



PRA116B

Strong Directivity
Condenser Microphone

User Guide



Specifications

Type

Condenser microphone

Polar pattern

Strong directivity, rotationally symmetrical about microphone axis, uniform with frequency. (Figure 1)

Frequency response

50 to 14,000 Hz (Figure 2)

Sensitivity

(at 1,000 Hz Open Circuit Voltage)
-41dBV/Pa (9.0mV/Pa) ± 3dB
1Pa=94dB SPL

Rated impedance

600Ω

Minimum load impedance

2,000Ω

Equivalent noise level

(A-weighted)
20dB (IEC/DIN 651)

Max. SPL (1 kΩ load)

119dB SPL (THD ≤ 1% 1kHz)

Dynamic range (1 kΩ Load)

99 dB

noise ratio-to- signal

74 dB

Low frequency roll-off

80 Hz, 12dB/OCT

Power supply

1.5V AA/UM3 battery

Battery current / life

0.5mA / 800 hrs typical (alkaline)

Polarity

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

Connector

Integral 3 pin male XLR type

Finish

Metal construction with black painted finish

Environmental conditions

The PRA116B operates between -10? to +50? (14? to 122?) with relative humidity between 0 to 95%.

Dimensions

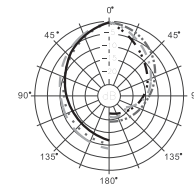
Φ 21.0mm (0.80in.) X 370.0mm (14.57in.) (Figure 3)

Dimensions of windshield

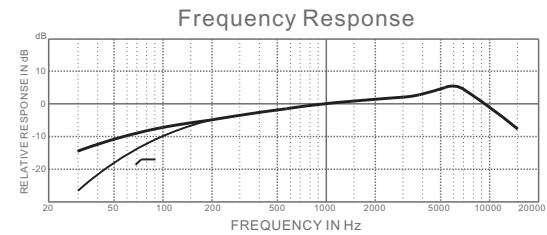
Φ 45.0mm (1.78in.) X 250.0mm (9.84in.) (Figure 4)

Net weight

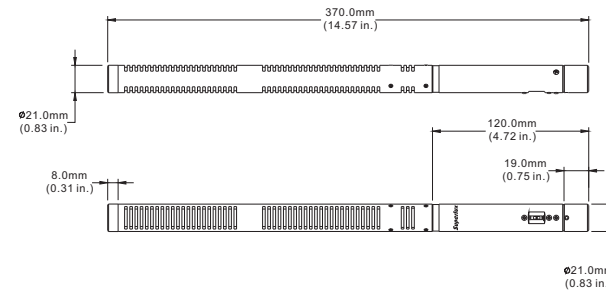
220.0 grams (7.80oz.)



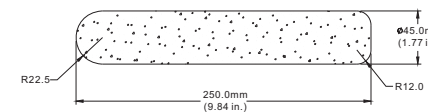
TYPICAL POLAR PATTERN (Figure 1)



TYPICAL FREQUENCY RESPONSE (Figure 2)



Dimensions (Figure 3)



Foam windshield (Figure 4)

Description

The PRA116B is a highly directional electrets condenser microphone for video camcorder on-camera mount. Light weight design that adds minimum load to the videographer. Emphasis on-axis sound that synchronized with the elements in the picture. Balanced tonal quality that makes the PRA116B a good choice for live broadcasting, video and/or film productions.

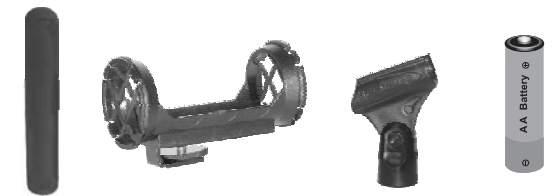
Powered with a popular 1.5V AA battery that last long working hours and easy to replace. Very convenient for outdoor assignments.

Features

- ✍ Proprietary interference tube for a uni-directional capsule that results highly directivity.
- ✍ Low-noise and high dynamic range pre-amplifier minimized colorization.
- ✍ Flat and extended on-axis frequency response for clean and nature speech.
- ✍ ENG grade video production, and perfect mobility.
- ✍ Integrated low-cut switch
- ✍ Light weight aluminum alloy.

Supplied accessories

- Foam windshield ----- S14
- Camera mount ----- HM40C
- Mic clip ----- HM37
- Alkaline battery ----- 1.5V AA/UM3



S14 Foam windshield HM40C Camera mount HM37 Mic clip 1.5V AA(UM3) Alkaline battery

Related accessories

Shotgun mount -----	HM35
Shotgun mount -----	HM35C
Shock mount -----	HM40
Instrument boom stand -----	Ms104



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. PRA116B work with 1.5VDC battery 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 non-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



Shotgun

Based on interference tube theory, to achieve highest axial signal pick-up and rejects off-axis sound as much as possible. Due to poor wind noise rejection, suitable wind screen shall be used at outdoor.

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 exactly 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.



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