

AE5400

Cardioid Condenser Handheld Microphone



artist elite® live sound microphones



Features

- **Pristine sound quality demanded by the most discriminating microphone user**
- **Same large-diaphragm element as the renowned AT4050 studio microphone; true condenser design**
- **Custom transformer improves performance specifications by isolating against noise and RF interference, and providing excellent saturation characteristics that contribute to smooth linear sound quality**
- **Superior anti-shock engineering ensures low handling noise and quiet performance**
- **High-quality double-sided PCB uses surface-mount components. Extensive grounding plane and attention to best-practice grounding methods minimize electrical noise**
- **Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source**
- **Multi-stage grille design offers excellent protection against plosives and sibilance without compromising high-frequency clarity**
- **Robust all-metal design for enduring dependability on the road**
- **Quiet-Flex™ stand clamp provides silent, flexible microphone positioning**
- **Integral 80 Hz high-pass filter switch and 10 dB pad switch**

Description

The AE5400 is a handheld condenser microphone with a cardioid polar pattern. It is designed specifically for close-up vocal use in professional live-sound and studio applications.

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, reducing pickup of unwanted sounds and providing isolation between performers.

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

The microphone is equipped with a switchable 10 dB pad and a switch that permits choice of flat response or low-frequency roll-off (via integral 80 Hz high-pass filter).

The microphone is enclosed in a rugged housing. Its multi-stage grille design offers excellent protection against plosives and sibilance without compromising high-frequency clarity. The included AT8470 Quiet-Flex™ stand clamp permits mounting on any microphone stand with 5/8"-27 threads. A soft protective pouch is also included.

Operation and Maintenance

The AE5400 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.

When using the microphone in settings with a stage monitor speaker, the speaker should be located 180° off axis (at rear of the microphone). This placement, in conjunction with the microphone's uniform cardioid pickup pattern, will virtually eliminate the possibility of undesired audio feedback.

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

The microphone is also equipped with a switchable 10 dB pad that lowers the microphone's sensitivity, thus providing higher SPL capability for flexible use with a wide range of users and system configurations. To engage the 10 dB pad, use the end tip of a paperclip or other small pointed instrument to slide the switch toward the -10 position.

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.

Architect's and Engineer's Specifications

The microphone shall be a fixed-charge condenser designed for handheld or stand use. It shall have a cardioid polar pattern with a uniform 120° angle of acceptance and a frequency response of 20 Hz to 20,000 Hz. 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 147 dB (157 dB with 10 dB pad) with a dynamic range of 133 dB. Nominal open-circuit output voltage shall be 10.0 mV at 1V, 1 Pascal. Output shall be low impedance balanced (150 ohms).

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

The microphone shall be equipped with a switchable 10 dB pad and a switch that permits choice of flat response or 80 Hz low-frequency roll-off.

The microphone shall be 179.0 mm (7.05") long and have a head diameter of 50.0 mm (1.97"). Weight shall be 330 g (11.6 oz). The microphone shall include a stand clamp and a soft protective pouch.

The Audio-Technica AE5400 is specified.

Specifications

Element	Externally polarized (DC Bias) condenser
Polar pattern	Cardioid
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 12 dB/octave
Open circuit sensitivity	-40 dB (10.0 mV) re 1V at 1 Pa
Impedance	150 ohms
Maximum input sound level	147 dB SPL, 1 kHz at 1% T.H.D.; 157 dB SPL, with 10 dB pad (nominal)
Noise¹	14 dB SPL
Dynamic range (typical)	133 dB, 1 kHz at Max SPL
Signal-to-noise ratio¹	80 dB, 1 kHz at 1 Pa
Phantom power requirements	11-52V DC, 4 mA typical
Switches	Flat, roll-off; 10 dB pad (nominal)
Weight	330 g (11.6 oz)
Dimensions	179.0 mm (7.05") long, 50.0 mm (1.97") head diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	T4
Accessories furnished	AT8470 Quiet-Flex™ stand clamp for 5/8"-27 threaded stands; 5/8"-27 to 3/8"-16 threaded adapter; 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.

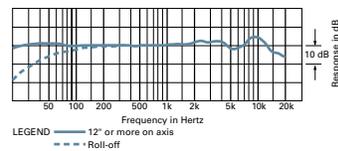
1 Pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL

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

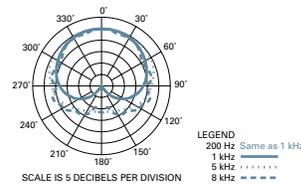
Specifications are subject to change without notice.



frequency response: 20–20,000 Hz



polar pattern



 **audio-technica**

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