

Specifications and User's Guide



M series



M179

Large Diaphragm Single
Pattern Condenser Microphone



M179 Condenser Microphone

The CAD M179 combines a vintage capsule design with advanced electronics. The M179 features the dual pattern version of the original Equitek 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.

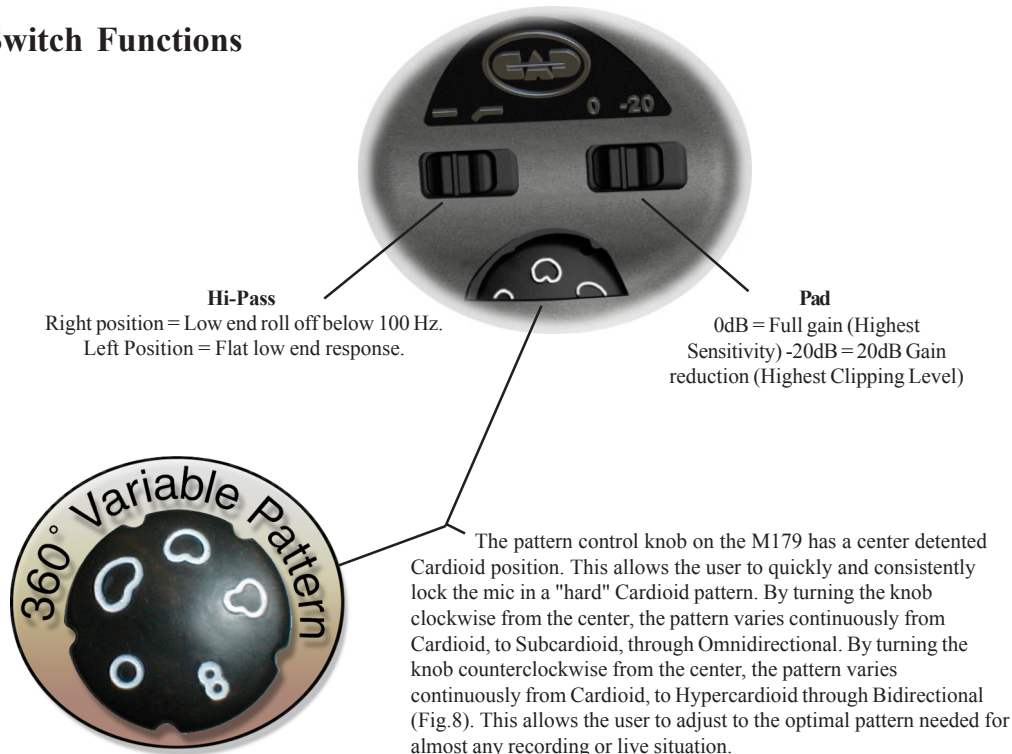
The CAD M179 combines an advanced headamp design, with extremely efficient power circuitry, and a vintage capsule design, resulting in superior transient response, low distortion, low noise, and high output level. The bottom line is we believe you will find the M179 to have a remarkably open and clean 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, or 48 Volt 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:** Low (200 ohms nominal).
- Output Level At 1 kHz.:**
Open Circuit Voltage: -56 dB (0 dB = 1 volt per microbar). 15.9 mV/Pascal.
- Dynamic Range:** 133 dB.
- Equivalent Noise Level:** 11 dB Equivalent SPL, A weighted
- Maximum SPL:** 143 dB SPL (With pad on)
- Total Harmonic Distortion:** Less than 0.15%
- Powering:** Minimum Requirements are 24, 48 Volt Phantom Power capable of delivering at least 8 mA.
- Connector:** Three pin male XLR type.
- Finish:** Durable charcoal gray urethane. Black urethane front & rear screen.
- Dimensions:** 2.25" (57.2 mm) Dia., x 7.00" (177.8 mm) High
- Net Weight:** 17.8 oz. (506 grams)

- 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

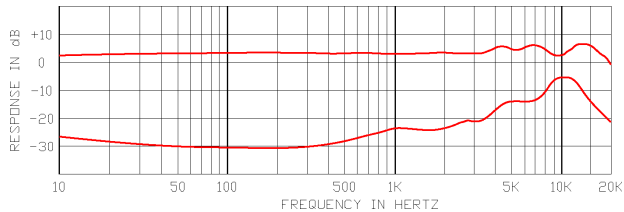
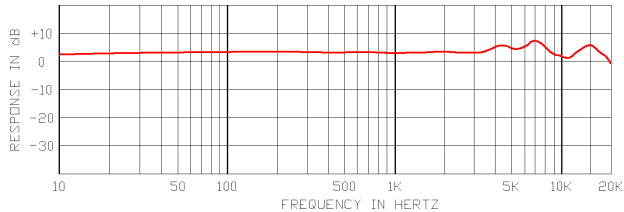
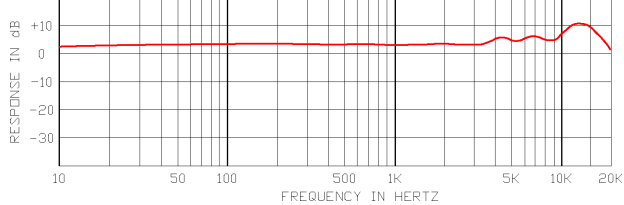


Figure 8

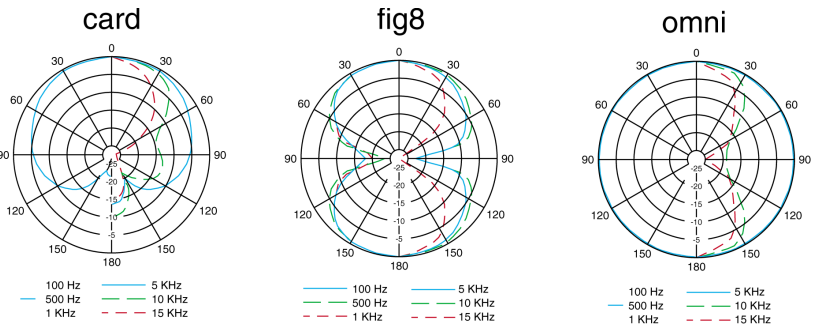
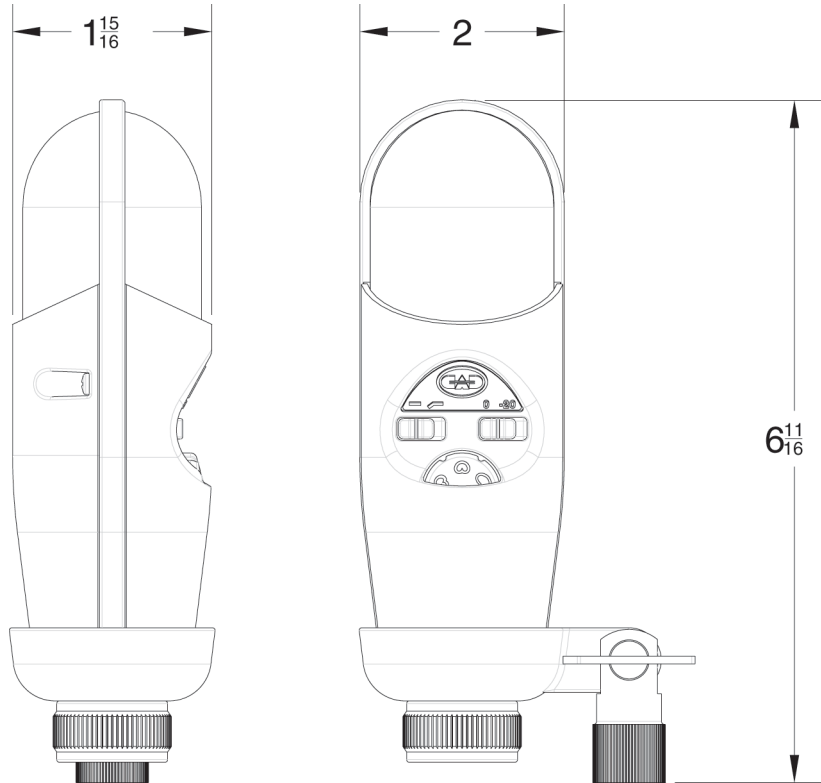


Omnidirectional



M179

Variable Pattern Condenser Microphone



TWO-YEAR LIMITED WARRANTY

CAD Audio hereby warrants that this product will be free of defects in material and workmanship for a period of two years from the date of purchase. In the unlikely event a defect occurs CAD will, at its option, either repair or replace with a new unit of equal or greater value. You should retain proof of purchase to validate the purchase date and return it with any warranty claim. Return warranty claims carefully packed, insured and prepaid to the Service Department at the address listed below.

This warranty excludes exterior finish or appearance, damage from abuse, misuse of the product, use contrary to CAD's instructions or unauthorized repair. All implied warranties or merchantability or fitness for a particular purpose are hereby disclaimed and CAD hereby disclaims liability for incidental, special or consequential damages resulting from the use or unavailability of this product.

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 CAD Audio

