

Engineered Sound[®]

[Description]

The ES943/O is a wide-range condenser clip-on/lavalier microphone with an omnidirectional polar pattern. It is designed for quality sound reinforcement, professional recording, television and other demanding sound pickup applications.

The ES943/O is intended to be worn on the clothing for excellent yet unobtrusive sound pickup. The wide-range capability of the microphone ensures clean, accurate reproduction with high intelligibility for speakers, singers and other performers. Its small size makes it ideal for use in applications where minimum visibility is required.

The microphone features a 55" (1.4 m) permanently-attached miniature cable, connected to an AT8536 power module via internal solderless screw terminals. It can be powered from any external 11V to 52V DC phantom power supply. A recessed switch in the power module permits choice of flat response or low-frequency roll-off to help control undesired ambient noise.

The microphone is enclosed in a rugged housing with a low-reflectance black finish. Two slip-on foam windscreens and an AT8460 clothing clip are included, as well as a snap-on belt clip for the power module.

[ES943/O] Omnidirectional Condenser Clip-on/ Lavalier Microphone



[Operation and Maintenance]

The microphone can be easily attached to a tie, lapel, dress or other clothing using the included clip.

The provided foam windscreen simply slips over the head of the microphone, effectively reducing noise from wind and "popping" when used extra close.

Output is low impedance balanced. The output connector of the power module mates with XLR-type cable connectors. 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.

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.

[Architects and Engineers Specifications]

The microphone shall be a fixed-charge condenser with a frequency response of 30 Hz to 20,000 Hz and an omnidirectional polar pattern with uniform 360° angle of acceptance. It shall be capable of accepting optional interchangeable elements for additional polar patterns. It shall operate from an external 11V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 138 dB with a dynamic range of 109 dB. Nominal open-circuit output voltage shall be 10.0 mV at 1 kHz, 1 Pascal. Output shall be low impedance balanced (250 ohms).

The microphone shall have a permanently-attached 55" (1.4 m) miniature low-noise cable, connected to an in-line power module

containing the microphone electronics. Screw terminal input connections in the power module shall permit shortening of the cable without soldering. The power module shall include a recessed switch for low-frequency roll-off and shall terminate in a 3-pin XLRM-type output connector.

The microphone shall be 0.92" (23.3 mm) long with a head diameter of 0.33" (8.4 mm). Weight shall be 0.2 oz (5 grams) without cable. Finish shall be low-reflectance black. Two slip-on foam windscreens, a detachable clothing clip and a power module belt clip shall be included.

The Audio-Technica ES943/O is specified.



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[ES943/O Specifications[†]]

Element	Fixed-charge back plate permanently polarized condenser
Polar Pattern	Omnidirectional
Frequency Response	30-20,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-40 dB (10.0 mV) re 1V at 1 Pa [*]
Impedance	250 ohms
Maximum Input Sound Level	138 dB SPL, 1 kHz at 1% T.H.D.
Dynamic Range (Typical)	109 dB, 1 kHz at Max SPL
Signal-to-noise Ratio[†]	65 dB, 1 kHz at 1 Pa [*]
Switch	Flat response, low-roll-off (recessed)
Phantom Power Requirements	11-52V DC, 4 mA typical
Weight	
Microphone	0.2 oz (5 grams)
Power Module	2.0 oz (56 grams)
Dimensions	
Microphone	0.92" (23.3 mm) long, 0.33" (8.4 mm) head diameter
Power Module	3.86" (98.0 mm) long, 0.74" (18.9 mm) diameter

Output Connector (Power Module)	Integral 3-pin XLRM-type
Cable	55" (1.4 m) long (permanently attached to microphone), 0.09" (2.2 mm) diameter, 2-conductor, shielded cable; attached to screw terminals in power module
Accessories Furnished	AT8110 foam windscreen (2); AT8460 clothing clip; AT8536 power module; belt clip

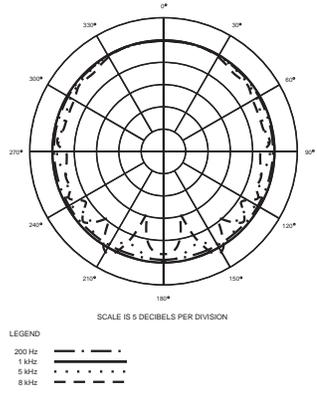
[†] In the interest of standards development, A.T.U.S. offers full details on its test methods to other industry professionals on request.

^{*} 1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

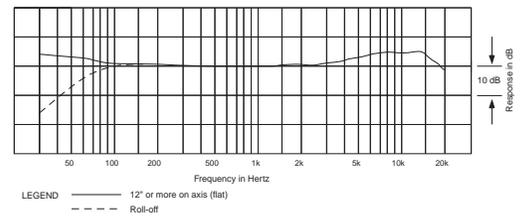
[†] Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.

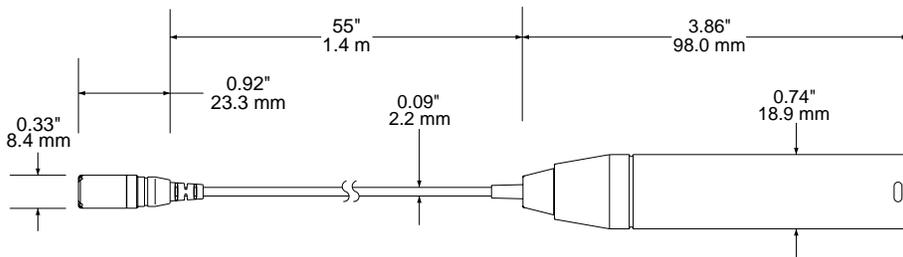
[Polar Pattern]



[Frequency Response]



[Dimensions]



[Visit our Web site at www.audio-technica.com]

One-Year Limited Warranty

Audio-Technica microphones and accessories purchased in the U.S.A. are warranted for one year from date of purchase by Audio-Technica U.S., Inc. (A.T.U.S.) to be free of defects in materials and workmanship. In event of such defect, product will be repaired promptly without charge or, at our option, replaced with a new product of equal or superior value if delivered to A.T.U.S. or an Authorized Service Center, prepaid, together with the sales slip or other proof of purchase date. **Prior approval from A.T.U.S. is required for return.** This warranty excludes defects due to normal wear, abuse, shipping damage, or failure to use product in accordance with instructions. This warranty is void in the event of unauthorized repair or modification.

For return approval and shipping information, contact the Service Department, Audio-Technica U.S., Inc., 1221 Commerce Drive, Stow, Ohio 44224.

Except to the extent precluded by applicable state law, **A.T.U.S. will have no liability for any consequential, incidental, or special damages; any warranty of merchantability or fitness for particular purpose expires when this warranty expires.**

This warranty gives you specific legal rights, and you may have other rights which vary from state to state.

Outside the U.S.A., please contact your local dealer for warranty details.



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1221 Commerce Drive, Stow, Ohio 44224