IMPORTANT SAFETY INSTRUCTIONS

The Lightning Flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product’s enclosure that may be of sufficient magnitude to constitute a risk of shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating instructions in the literature accompanying the product.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE AND OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHOULD NOT BE PLACED ON THIS APPARATUS.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the grounding-type plug. A grounding type plug has two blades and a third grounding prong. The third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles and the point where they exit from the apparatus.
11. Only use attachments / accessories specified by the manufacturer.

12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally or has been dropped.
15. Since the mains power supply cord attachment plug is used as disconnect device, the plug should always be easily accessible.
16. Fire ignition sources such as candles should not be placed on the product or in close proximity to the product.
▪ Operating temperature: 0°C to 35°C

▪ Operating mains voltage: 95VAC-125VAC (@115V voltage selector position), 195VAC-250VAC (@230V voltage selector position)

⚠️ Before applying AC power, ensure that the voltage selector is correctly set for the mains power source (115 V or 230 V) and that the fuse has the appropriate rating.
FOREWORD

Thank you for purchasing the 108P, 112P or SB15P self-powered loudspeaker system.

This manual is intended to provide you with the information you require to effectively install and operate your P series loudspeaker in a variety of professional sound reinforcement applications.

We are confident that the information provided in this manual will be sufficient for most applications, however, should you require further assistance your distributor or L-ACOUSTICS® are available to provide additional technical support.

MANUAL ORGANIZATION

- The Introduction gives a brief presentation of coaxial technology and the P series.
- Chapter 1 introduces 108P, 112P and SB15P loudspeakers plus accessories
- Chapter 2 describes cabling and connections
- Chapter 3 discusses P Series applications
- Chapter 4 details 108P, 112P and SB15P installation procedures
- Chapter 5 outlines P Series loudspeaker operation
- Chapter 6 provides 108P, 112P and SB15P specifications
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0. INTRODUCTION

The 108P and 112P combine the significant advantages of L-ACOUSTICS’ proven coaxial point source technology with the convenience of self-powered performance and the power plus flexibility of on-board digital signal processing.

Designed for portable applications, the 108P and 112P are suitable for distributed sound reinforcement in theatre, congress centre, concert hall, trade show, corporate A/V, houses of worship, club, or television applications. When used with the L-ACOUSTICS SB15P self-powered subwoofer, the 108P and 112P can also be used for side fill, drum monitoring or small-to-medium format front-of-house (FOH) applications. In addition to these applications, the 108P is specifically optimized for use as a high-power nearfield monitor while the 112P provides a high-performance stage monitoring solution.

The L-ACOUSTICS approach to distributed sound reinforcement starts with the specification that each individual loudspeaker should behave as a coherent point source. This specification can be met using coaxial components due to the fact that the directivity of the low and high frequency (LF and HF) transducers is matched at the crossover frequency. This provides a smooth transition between LF and HF sections with power response that is free of the polar lobing effects typical of traditional horn / woofer combinations. In addition, coaxial component directivity is horizontally, vertically and diagonally symmetric (axi-symmetric), thus providing true point source behavior.

Extensive sound design and installation experience acquired by L-ACOUSTICS over the years confirms this and we are confident that coaxial, axi-symmetric loudspeaker enclosures are the best tools for multiple source, distributed sound reinforcement.

1. THE P SERIES


LOUDSPEAKER ENCLOSURES

(1) 108P
Self-powered 2-way coaxial loudspeaker with 100-degree axi-symmetrical coverage, containing 8” loudspeaker, 1” exit high frequency compression driver

(2) 112P
Self-powered 2-way coaxial loudspeaker with 90-degree axi-symmetrical coverage, containing 12” loudspeaker, 1.4” exit high frequency compression driver

Figure 1: 108P, 112P Loudspeaker Enclosures
SUBWOOFER ENCLOSURE

(3) SB15P
Self-powered 15” subwoofer enclosure

Figure 2: SB15P self-powered subwoofer

RIGGING ACCESSORIES

(4) ETR8-2
Adjustable U-Bracket for ceiling, wall or scaffold mounting of the 108P

(5) ETR112XT
Adjustable U-Bracket for ceiling, wall or scaffold mounting of the 112P

(6) ETR15P
Adjustable U-Bracket for ceiling, wall or scaffold mounting of the SB15P
Figure 3: P Series Rigging Components
1.1 OVERVIEW

L-ACOUSTICS 108P and 112P self-powered coaxial loudspeakers are intended for distributed sound reinforcement in small- to medium-sized portable applications or for use with the SB15P self-powered subwoofer for 3-way applications such as small- to medium-sized FOH or stage monitoring (drum/side fill). All P-series enclosures feature highly-advanced loudspeaker components and rigging accessories while benefiting from the sonic accuracy and flexibility afforded by application-engineered digital presets.

108P

The 108P is a 250 x 500 watt bi-amplified, digitally-processed loudspeaker featuring a 1" exit HF compression driver coaxially-loaded by an eight-inch low frequency transducer. Coaxial loading produces coherent point source radiation with 100-degree axisymmetric directivity along with superimposed LF/HF dispersion characteristics free of the polar lobing effects associated with traditional 2-way studio monitor configurations (i.e., separate woofer/tweeter). The end result is precise, stable image localization that is ideal for stereo or surround sound monitoring.

Integral digital crossover filtering, component time alignment and equalization provide superb sonic performance plus added flexibility due to the availability of four application-engineered presets (FILL, FRONT, MONITOR, X-OVER).

Accurate frequency response and imaging combined with elevated SPL output capacity make the 108P ideal for use as a high performance nearfield monitor for live FOH mix engineering and for stereo or 5.1 monitoring in studio, broadcast or post production environments. For nearfield monitoring applications, either FILL (free space conditions, for example, when the 108P is placed on a console bridge) or MONITOR (half space conditions, for example, when the 108P is wall- or soffit-mounted) presets should be selected.

Due to its high power:size ratio, plug-and-play ease-of-use, versatile application-oriented presets and multi-purpose enclosure format, the 108P is also suitable for a wide variety of portable sound reinforcement applications. For proximity reinforcement such as distributed front fill, the 108P provides optimum fidelity and intelligibility, satisfying the strict requirements of classical music and opera. The compact, truncated wedge-shaped enclosure format provides a visually-discrete solution for floor monitoring, keyboard monitoring or underbalcony use and with the addition of L-ACOUSTICS subwoofers, the 108P is also suitable for small format FOH applications.

In addition to proximity fill and monitoring, the 108P can be used for portable distributed sound reinforcement in theatre, trade show, concert hall, houses of worship, congress centre, club, restaurant, retail, corporate boardroom or television applications. To facilitate installation, a pole mount socket is included as standard and an adjustable U-bracket is available as an optional rigging accessory for ceiling, wall, scaffold or truss mounting.

Figure 4: 108P Enclosure
**112P**

Ideal for multi-purpose, portable sound reinforcement, the 112P features advanced loudspeaker components powered by a 1000 W power amplifier module with dedicated on-board digital signal processing. Four application-engineered presets are available (FILL, FRONT, MONITOR, X-OVER), complementing the considerable flexibility of the 112P by providing convenient, plug-and-play ease of operation.

Featuring a 1.4” exit compression driver coaxially-loaded by a 12” transducer, the 112P provides coherent point source radiation with 90-degree axi-symmetric directivity (identical horizontal, vertical and axial coverage). Due to the coaxial component configuration, power response is free of the polar lobing effects typical of traditional horn / woofer combinations.

The net result is natural, studio monitor sound quality - ideal for proximity fill use or portable distributed sound reinforcement in theatre, congress centre, concert hall, trade show, corporate A/V, houses of worship, club, or television applications. When used with the L-ACOUSTICS SB15P self-powered subwoofer, the 112P is also highly suitable for side fill, drum monitoring or small-to-medium format front-of-house (FOH) applications.

Due to its compact, wedge-shaped enclosure format, the 112P provides an exceptionally high performance floor monitor solution. Excellent image and coverage stability is obtained due to the coaxial configuration and the performer experiences a generous, homogeneous coverage pattern without the subjective impression and potential feedback problems of listening to a separate horn / woofer combination.

To facilitate installation, a pole mount socket is included as standard and an adjustable U-bracket is available as an optional rigging accessory for ceiling, wall, scaffold or truss mounting.

*Figure 5: 112P Enclosure*
SB15P

The SB15P (Sub Bass 15” Powered) is the companion subwoofer for L-ACOUSTICS 108P and 112P self-powered coaxial loudspeakers. Featuring a front-loaded fifteen-inch transducer loaded in an optimum-sized/-tuned vented enclosure, the SB15P combines the convenience of self-powered performance with the power of digital signal processing.

The 15” component employed in the SB15P features elevated power handling and excursion capability along with reduced distortion and thermal power compression. Advanced component performance is complemented by integral power amplification and protection to provide exceptional SPL output and secure operation. Optimized tuning provides an ideal combination of temporal accuracy, bass articulation, musicality and low end definition that only a front-loaded subwoofer can provide.

The compact dimensions of the SB15P provide a high degree of flexibility for installations where space is at a premium. Typical applications include portable distributed sound reinforcement for theatre, congress centre, concert hall, trade show, corporate A/V, houses of worship, club, conference room, multimedia installations or television. The SB15P is also ideal for stage monitoring applications such as compact side fill, keyboard or drum fill monitoring. For studio or nearfield monitoring, the SB15P can be used with 108P enclosures in stereo, 5.1 or 7.1 configurations.

A built-in pole mount socket is provided as standard, facilitating the creation of a compact FOH system when the SB15P is used with 108P or 112P enclosures. An adjustable U bracket is available as an optional rigging accessory for ceiling, wall, scaffold or truss mounting, adding a unique degree of versatility for fixed installation.

Figure 6: SB15P Enclosure
1.2 108P, 112P SERIES PRESETS

Four application-engineered presets are selectable via rear panel push button switch:

**X-OVER**
100 Hz HPF / 3 dB HF Contour (freefield conditions)

**APPLICATIONS:**
- 3-way system operation with SB15P self-powered subwoofer

**MONITOR**
Nominally Flat (halfspace conditions)

**APPLICATIONS:**
- Floor Monitoring, Wall/Ceiling/Proscenium Mounted

**FILL**
Nominally flat (freefield conditions)

**APPLICATIONS:**
- Speech, classical, proximity fill

**FRONT**
3 dB LF/HF Contour (freefield conditions)

**APPLICATIONS:**
- FOH (no subwoofers)

---

**Figure 7: 108P, 112P preset selector switch closeup and preset options**

**Note:** To memorize a preset (so that it is automatically recalled when cycling the mains power on/off), select the desired preset and hold the preset selector button until the led display is blinking.

**FRONT presets** are for standalone FOH operation (without subwoofers) where low and high frequency shelving equalization provide a frequency response contour suitable for music applications.

**FILL presets** provide nominally flat response for nearfield monitoring, speech reinforcement and classical music applications or, in general, when P Series enclosures are used as a close proximity fill enclosure.

**MONITOR presets** include additional low frequency equalization to account for half-space loading conditions and are intended for floor monitoring applications or installations where P Series loudspeakers are wall- or ceiling-mounted.

**XOVER presets** apply a 100 Hz highpass filter and a 3 dB high frequency shelving equalization contour for use of the 108P or 112P with the L-ACOUSTICS SB15P self-powered subwoofer.
1.3 SB15P PRESETS

The SB15P has an operating bandwidth of 45 – 100 Hz (-3 dB) with a usable low frequency of 40 Hz (-10 dB) and is optimized for use with 108P or 112P enclosures as a low frequency extension.

When used with 108P or 112P enclosures in X-OVER mode, the SB15P should be operated with positive polarity.

When used with 108P or 112P enclosures in FILL, FRONT or MONITOR mode, the SB15P should be operated with negative polarity.

Note: To memorize a preset (so that it is automatically recalled when cycling the mains power on/off), select the desired preset and hold the preset selector button until the led display is blinking.

Figure 8: SB15P preset selector switch closeup

Figure 9: SB15P with positive polarity, 108P or 112P in X-OVER mode provides a 3 dB sub/low frequency contour (rear panel volume at 0 dB)

Figure 10: SB15P with negative polarity, 108P or 112P in FRONT mode provides a 6 dB sub/low frequency contour (rear panel volume at 0 dB). The SB15P should also be operated with negative polarity when FILL or MONITOR presets are selected for the 108P or 112P to obtain a similar sub/low frequency contour
1.4 108P DESCRIPTION

The 108P is a self-powered, bi-amplified, two-way coaxial full range loudspeaker containing one direct radiating, bass reflex-loaded, weather-resistant 8-inch low frequency transducer and one 25 mm (1.0 inch) exit, 44 mm (1.7 inch) voice coil diameter, polyester diaphragm, compression driver. The cone body of the 8-inch low frequency component provides pattern control loading for the compression driver and yields a 100-degree conical directivity pattern that is axi-symmetric. As a full range system, frequency response is 65 Hz to 20 kHz with less than +/- 3 dB variation and the usable bandwidth is 50 Hz to 22 kHz (-10 dB).

The 108P contains internal digital signal processing electronics and a two-channel power amplifier. The power amplifier provides 500 W continuous (1 kHz, 0.5% THD) into 4 ohms and 250 W continuous (1 kHz, 0.5% THD) into 8 ohms for powering low and high frequency transducers, respectively. The power amplifier provides thermal protection, short-circuit/overload output protection, clip and RMS signal limiting. Digital processing electronics also provides corrective component and system equalization, component time alignment and crossover filtering.

Four presets are selectable via rear-panel push button switch with the following characteristics: FILL has nominally flat frequency response when the loudspeaker is used under freefield conditions; FRONT has +3 dB low and high frequency shelving characteristics under freefield conditions; MONITOR has nominally flat response under half-space loading conditions; X-OVER provides a 100 Hz high pass filter and +3 dB high frequency shelving characteristics for use of the 108P with the L-ACOUSTICS SB15P self-powered subwoofer. Connection to the 108P is made via two parallel XLR connectors and gain is controllable via rear panel volume potentiometer. AC power connectors are PowerCon type and 115V or 230V operation is selectable via rear panel rotary switch.

The 108P has a truncated wedge shape with a curved front profile. Dimensions are 42.1 cm (16.6 in) high, 25.0 cm (9.8 in) wide by 29.9 cm (11.8 in) deep. When used as a floor monitor, the front baffle of the enclosure is oriented at 30° with respect to vertical. Enclosure weight is 12.8 kg (28.2 lbs) and cabinet construction consists of 15 mm (0.6 in) and 18 mm (0.7 in) Baltic birch plywood with joints that are sealed, screwed and rabbeted. The finish is maroon gray, high resiliency paint and the front of the 108P is protected by a black powder-coated 1.5 mm (0.06 in) thick steel grill covered with acoustically-transparent grille cloth. The 108P has a 35 mm (1.38 in) diameter pole mount socket mounted on the bottom side and a recessed plate on the top side for rigging the enclosure in conjunction with an adjustable U-bracket assembly.

Figure 11: 108P (floor monitor orientation)
1.5 112P DESCRIPTION

The 112P is a self-powered, two-way, coaxial full range loudspeaker containing one direct radiating, bass reflex-loaded, weather-resistant 12-inch low frequency transducer and one 1.4 inch exit, 3 inch voice coil diameter, titanium alloy diaphragm compression driver. The cone body of the 12" low frequency component provides pattern control loading for the compression driver and yields a 90-degree conical directivity pattern that is axi-symmetrical. As a full range system, the frequency response is 60 Hz to 18 kHz with less than ± 3 dB variation and the usable bandwidth is 50 Hz to 20 kHz (-10 dB).

The 112P contains internal digital signal processing electronics and a mono bridged power amplifier that provides 1000 W continuous (1 kHz, 0.5% THD) into 8 ohms with thermal protection, short-circuit/overload output protection, clip and RMS signal limiting. Integral digital signal processing provides corrective component and system equalization. Four presets are selectable via rear-panel push button switch with the following characteristics: FILL has nominally flat frequency response when the loudspeaker is used under freefield conditions; FRONT has +3 dB low and high frequency shelving characteristics under freefield conditions; MONITOR has nominally flat response under half-space loading conditions; X-OVER provides a 100 Hz high pass filter and +3 dB high frequency shelving characteristics for use of the 112P with the L-ACOUSTICS SB15P self-powered subwoofer.

Connection to the 112P is made via two parallel XLR connectors and gain is controllable via rear panel volume potentiometer. AC power connectors are PowerCon type and 115V or 230V operation can be selected via rear panel rotary switch.

The 112P has a truncated wedge shape with a curved front profile. Dimensions are 54 cm (21.3 in) high, 41.6 cm (16.1 in) wide and 39 cm (15.4 in) deep. When used as a floor monitor, the front baffle of the 112P is oriented at a 30 degree angle with respect to vertical. Enclosure weight is 32.2 kg (70.9 lbs) and cabinet construction consists of 30 mm (1.18 in) and 18 mm (0.70 in) Baltic birch plywood with internal steel bracing and joints that are sealed, screwed and rabbeted. The finish is maroon-gray high resilient paint and the front of the enclosure is protected by a black powder-coated, 1.5 mm (0.06 in) thick steel grill covered with acoustically-transparent grille cloth.

The 112P has 36 mm (1.42 in) diameter pole mount sockets mounted on the top and bottom sides that can be used with a U-bracket accessory for rigging the enclosure in either horizontal or vertical orientations with angular adjustment at 10 degree resolution.

Figure 12: 112P (floor monitor orientation)
1.6 SB15P DESCRIPTION

The SB15P self-powered subwoofer contains a single 15-inch loudspeaker component that is front-loaded in an optimally-tuned and vented enclosure. Usable frequency response is 45 to 100 Hz with less than ± 3 dB variation and the usable -10 dB low frequency response is 40 Hz. Loudspeaker ports are of large area dimension in order to minimize port non-linearity and turbulence effects.

The fifteen-inch transducer has a 4-inch (100 mm) diameter edgewound copper ribbon voice coil, 18 mm (0.71 in) peak excursion capability, diecast aluminum frame, massive vented magnet structure and high thermal capacity that provides reduced power compression, long term reliability and low distortion output.

The SB15P features internal digital signal processing electronics and a mono bridged power amplifier that provides 1000 W continuous (1 kHz, 0.5% THD) into 8 ohms with thermal protection, short-circuit/overload output protection and clip / RMS signal limiting. Integral digital signal processing performs crossover filtering (100 Hz low pass filter) and system equalization for use of the SB15P in conjunction with the 108P or 112P. Positive or negative polarity operation is selectable via rear-panel push button switch.

**When used with 108P or 112P enclosures in X-OVER mode, the SB15P should be operated with positive polarity.**

**When used with 108P or 112P enclosures in FILL, FRONT or MONITOR mode, the SB15P should be operated with negative polarity.**

Connection to the SB15P is made via two parallel XLR connectors and gain is controllable via rear panel potentiometer. AC power connectors are PowerCon type and 115V or 230V operation is selectable via rear panel slider switch.

The enclosure is constructed of 18 mm (0.7 in) baltic birch and is internally braced with steel corner plates and sealed, screwed, rabbeted joints in order to remain vibration-free at extreme sound pressure levels. Dimensions are 445 mm (17.5 in) high, 520 mm (20.5 in) wide and 520 mm (20.5 in) deep and the enclosure weight is 36 kg (79.4 lbs). Finish is maroon-gray high resilient paint and the front of the enclosure is protected by a black powder-coated, 1.5 mm (0.06 in) thick steel grill, covered with acoustically-transparent grille cloth.
Two recessed handles are located on the sides of the SB15P for handling purposes and a 36-mm (1.42 in) diameter pole mount socket mounted on the top side. When used in conjunction with a bottom attachment plate, the pole mount socket can be used with the optional ETR15P U-bracket accessory for rigging the enclosure in either horizontal or vertical orientations with continuous angular adjustment.

Figure 13: SB15P (with pole-mounted 108P)
2. CONNECTORS AND CABLES

Before applying AC power, ensure that the voltage selector is correctly set for the mains power source (115 V or 230 V) and that the fuse has the appropriate rating.

Always use the mains power cable that was provided with your 108P, 112P or SB15P.

Do not connect 108P, 112P or SB15P loudspeakers to an unearthed mains supply or by using an unearthed mains cable.
To daisy-chain connect mains power from a 108, 112P or SB15P loudspeaker to additional P Series enclosures (up to 3), use a cable with a grey Neutrik PowerCon NAC3FCB connector at one end (connected to the Power Output connector of the P Series enclosure that is supplying power) and a blue Neutrik PowerCon NAC3FCA connector at the other end (connected to the Power Input connector of the P Series enclosure that is being daisy-chain connected).

Note: Neutrik PowerCon connectors are color-coded:

- Blue = power input = Neutrik NAC3FCA PowerCon connector
- Grey = power output = Neutrik NAC3FCB PowerCon connector

⚠️ Never daisy chain connect more than 3 P series enclosures using the Power Output connector.

⚠️ Do not daisy-chain connect P Series enclosures using an unearthed PowerCon NAC3FCA to PowerCon NAC3FCAB cable.

These cables (NAC3FCA to NAC3FCB) must handle at least 5A@230V or 10A@115V.

**SIGNAL INPUT/LOOP THROUGH**

P Series loudspeakers are supplied with dual XLR connectors that are internally wired in parallel, allowing for loop through connection and parallel operation of multiple 108P, 112P or SB15P enclosures.

XLR connectors are wired as follows:

- Pin 1 = ground
- Pin 2 = signal +ve
- Pin 3 = signal -ve

Unbalanced sources (for example, RCA or ¼” TS phone jack connectors) can be connected to the 108P or 112P provided that pin 3 is grounded to pin 1 (see Figure 17).

⚠️ WARNING: Never daisy chain connect more than 3 P series enclosures using the Power Output connector.

⚠️ Do not daisy-chain connect P Series enclosures using an unearthed PowerCon NAC3FCA to PowerCon NAC3FCAB cable.

These cables (NAC3FCA to NAC3FCB) must handle at least 5A@230V or 10A@115V.

**SIGNAL INPUT/LOOP THROUGH**

P Series loudspeakers are supplied with dual XLR connectors that are internally wired in parallel, allowing for loop through connection and parallel operation of multiple 108P, 112P or SB15P enclosures.

XLR connectors are wired as follows:

- Pin 1 = ground
- Pin 2 = signal +ve
- Pin 3 = signal -ve

Unbalanced sources (for example, RCA or ¼” TS phone jack connectors) can be connected to the 108P or 112P provided that pin 3 is grounded to pin 1 (see Figure 17).
Note: When cabling your P Series loudspeaker for the first time, set the volume control fully counterclockwise (−∞). The input sensitivity of the 108P, 112P or SB15P can be matched to the output of the mixing console (or other program source) by using the volume control on the rear panel.

The ferrite provided with your P series loudspeaker helps improve immunity to electromagnetic fields (above 100 MHz) and should be placed on the XLR audio cable used for connecting input signal to the 108P, 112P or SB15P. Perform a cable loop near the male XLR plug when attaching the ferrite.

3. APPLICATIONS

P Series loudspeakers are intended for portable distributed sound reinforcement, nearfield monitoring (108P), floor monitoring or small- to medium-scale Front-Of-House (FOH) applications. Guidelines for the use of P Series loudspeakers in these applications are discussed in this section.

3.1 AIMING P SERIES ENCLOSURES

Due to their controlled directivity behavior, P Series enclosures should be aimed so as to geometrically cover the desired audience area with the main zero degree axis oriented towards the middle or rear of the audience area. Since the wavefront radiated by an axi-symmetric sound source has directivity that is smoothly increasing with frequency, this helps to match coverage, frequency response and SPL to the acoustic environment of a typical auditorium (i.e., normally the reverberation time in auditoria decreases smoothly above 1 kHz and at greater distances in the venue, the low frequency energy is fairly constant due to the reverberant field).

Loudspeaker focus or aiming should be adjusted so that maximum HF energy is directed towards the farthest listening areas – this helps to balance the SPL attenuation with distance that occurs in the direct field. At closer listening positions, the off-axis attenuation at higher frequencies provides a similar tonal balance and the overall SPL attenuation with distance is reduced.

Although P Series enclosures have controlled directivity attenuation properties it is important not to have the first members of the audience too close to the system (i.e., in order not to produce excessive sound pressure levels down front). Ideally, the ratio between the shortest and the furthest distance covered should not exceed 1:4 and in order to obtain this throw distance ratio, it is often desirable to fly the system. However, when P Series enclosures are flown and the audience seating area begins very close to the stage, it is often necessary to use distributed front-fill speakers (for example, 108P) or a stacked left/right 112P stereo infill system in order to improve coverage and image localization for the first few rows of the audience.

![Figure 19: General guidelines for aiming P Series enclosures](image-url)
3.2 DISTRIBUTED SOUND REINFORCEMENT

Distributed sound reinforcement using P Series enclosures can provide even SPL coverage and frequency response while reducing audible interference effects. For distributed installation, the optimum spacing between enclosures will depend on the coverage angle of the individual enclosure (100 degrees for 108P, 90 degrees for 112P) and the throw distance to the audience listening plane.

In general, the goal is to separate P Series enclosures so that the -6 dB coverage angle of one enclosure is aligned with the main 0 degree axis of the other enclosure (and vice versa) at the listening plane of the audience. This is termed centre-to-centre alignment and is illustrated in Figure 15.

![Diagram showing center-to-center alignment](image)

Figure 20: General guidelines for 108P or 112P enclosure spacing for distributed sound reinforcement
3.3 108P NEARFIELD MONITORING

Accurate frequency response (due to on-board DSP) and imaging (due to the point source coaxial configuration) combined with elevated SPL output capacity make the 108P ideal for use as a high performance nearfield monitor for live FOH mix engineering and for stereo or 5.1 monitoring in studio, broadcast or post production environments.

For nearfield monitoring, either FILL (free space conditions, for example, when the 108P is placed on a console bridge) or MONITOR (half space conditions, for example, when the 108P is wall- or soffit-mounted) presets should be selected.

For stereo monitoring, left/right 108P separation should be approximately equal to the throw distance to the listening position. Horizontal azimuth (panning) should be adjusted so that the zero degree axes of left/right 108P monitors are oriented towards the listening position.

3.4 FLOOR MONITORING

For floor monitoring, the coaxial component configuration employed in the 112P provides a high degree of image and coverage stability. The benefits of axi-symmetric directivity are readily apparent since the performer is in close physical proximity to the enclosure and experiences a generous, homogeneous coverage pattern without the subjective impression (and potential feedback problems) of listening to a separate horn / woofer combination.

The MONITOR preset accounts for half-space loading conditions, i.e., there is a 6 dB increase around 100 Hz (due to floor coupling), followed by a broad cancellation that occurs between 200 – 600 Hz (due to floor reflections). The MONITOR preset compensates for these two half-space loading effects and provides a nominally flat frequency response curve with excellent fidelity and feedback resistance.

When using 112P enclosures in pairs for floor monitoring, the same principles apply as for distributed systems, i.e., the optimum spacing between floor monitors depends on the coverage angle of the enclosure (90 degrees for 112P) and the throw distance to the performing artist (which is determined by the 30-degree floor monitor angle with respect to vertical and the artist’s height). Center-to-center overlap will provide the most uniform coverage (see Figure 19) and it is not advised to angle wedges in but to use them with the front faces parallel to each other (essentially, angling in wedges no longer provides optimum center-to-center overlap).
4. INSTALLATION PROCEDURES

The ETR8-2 is an optional accessory U-Bracket for wall or ceiling mounting of the 108P. Note: Always orient the ETR8-2 with the fixed arm on the bottom when installing the 108P in the vertical orientation

4.1 ETR8-2 U-BRACKET ATTACHMENT

1. 108P and ETR8-2 U-bracket
2. Remove locking pin on the pivoting arm
3. U-bracket stud mates with 108P pole mount socket
4. Remove recessed set screw on adapter plate (if necessary), rotate pivoting arm into position
5. Attach pivoting arm using the tilt adjustment knob
6. Secure the locking pin on the pivoting arm
7. Rotate the U bracket to the desired position and securely tighten the tilt adjustment knob.
7. Three attachment points are available on ETR8-2 for mounting the 108P in the horizontal orientation

Figure 21: ETR8-2 U-bracket installation procedure
4.2 ETR112XT U-BRACKET ATTACHMENT

The ETR112XT is an optional U-Bracket accessory for wall (vertical orientation) and ceiling or scaffold (horizontal orientation) mounting of the 112P. Three mount holes are available on the center section of the ETR112XT for bracket mounting. Pole mount adapter plates on the 112P in conjunction with angle selection locking pins on the ETR112XT allow for 10 degree angular resolution.

Note: When using ETR112XT in the vertical orientation, always install with the fixed arm on the bottom and the pivoting arm on top.

(1) ETR112XT U-bracket

(2) Closeup of angle selection locking pin

(3) Remove locking pins on both U-bracket arms

(4) Release pivoting arm locking pin

(5) ETR112XT - ready for attachment

(6) 112P pole mount sockets mate with U-bracket studs (mount fixed arm first)

(7) Rotate the pivoting arm into position – the pivoting arm locking pin automatically secures the U-bracket

(8) Rotate the loudspeaker into position and select the desired angle. Secure using the locking pins on both fixed and pivoting arms
4.3 ETR15P U-BRACKET ATTACHMENT

The ETR15P is an optional U-Bracket accessory for wall mounting (vertical orientation only – fixed arm on the bottom / pivoting arm on top) and ceiling or scaffold mounting (horizontal orientation only). Three mount holes are available on the center section of the ETR15P for bracket mounting and an M8 threaded insert (8 mm diameter) provided on the rear of the SB15P for safety attachment.

Note: When using ETR15P in the vertical orientation, always install with the fixed arm on the bottom and the pivoting arm on top.
Mount fixed arm first

Rotate the pivoting arm into position

Rotate the SB15P to the desired angle and secure using the tilt adjustment knob (pivoting arm locking pin automatically secures the U-bracket as the adjustment knob is tightened)

The recessed M8 insert (8 mm diameter) is available for attachment of an I-Bolt plus safety steel

Figure 23: ETR15P U-bracket installation procedure
# 4.4 SAFETY RULES

L-ACOUSTICS loudspeakers can be ceiling-suspended or attached to a wall (vertical orientation only) using accessories that are either supplied or recommended by L-ACOUSTICS only. Installation must be done according to the following instructions:

<table>
<thead>
<tr>
<th>Loudspeaker Model</th>
<th>Accessory model</th>
<th>Instructions</th>
<th>Accessory model</th>
<th>Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>108P</td>
<td>ETR8-2</td>
<td>Use 3 x self tapping screws with minimum 8 mm diameter and 60 mm length (hexagonal head screw DIN571 or equivalent)</td>
<td>Incompressible plain support (concrete or equivalent)</td>
<td>Use 3 x anchors for heavy load 8 mm diameter and 50 mm length minimum</td>
</tr>
<tr>
<td>112P</td>
<td>ETR112XT</td>
<td>Use 3 x self tapping screws with minimum 8 mm diameter and 80 mm length (hexagonal head screw DIN571 or equivalent)</td>
<td>Use 3 x anchors for heavy load (10 mm diameter and 50 mm length minimum)</td>
<td></td>
</tr>
<tr>
<td>SB15P</td>
<td>ETR15P</td>
<td>Use 3 x self tapping screws with minimum 8 mm diameter and 80 mm length (hexagonal head screw DIN571 or equivalent)</td>
<td>Use 3 x anchors for heavy load (10 mm diameter and 50 mm length minimum)</td>
<td>Attach M8 (8 mm diameter) I-bolt to rear threaded insert for attachment of safety steel</td>
</tr>
</tbody>
</table>

The 108P or 112P can be used with a loudspeaker stand (L-ACOUSTICS recommends the K&M 21435 or equivalent). The footprint (base diameter) must be at least 1300 mm and withstand a maximum centric load of 350 N (35 kg) or higher. Tripod stand legs must be completely opened and the height must not exceed 2020 mm when used with the 108P and 1420 mm when used with the 112P.

Always ensure that the ETR112XT or ETR15P rotating arm is securely fastened by verifying that the spring-loaded locking pin at the pivot point is correctly seated before adjusting the tilt angle of the 112P or SB15P.

When using ETR8-2, ETR112XT or ETR15P in the vertical orientation, always install the U-bracket with the fixed arm on the bottom and the pivoting arm on top.

L-ACOUSTICS recommends the use of safety steels at all times.

Attachment to concrete has not been investigated during the CSA approval.
5. P SERIES LOUDSPEAKER OPERATION

⚠️ Before applying AC power, ensure that the voltage selector is correctly set for the mains power source (115 V or 230 V) and that the fuse has the appropriate rating.

Set the rear panel volume potentiometer to the minimum setting, i.e., fully counter-clockwise (\(-\infty\))

Connect a program signal source (output from a mixing console, for example) to the XLR input of the 108P or 112P. For unbalanced sources, refer to Figure 17.

Note: The LOOP connector (male XLR) can be used to daisy-chain up to six P Series enclosures.

Ensure that the program signal source (mixing console output) is muted before powering your P series loudspeaker.

Power up the 108P, 112P or SB15P by connecting the PowerCon cable that was provided with your P series loudspeaker to an appropriate mains power source.

Note: The Power Output connector (grey PowerCon receptacle on the rear panel of the P Series enclosure) can be used to daisy-chain connect up to 3 additional P Series enclosures.

Note: Neutrik PowerCon connectors are color-coded:
- BLUE = power input = Neutrik NAC3FCA PowerCon connector
- GREY = power output = Neutrik NAC3FCB PowerCon connector

Select the desired preset for the 108P / 112P (FILL, FRONT, MONITOR or XOVER) and/or the SB115P (POSITIVE or NEGATIVE polarity) using the rear panel “Preset Selector” switch (see Section 1.2 and 1.3 for further details concerning P Series presets).

When used with 108P or 112P enclosures in X-OVER mode, the SB15P should be operated with positive polarity.

When used with 108P or 112P enclosures in FILL, FRONT or MONITOR mode, the SB15P should be operated with negative polarity.

Note: To memorize a preset (so that it is automatically recalled after cycling the mains power on/off), select the desired preset and hold the preset selector button until the led display is blinking.

Run program signal (e.g. CD player), and slowly bring up the mixing console output level to check that gain structure is correct.

If necessary, adjust the rear panel volume potentiometer in order to obtain the desired system gain structure.

Note: Signal LED illuminates when the input signal level is greater than -40 dBV.

Note: Clip LED illuminates when the amplifier output clip point is reached.
6. SPECIFICATIONS

6.1 108P SPECIFICATIONS

ACOUSTICAL PERFORMANCE

Frequency Response
Frequency response: 65 – 20k Hz (± 3 dB) (FILL preset)
Usable bandwidth: 55 – 22k Hz (-10 dB)

System Sensitivity
-21 dBu (0.071 Vrms) 94 dB SPL 65 – 20k Hz (FILL preset)

Nominal Directivity (-6 dB)
Axi-symmetrical 100° (± 15°)

System Output SPL
One enclosure 115dB (cont) 127 dB (peak)\(^1\) (FILL preset)

FILL preset provides nominally flat response under free-field conditions.
XOVER preset applies a 100 Hz high pass filter and a 3 dB high frequency shelving EQ contour.

Components
LF 1 x 8” weather-resistant loudspeaker (2” voice coil)
HF 1 x 1” exit compression driver (polyester diaphragm, coaxial assembly)

ELECTRICAL PERFORMANCE

Input
Type Electronically balanced (pin 2 hot)
Max Input Level +12 dBu (gain potentiometer at 0 dB position)

DSP
Sampling 24 bit/48 kHz
Dynamic Range > 105 dBA

Amplifier
Output Power 1 x 500 W (4 ohms – LF section)
1 x 250 W (8 ohms – HF section)
Gain 32 dB

Enclosure
Height 421 mm 16.6 in
Width 250 mm 9.8 in
Depth 299 mm 11.8 in
Floor Monitor Angle 30 degrees with respect to vertical
Net Weight 12.8 kg 28.2 lbs
Shipping Weight 14.3 kg 31.5 lbs
Shipping Dimensions 490 x 330 x 370 mm
19.3 x 13.0 x 14.6 in
Connectors 2 x XLR, 2 x PowerCon
(input, loop through)
Material 15 mm, 18 mm Baltic birch plywood
Finish Maroon-gray™
Grill Black epoxy perforated steel with acoustically-transparent, technically-advanced grille cloth
Rigging Integrated pole mount socket, adjustable U-bracket accessory available

\(^1\) Peak level measured at 1 m under free field conditions using pink noise with crest factor 4 (preset specified in brackets).
Figure 24: 108P Line Drawing
Figure 25: 108P + ETR8-2 Line Drawing
### 6.2 112P SPECIFICATIONS

**ACOUSTICAL PERFORMANCE**

**Frequency Response**
- Frequency response: 60 – 18k Hz (± 3 dB)
- Usable bandwidth: 50 – 20k Hz (-10 dB)

**System Sensitivity**
- -21 dBu (0.071 Vrms) 96 dB SPL 60 – 18k Hz (FILL preset)

**Nominal Directivity (-6 dB)**
- Axi-symmetrical 90° (+ 20°)

**System Output SPL**
- One enclosure 121dB (cont) 133 dB (peak)

FILL preset provides nominally flat response under free-field conditions

**Components**
- LF 1 x 12” weather resistant loudspeaker (3” voice coil)
- HF 1 x 1.4” exit compression driver (titanium diaphragm, 3” voice coil, coaxial assembly)

**ELECTRICAL PERFORMANCE**

**Input**
- Type: Electronically balanced (pin 2 hot)
- Max Input Level: +12 dBu (gain potentiometer at 0 dB position)

**DSP**
- Sampling: 24 bit/48 kHz
- Dynamic Range: > 105 dBA

**Amplifier**
- Output Power: 1 x 1000 W (8 ohms)
- Gain: 32 dB

**Enclosure**
- Height: 540 mm 21.3 in
- Width: 416 mm 16.4 in
- Depth: 390 mm 15.4 in
- Floor Monitor Angle: 30 degrees with respect to vertical
- Net Weight: 32.2 kg 70.9 lbs
- Shipping Weight: 35.5 kg 78.2 lbs
- Shipping Dimensions: 615 x 470 x 465 mm 24.2 x 18.5 x 18.3 in
- Connectors: 2 x XLR, 2 x Power Con (input, loop through)
- Material: 18 mm, 30 mm Baltic birch plywood
- Finish: Maroon-gray™
- Grill: Black epoxy perforated steel with acoustically-transparent, technically-advanced grille cloth
- Rigging: Integrated pole mount socket, adjustable U-bracket accessory available

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1 Peak level measured at 1 m under free field conditions using pink noise with crest factor 4 (preset specified in brackets).
Figure 26: 112P Line Drawing
Figure 27: 112P + ETR112XT Line Drawing
6.3 SB15P SPECIFICATIONS

ACOUSTICAL PERFORMANCE

Frequency Response
Operating Bandwidth: 45 – 100 Hz (± 3 dB)
Usable Low Frequency: 40 Hz (-10 dB)

System Sensitivity
-21 dBu (0.071 Vrms) 93 dB SPL 45 – 200 Hz

System Output
One enclosure 121 dB (continuous) 133 dB (peak)\(^1\)

Components
1 x 15” weather resistant loudspeaker (4” voice coil)

ELECTRICAL PERFORMANCE

Input
Type Electronically balanced (pin 2 hot)
Max Input Level +12 dBu (gain potentiometer at 0 dB position)

DSP
Sampling 24 bit/48 kHz
Dynamic Range > 105 dBA

Amplifier
Output Power 1 x 1000 W (8 ohms)
Gain 32 dB

Enclosure
Height 445 mm 17.5 in
Width 520 mm 20.5 in
Depth 520 mm 20.5 in

Net Weight 36 kg 79.4 lbs
Shipping Weight 38 kg 83.3 lbs

Shipping Dimensions 650 x 530 x 610 mm
25.6 x 20.9 x 24 in

Connectors 2 x XLR, 2 x Power Con (input, loop through)

Material 18 mm, 24 mm Baltic birch plywood
Finish Maroon-gray™

Grill Black epoxy perforated steel with acoustically-transparent, technically-advanced grille cloth

Rigging Integrated pole mount socket, adjustable U-bracket accessory available

Safety Insert for attachment of an I-Bolt

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\(^1\) Peak level measured at 1 m under half-space conditions using pink noise with crest factor 4.
Figure 28: SB15P Line Drawing
Figure 29: SB15P + ETR15P Line Drawing
WARRANTY AND DISCLAIMERS

This product is warranted to be free from defects in components and factory workmanship under normal use and service for a period of 3 years from the date of original purchase.

During the warranty period, L-ACOUSTICS or its nominated agents will undertake to repair, or at its option, replace this product at no charge to its owner if it fails to perform as specified, provided that the unit is returned undamaged and shipped pre-paid to the factory or an authorised service facility.

No other warranty is expressed or implied.

This warranty shall be null and void if the product is subjected to:

1) Repair work or alteration by persons other than those authorised by L-ACOUSTICS or its agents.
2) Operation with incorrect AC voltage.
3) Shipping accidents, war, civil insurrection, misuse, abuse, operation with faulty associated equipment or abnormal wear and tear. Units on which the serial number has been removed or defaced will not be eligible for warranty service.
4) L-ACOUSTICS will not be responsible for any incidental or consequential damages with respect to the products warranted.

L-ACOUSTICS reserves the right to make changes or improvements in the design or manufacturing without assuming any obligation to change or improve products previously manufactured.

FACTORY SERVICE

In the event that your L-ACOUSTICS product needs factory service, contact the L-ACOUSTICS service department for return instructions and a Return Authorisation number.

Please note when returning products for service:

1. Use the original packing
2. Include a copy of the sales receipt, your name, return address, phone number, fax number and a description of the defect.
3. Mark the Return Authorisation number on the outside of the packing.
4. Ship the product prepaid to:

INTERNATIONAL: L-ACOUSTICS
Attention : SAV
Parc de la Fontaine de Jouvence
91462 Marcoussis
France
Telephone: +33 (0)1 69 63 69 63
Fax: +33 (0)1 69 63 69 64
E-mail: info@l-acoustics.com

NORTH AMERICA: L-ACOUSTICS US
Attention : After Sales Service
2201 Celsius Avenue, Unit E
Oxnard, CA
93030 USA
Telephone: +1 (805) 604 0577
Fax: +1 (805) 604 0858
E-mail: info@l-acoustics-us.com
DECLARATION OF EC CONFORMITY

For the product:

Catalog Item: 108P

Description: L-ACOUSTICS® 108P loudspeaker enclosure

Dimensions: 421 mm x 250 mm x 299 mm (H x W x D)

Material: Baltic birch plywood with external steel rigging plates

Optional accessories:
- Rigging accessory – ETR8-2

Product Origin

Country of origin of the product: France
Country of origin for components of the product: EEC

Standards conformity

L-ACOUSTICS hereby declares that the 108P loudspeaker conforms to:


Established at Marcoussis, France, on the 4th of May, 2006

Signature of L-ACOUSTICS representative:

Jacques Spillmann
Chief Engineer - Manufacturing
DECLARATION OF EC CONFORMITY

For the product:

Catalog Item: ETR8-2

Description: L-ACOUSTICS® ETR8-2 rigging accessory

Dimensions: 485 mm x 225 mm x 50 mm (H x W x D)

Material: Steel

Product Origin

Country of origin of the product: France
Country of origin for components of the product: EEC

Technical Specifications:

The ETR8-2 rigging accessory is intended for overhead suspension (horizontal or vertical orientation) of MTD108a or 108P loudspeakers only. The following chart indicates the safety factor when using the ETR8-2 rigging accessory with MTD108a or 108P loudspeakers according to the conditions described in the L-ACOUSTICS MTD LINE OPERATOR MANUAL or the L-ACOUSTICS P SERIES OPERATOR MANUAL:

<table>
<thead>
<tr>
<th>ETR8-2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>1.9 Kg / 4.2 lbm</td>
</tr>
<tr>
<td>WLL</td>
<td>13 daN / 29.2 lbf</td>
</tr>
<tr>
<td>Ultimate Strength</td>
<td>&gt;10</td>
</tr>
<tr>
<td>Safety Factor</td>
<td></td>
</tr>
</tbody>
</table>

Standards conformity

MTD108a or 108P loudspeaker enclosures are designed to be suspended using the rigging accessory ETR8-2 in the horizontal or vertical orientation. The ETR8-2 can be attached to an appropriate support using 1, 2 or all 3 of the 9 mm diameter holes on the main bracket, refer to the appropriate operator manual for detailed mounting instructions.

L-ACOUSTICS hereby declares that the ETR8-2 conforms to:


Established at Marcoussis, France, on the 4th of May, 2006

Jacques Spillmann, Chief Engineer - Manufacturing
DECLARATION OF EC CONFORMITY

For the product:

Catalog Item: 112P
Description: L-ACOUSTICS® 112P loudspeaker enclosure
Dimensions: 540 mm x 416 mm x 390 mm (H x W x D)
Material: Baltic birch plywood with external steel rigging plates
Optional accessories:
Rigging accessory – ETR112XT

Product Origin

Country of origin of the product: France
Country of origin for components of the product: EEC

Standards conformity

L-ACOUSTICS hereby declares that the 112P loudspeaker conforms to:


Established at Marcoussis, France, on the 4th of May, 2006

Signature of L-ACOUSTICS representative:

[Signature]

Jacques Spillmann
Chief Engineer – Manufacturing
DECLARATION OF CE CONFORMITY

For the product:

Catalog Item: ETR112XT
Description: L-ACOUSTICS® ETR112XT Rigging accessory
Dimensions: 630 mm x 320 mm x 54 mm
Material: Steel

Product Origin
Country of origin of the product: France
Country of origin for components of the product: EEC

Technical Specifications:
The ETR112XT rigging accessory is intended for overhead suspension (horizontal or vertical orientation) of 112XT or 112P loudspeakers. The following chart indicates the safety factor when using the ETR112XT rigging accessory according to the conditions described in the L-ACOUSTICS XT LINE OPERATOR MANUAL or L-ACOUSTICS P SERIES OPERATOR MANUAL:

<table>
<thead>
<tr>
<th>ETR112XT</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>5.25 Kg / 11.6 lbm</td>
</tr>
<tr>
<td>WLL</td>
<td>56.5 daN / 127 lbf</td>
</tr>
<tr>
<td>Ultimate Strength</td>
<td>&gt;12</td>
</tr>
<tr>
<td>Safety Factor</td>
<td></td>
</tr>
</tbody>
</table>

Standards conformity
The ETR112XT is designed for the suspension of one 112XT or 112P loudspeaker enclosures only. The ETR112XT can be attached to an appropriate support using 1, 2 or all 3 of the 11 mm diameter holes on the main bracket, refer to the appropriate operator manual for detailed mounting instructions.

L-ACOUSTICS hereby declares that the ETR112XT conforms to:


Established at Marcoussis, France, on the 4th of May, 2006

Jacques Spillmann, Chief Engineer - Manufacturing

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DECLARATION OF EC CONFORMITY

For the product:

Catalog Item: SB15P

Description: L-ACOUSTICS® SB15P loudspeaker enclosure

Dimensions: 445 mm x 520 mm x 520 mm (H x W x D)

Material: Baltic birch plywood with external steel rigging plates

Optional accessories:
Rigging accessory – ETR15P

Product Origin

Country of origin of the product: France
Country of origin for components of the product: EEC

Standards conformity

L-ACOUSTICS hereby declares that the SB15P loudspeaker conforms to:


Established at Marcoussis, France, on the 4th of May, 2006

Signature of L-ACOUSTICS representative:

Jacques Spillmann
Chief Engineer – Manufacturing
DECLARATION OF CE CONFORMITY

For the product:

Catalog Item: ETR15P
Description: L-ACOUSTICS® ETR15P Rigging accessory
Dimensions: 527 mm x 415 mm x 60 mm
Material: Steel

Product Origin

Country of origin of the product: France
Country of origin for components of the product: EEC

Technical Specifications:

The ETR15P rigging accessory is intended for overhead suspension (horizontal or vertical orientation) of the SB15P loudspeaker. The following chart indicates the safety factor when using the ETR15P rigging accessory according to the conditions described in the L-ACOUSTICS P SERIES OPERATOR MANUAL:

<table>
<thead>
<tr>
<th></th>
<th>ETR15P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>5.3 Kg / 11.7 lbm</td>
</tr>
<tr>
<td>WLL</td>
<td>36 daN / 80.9 lbf</td>
</tr>
<tr>
<td>Ultimate Strength</td>
<td>&gt;12</td>
</tr>
<tr>
<td>Safety Factor</td>
<td></td>
</tr>
</tbody>
</table>

Standards conformity

The ETR15P is designed for the suspension of one SB15P loudspeaker enclosure only. The ETR15P can be attached to an appropriate support using 1, 2 or all 3 of the 11 mm diameter holes on the main bracket, refer to the P Series Operator manual for detailed mounting instructions.

L-ACOUSTICS hereby declares that the ETR15P conforms to:


Established at Marcoussis, France, on the 4th of May, 2006

Jacques Spillmann, Chief Engineer - Manufacturing
APPROVALS

This equipment conforms to the requirements of Low Voltage Directive 73/23/EEC and the EMC directive 89/336/EEC.

This equipment also conforms to the following standards:

- EMC Emission: EN55103-1, E3
- EMC Immunity: EN55103-2, E3
- EMC: CISPR 13 of 2003
- Electrical Safety: EN60065, Class I

For 115V use only

CAN/CSA 60065-03 - Audio, Video and Similar Electronic Apparatus - Safety Requirements.
UL Std No. 60065-03 - Audio, Video and Similar Electronic Apparatus - Safety Requirements.