

Superlux[®]



E308/PRA52

Ceiling Mount Microphones

User Guide



Specifications

Model numbers:

E308BU: black, cardioid directivity
 E308BH: black, supercardioid directivity
 E308BO: black, omnidirectional directivity
 E308WU: white, cardioid directivity
 E308WH: white, supercardioid directivity
 E308WO: white, omnidirectional directivity
 PRA52B: black, cardioid directivity
 PRA52W: white, cardioid directivity

Transducer

Back Elected
 E308: 16 mm(0.63")
 PRA52: 9.7 mm(0.38")

Polar Pattern

E308 Series has 3 capsules: cardioid, supercardioid and omnidirectional, See figure 1
 PRA52: cardioid, See figure 2

Frequency Response:

E308: 20-18,000 Hz
 PRA52: 40-18,000 Hz

Open Circuit Sensitivity (@1000 Hz)

E308: -44 dBV/Pa (6.3 mV)
 PRA52: -43 dBV/Pa (7.1 mV)
 (1 Pa = 94 dB SPL)

Output Impedance

E308: 500 ohms
 PRA52: 600 ohms

Min. Load Impedance

E308: 1,000 ohms
 PRA52: 2,000 ohms

Signal-to-Noise Ratio

E308: 76 dB
 PRA52: 70 dB

Equivalent Noise Level (A-weighted)

E308: 18 dB SPL
 PRA52: 24 dB SPL

Max. SPL

E308: 138 dB SPL
 PRA52: 132 dB SPL

Dynamic Range (standard)

E308: 120 dB
 PRA52: 108 dB

Power Requirement

12-52V, 4 mA

Finish

Matte-black or white

Connector

E308: TA3F, 10 meter cable
 PRA52: 3-pin XLR male plug, 10 meter cable

Dimensions

E308 capsule: ϕ 20 mm (0.79"), 57 mm (2.24") long, see figure 3
 PRA52 capsule: ϕ 12 mm (0.47"), 27 mm (1.06") long, see figure 4

Net Weight

E308: 300 g (10.6 oz)
 PRA52: 220 g (7.76 oz)

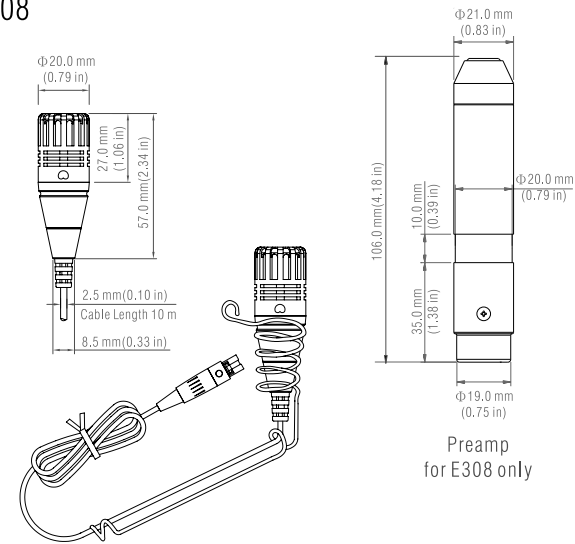
RoHS

Both E308 and PRA52, including the product and packaging, follow the instructions of the EU2002/95/EC and complies with RoHS requirements.

Environmental Conditions

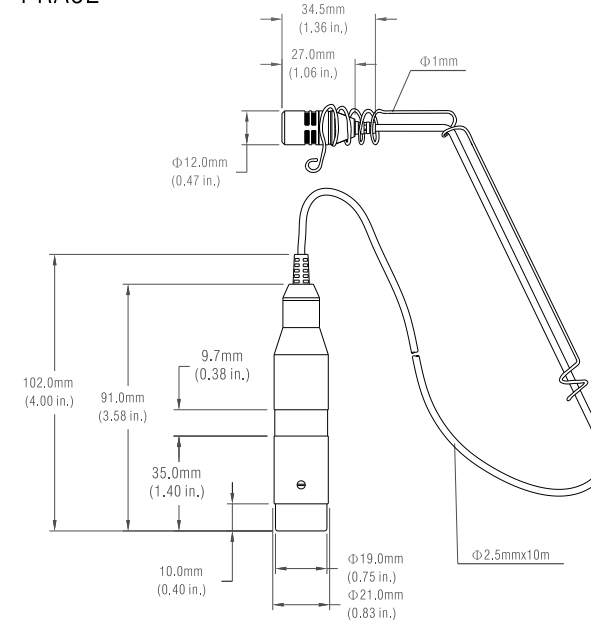
Both E308 and PRA52 operate between -10°C~50°C (14°F~122°F) with relative humidity between 0 to 95%.

E308



Dimensions (Figure 3)

PRA52



Dimensions (Figure 4)

Description

Both E308 and PRA52 are low profile miniature ceiling mount condenser microphones. They can be fixed on the rotating steel holding spring and suspended from the ceiling or in a high position sweet spot to pick up the sound of a choir or orchestra. Each of them permanently integrates a 10-meter cable, and E308 includes a TA3F connector between the capsule and power adapter, and PRA52 includes an XLR3M connector. E308 features optional inter-changeable capsules from cardioid, supercardioid and omni directivities, and PRA52 comes with a cardioid polar pattern. And there are options from black or white finish for both E308 and PRA52.

E308 Ceiling microphone with inter-changeable capsules, model no.:

- E308B black
- E308W white
- U: indicates cardioid capsule
- H: indicates supercardioid capsule
- O: indicates omni capsule

PRA52 Ceiling microphone, model no.:

- PRA52B black
- PRA52W white

Features

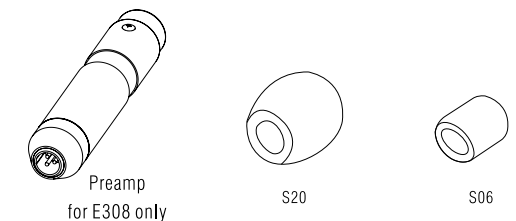
- Miniature capsule combined with spring wire angle holder to aim the microphone to the desired position
- Excellent pick up pattern and minimum RF interference
- Wide and uniform frequency response
- Permanently integrated 10-meter cable
- 2 colors to choose from black and white
- Supplied with wind screen foam to reduce wind noise from either outdoor or air-conditioners
- E308 features optional Inter-changeable 3 capsules to meet different applications
- PRA52 comes with a cardioid polar pattern

Applications

Conference / House of worship / Surveillance / Stage

Furnished Accessories

- Preamp (for E308 only)
- Windscreen (for E308 only)-----S20
- Windscreen (for PRA52 only)-----S06
- Steel holding spring
- Pipe clip



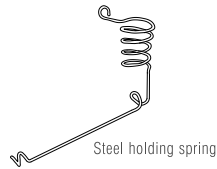
Preamp for E308 only

S20

S06



Pipe clip

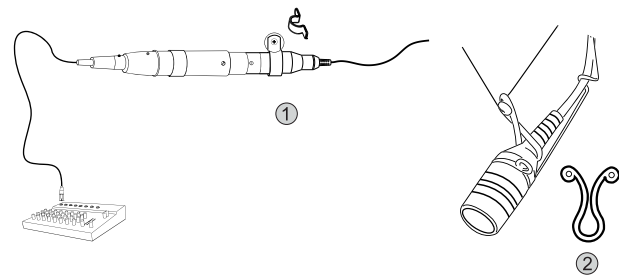


Steel holding spring

Tips of using suspension microphones

Use the supplied clips and screws to anchor the inline preamp ①.

To stabilize the microphone, wrap and lock the nylon clip around the base of the microphone. Use a strong, transparent thread, or fishing line, to secure the microphone ②.



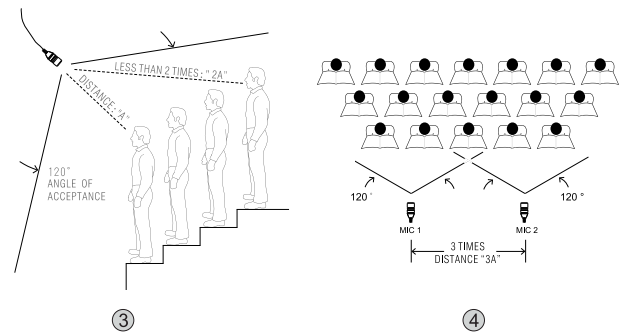
Set the distance between the mic and the nearest sound source as "A" ③.

The distance between the mic and the furthest sound source shall be less than "2A" ③.

Aim the microphone toward the furthest sound source, and keep the nearest sound source within 120° coverage cone area.

All sound source shall be able to "see" the microphone.

Base on the 3:1 rule, keep the next microphone away for more than "3A" ④.



Keep the microphone away from air blowers, such as air-conditioners, fans, ventilations. Use wet finger to feel around the microphone to avoid wind noise.

Knowing your microphone

Superlux provides variety selection of microphones for professionals and amateurs. To know your microphone is the first step to successful result.

Type of transducer



Condenser

Extremely light weight diaphragm, very sensitive to sound. Very small versions available for hiding applications. High performance condenser microphones are regarded as standard equipment of recording studios for extreme detail capturing. Operates with power, such as phantom or battery.

Powering microphone

Condenser microphones work with power. Professional standard is 48VDC phantom power. Some microphones work with lower voltage as low as 1.5VDC, such as battery power model. E308 and PRA52 work with 12 to 52VDC phantom only. Please make sure your sound system provide adequate power to the microphone.

About Frequency Response

Flat

Suitable for working at controlled environment, or for acoustic measurements. Although people pursuit flatness, but for none-professionals, it is a challenge to makes it works as expectation.

Popular curve response

Based on years of practical experience of pro users. There are curves to be build for various applications, so that it is very simple to use the microphone for the purpose. Limiting bandwidth, and emphasizing are typical skill.

Variable response

Incorporating switchable filters to eliminates interference, such as sub-sonic filter to cut air-conditioner and floor vibrations. And allows full flat when used in controlled environment.

Directivity



Omni

With equal sensitivity in all directions, an omni microphone doesn't need to point toward the sound source. It features low handling and wind noise. It is welcomed for news gathering and music recording applications.



Cardioid

It picks up most signal on axis, rejects side noise, and picks up least to the back. It is suitable for live sound reinforcement. With its apparent proximity effect, most singers like to take advantage of the bass boost but cardioid mics are not good for speech.



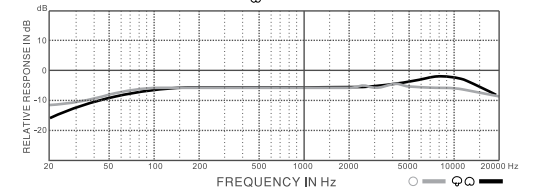
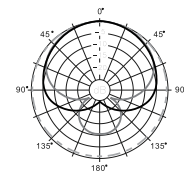
Supercardioid

A supercardioid is narrower than a cardioid pattern and is suitable for a multiple microphone setup. It is least sensitive toward the side and rear, where most stage monitors are located. It has the same proximity effect as a cardioid microphone.

Maintainence

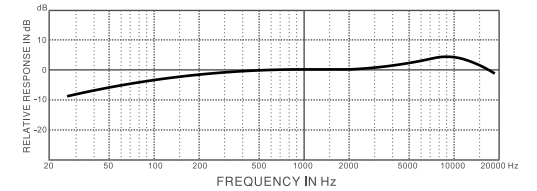
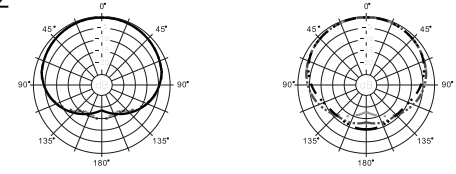
Keep the capsule and wind screen clean for good audio performance. Condenser microphones should be kept in a low humidity environment for the best sound performance. Store condenser microphones in an air-conditioned room or one equipped with a dehumidifier to keep away from moisture. Clean air is another important factor. If possible, keep away from a smoking environment to avoid tar residuals.

E308



Typical Polar Pattern and Frequency Response (Figure 1)

PRA52



Typical Polar Pattern and Frequency Response (Figure 2)

Superlux®

marketing and sales

Superlux, Taiwan

+886-2-26931323

sales@superlux.com.tw

manufacturing & logistics.

Superlux Enterprise

Development(Shanghai)Co., Ltd.

<http://www.superlux.com.tw>

