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JLM Audio

Dual 99v500 Mic Pre and FC500 FET Compressor

Back when I reviewed the Eisen DIY 500 mic pre kit, I bragged about the beefy monsters we brewed. But shortly after publication, the manufacturer discontinued the kits, leaving some readers without a way to obtain similar preamps. To be fair, the input transformer and op amp were the same JLM components found in the Dual 99v500 pre and our DIY kit did not have as many features as the JLM, so get ready for good news.

External controls on the Dual 99v500 pre (hereafter "Dual") include, line in, pad, input and output gain, polarity reverse, high-pass filter, and phantom power. But a nifty plus is a variable impedance control. Internally, the Dual uses two JLM discrete 99v op amps. According to manufacturer, this double-team provides 75dB of gain, but our tests found that to be conservative. This preamp is definitely in the 'more gain' club!

In just about any use, the Dual provides that thick "Neve on steroids" sound I described in the Eisen review. When combined with the variable impedance control, we were able to test it on a wider range of microphones than normal. First up, a Shure 315 ribbon mic recording a shaker. Keeping the impedance at the center point works for most mics, but for ribbons, going more towards 1,000 ohms will open up the top while retaining the mids and lows ribbons are known for. However, on shaker, the Shure was fine at about 300 to 500. Actually, it was about 10 PM on the dial. I don't know what the exact value would be. It's often hard to tell specifically where you are. But let me put gripe in context. First, I'm used to mastering-gear, which is often precision-stepped. Second, I'm used to 19-inch rack gear, as opposed to the compact real estate of a 500 series unit. It's like moving from Montana to Tokyo. I digress. Just remember clock settings and you'll be fine.

On bass drum, the Dual is all oomph. Using a Shure Beta 52 was almost too much low end. Moving the mic further into the shell and altering the impedance gave more attack. It led me to the hypothesis that you might not need a big locker of kick drum mics if you own a Dual. For example, we stock Audix, AKG, Shure, and Electro Voice dynamics for kick drum duties (the fact that several engineers here are drummers who can't agree on a mic has nothing to do with it). I find that each brand voices bass drums differently, and combined with shell material, depth, and player, you never know which you'll use on a session. But with the Dual, I was able to alter the Shure Beta 52 to sound more like the other brands and vice versa.

Just when you think you pigeon hole a unit, something destroys the stereotype. All of this praise on low end prompted me to try it on a voice over session. After all, many people want that deejay sound. For a male narrator using an RE-20, the Dual had less clarity and definition when compared straightforward preamps such as the Seventh Circle Audio T-15 or the PreSonus MP20 (c.f. the PreSonus Eureka for the same pre). And the difference was obvious. No love there. Not to rule out vocals entirely, we paired the Dual with a Sennheiser MD-421 for a male country artist. We really liked the initial feel but to even out the performance we decided to run into the FC500 FET Compressor and holy cow! With a medium attack and slow release and a 3:1 ratio, the vocal was like butter on a steak. Wow. Despite trying to beat the recording with a large diaphragm condenser and any other pre in house, we ended up using that scratch track for the final. It was so perfect for that application.

I spent most of the mic trials with dynamic mics for a few reasons. First, many of us have them. Second, I wanted to see how the impedance loading changed the response. Third, when we tried the Dual on acoustic guitar we found it was similar sounding to the Purple Biz in dual transformer mode, which is a good thing in my opinion, but not different enough for me to pull the Purples from their duties. And finally, we got distracted by the FC500 FET Compressor.

JLM says that the FC500 is their "ground up redesign of the 1176LN." That makes it easy to ignore anything else and start comparing it to our UA black face. However, that could be a mistake. In addition to having a side chain high pass filter (which is amazingly useful this type hard-knee compressor), the FC500 can provide 45db of gain, making it a "free" mic preamp for dynamic mics. Visually, the coolest feature is the large porthole VU meter. When the FC500 is enabled a blue LED provides back light for the meter. A set of 8 of these in a rack would be cool as can be.

Once vocal tests were done, I used the FC500 as a snare mic preamp. It was so nice to have the HPF tell the compressor to ignore the kick drum bleed! And for a heavy-handed 2/4 back beat, it was easy to dial in some serious THWACK! In my experiences, I was able to get drum and vocal compression sounds in seconds with the FC500, but other things proved to be more hit and miss. On electric rhythm guitar, I found that the unit added a thickness that I wasn't looking for or that I often had the threshold set too high to trigger the compression. But on a wood block (we have a drawer filled with toys called the "bill payer." If you own a studio, you need one. You never know which doo-dad a band will decide is "suddenly essential" to a track. It also gives me a lot battle testers for gear reviews) the FC500 turned a music class percussion piece into Thor's hammer hitting an oak tree. There is also a stereo linking feature, but since we had one unit, we didn't have the opportunity to try it out in a buss situation. I could see this being good for thickening up stereo synths in a mix or a crush compressor for room mics, but that's all conjecture.

Ultimately, we kept using the FC500 in conjunction with the Dual, and I found the pair to be a simply wonderful front-end. The combination of the impedance variability and that old chestnut of moving the microphone never left me missing an EQ. And as far as tracking with compression, well, that's how I grew up. Commit now, and finish the recording later. But that's a rant for another day.

It was really hard to pack up the review units. The preamp is so flexible and gives such controlled girth to so many sounds, and paired with the FC500 FET compressor they make one hell of a vocal chain. If you own an API 500 Series compatible lunchbox and are looking for mic pres, JLM has just made your decision making tougher. Hmm. I said the review units were packed. I didn't say I dropped them off at the shipper!

Dual99v500 \$995 (USD, direct)

FC500 FET \$995 (USD, direct)

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