Superlux®
JUSTPLAYIT

E361 E309D PRO

E309D PRO
High Quality Condenser Gooseneck Microphone

E361
Continuously Variable Pattern Gooseneck Microphone

User Guide

GOANG-FANN CO., LTD.

LB100E36101EN

Specifications

Transducer
Back Electret

Polar Pattern
E309D PRO: Select from 3 capsules: cardioid, supercardioid and omni-directional. The three model numbers are as bellow:
E309DU PRO with incorporated cardioid capsule
E309DH PRO with incorporated supercardioid capsule
E309DO PRO with incorporated omni-directional capsule
E361: Dual capsule design with continuously variable polar pattern

Frequency Response:
E309D PRO: 20-20,000 Hz
E361: 80-18,000 Hz

Dynamic Range (standard)
E309D PRO: 105 dB
E361: 107 dB

Signal-to-Noise Ratio
E309D PRO: 75 dB
E361: 81 dB

Equivalent Noise Level
E309D PRO: 19 dB
E361: 15 dB

Max. SPL
E309D PRO: 124 dB SPL
E361: 120 dB SPL

Sensitivity
E309D PRO: - 38±2 dBV/Pa
E361: - 31±2 dBV/Pa

Finish
Matte-black

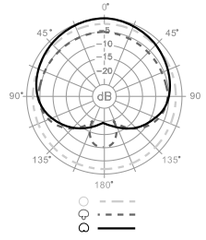
Power Requirement
E309D PRO: P48, 5.5mA
E361: P48, 8.6 mA

Output Impedance
200 ohms

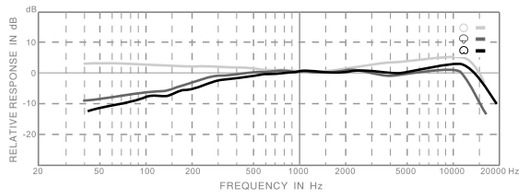
Connector
3-pin XLR male jack

Dimensions
E309D PRO: see figure 1
E361: see figure 2

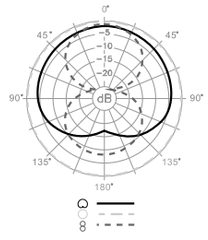
Net Weight
E309D PRO: 938 g (33.1 oz)
E361: 943 g (33.3 oz)



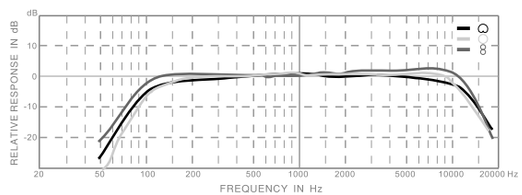
E309D PRO
Polar Pattern (Figure 3)



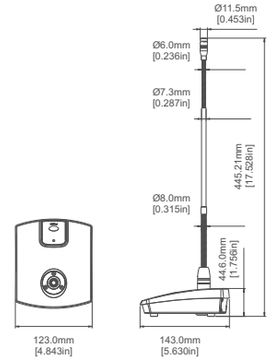
E309D PRO
Frequency Response (Figure 4)



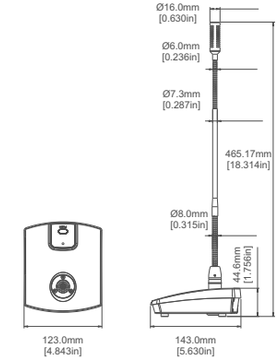
E361
Polar Pattern (Figure 5)



E361
Frequency Response (Figure 6)



E309D PRO Dimensions(Figure 1)



E361 Dimensions(Figure 2)

Overview

The E309D PRO Miniature Gooseneck Microphone delivers the professional features needed to achieve optimum speech pickup in board meetings, conferences, presentations, houses-of-worship and more. The E309D PRO features a highly sensitive condenser capsule and is available in a cardioid, super-cardioid or omni-directional pickup pattern for maximum flexibility and control. The three model numbers for E309D PRO with different capsule are as bellow:
E309DU PRO with incorporated cardioid capsule
E309DH PRO with incorporated supercardioid capsule
E309DO PRO with incorporated omni-directional capsule
The E361 is a condenser gooseneck microphone with a continuously-variable pickup pattern achieved by its dual capsule design. The variable pattern control is selected by the button on its base, making the E361 flexible for a variety of applications.
Both the E309D PRO and E361 feature a brand-new design in a high-quality gooseneck. They are immune to radio-frequency (RF) interference from cell phones, PDAs, wireless internet devices, two-way radios, etc. An On/Off switch doubles as a power LED, providing status indication. The integrated desk stand features a programmable membrane switch. The base features both a 3-pin XLR male output connection and a 4-pin connector to allow a hard-wired cable to be led out from either the bottom or the rear of the base.

Features

- High quality condenser capsule
- Durable, high quality gooseneck structure
- Integrated programmable stand
- Selectable capsules from cardioid, super-cardioid and omni-directional for E309D PRO only
  E361 features dual capsule design and continuously variable pattern
- RF immunity

Applications:

- Conference room
- Board meetings
- Presentations
- Houses-of-worship

Accessories

Included Items

S55F windscreen for E309D PRO only
S56 windscreen for E361 only

S55F windscreen S56 windscreen

Optional Related Items

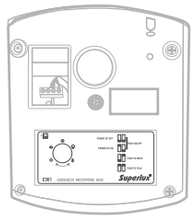
10m mic cable (open end and XLR-M): P/N IA100CMB10100
5m mic cable (XLR-XLR): model#SFM5.0FM
10m mic cable (XLR-XLR): model#SFM10FM
E309D PRO Cardioid capsule: P/N BM1000B9801AS
E309D PRO Supercardioid capsule: P/N BM1000B9801AH
E309D PRO Omni-directional capsule: P/N BM1000B9801AO

Operational Settings

Programmable Membrane Switch

Both E309D PRO and E361 integrate a low-profile microphone base and require a phantom power supply. Their base provides a soft touch button that can be configured for "push-to-talk", "push-to-mute" or "toggle on-and-off" operation through the dip switch on the bottom.

E309D PRO bottom

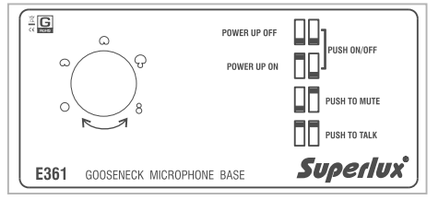


E361 bottom

1. Push-to-talk: The microphone is normally muted. Pushing and holding the soft touch button will turn the microphone on. As soon as the operator stops holding the soft touch button, the microphone will return to mute.
2. Push-to-mute: The microphone is normally on. Pushing and holding the soft touch button will mute the microphone. As soon as the operator stops holding the soft touch button, the microphone will again turn on.
3. Toggle / Power Up ON: As soon as phantom power is applied to the base, the microphone is on. Momentarily pressing the soft touch button will mute the microphone. Momentarily pressing the soft touch button again will turn the microphone on. This operation will repeat indefinitely.

4. Toggle / Power Up OFF (Muted): As soon as phantom power is applied to the base, the microphone is muted. Momentarily pressing the soft touch button will turn the microphone on. Momentarily pressing the soft touch button again will mute the microphone. This operation will repeat indefinitely.

For the E361 gooseneck microphone, there is a continuously variable pattern control located on the bottom which can change the microphone pickup pattern from omni-directional to figure-8.



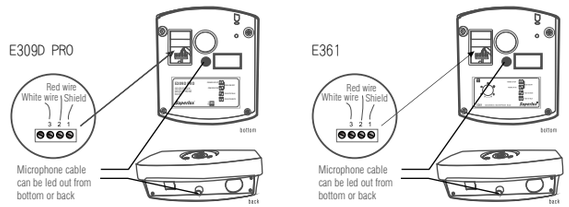
Connection:

Users may use an audio cable terminated with a professional 3-pin XLR type connector to send a balanced audio signal to a microphone preamp, or a three-conductor cable with one open end and the other terminated with a professional 3-pin male XLR type connector. If an audio cable terminating in XLR connectors on both ends is used, it can simply be plugged in to the built-in XLR jack at the back of the base. If a hard-wired installation is preferred, a three-conductor cable with an open end can be directly attached to the base following the instructions below; this cable can be led out from the bottom, or from the back if preferred.

1. Determine whether the cable is to be led out from the bottom or the rear of the base.
2. If from the bottom, then first of all, open the rectangular plastic panel on the bottom. The 4-pin connector will be visible. Insert the open end of the cable into the hole located at the center of the bottom and feed the cable end into the 4-pin connector recess. Connect the wires according to the pin assignment below.
3. If the wire is to be led out through the rear of the base, then first of all, open the rectangular plastic panel on the bottom to expose the 4-pin connectors. Remove the small rubber cover from the hole at the back of the base and feed the open end of the cable through this hole until it reaches the 4-pin connector recess. Connect the wires according to the pin assignment below.
4. Replace the plastic panel over the 4-pin connectors.

The pin assignment is as follows:

1.) XLR pin 1 shield cable to position marked no. 1 on pcb
2.) XLR pin 2 red cable to position no. 2 on pcb
3.) XLR pin 3 white cable to position no. 3 on pcb
4.) The no. 4 is disconnected.



Knowing your microphone

Superlux provides a great variety of microphones for both professionals and amateurs. Knowing the performance characteristics of your microphone is the first step in achieving a successful result.

Type of transducer

Condenser

Extremely light-weight diaphragm, very sensitive to sound. Very small versions are available for low-visibility applications. High performance condenser microphones are regarded as standard equipment in recording studios for their ability to capture extreme detail. Operation requires a power source such as phantom power or battery.

Powering the microphone

Condenser microphones work with power. The professional standard is 48VDC phantom power. Both the E309D and E361 require 48V phantom power; make sure your audio system offers a full 48V phantom power to operate both the E309D and E361.

Using a condenser gooseneck microphone

Uni-directional condenser microphones feature very high sensitivity at -40dBV/Pa for highly intelligible speech application. Their reduced off-axis sensitivity helps to lower background noise while their maximized on-axis sensitivity provides the highest gain before feedback
in a live sound system.
It is recommended that the user should keep a distance of 15 cm to 40 cm from the microphone and maintain an average speech level. Speaking too close to the microphone will result in excessive bass due to the proximity effect which will interfere with intelligibility. A quality conference microphone incorporates a built-in limiter to help prevent distortion due to an overly-excited user or one who speaks too close to the microphone.
There are several choices of gooseneck to suit various demands. For aesthetics, single or double bend goosenecks are a better choice over a fully-bendable design. Having a low bending noise is another important feature of a good gooseneck microphone. It is recommended that the user not bend the gooseneck too hard or too quickly as this may generate excessive noise, thus disturbing the audience. In most cases, each attendee has his own microphone or a microphone is shared by every 2 attendees. Although having numbers of microphones in operation in one space at the same time is not recommended due to the potential for a feedback problem, a good system operator can minimize this risk by keeping as few microphones turned on at the same time as possible. An auto-mixer is a good choice for multiple microphone installations since it limits the number of turned-on microphones at one time. An advanced auto mixer features a dynamic threshold and auto gain reduction which varies according to the number of turned-on microphones to keep the same system gain. Wind screens are vital for windy environments such as outdoor venues or proximity to air-conditioning systems. Keep the capsule and wind screen clean for good audio performance.

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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