



## DESCRIPTION

The ES961 is a wide-range condenser microphone with cardioid polar pattern. It is designed for surface-mounted applications such as high-quality sound reinforcement, conferencing, professional recording, and other demanding sound pickup situations.

The microphone is RoHS compliant – free from all substances specified in the EU directive on hazardous substances.

The ES961 is equipped with UniGuard® RFI-shielding technology, which offers outstanding rejection of radio frequency interference (RFI).

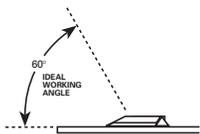
The microphone's cardioid polar pattern provides a 120° angle of acceptance (cardioid in hemisphere above mounting surface). Additional interchangeable elements with hypercardioid and omnidirectional pickup patterns are available.

The ES961 is supplied with a 25' (7.6 m) output cable terminating in TA3F-type and XLRM-type connectors. The microphone is equipped with Audio-Technica's unique PivotPoint® rotating output connector that allows the cable to exit from either the rear or the bottom of the microphone without the need for tools or disassembly.

The ES961 can be powered from any 11V to 52V DC phantom power source. A recessed switch permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass UniSteep® filter) to help control undesired ambient noise. The microphone's heavy die-cast case and non-slip silicon foam bottom pads minimize coupling of surface vibration to the microphone. The ES961 is equipped with a low-reflectance black finish and is also available in white as the ES961W.

## INSTALLATION AND OPERATION

The ES961 requires 11-52V DC phantom power to operate.



The microphone should be placed on a flat, unobstructed mounting surface, with the front of the microphone facing the sound source. The sound source should not be below, or higher than 60° above, the plane of the mounting surface.

Output is low impedance balanced. The balanced signal appears across Pins 2 and 3, while the ground (shield) connection is Pin 1. Output is phased so that positive acoustic pressure produces positive voltage at Pin 2, in accordance with industry convention.

An integral 80 Hz high-pass UniSteep® filter provides easy switching from a flat frequency response to a low-end roll-off. The roll-off position reduces the pickup of low-frequency ambient noise (such as traffic, air-handling systems, etc.), room reverberation and mechanically coupled vibrations. To engage the UniSteep® filter, slide the switch toward the "bent" line.

The ES961 can be mounted to a flat surface using two panhead screws 2.26" (57.4 mm) apart, in conjunction with the keyhole slots on the microphone underside.

While a modern condenser microphone is not unduly sensitive to the environment, temperature extremes can be harmful. 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.

**NOTE:** Audio-Technica has developed a special RFI-shielding mechanism that is an integral part of the connectors in the Engineered Sound line. If you remove or incorrectly replace the connector, you may adversely affect the unit's RFI immunity. Audio-Technica offers a crimp tool (ATCT) and RFI shields for TA3F-type, TA5F-type and XLRM-type connectors that enable you to shorten the cable and correctly reinstall the connector while maintaining the highest level of RFI immunity.

**NOTE:** Placing any object on a surface (such as a conference table) before its finish is fully cured may result in damage to the finish.

## ARCHITECTS AND ENGINEERS SPECIFICATIONS

The microphone shall be a fixed-charge condenser designed for use in surface-mount boundary applications. It shall have a frequency response of 30 Hz to 20,000 Hz and a cardioid polar pattern. It shall operate from an external 11V to 52V DC phantom power source. The microphone's element shall be field replaceable; optional interchangeable elements for hypercardioid and omnidirectional polar patterns shall be available.

The microphone shall be capable of handling sound input levels up to 134 dB with a dynamic range of 108 dB. Nominal open-circuit output voltage shall be 19.9 mV at 1 kHz, 1 Pascal. Output shall be low impedance balanced (200 ohms). A recessed "Low Cut" switch shall be provided to tailor the low frequency response to minimize pickup of unwanted sounds.

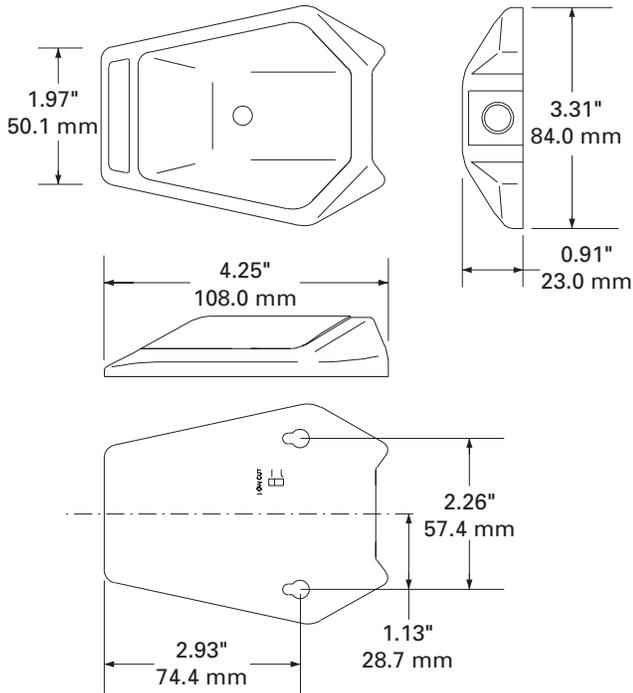
The microphone shall offer outstanding rejection of radio frequency interference (RFI). The microphone shall be RoHS compliant.

The microphone shall be equipped with an integral rotating output connector that allows the cable to exit from either the rear or the bottom of the microphone without the need to disassemble the microphone or use tools to change the cable exit location.

The microphone shall terminate in a TB3M-type output connector. A 25' (7.6 m) miniature low-noise output cable with TA3F-type to XLRM-type connectors shall be supplied. An optional crimping tool shall permit shortening of the cable without loss of RFI immunity.

The microphone shall have a maximum width of 3.31" (84.0 mm) and a maximum length of 4.25" (108.0 mm). Weight shall be 9.2 oz (262 grams). The microphone shall be housed in a die-cast case with a perforated steel grille. The microphone's base shall have two keyhole slots for mounting to a tabletop or other surface. Finish shall be low-reflectance black [white]. The microphone shall be supplied with a soft protective pouch.

The Audio-Technica ES961 [ES961W] is specified.



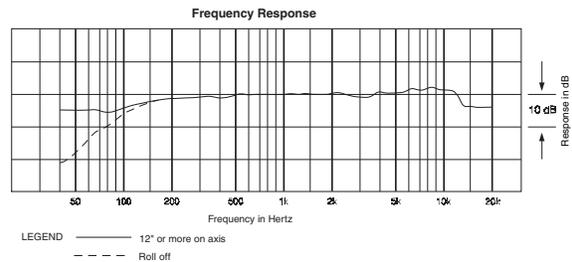
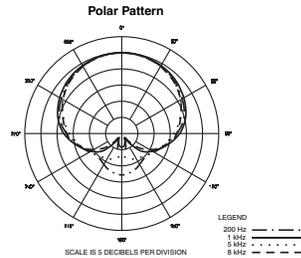
### ES961 SPECIFICATIONS†

<b>ELEMENT</b>	Fixed-charge back plate permanently polarized condenser
<b>POLAR PATTERN</b>	Half-cardioid (cardioid in hemisphere above mounting surface)
<b>FREQUENCY RESPONSE</b>	30-20,000 Hz
<b>LOW FREQUENCY ROLL-OFF</b>	80 Hz, 18 dB/octave
<b>OPEN CIRCUIT SENSITIVITY</b>	-34 dB (19.9 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b>	200 ohms
<b>MAXIMUM INPUT SOUND LEVEL</b>	134 dB SPL, 1 kHz at 1% T.H.D.
<b>DYNAMIC RANGE (typical)</b>	108 dB, 1 kHz at Max SPL
<b>SIGNAL-TO-NOISE RATIO†</b>	68 dB, 1 kHz at 1 Pa*
<b>PHANTOM POWER REQUIREMENTS</b>	11-52V DC, 4 mA typical
<b>SWITCH</b>	Flat, roll-off
<b>WEIGHT</b>	262 g (9.2 oz)
<b>DIMENSIONS</b>	108.0 mm (4.25") long, 84.0 mm (3.31") maximum width, 23.0 mm (0.91") height
<b>OUTPUT CONNECTOR</b>	TB3M-type
<b>CABLE</b>	7.6 m (25.0') long, 3.2 mm (0.13") diameter, 2-conductor, shielded cable with TA3F-type and XLRM-type connectors
<b>OPTIONAL INTERCHANGEABLE ELEMENTS</b>	UE-O omnidirectional (360°); UE-H hypercardioid (100°)
<b>ACCESSORY FURNISHED</b>	Soft protective pouch

†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

† Typical, A-weighted, using Audio Precision System One. Specifications are subject to change without notice.



**Audio-Technica U.S., Inc.**, 1221 Commerce Drive, Stow, Ohio 44224  
**Audio-Technica Limited**, Old Lane, Leeds LS11 8AG England  
[www.audio-technica.com](http://www.audio-technica.com)

P51938-01 ©2007 Audio-Technica U.S., Inc. Printed in U.S.A.