

# AT813a CARDIOID CONDENSER MICROPHONE



- Ideal for close-up vocals, overheads, piano, and strings
- Cardioid polar pattern reduces pickup of sounds from the sides and rear, improving isolation of desired sound source
- Proximity effect provides added warmth when used close up
- Large protective screen reduces “popping” and sibilant distortion
- Operates on battery or phantom power

The AT813a requires 9V to 52V DC phantom power *or* a 1.5V AA battery for operation. A battery need not be in place for phantom power operation.

**Battery installation:** 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 from the microphone’s XLRM-type connector 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.

The high sensitivity of the AT813a assures useful output and an excellent match to most input sources. In some cases, however, an attenuator such as the Audio-Technica AT8202 may be required between the microphone and preamplifier to avoid overloading sensitive input stages.

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.

## AT813a SPECIFICATIONS†

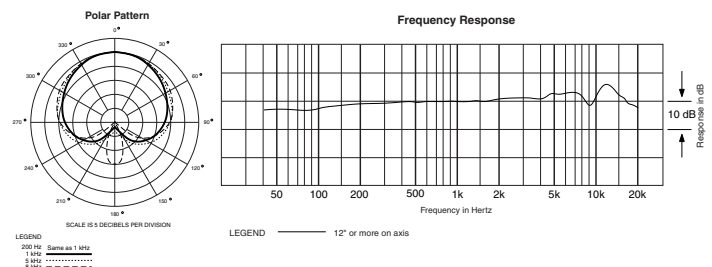
<b>ELEMENT</b>	Fixed-charge back plate permanently polarized condenser
<b>POLAR PATTERN</b>	Cardioid
<b>FREQUENCY RESPONSE</b>	30-20,000 Hz
<b>OPEN CIRCUIT SENSITIVITY</b> (Phantom / Battery)	-44 dB (6.3 mV) / -45 dB (5.6 mV) re 1V at 1 Pa*
<b>IMPEDANCE</b> (Phantom / Battery)	200 ohms / 270 ohms
<b>MAXIMUM INPUT SOUND LEVEL</b> (Phantom / Battery)	137 dB / 123 dB SPL, 1 kHz at 1% T.H.D.
<b>SIGNAL-TO-NOISE RATIO</b> †	70 dB, 1 kHz at 1 Pa*
<b>DYNAMIC RANGE</b> (typical) (Phantom / Battery)	113 dB / 99 dB, 1 kHz at Max SPL
<b>PHANTOM POWER REQUIREMENTS</b>	9-52V DC, 2 mA typical
<b>BATTERY TYPE</b>	1.5V AA/UM3
<b>BATTERY CURRENT / LIFE</b>	0.4 mA / 1200 hours typical
<b>WEIGHT</b> (less accessories)	7.1 oz (200 g)
<b>DIMENSIONS</b>	7.60" (193.0 mm) long, 1.98" (50.3 mm) maximum diameter
<b>OUTPUT CONNECTOR</b>	Integral 3-pin XLRM-type
<b>ACCESSORIES FURNISHED</b>	AT8405a stand clamp for 5/8"-27 threaded stands; battery; 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/cm<sup>2</sup> = 10 microbars = 94 dB SPL

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

Specifications are subject to change without notice.



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