

# MA-301fet Multi-pattern Solid State Condenser Microphone

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- Recording Tips
- FAQ's
- Warranty Registration
- Customer Service

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## INTRODUCTION

Congratulations on your purchase of a Mojave Audio MA-301fet Multi-pattern Vacuum Tube Condenser Microphone. Your MA-301fet was carefully designed and constructed using only the finest materials. The MA-301fet microphone is capable of delivering superb performance and, with minimal care, will do so for many years. Your MA-301fet was thoroughly tested and given a 24-hour factory burn in prior to shipment.

The MA-301fet utilizes a U.S. made, military-grade, low noise fet (field effect transistor) and a Jensen audio output transformer. By utilizing modern components, the microphone system emulates the performance of “classic” solid-state microphones without using esoteric, unreliable, or hard to find components.

The MA-301fet is guaranteed to perform as specified and is suitable for recording even the most demanding music, provided that the microphone is used sensibly.

For optimum performance from your microphone, please read this manual thoroughly and familiarize yourself with the proper use of the MA-301fet.

## UNPACKING AND INSPECTION

Carefully unpack your MA-301fet and verify that all of the accessories included with the microphone are accounted for. Do not discard any packing materials! If anything is missing or damaged, contact your dealer or Mojave Audio immediately.

Items included with the MA-301fet are:

1. MA-301fet microphone inside an aluminum style carrying case.
2. MA-301fet shock mount and European adapter (fitted to shock mount).
3. AC power cable for power supply - molded IEC business machine type with plug.
4. Rugged carrying case for all above items.

*Verify that the serial number of your MA-301fet matches correctly with the one on your receipt. The MA-#00 serial number can be found on the transformer cover inside the microphone housing. When corresponding with Mojave Audio about your microphone or when service is required, we will need to know the serial number, so keep it handy.*

## GENERAL INFORMATION

The MA-301fet is a multi-pattern solid-state microphone and requires 48volt phantom power for operation. The capsule is a 3-micron, dual membrane gold-sputtered type. The solid-state head-amplifier delivers wide bandwidth and low noise operation. The MA-301fet utilizes a fet (field effect transistor). A specially designed, high-quality Jensen audio output transformer delivers an isolated, truly balanced output signal, minimizing the possibility of unwanted noise entering the preamplifier. The MA-301fet includes a 15dB pad and a bass cut switch.

## SAFETY INSTRUCTIONS

### *WARNING!*

There are no user serviceable components inside the MA-301fet microphone. Always refer service to a qualified technician equipped to service this equipment. Never expose the MA-301fet microphone to water or any environment that may create an electrical hazard. In the event of a malfunction, disconnect the MA-301fet immediately and determine the nature of the malfunction before attempting to use it again.

To avoid tripping over the microphone cable, make certain that the cable is not in the way of foot traffic, or suspended in an unsafe manner. Make sure that the microphone stand is secure and not likely to fall.

If you have any questions or concerns about operation of your MA-301fet please contact the factory: [info@mojaveaudio.com](mailto:info@mojaveaudio.com)

## OPERATION

When plugging the microphone in, the three-pin XLR connectors between the microphone and the preamp should be inserted *gently* into their corresponding sockets. Rough handling, misaligned orientation, or trying to force the connections together too quickly could result in bent pins.

## CARE OF YOUR MICROPHONE

Your microphone is a delicate precision instrument and it should be treated as such. Here are some commonsense rules to keep your microphone healthy.

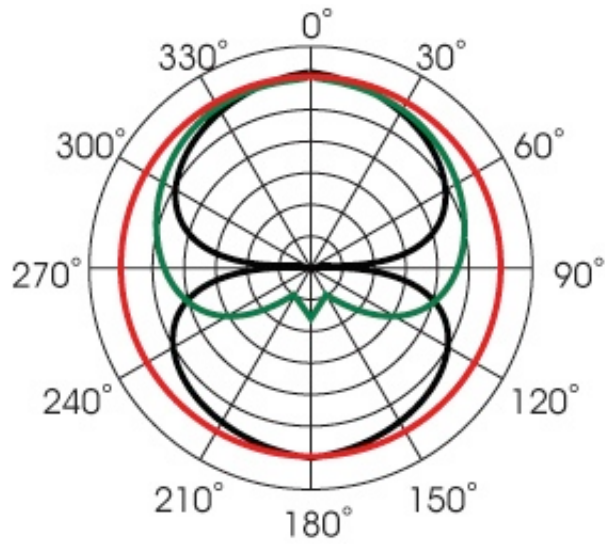
1. Be careful in your setup so that the microphone never falls to the floor. *Never* suspend the microphone by its cable, and be sure to position the cable so that it cannot be tripped over. Falls to the floor have been the ruin of many a microphone.
2. Keep the microphone in a safe place, such as its carrying case or a microphone locker, when not in use.
3. When plugging in the three-pin cable between the microphone and preamplifier, orient the plug correctly and plug the connectors in *gently*. Rough handling or hurry-up plug-ins can result in bent or broken pins.
4. Do not expose the microphone to dusty, smoky or humid environments.
5. Any repairs must be performed by a qualified technician. There are no user serviceable parts in the MA-301fet.
6. Use a soft, lint free cloth to remove fingerprints and other blemishes on the microphone body. Never use chemicals, solvents or detergents.

# TECHNICAL SPECIFICATIONS

<b>TRANSDUCER TYPE:</b>	Externally polarized, pressure gradient capacitor, dual membrane
<b>DIAPHRAGM:</b>	1-inch diameter, gold sputtered
<b>DIAPHRAGM THICKNESS:</b>	3-micron
<b>POLAR PATTERN:</b>	Switchable between omnidirectional, cardioid and figure-eight
<b>FREQUENCY RESPONSE:</b>	20 Hz-20kHz, + 3dB at 'Flat' setting. Bass cut switch provides 6dB per octave attenuation below 100Hz in 'cut' position
<b>SENSITIVITY:</b>	-40.5 dB re. 1V/pa
<b>MAXIMUM SPL:</b>	120 dB, 135dB with pad on
<b>DISTORTION:</b>	<1% @120dB SPL, <3% @ 134dB SPL with pad off < 1%@134dB SPL, <3% @ 148dB SPL with pad on
<b>SELF NOISE:</b>	14dB nominal, not to exceed 16dB (A weighted)
<b>IMPEDANCE:</b>	550 ohms, transformer balanced
<b>DIMENSIONS AND WEIGHT:</b>	Carrying case with microphone, shockmount 10" x 9" x 4.5", 4 lbs. lbs. Microphone: 7 5/8 X 2" (194mm x 51mm) 1 lb. (0.45Kg)
<b>SHIPPING WEIGHT:</b>	6 lbs.
<b>POWER REQUIREMENTS:</b>	48v Phantom Power

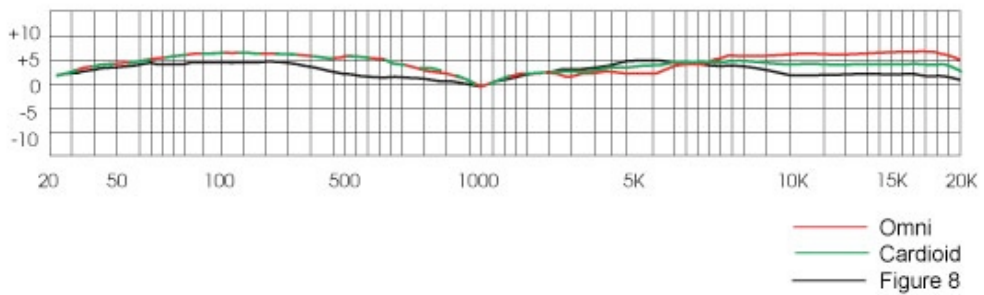
# POLAR RESPONSE

Type: Multi-pattern



# FREQUENCY RESPONSE

20Hz – 20kHz,  $\pm 3$ dB



## POLAR PATTERN SELECTOR



The three position polar pattern selector is a three-way switch found on the front side of the microphone. The selector allows the user to choose omnidirectional, cardioid or figure eight patterns.

**Omnidirectional:** Left position. An omnidirectional polar pattern covers all directions and picks up all sound in a 360 degree radius. Useful for natural, ambient sound.

**Cardioid:** Middle position. Cardioid microphones pick up sound within 120 degrees of the direction they are facing. Useful for capturing one sound with a minimum of ambiance.

**Figure Eight:** Right position. Figure of Eight (bi-directional) microphones pick up sound from the front and rear while rejecting sound from the sides.

## BASS CUT SWITCH

The bass cut switch, also known as a hi-pass filter, provides a 6dB per octave attenuation below 100Hz when engaged. This is very useful in removing unwanted low frequency information such as rumble or bass build-up due to proximity effect. Experienced engineers know that it is a good practice to filter out low frequencies when it does not affect the audible sound. A good example of this would be recording vocals. Most singers do not have much information below 100Hz, so engaging a filter will help maintain the integrity of the signal.



## 15dB PAD

The 15dB reduces the signal before the head amplifier in the microphone. This is very useful for recording high SPL signals. If you are experiencing distortion, engaging the pad will likely be the solution.

Also, if you have the gain on your mic preamp all the way down and the signal is still overdriving your signal path, engaging the pad would be indicated.

# WARRANTY

Please visit [mojaveaudio.com](http://mojaveaudio.com) to register your microphone and for the latest updates and technical information.

Your Mojave Audio product is warranted to the original owner for a period of two years. Mojave Audio guarantees this product to be free from electrical and mechanical defects and will repair or replace defective components, or replace the microphone at Mojave Audio's option. Should service be required for your Mojave Audio product, please contact the manufacturer. Excellent service will also be provided for products beyond the warranty period at a modest cost for parts and labor.

MODEL NUMBER MA-301fet

SERIAL NUMBER \_\_\_\_\_

DATE OF PURCHASE \_\_\_\_\_

PURCHASED FROM \_\_\_\_\_