Professional Microphones

M 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 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

Hi-Pass
Right position = Low end roll off below 100 Hz.
Left Position = Flat low end response.

Pad
0dB = Full gain (Highest Sensitivity) -20dB = 20dB Gain reduction (Highest Clipping Level)

The pattern control knob on the M179 has a center detented cardioid position. This allows the user to quickly and consistently lock the mic in a "hard" cardioid pattern. By turning the knob clockwise from the center, the pattern varies continuously from cardioid, to subcardioid, through omnidirectional. By turning the knob counterclockwise from the center, the pattern varies continuously from cardioid, to hypercardioid through bidirectional (Fig.8). This allows the user to adjust to the optimal pattern needed for almost any recording or live situation.

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.

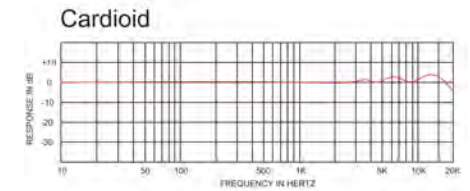
Finish:
Durable charcoal gray urethane. Satin nickle plated front & rear screen.

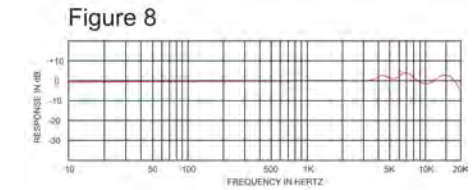
Dimensions:
2.25" (57.2 mm) Dia., x 7.00" (177.8 mm) High

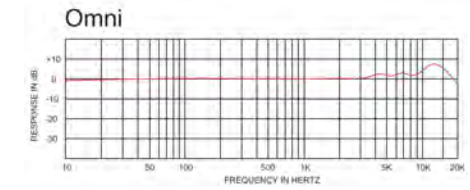
Net Weight:
17.8 oz. (506 grams)

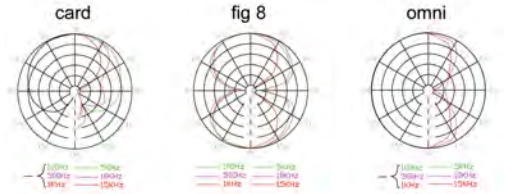
Furnished Accessories:
MZM-5 elastic suspension shockmount

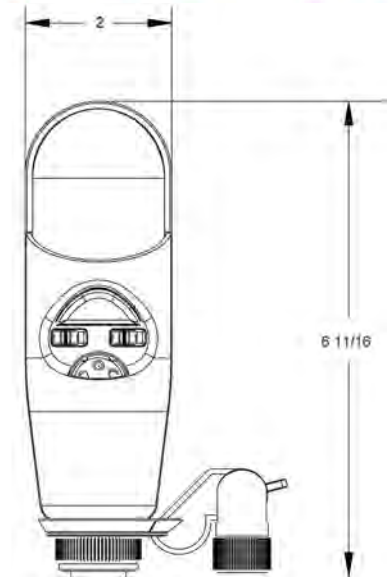
Optional Accessories:
40-350 ..... 50 ft. broadcast quality extension cable
..... terminated with professional 3 pin
..... male/female connectors
40-351 ..... 100 ft. broadcast quality extension cable
40-352 ..... 25 ft. broadcast quality extension cable











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