

Description

The AT857AMx is a wide-range condenser microphone designed for quality sound reinforcement, professional recording, television, and other demanding sound pickup applications. Standing 12.21" above the mounting surface, its small-diameter alternating gooseneck design permits highly flexible positioning while maintaining a smooth, well-contoured appearance. The AT857AMLx is a 19.00" version of this microphone.

Supplied as a cardioid, the AT857AMx easily accepts interchangeable elements to permit selection of angle of acceptance from 100° to 360°.

The microphone features a 9.8' (3.0 m) permanently-attached miniature cable. Its free end connects to the provided AT8533x power module via internal solderless screw terminals for simple cable-length adjustment in the field. It can be powered from any external 9V 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 or mechanical noise.

The microphone element is enclosed in a rugged housing with a low-reflectance black finish. A 5/8"-27 threaded flange allows the microphone to mate with the threads of a standard microphone desk or floor stand. A 5/8"-27 threaded stud is also provided so it can be secured to a permanent mounting surface.

Installation and Operation

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.

To attach the microphone cable using the pre-stripped end: Remove the three screws from the base of the power module and slide the outer case off to reveal the circuit board and screw terminals. Next, slide the case onto the cable (narrow end first), and tie a single knot in the cable about 1" from the tinned ends. *Do not pull directly on the exposed small wires and shield.* Following Figure 2 on the back of this sheet, attach the wires to their respective terminals. Make certain that the terminals are clamped on the conductors, not on the insulation, and that there are no loose strands of wire that might touch other terminals. Replace the case, being certain that it goes over the case grounding contact and that the roll-off switch is accessible. Finish by replacing the three base screws and testing for proper operation.

To shorten the cable: Remove the cable from the module, and cut it to the desired length (allowing a few extra inches). Next, after sliding the case back onto the cable, tie a single knot in the cable about two inches from the cut end. Following Figure 1 on the back of this sheet, 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. Reassemble the module following the instructions in the previous paragraph.

The provided AT8102 two-stage foam wind-screen simply slips over the head of the microphone, effectively reducing wind noise or "popping" when used extra close.

The small-diameter gooseneck is easy to manipulate for proper positioning. Heavily lubricated, it operates smoothly and quietly. Should the unit become noisy with prolonged use, apply a light machine oil directly on the gooseneck area affected.

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

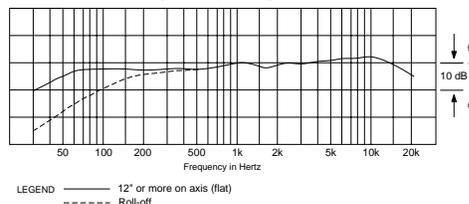
The microphone shall be a fixed-charge condenser with a cardioid polar pattern and a frequency response of 30 Hz to 20,000 Hz. It shall be capable of accepting optional interchangeable elements for additional polar patterns. It shall operate from an external 9V to 52V DC phantom power source. Nominal open-circuit output voltage shall be 7.0 mV at 1kHz, 1 Pascal. Output shall be low impedance balanced (200 ohms).

The microphone shall have a permanently-attached 9.8' (3.0 m) miniature cable with a pigtail output. The pigtail output shall connect to a power module via internal solderless screw terminals. 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 alternating gooseneck design, with a 12.21" (310.2 mm) [19.00" (482.5 mm)] overall length. Head diameter shall be 0.47" (12.0 mm). The microphone shall include a 5/8"-27 threaded flange to mate with the threads of a standard microphone desk or floor stand. A 5/8"-27 threaded stud shall be provided for permanent installation to a mounting surface. The microphone weight shall be 3.6 oz (103 grams) [4.6 oz (131 grams)], without cable. Finish shall be low-reflectance black.

The Audio-Technica AT857AMx [AT857AMLx] is specified.

Frequency Response

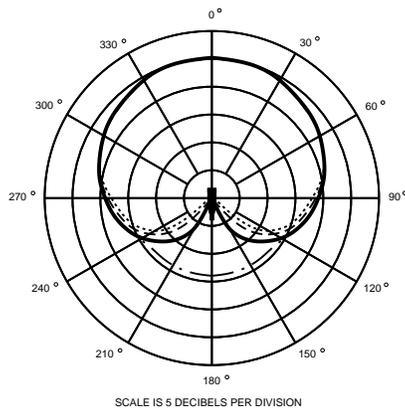


AT857AMx AT857AMLx CARDIOID CONDENSER ADAPTER- MOUNT GOOSENECK MICROPHONES



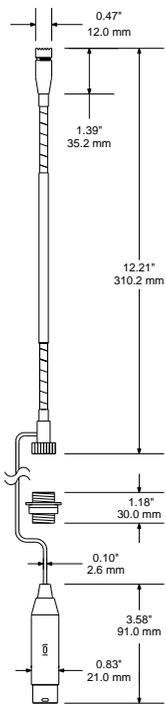
AT857AMx AT857AMLx

Polar Pattern

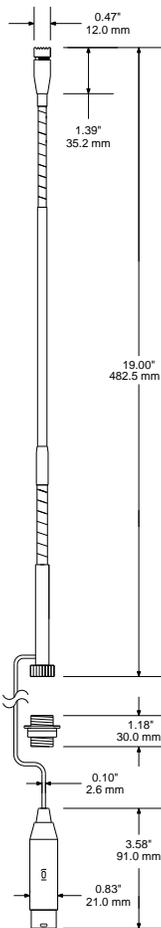


LEGEND
200 Hz ————
1 kHz ————
5 kHz - - - - -
8 kHz - - - - -

AT857AMx
Dimensions



AT857AMLx
Dimensions



AT857AMx/AT857AMLx SPECIFICATIONS†

ELEMENT	Fixed-charge back plate permanently polarized condenser	
POLAR PATTERN	Cardioid (Unidirectional)	
FREQUENCY RESPONSE	30-20,000 Hz	
LOW-FREQUENCY ROLL-OFF	150 Hz, 6 dB/octave	
OPEN CIRCUIT SENSITIVITY	-43 dB (7.0 mV) re 1V at 1 Pa*	
IMPEDANCE	200 ohms (1000 ohms without power module)	
MAXIMUM INPUT SOUND LEVEL	138 dB SPL, 1 kHz at 1% T.H.D.	
DYNAMIC RANGE (TYPICAL)	111 dB, 1 kHz at Max SPL	
SIGNAL-TO-NOISE RATIO†	67 dB, 1 kHz at 1 Pa*	
SWITCH	Flat response, low-roll-off (recessed)	
PHANTOM POWER REQUIREMENTS	9-52V DC, 2 mA typical	
WEIGHT	MICROPHONE	(AT857AMx) 3.6 oz (103 grams) (AT857AMLx) 4.6 oz (131 grams)
	POWER MODULE	2.1 oz (60 grams)
DIMENSIONS	MICROPHONE	(AT857AMx) 12.21" (310.2 mm) long above mounting surface (AT857AMLx) 19.00" (482.5 mm) long above mounting surface (BOTH) 0.47" (12.0 mm) head diameter
	POWER MODULE	3.58" (91.0 mm) long, 0.83" (21.0 mm) diameter
OUTPUT CONNECTOR (POWER MODULE)	Integral 3-pin XLRM-type	
CABLE	9.8' (3.0 m) long (permanently attached to microphone), 0.10" (2.6 mm) diameter, 2-conductor, shielded cable; free end attaches to screw terminals in power module	
ACCESSORIES FURNISHED	AT8102 two-stage foam windscreen; AT8533x power module; AT8425 5/16"-27 threaded mounting stud	
OPTIONAL INTERCHANGEABLE ELEMENTS	AT853H-ELE hypercardioid (100°) AT853O-ELE omnidirectional (360°) AT853SC-ELE subcardioid (170°)	

† 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.

Figure 1

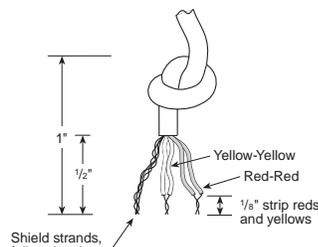
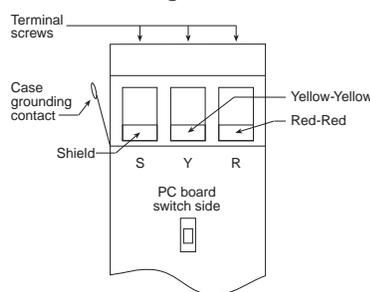


Figure 2



Optional Accessories:

- AT8104a metal lockable windscreen.
- AT8117 large foam windscreen.
- AT8314 2-conductor, shielded, vinyl-jacketed, broadcast-type cable with XLR-type connector at microphone end, XLRM-type connector at equipment end. Available in 10', 20', 25', 30', 50' & 100' lengths.
- AT8416 shock mount.
- CP8201 line matching transformer (Lo-Z to 50,000 ohms).
- CP8506 four-channel 48V phantom power supply (AC powered).
- CP8508 single-channel 24V phantom power supply (AC powered).

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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