

Engineered Sound[®]

[Description]

The ES905/ML is a wide-range condenser microphone with a MicroLine[®] polar pattern. It is designed for quality sound reinforcement, professional recording, television and other demanding sound pickup applications. The rigid-pipe design with ball-in-socket base permits flexible positioning. An included custom foam windscreen effectively reduces noise from wind or ventilation air currents.

The MicroLine[®] polar pattern provides a 90° angle of acceptance. Additional interchangeable elements with cardioid (120°) and hypercardioid (100°) pickup patterns are available.

The microphone features a 9.5' (2.9 m) permanently-attached miniature cable. Its free end connects to the provided AT8536 power module via internal solderless screw terminals for simple cable-length adjustment in the field. 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 sturdy metal housing with a low-reflectance black finish. Its isolation base plate is designed to be table-mounted (hardware included).

ES905/ML
MicroLine[®] Condenser
Rigid-Pipe Microphone

[Installation and Operation]

Output is low impedance balanced. The output connector of the power module mates with XLRF-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.

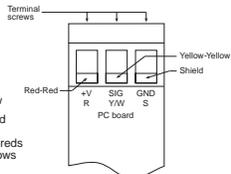
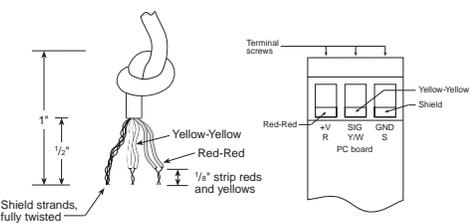
The ES905/ML is intended for mounting to a hard surface such as a table, desk, or podium using the isolation base plate. **ATTENTION! Do not remove ball-in-socket assembly from the base plate.** The microphone is supplied with three #8 x 1" black oxide wood screws for mounting the microphone. The cable can exit out the back of the microphone or be routed through the bottom of the isolation base plate. To install the microphone with bottom-routed cable: Drill a 3/32" (4 mm) hole centered in the area where the microphone mount is to be positioned. Remove the power module from the cable (see instructions below), pass the cable extending from the microphone mount through this hole, mount the microphone into position using the screws provided, and finally, re-attach the power module.

The cable length may be shortened at the power module. To disassemble the power module, turn the **silver** screw **counter-clockwise** (left-handed thread) until it is down in the connector base and clear of the case. Use a screwdriver with 3/32" (2.5 mm) blade. Then slide

the outer case up the cable to reveal the circuit board and screw terminals. Loosen the three terminal screws and remove the cable from the module. Next, slide the case off the cable, cut the cable to the desired length (allowing a few extra inches) and slide the case back onto the cable. Tie a single knot in the cable about two inches from the cut end. Following Figure 1, cut the cable off 1" down from the top of the knot and carefully remove 1/2" of the outer jacket. Strip the mic cable wires and attach them to their respective terminals (Fig. 2). Make certain that the terminals are clamped on the conductors, not on the insulation, and that there are no loose strands of wire which might touch other terminals. Replace the case, being certain that the roll-off switch is accessible and the silver screw is aligned with its hole in the case. Finish by turning the screw **clockwise** until the case is firmly secured. Test the microphone for proper operation.

The provided foam windscreen simply slips over the MicroLine element, effectively reducing noise from wind or ventilation air currents.

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.



audio-technica[®]

[ES905/ML Specifications†]

Element	Fixed-charge back plate permanently polarized condenser
Polar Pattern	MicroLine®
Frequency Response	30-20,000 Hz
Low-frequency Roll-off	80 Hz, 12 dB/octave
Open Circuit Sensitivity	-35 dB (17.7 mV) re 1V at 1 Pa*
Impedance	250 ohms
Maximum Input Sound Level	133 dB SPL, 1 kHz at 1% T.H.D.
Dynamic Range (Typical)	107 dB, 1 kHz at Max SPL
Signal-to-noise Ratio¹	68 dB, 1 kHz at 1 Pa*
Switch	Flat response, low-roll-off (recessed)
Phantom Power Requirements	11-52V DC, 4 mA typical
Weight	
Microphone	10.4 oz (295 grams)
Power Module	2.0 oz (56 grams)
Dimensions	
Microphone	21.47" (545.3 mm) long, 0.31" (8.0 mm) head diameter
Power Module	3.86" (98.0 mm) long, 0.74" (18.9 mm) diameter

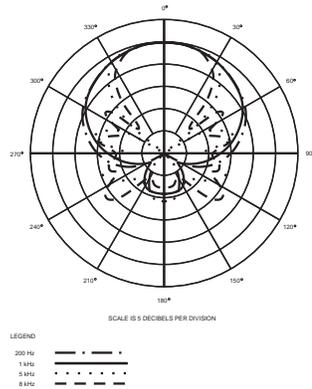
Output Connector (Power Module)	Integral 3-pin XLRM-type
Cable	9.5' (2.9 m) long (permanently attached to microphone), 0.13" (3.2 mm) diameter, low-noise shielded cable; free end attached to screw terminals in power module
Accessories Furnished	AT8536 power module; AT8138 foam windscreen; three #8 x 1" black oxide wood screws for microphone mount
Optional Interchangeable Elements	ESE-C cardioid (120°) ESE-H hypercardioid (100°)

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

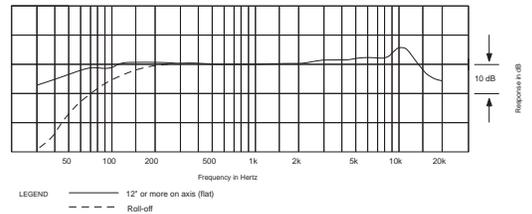
* 1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

¹ Typical, A-weighted, using Audio Precision System One. Specifications are subject to change without notice.

[Polar Pattern]



[Frequency Response]



[Architects and Engineers Specifications]

The microphone shall be a fixed-charge condenser with a frequency response of 30 Hz to 20,000 Hz and a MicroLine® polar pattern with uniform 90° 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 133 dB with a dynamic range of 107 dB. Nominal open-circuit output voltage shall be 17.7 mV at 1 kHz, 1 Pascal. Output shall be low impedance balanced (250 ohms).

The microphone shall have a permanently-attached 9.5' (2.9 m) miniature low-noise cable, connected to an included 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 switch for low-frequency roll-off and shall terminate in a 3-pin XLRM-type output connector.

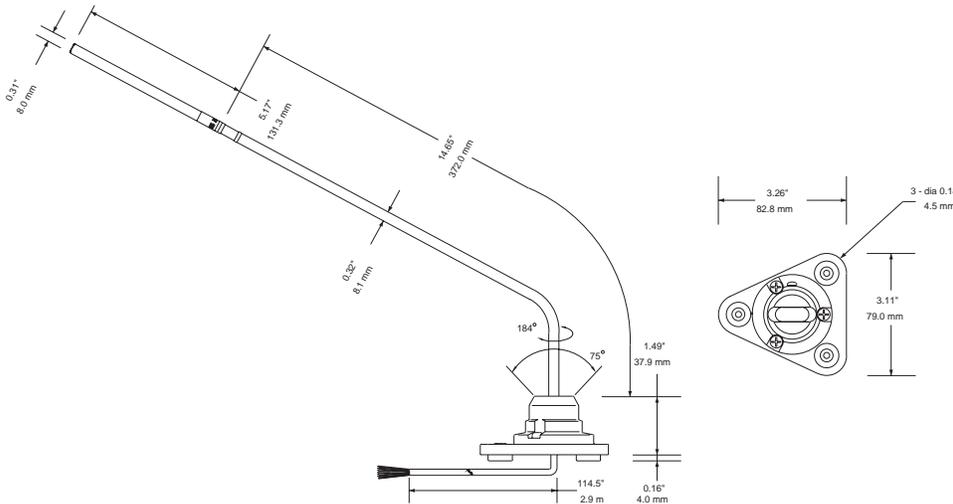
The microphone shall be a small-diameter, ball-in-socket, rigid-pipe design with an isolation base plate for table mounting. A custom foam windscreen shall be provided. The microphone shall be 21.47" (545.3 mm) long with a head diameter of 0.31" (8.0 mm). The microphone weight shall be 10.4 oz (295 grams) without cable. Finish shall be low-reflectance black.

The Audio-Technica ES905/ML is specified.



audio-technica
 Audio-Technica U.S., Inc.
 1221 Commerce Drive, Stow, Ohio 44224

[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.