Superlux®
JUST PLAY IT



PRA 52

Ceiling Mount Microphone

User Guide

GOANG-FANN CO., LTD.

2007, SUPERLUX Inc.
LB100052B01EN (Rev. 1)

Specifications

Type
Back electret condenser

Element
Pressure gradient,
FET preamplifier

Polar pattern
Unidirectional (Cardioid), rotationally symmetrical about microphone axis, uniform with frequency. (Figure 1)

Frequency response
40 to 18,000 Hz (Figure 2)

Sensitivity
(at 1,000 Hz Open Circuit Voltage)
-43dBV/Pa (7.0mV/Pa) 3dB
1Pa=94dB SPL

Rated impedance
600Ω

Minimum load impedance
2,000Ω

Equivalent noise level
(A-weighted)
Less than 24dB (IEC/DIN 651)

Max. Ω load)
132dB SPL (THD≦0.5% 1kHz)

Dynamic range (1 kΩ Load)
108dB

noise ratio-to- ignal
70 dB

Power supply
9 to 52VDC Phantom

Current consumption
4mA

Polarity
Pin 2 output positive voltage (related to pin 3) when diaphragm receives positive pressure. (Diaphragm moving inward)

Connector
3 pin male XLR type

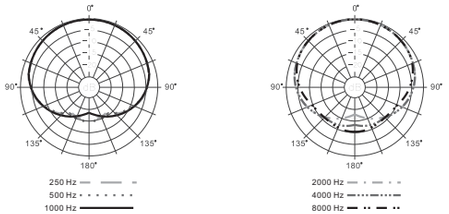
Finish
PRA52B: Durable black paint
PRA52W: Durable white paint

Environmental conditions
The PRA52 operates between -10? to +50? (14? to 122?) with relative humidity between 0 to 95%.

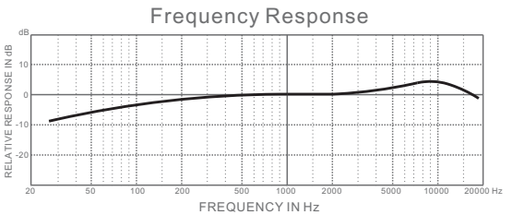
Dimensions
Figure 3

Net weight
210g (7.40 oz.),
Spring line included

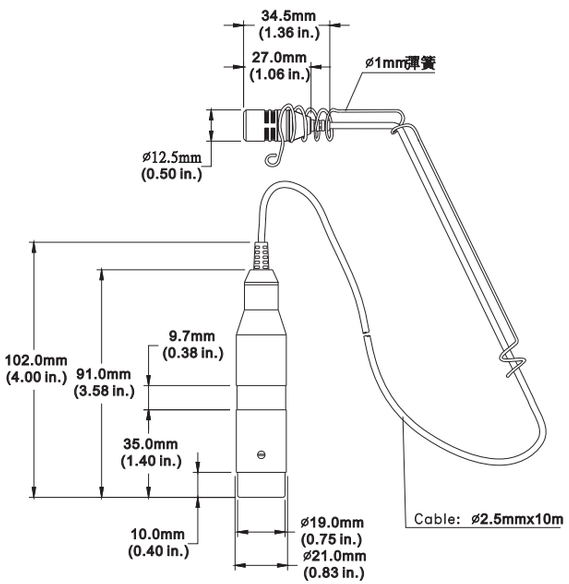
RoHS
The PRA52 including the product and packages follow the instruction of EU 2002/95/EC and comply to RoHS.



TYPICAL POLAR PATTERN (Figure 1)



TYPICAL POLAR PATTERN (Figure 2)



Dimensions (Figure 3)

Description

The PRA52 is a low profile miniature microphone specially for hanging applications. There is 10-meter long cable and spring wire angle holder so that the sound engineer can easily hang it to the ceiling and aim the microphone with additional fishing wire. Uniform frequency response is important for successful sound pick-up for choir, string, and winds.

Features

- Miniature capsule combined with spring wire angle holder. To aim the microphone to the desired position.
- Cardioid, high sensitivity. Excellent pick up patter and minimum RF interference.
- High gain before feedback with uniform polar response.
- Wide and uniform frequency response.
- 10-meter cable between capsule and power adapter for 9 to 52VDC phantom power. Standard balanced XLR3M plug.
- 2 colors to choose. Black and white.
- Supplied with wind screen foam to reduce wind noise from either outdoor or air-conditioners.

Supplied accessories

Pop screen ---------- S06

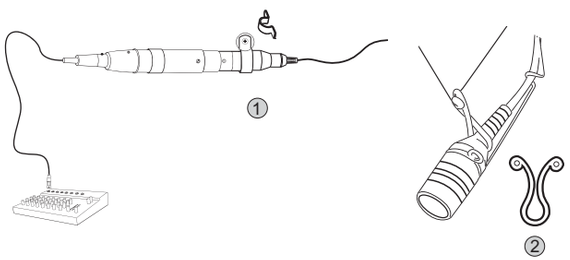


S06
Pop screen

Tips of using suspension microphones

Use the supplied clips and screws to anchor the inline preamp①.

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 microphone②.



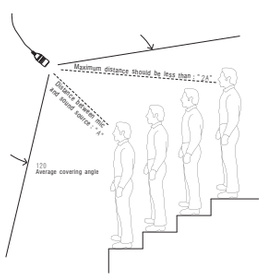
Set the distance between the mic and the nearest sound source as "A" ③.

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

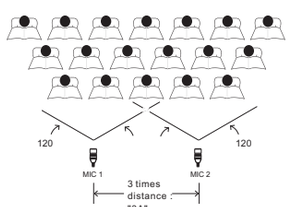
Aim the microphone toward the furthest sound source, and keep the nearest sound source within 120 coverage cone area.

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".



③



④

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

Knowing your microphone

Superlux provides variety selection of microphones for professionals and amatures. 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. PRA52 work with 9 to 52VDC phantom only. Please make sure your sound system provide adaquate power to the microphone.

About Frequency Response

Flat

Suitable for working at controlled environment, or for acoustic measurements. Although people persuit 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 emphasing are typical skill.

Variable response

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

Directivity



Cardioid

Picks up most signal on axis. Rejects side and picks up least to the back. Suitable for live sound re-inforcement. Apparent proximity effect and most singer likes to take this bass boost advantages which is not good for

Distance to source

Close miking or distant miking sound very differently. Vocal recording or live performance practice close miking mostly. Suitable proximity effect is one desired target, and lower feedback problem is another factor for live sound application.

While distant miking is common practice for recording, especially stereo pair recording with large group of performers, such as orchestra or choir.

Distant miking generally picks up less bass section with pressure gradient type of microphone (cardioid, figure-8, shotgun...) due to acoustic nature and lack of proximity effects.

Rich bass with distant miking can be recorded with pressure type of microphone (Omni), which performs the same frequency response with close or distant pick-up.

Mounting the microphone

Pressure gradient microphone is very sensitive to vibration. Suitable shock mount for high performance microphone is necessary for extreme low noise recording. Sturdy stand can set the microphone excatly at the sweet spot and keep it there. Choose heavy duty microphone stand for studio condenser microphone which weights much more than handle microphone.

Superlux provides wide range of microphone stands for various demands. Big Foot Willie is specially developed for large condenser microphones that able to support 2 large microphones with stereo bracket for single point stereo recording.

Extension foot on all the 'E' versions serve to mount heavy studio microphone in limit space live sound applications.

Maintainence

Condenser microphone shall be kept in low humidity environment for best sound performance. Store the condenser microphones in airconditioned room or dehumidifier to keep away form moisture. Clean air is another important factor. Keep away from smoking environment to avoid tar residuals.

GF PRO AUDIO

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