

Specifications
and User's Guide

CAD
professional microphones



M Series

M177

Large Diaphragm Single
Pattern Condenser Microphone



M177 Condenser Microphone

The CAD M177 combines a vintage capsule design with advanced electronics. The M177 features a single 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 M177 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 M177 to have a remarkably open and clean sound that will enhance any project.

Description

The CAD M177 is a single-pattern side address microphone designed for professional recording and broadcast applications. The implementation of high speed, low noise, low distortion electronics makes the M177 the ideal candidate for the most critical applications.

The CAD M177 incorporates a number of unique features including:

- Large 1.1" Single Diaphragm External Bias Condenser Capsule.
- Gold Sputtered Diaphragm.
- High SPL Capability (143 dB SPL with pad)
- Transformerless balanced output circuits.
- 20 dB non capacitive pad
- Stainless steel internal pop/EMI filter.

Switch Functions



Hi-Pass

Right position = Low end roll off below 80 Hz.
Left Position = Flat low end response.

Pad

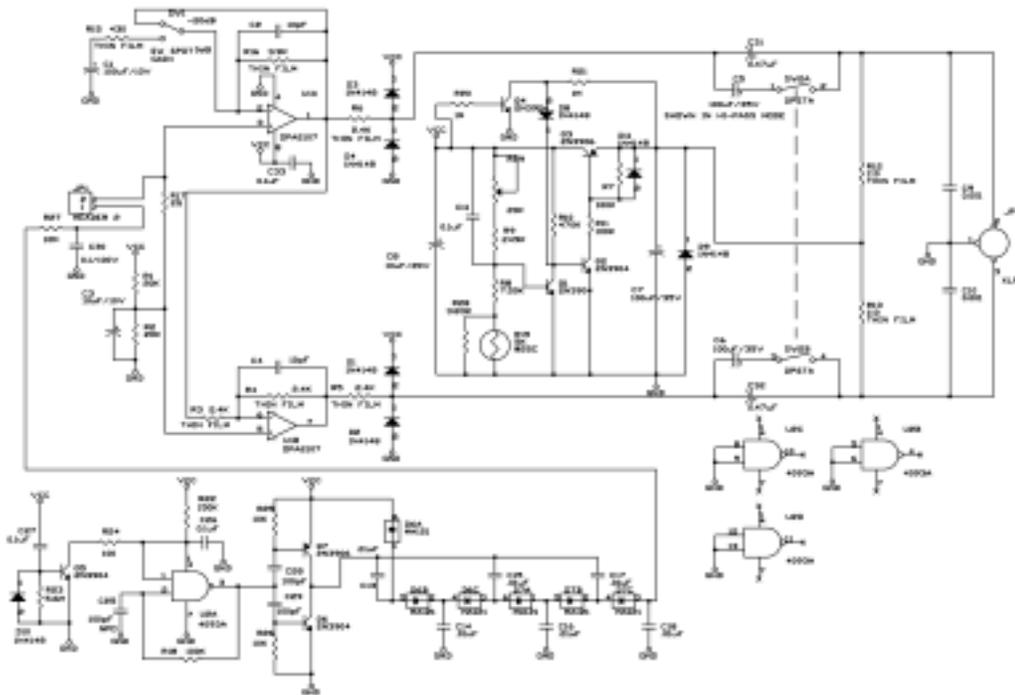
0dB = Full gain (Highest Sensitivity) -20dB = 20dB Gain reduction (Highest Clipping Level)

Getting Started

The high gain and wide bandwidth of the M177 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 M177 microphone.

The M177 requires a 24, 48, or 52 Volt Phantom power supply, delivering at least 8mA for proper operation.



User Techniques and Applications

The CAD M177 can be used in a broad number of applications, ranging from live reinforcement to the most critical studio situations. The M177 is ideal for vocals and voice overs, yet it also excels at some of the most demanding instrumental projects. The M177 is great for virtually all acoustic, wind, and amplified instruments. The M177 has been proven to be outstanding in all of these applications and more. Its uncolored sonic characteristics allow you to decide how a instrument or vocal will sound in the mix.

M177

Single Pattern Condenser Microphone

Specifications

Type:

Side Address, External bias condenser

Frequency Response:

10-20 kHz

Polar Pattern:

Cardioid

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:

10 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, 52Volts 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" (50.49mm) Dia., x 6 1/2" (164.62mm) High

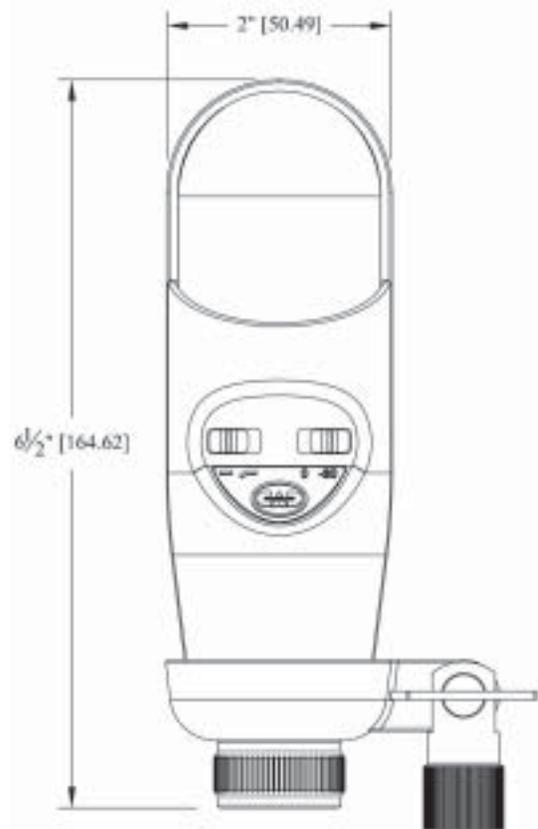
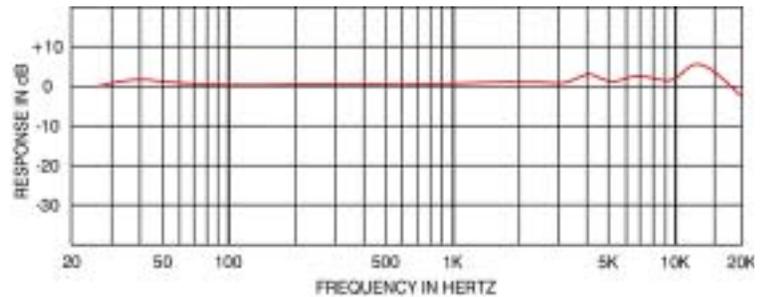
Net Weight:

15 oz. (425 grams)

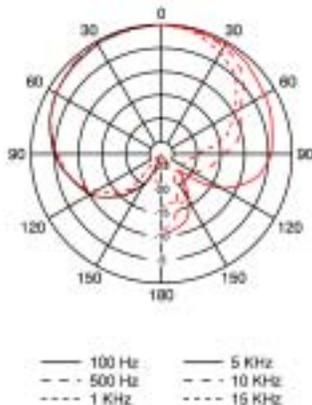
Optional Accessories:

- 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

Frequency Response



Polar Pattern



TWO-YEAR LIMITED WARRANTY

CTI Audio, Inc. ("CAD") 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.

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