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Series



**M179**  
Variable Pattern  
Externally Biased Condenser Microphone

User Manual / Specification Sheet



# M179

The CAD M179 combines a vintage capsule design with advanced electronics. The M179 features the dual pattern version of the original quietek e-300 capsule, an externally biased capsule with a gold sputtered 1.1" diaphragm.

Typical FET (field effect transistor) condenser microphones use discrete designs. This means they use individual transistors that must be carefully matched for proper characteristics. Even with careful matching, discrete designs are inherently nonlinear. M Series microphones use a different approach. We do not use any discrete FETs. Instead, we use advanced high speed OpAmps (Operational Amplifiers). These OpAmps are individually laser trimmed for optimum performance and have very high gain. This allows a large amount of negative feedback to be used to significantly reduce any non-linearity. We have also integrated a new discrete high efficiency power supply circuit allowing greater dynamic range and lower self noise.

The CAD M179 combines an advanced headamp design, with extremely efficient power circuitry, and a vintage capsule design, resulting in superior transient response, low distortion, low noise, and high output level. The bottom line is we believe you will find the M179 to have a remarkably open and clean sound that will enhance any project.

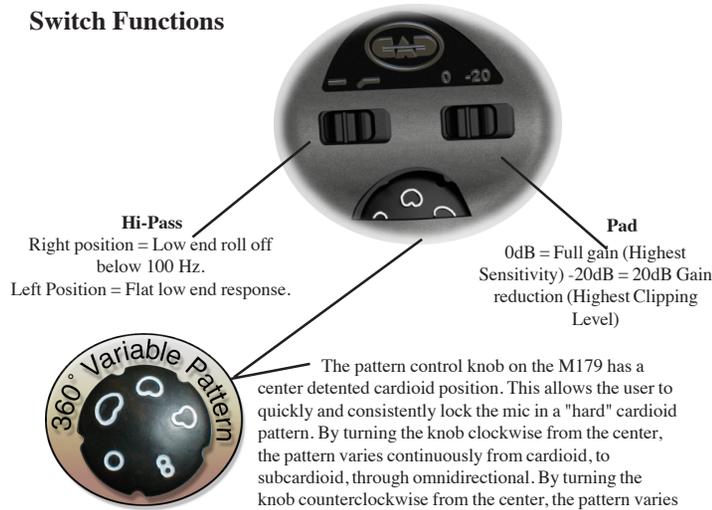
## Description

The CAD M179 is a variable-pattern side address microphone designed for professional recording and broadcast applications. The implementation of high speed, low noise, low distortion electronics makes the M179 the ideal candidate for the most critical applications.

The CAD M179 incorporates a number of unique features including:

- Continuously variable pattern with a "hard" cardioid center detent.
- Large 1.1" dual diaphragm external bias condenser capsule.
- Gold sputtered diaphragms.
- High SPL capability (143 dB SPL with pad)
- Transformerless balanced output circuits.
- 20 dB non-capacitive pad
- 6dB/Octave @ 100Hz high-pass filter
- Stainless steel internal pop/EMI filter.

## Switch Functions



## Getting Started

The high gain and wide bandwidth of the M179 microphone will easily overload the inputs of many professional mixing consoles if adequate precautions are not taken. This is especially true if the microphone is going to be used on percussion or amplified electronic instruments. If you have never used this microphone before, we strongly recommend that you initially reduce the system gain by doing one or more of the following:

- Enable the pad switch on the input of your mixing console.
- Start with the input trim control on your mixing console turned down to a low level.
- Enable the -20 dB pad switch on the M179 microphone.

The M179 requires a 24-52V phantom power supply, delivering at least 8mA for proper operation.

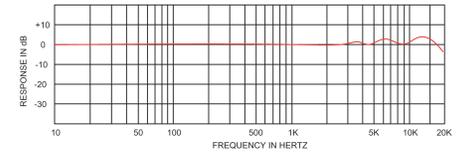
## User Techniques and Applications

The CAD M179 can be used in a broad number of applications, ranging from live reinforcement to the most critical studio situations. The M179 is ideal for vocals and voice overs, yet it also excels at some of the most demanding instrumental projects. The M179 is great for virtually all acoustic, wind, and amplified instruments. The M179 has been proven to be outstanding in all of these applications and more. Its uncolored sonic characteristics allow you to decide how an instrument or vocal will sound in the mix.

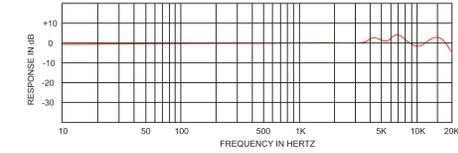
## Specifications\*

- Type:** Side address, external bias condenser
- Frequency Response:** 10-20 kHz
- Polar Pattern:** Variable
- Impedance:** 200 ohms
- Sensitivity:** -36 dBV (16mV) @ 1Pa
- Equivalent Noise Level:** 11 dB-A
- Maximum SPL:** 143 dB SPL (with pad)
- Total Harmonic Distortion:** Less than 0.15%
- Switches**  
High-pass filter, 20dB pad
- High-Pass Filter**  
100Hz, 6dB/octave
- Powering:**  
Minimum requirements are 24-52V phantom power capable of delivering at least 8 mA.
- Connector:**  
Three pin male XLR type.
- Finish:**  
Durable charcoal gray urethane. Satin nickle plated front & rear screen.
- Dimensions:**  
2.25" (57.2 mm) Dia., x 7.00" (177.8 mm) High
- Net Weight:**  
17.8 oz. (506 grams)
- Furnished Accessories:**  
MZM-5 elastic suspension shockmount
- Optional Accessories:**
- 40-350 ..... 50 ft. broadcast quality extension cable ..... terminated with professional 3 pin male/female connectors
  - 40-351 ..... 100 ft. broadcast quality extension cable
  - 40-352 ..... 25 ft. broadcast quality extension cable

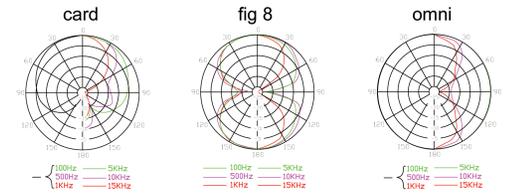
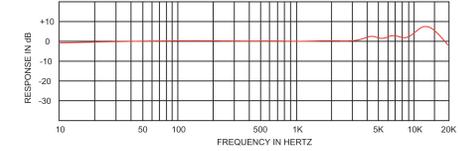
## Cardioid



## Figure 8



## Omni



## TWO-YEAR LIMITED WARRANTY

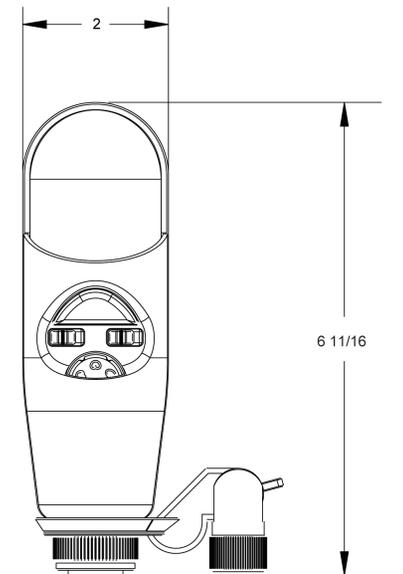
CAD Professional Microphones are warranted for two years to the original purchaser from the date of purchase by Omnitronics, LLC to be free from defects in material and workmanship. In event of such defect, product will be repaired or replaced at Omnitronics, LLC discretion with a new unit of equal or superior value. This will be at no charge if delivered pre-paid to Omnitronics, LLC, together with the proof of purchase and a Return Authorization Number. The unit will be returned promptly pre-paid. Warranty excludes exterior finish, appearance items, or malfunction due to abuse or operation under other than specified conditions. Consequential or incidental damages are excluded.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. Some states do not allow the exclusion or limitation of incidental or consequential damages or limitations on how long an implied warranty lasts, so the above exclusions and limitations may not apply to you.

Note: No other warranty, written or oral is authorized by Omnitronics, LLC.

## SHIPPING INSTRUCTIONS

Please call our customer service department at 440-593-1111 for a pre-approved return authorization number and carefully repack the unit and return it to: Omnitronics, LLC, 341 Harbor St., Conneaut, OH 44030. ALL RETURNS MUST HAVE A PRE-APPROVED RETURN AUTHORIZATION NUMBER OR IT WILL BE REFUSED. If outside the United states, contact your local dealer or distributor for warranty details.



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\* Due to our continuous efforts to improve our products and promote the development of standards, specifications are subject to change without notice.