

ATM350

Cardioid Condenser Clip-on Instrument Microphone



artist series live sound microphones



Features

- Attaches to brass, reeds, piano, acoustic bass, snare, toms and violin
- Crisp, clear, well-balanced response, even at high SPLs
- Low-profile design for minimum visibility
- Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source
- UniMount® clip permits accurate positioning, provides shock resistance and protects element
- Unique violin mount permits unobtrusive placement of microphone between the instrument's bridge and tailpiece
- Switchable 80 Hz high-pass filter minimizes pickup of undesired low-frequency sounds
- Interchangeable elements available for hypercardioid and omnidirectional polar patterns
- Also available in a wireless model, ATM350cW

ATM350 Description

The ATM350 is a fixed-charge clip-on condenser microphone with a cardioid polar pattern. It is designed for use in professional live-sound and studio applications.

When used with the included instrument mount, it provides accurate, consistent pickup of trumpet and saxophone and many other musical instruments. When used with the included violin mount, it provides outstanding pickup of violin and other stringed instruments.

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

The cardioid polar pattern of the microphone is more sensitive to sound originating directly in front of the element, making it useful for controlling feedback and reducing pickup of unwanted sounds.

The microphone includes a 4 m (13.1') permanently attached miniature cable. Its free end connects to the provided AT8542 power module via a TA3F-type connector. The output of the power module is a 3-pin XLRM-type connector.

A switch in the power module permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass filter) to help control undesired ambient noise.

The microphone is enclosed in a rugged housing with a low-reflectance black finish. A power module, an instrument mount, a violin mount and a soft protective pouch are included.

ATM350cW Description

The microphone is also available in a wireless model, the ATM350cW. The ATM350cW features a 1.4 m (55") miniature cable terminated with a locking 4-pin connector for use with Audio-Technica UniPak® body-pack transmitters. No power module is included (or required) with the ATM350cW. The ATM350cW dimensions, polar pattern and included instrument mount and violin mount are identical to those of the ATM350.

Operation and Maintenance

The ATM350 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.

To avoid phase cancellation and poor sound, all mic cables must be wired consistently: Pin 1-to-Pin 1, etc.

An integral 80 Hz high-pass 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 high-pass filter, slide the switch toward the "bent" line.

The included UniMount® instrument mount entirely surrounds the microphone with foam to isolate the microphone from noise transmitted from the instrument, shield the element against accidental damage, and provide an efficient wind screen. The flexible arm permits aiming the microphone in any direction, while a cable strain relief reduces cable-transmitted noise and cable damage. The rubber grip spring clamp securely holds the microphone to the instrument without marring the surface.

To use the included violin mount, place the microphone in the violin mount's elastic mic holder. Open the hook & loop fastener; pass the hook side of the open fastener beneath the strings between the bridge and the tailpiece. Close the fastener flap around the strings. The microphone should be on top, with the element facing the bridge (away from the tailpiece).

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

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance and a frequency response of 40 Hz to 20,000 Hz. It shall be capable of accepting optional interchangeable elements for additional polar patterns. The microphone shall operate from an external 11V to 52V DC phantom power source. It shall be capable of handling sound input levels up to 149 dB with a dynamic range of 122 dB. Nominal open-circuit output voltage shall be 3.5 mV at 1 V, 1 Pascal. Output shall be low impedance balanced (50 ohms).

The microphone shall have a 4 m (13.1') permanently attached miniature cable, terminating in a TA3F-type output connector. The output connector shall connect to a TB3M-type jack on the included power module. The power module shall contain a switch that permits a choice of flat response or 80 Hz low-frequency roll-off. The output of the power module shall be a 3-pin XLRM-type connector.

The microphone shall be 37.8 mm (1.49") long and have a diameter of 12.2 mm (0.48"). Weight shall be 14.5 grams (0.5 oz) without cable. The

microphone shall include a power module, an instrument mount, a violin mount and a soft protective pouch.

The microphone shall also be available in a wireless model with a 1.4 m (55") miniature cable terminated with a locking 4-pin connector for use with Audio-Technica UniPak® body-pack transmitters. No power module shall be required or included with the wireless model. The wireless model dimensions, polar pattern, and included instrument mount and violin mount shall be identical to those of the wired model.

The Audio-Technica ATM350 [ATM350cW-wireless] is specified.

Specifications

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	40-20,000 Hz
Low frequency roll-off	80 Hz, 12 dB/octave
Open circuit sensitivity	-49 dB (3.5 mV) re 1V at 1 Pa
Impedance	50 ohms
Maximum input sound level	149 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	122 dB, 1 kHz at Max SPL
Signal-to-noise ratio¹	67 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 3.5 mA typical
Switch	Flat, roll-off
Weight	Microphone: 14.5 g (0.5 oz) Power module: 81.2 g (2.9 oz)
Dimensions	Microphone: 37.8 mm (1.49") long, 12.2 mm (0.48") diameter Power module: 92.9 mm (3.66") long, 18.9 mm (0.74") diameter
Output connector	Power module: Integral 3-pin XLRM-type
Cable(s)	4.0 m (13.1') long (permanently attached to microphone), 3.2 mm (0.13") diameter, 2-conductor shielded cable with TA3F-type connector
Optional interchangeable elements	UE-O omnidirectional (360°) UE-H hypercardioid (100°)
Audio-Technica case style	M36
Accessories furnished	AT8542 power module; AT8418 UniMount® microphone instrument mount; AT8468 violin mount; 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.

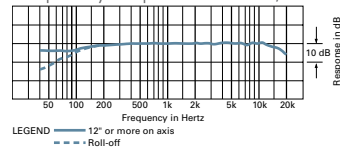
1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

¹ Typical, A-weighted, using Audio Precision System One.

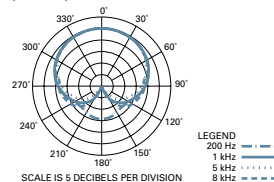
Specifications are subject to change without notice.



frequency response: 40–20,000 Hz



polar pattern



 **audio-technica**

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