12P, I08P, SB15P



## SYSTEM CONFIGURATIONS

The integrated DSP flexibility of the P range allows multiple configurations dependent upon the chosen models and application. Typically, each model within the P range can be deployed as a main [FRONT], auxiliary [FILL], or stage [MONITOR] system. In addition should additional LF extension be required the [XOVER] preset can be selected and the I08P and I12P can then be used in combination with the companion SB15P subwoofer.

The integrated DSP presets optimize the acoustic performance of the P system and the driver protection circuit. The preset library is constituted as follows:

### P range available presets

I08P or I12P	Characteristics	Application
[FRONT]	LF HF Pre EQ	FOH w/o subwoofer
[FILL]	Flat response curve	Fill, proximity
[MONITOR]	LF EQ, 1/2 space loading	Stage Monitor
[XOVER]	100 Hz High Pass filter	Use with SB15P

