

## Mojave Audio

### MA-101fet condenser microphone

Here's a relatively new, pencil-style, solid-state condenser microphone with interchangeable cardioid and omnidirectional capsules from the folks at Mojave. Notably, the electronics were designed by David Royer and are the exact same as the guts in the Mojave MA-201fet (*Tape Op* #70). This means you get a lot of mic for not a lot of money — big fat Jensen transformer, super-low noise floor, and what Mojave refers to as a “military-grade” FET. (“Drop and give me twenty, electrons!”)

I really like these tough little mics. Mojave sent us a matched pair, and my first application for them was as an X/Y stereo setup capturing the room for a live recording at The Make Out Room in San Francisco. For this live session, I used a Metric Halo Mobile I/O 2882+DSP as the mic preamp and front end for a Logic 9.1 (*Tape Op* #74) project clocked at 88.2 kHz. The cardioid capsules were used, and my setup was quick and dirty. Now, I have never been super-stoked on my MIO's preamps; I know that many users rave about them, but I often find them just a little bit bland. (As a side note, I do look forward to getting my 2882 scaled up with the 2d card upgrade and have heard that this dramatically changes the preamp options via new DSP.) However, I was quite pleased with the stereo capture using the Mojaves. It was full and clear with no transient distortion and definitely gave the session an almost binaural, “right there in the room” quality. The low end was represented nicely as well, which for me is always a challenge with location recording. All in all, the stereo room track was a huge success for this particular live recording and was featured heavily in the resultant mix.

Having checked location recording off my list, I was excited to get the mics back into my studio to employ them in some sexy, high-SPL drum tracking. How'd it go?

Let me just say that the MA-101fet rules on snare.

Oh, and on toms.

And kick. And overheads. And, um, guitar amps. And acoustic instruments. On effing CONGA!

Let's rein this in a bit, though. One of my favorite gear combos was recording snare top and bottom with the pads engaged, using a Vintech 473 (*Tape Op* #77) as mic preamp (no EQ, polarity reversed on the bottom source) — clear, energetic, and “airy” snare with excellent transient response and good isolation due to the tight polar pattern of the cardioid capsule. Note that to engage the -15 dB pad, which is a dipswitch mounted on the circuit board (to keep costs down and maintain reliability), you need to unscrew the mic housing — which can really put a damper on a session. But the mic does have pretty guts, and fortunately, the MA-101fet already has huge headroom (rated at 125 dB max SPL with pad off, 140 dB pad on), so it's not often that the pad is even needed. Not a deal breaker in my opinion, but something to plan for when tracking extra loud sources.

Holy crap, what a flexible high-grade mic! It's like Ducati had hand-built the SM57, or something. What I mean to say is, I've never really found a pencil mic that so quickly became my go-to mic for such a diverse range of sound sources. It's the kind of mic you want three of. About the only thing I didn't record with it was my Stylophone, and I'm pretty sure that would've sounded great too.

(\$595 MSRP; [www.mojaveaudio.com](http://www.mojaveaudio.com))

—Dana Gumbiner, [www.stationtostationrecording.com](http://www.stationtostationrecording.com)

## Grace Design

### m103 channel strip

The new m103 is anchored by the m101's (*Tape Op* #68) transformerless preamp design, which offers an honest and transparent, yet deep character — with loads of headroom and 75 dB of gain. I will describe it as clear and elegant, which is a great place to start the recording chain. Features include a stepped gain control, a DI jack on the faceplate, phantom power, a 75 Hz high-pass filter, and ribbon mode. When ribbon mode is engaged, the input impedance increases (to better match ribbon mics) and phantom power is “locked out.” If you're a fan of ribbon mics, this feature is indispensable — and also sounds great with dynamic mics too.

In my studio, the m101 is always my first choice to capture the natural voice of the sound source, whether it's acoustic guitar, vocals, strings, flutes, horns, instrument DIs, or percussion. After extended use, I found the m103's preamp performance to match that of the m101's in both form and function. I really love the Grace preamp on stringed instruments — especially acoustic guitar. I can always trust the Grace to capture both the detailed timbre of the strings and the dynamic voicing of the picking position (*i.e.*, when the hand moves closer or further from the guitar's bridge).

Grace's ethos of “keeping it pristine” continues with the m103's three-band EQ section, choosing accuracy above color. Both the high and low bands operate in peak or shelving mode, while only the mid band is fully parametric. Boosting and cutting with the m103 in peak mode is not obviously apparent. However, after repeated use, I found that the subtle, understated character of the EQ enables my tracks to blossom in a really natural way; in other words, I'm barely noticing +3 dB of 12 kHz, but I'm definitely *feeling* it. Also, because I'm not using the EQ as a crutch, I think that the m103 is enabling me to make better decisions *before* I hit the record button.

In shelving mode, the m103 reveals its hi-fi character. Highs grow livelier while the lows remain defined, and generally, the “mood” of the source is accentuated tastefully, without being overdramatic. When using a high shelf on snare drum, the old batter head pushed through the mix a little without sounding “filtery”. On kick drum, the low shelf moved the source towards a “pillowy” sound, without it becoming murky.

Not surprisingly, the character of the m103's optical compressor is also very natural; even at its highest ratio of 12:1 with faster attacks, I never felt the Grace was overly aggressive sounding or distorting. From light vocal leveling to heavier settings on acoustic guitar and bass DI, the Grace performed its job humbly.

As with many channel strips, versatility plays a big role with the m103. After the preamp, the EQ and compressor sections can be enabled/disabled or reordered (*i.e.*, EQ before or after compression) via relay switches on the faceplate. The rear panel allows for several output configurations including balanced XLR and unbalanced 1/4” jacks for the preamp section; an XLR and a TRS channel output jack; an unbalanced channel output jack; and a dual-purpose TRS jack for sidechain compression or linking with another m103 for stereo compression. There's also an XLR line-input jack to the EQ/compressor section. When recording electric bass, I like to track both a DI signal and a mic'd cabinet, so the unbalanced 1/4” out worked perfectly in tandem with a bass amp. As a DI with both rock and jazz-style electric basses, the m103 was stunning, lively, punchy, and deep. (If I didn't know better, I might suspect that Michael Grace initially designed this box as his own personal bass preamp!) Using the same configuration with an acoustic/electric guitar also sounded great, so don't be surprised if you see m103s popping up in live instrument racks.

The m103's metering is compact, yet well laid-out and easy to read. Chrome rotary controls and switches are solid and tight; throughout use, I never accidentally nudged a control. The m103's faceplate is anodized black with etched, white labeling.

Though I can't say that transparency, accuracy, and clarity are shortcomings, the m103's lack of color is something to consider when investing in a channel strip. You won't hear the grainy character of a typical integrated-circuit design. Don't expect any gadgets or harmonic trickery employed to fake a “fuzzy” tube sound. The EQ section isn't going to move a poorly placed mic. Instead of searching for that ever elusive box that's going to magically make your shitty mics sound like rainbows, consider investing in an m103, which will afford you the ability to capture the true color of the source and the dynamic detail of the performance. (\$1575 street; [www.gracedesign.com](http://www.gracedesign.com)) —SM

## Josephson Engineering

### C715 condenser mic

My recording studio in San Francisco, Tiny Telephone, sees a tremendous amount of foot traffic from freelance engineers, and plenty of records are tracked under intense time constraints and budgetary stress; most records are completed in under two weeks. The wear and tear can be brutal on old and fragile mics. In ten years, we went through extensive (and pricey) repairs on two Neumann U 67s, an SM 2, and an M 49. I started looking for new and reliable high-quality condenser mics I could provide for clients that stood up to the giants of the past. The demoing process was depressing. With modern large-diaphragm mics, the anxiety of influence is visible everywhere; we are drowning in recreations and restatements. It is perpetually 1951. I started longing for a bolt out of the blue. Enter Josephson's C700A (*Tape Op* #62). This pressure plus pressure-gradient microphone, with its consumer-unfriendly dual outputs (one for each capsule), radical flexibility, and completely original future-now look, is as blue as they get. I bought it immediately. The C700A is so relentlessly hi-fi, I've never had an engineer complain about it (and that says everything). Within a year, I owned nine Josephson microphones.

Okay, so on to the C715. The first thing you notice is a grille made of a hard, open-cell, metal-alloy foam that looks a bit like anodized loofah. This unique grille design was first introduced on the C720 (*Tape Op* #71). It negates the requirement for a supporting basket structure and greatly reduces internal reflections and acoustic resonances, thereby allowing for more accurate reproduction. Josephson is a supremely ambitious group of people, completely rethinking basic microphone design. That's the kind of spirit I love and believe in.

The capsule was based on the old Sony C37 capsule and was designed, in part, to provide an alternative to bright and strident modern LDCs. The top end is gentle, with a slight bump in the midrange making for a more “forward” sounding microphone. But the top is certainly there, and the C715 takes additive EQ very well, especially in the upper reaches of a GML 8200 or Millennia NSEQ. The mic has a burly SPL limit of 136 dB at 1 kHz. Damn, that's useful. We had great luck recording trumpet, trombone, and bass clarinets, as well as using them as close drum overheads. But the mic also performed wonderfully on vocals (male and female) and cello. (Is there anything more revealing of a mic's limitations than a good string player?) Moreover, the C715's pickup-pattern control sweeps continuously between cardioid and omni, allowing the engineer to dial up ever-useful sub-cardioid patterns.

From the insanely underpriced C42 to their stellar omni C617, the mics from this reliable and likeable company are easy to obsess about. If there's a more underrated gear manufacturer out there, please email me, and I'll buy everything they make too. (\$3795 street; [www.josephson.com](http://www.josephson.com))

—John Vanderslice, [www.tinytelephone.com](http://www.tinytelephone.com)