

# ES945/LED & ES945SV/LED



engineered sound® microphones

Omnidirectional Condenser Boundary Microphones with Mute Switch and LED Indicator



## Features

- Mounts unobtrusively in tabletops
- Low-profile element provides uniform omnidirectional polar pattern with 360° acceptance angle
- UniGuard® RFI-shielding technology offers outstanding rejection of radio frequency interference (RFI)
- Self-contained electronics eliminate the need for external power module
- Rugged all-metal case with a two-layer steel mesh grille
- Capacitive-type touch-sensitive switch allows users to easily mute/un-mute the microphone
- Integral LED ring indicates mute status—green when mic is live, red when muted
- Isolators provide mechanical dampening of mounting-surface vibration
- Available in two colors: black (ES945/LED) and silver (ES945SV/LED)

## Description

The ES945/LED is a wide-range condenser microphone with an omnidirectional polar pattern. It is designed for unobtrusive tabletop use in high-quality sound reinforcement, conferencing, professional recording, television and other demanding sound pickup applications.

The microphone features a capacitive-type touch-sensitive switch that toggles between on/mute and a Red/Green LED indicator ring that displays mute status.

The microphone requires 11V to 52V phantom power for operation.

The microphone is equipped with UniGuard® RFI-shielding technology, which offers outstanding rejection of radio frequency interference (RFI).

The output of the microphone is a 3-pin XLRM-type connector.

Isolators are included with the microphone for optional mechanical isolation from the mounting surface. The microphone is enclosed in a heavy-duty die-cast case and is protected by a two-layer steel mesh grille. The low-profile housing has a low-reflectance black finish. The microphone is also available in silver as the ES945SV/LED.

## Installation and Operation

The ES945/LED requires 11V to 52V phantom power for operation.

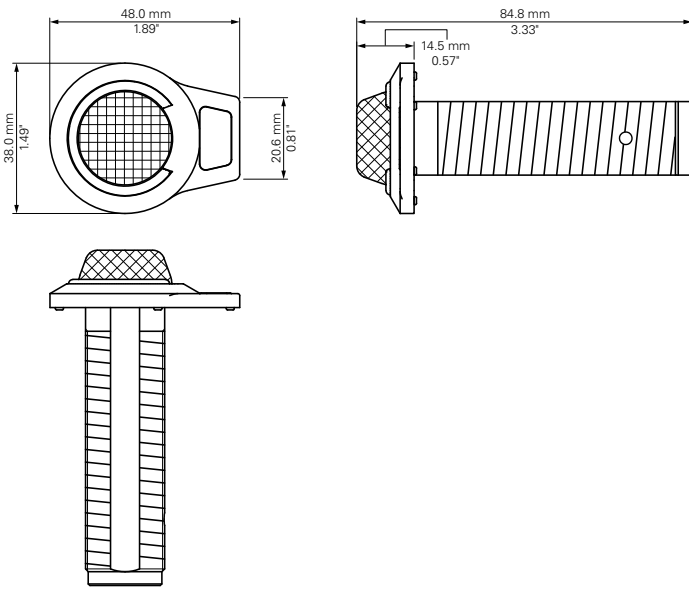
Output is low impedance (Lo-Z) balanced. The signal appears across Pins 2 and 3; Pin 1 is ground (shield). Output phase is “Pin 2 hot”—positive acoustic pressure produces positive voltage at Pin 2.

The microphone should be installed on a flat, unobstructed mounting surface. The small-diameter capsule near the boundary eliminates phase distortion and delivers clear, high-output performance.

To mount the microphone in a tabletop without the isolators, a 20.5 mm (<sup>13</sup>/<sub>16</sub>”) diameter hole is required. To mount the microphone with the isolators, a 23.5 mm (<sup>15</sup>/<sub>16</sub>”) hole is required. Place the isolators on either side of the hole to achieve mechanical isolation from the mounting surface.

The capacitive-type touch-sensitive switch enables muting functionality: press to mute, press again to un-mute. The LED indicator ring lights green when the microphone is live and lights red when the microphone is muted.

Avoid leaving the microphone in the open sun or in areas where temperatures exceed 110° F (43° C) for long periods of time. Extremely high humidity should also be avoided.



## Specifications

<b>Element</b>	Fixed-charge back plate, permanently polarized condenser
<b>Polar pattern</b>	Omnidirectional
<b>Frequency response</b>	40-19,000 Hz
<b>Open circuit sensitivity</b>	-40 dB (10 mV) re 1V at 1 Pa
<b>Impedance</b>	200 ohms
<b>Maximum input sound level</b>	142 dB SPL, 1 kHz at 1% T.H.D.
<b>Dynamic range (typical)</b>	113 dB, 1 kHz at Max SPL
<b>Signal-to-noise ratio<sup>1</sup></b>	65 dB, 1 kHz at 1 Pa
<b>Phantom power requirements</b>	11-52V DC, 5.7 mA typical
<b>Switch</b>	Touch-sensitive control: on/mute
<b>Weight</b>	65 g (2.3 oz)
<b>Dimensions</b>	84.8 mm (3.33") long, 38.0 mm (1.49") diameter 48.0 mm (1.89") maximum width
<b>Output connector</b>	Integral 3-pin XLRM-type
<b>Accessories furnished</b>	One pair isolators

In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

1 Pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL

<sup>1</sup> Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

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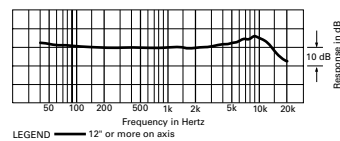
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## frequency response: 40–19,000 Hz



## polar pattern

