# AT4041

# **(A)** audio-technica

40 series studio microphones

# Cardioid Condenser End-Address Microphone



#### **Features**

- Specially engineered to meet the most critical acoustic requirements of professional recording, broadcast and sound reinforcement
- Smooth, extended frequency response with a slight rise occurring in the high-frequency region
- Low-mass diaphragm improves transient response, increases response bandwidth and reduces handling and mechanical noise transfer
- Transformerless circuitry virtually eliminates low-frequency distortion and provides superior correlation of high-speed transients
- Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source
- Rugged turned-brass microphone housing for enduring dependability
- Switchable 80Hz high-pass filter minimizes pickup of undesired low-frequency sounds
- State-of-the-art design and manufacturing techniques ensure compliance with A-T's stringent consistency and reliability standards

## Description

The AT4041 is a fixed-charge condenser microphone with a cardioid polar pattern. It is designed to meet the demands of critical studio and live applications.

The microphone requires 48V 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 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 <sup>5</sup>/<sub>8</sub>"-27 threads. A windscreen and a protective carrying case are also included.

## **Operation and Maintenance**

The AT4041 requires 48V 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.

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.

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## **Specifications**

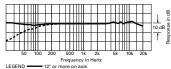
Element	Fixed-charge back plate, permanently polarized condenser
Polar pattern	Cardioid
Frequency response	20-20,000 Hz
Low frequency roll-off	80 Hz, 12 dB/octave
Open circuit sensitivity	-36 dB (15.8 mV) re 1V at 1 Pa
Impedance	100 ohms
Maximum input sound level	145 dB SPL, 1 kHz at 1% T.H.D.
Dynamic range (typical)	121 dB, 1 kHz at Max SPL
Signal-to-noise ratio <sup>1</sup>	70 dB, 1 kHz at 1 Pa
Phantom power requirements	48V DC, 3.2 mA typical
Switch	Flat, roll-off
Weight	120 g (4.2 oz)
Dimensions	159.5 mm (6.28") long,
	21.0 mm (0.83") diameter
Output connector	Integral 3-pin XLRM-type
Audio-Technica case style	S1
Accessories furnished	AT8405a stand clamp for <sup>5</sup> / <sub>8</sub> "-27 threaded stands; AT8159 windscreen; protective carrying case

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

Specifications are subject to change without notice

frequency response: 20-20,000 Hz



polar pattern





<sup>&</sup>lt;sup>1</sup> Typical, A-weighted, using Audio Precision System One.