# **AT897**

# Line + Gradient Condenser Microphone

# **audio-technica**

#### broadcast & production microphones



# Features

- Designed for video production and broadcast (ENG/EFP) audio acquisition
- Short length ensures mic stays out of the shot even when used with compact digital cameras
- Provides the narrow acceptance angle desirable for long-distance sound pickup
- Smooth, natural-sounding on-axis audio quality
- Offers the convenience of battery or phantom power operation
- Rugged design and construction for reliable performance
- Switchable 80 Hz high-pass filter minimizes pickup of undesired low-frequency sounds

## Description

The AT897 is a fixed-charge condenser microphone with a line + gradient polar pattern. It is designed for video production, broadcast (ENG/EFP) audio acquisition, wildlife recording and high-quality sound reinforcement.

The microphone requires 11V to 52V phantom power or a 1.5V AA battery for operation. A battery need not be in place for phantom power operation.

The microphone's highly directional polar pattern provides a narrow acceptance angle along with crisp, intelligible audio reproduction desirable for long-distance sound pickup.

The output of the microphone is a 3-pin XLRM-type connector.

A switch 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. The included AT8405a stand clamp permits mounting on any microphone stand with  $\frac{5}{8}-27$  threads. A windscreen, two o-rings, a battery and a protective carrying case are also included.

## **Operation and Maintenance**

The AT897 requires 11V to 52V phantom power or a 1.5V AA battery for operation. A battery need not be in place for phantom power operation.

To install the battery, unscrew the lower section of the microphone body, just below the nameplate. Insert a fresh 1.5V AA battery in the handle compartment ("+" end up), then reassemble the microphone. Alkaline batteries are recommended for longest life. Remove the battery during long-term storage.

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, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the "bent" line.

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

**Note:** To use the microphone with a camera-mount microphone holder whose diameter is too large to secure the microphone, slide the two supplied o-rings onto the microphone handle, spaced so that one fits just in front of, and the other fits just behind, the rubber nubs inside the microphone holder. When the top of the microphone holder is closed and tightened down, the o-rings should hold the microphone securely in place.

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## **Specifications**

Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Line + gradient
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 12 dB/octave
Open circuit sensitivity	Phantom: -40 dB (10.0 mV) re 1V at 1 Pa Battery: -41 dB (8.9 mV) re 1V at 1 Pa
Impedance	Phantom: 200 ohms
	Battery: 300 ohms
Maximum input sound level	Phantom: 129 dB SPL, 1 kHz at 1% T.H.D.
	Battery: 115 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	Phantom: 112 dB, 1 kHz at Max SPL
	Battery: 98 dB, 1 kHz at Max SPL
Signal-to-noise ratio <sup>1</sup>	77 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 2 mA typical
Battery type	1.5V AA/UM3
Battery current / life	0.4 mA / 1200 hours typical (alkaline)
Switch	Flat, roll-off
Weight	145 g (5.1 oz)
Dimensions	279.0 mm (10.98") long,
	21.0 mm (0.83") diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	SG2
Accessories furnished	AT8405a stand clamp for $\frac{5}{6}$ "-27 threaded stands; $\frac{5}{6}$ "-27 to $\frac{3}{6}$ "-16 threaded adapter; AT8134 windscreen; battery; two o-rings;

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

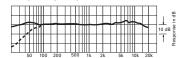
1 Typical, A-weighted, using Audio Precision System One.

Specifications are subject to change without notice.



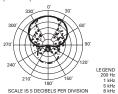
protective carrying case

frequency response: 20-20,000 Hz



LEGEND 12" or n

polar pattern





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