JLM AUDIO FC500

Another new compressor from JLM Audio has hit the street. This time it's an 'Enhanced FET Compressor' in the 500 series module format.

Text: Greg Walker

▶ Joe Malone is a familiar name to regular AT readers and his Brisbane-based JLM Audio is very well regarded both here and overseas. Being an early convert to the now snowballing API 500-series module renaissance, Joe has been ideally positioned to watch this market re-develop and spot where new designs might fit into the rapid growth cycle.

Having already used the impressive JLM TG500 mic preamp a few times it was with some curiosity that I opened up an API-badged box only to find a hearty JLM lunchbox tucked away inside. Featured amongst an impressive collection of other 500-series JLM modules was a pair of Joe's new FC500 FET compressors.

CHICKENHEADS ANYONE?

Like the other 500-series JLM modules on offer, the FC500 is a stylish rack unit module featuring a chunky black faceplate, bulletproof toggle switches and dials, and a larger 'featured' chickenhead knob for input level adjustment. A funky semi-circular white backlit VU meter takes pride of place in the upper half of the module and the general vibe is of a serious piece of kit that's built to last.

Looking inside the unit the crowd pleaser is definitely the oversized custom output transformer. Below this a JLM 99V Opamp sits snugly amongst a busy yet tidy layout and the build quality is uniformly robust. Joe Malone describes the FC500 as a 'reworking' of the UREI 1176LN compressor and many of the control functions are reminiscent of that famous design. Overall level and threshold settings are achieved through the adjustment of the variable input and output controls, while the bypass toggle switch up top allows for the easy A/B-ing of compressed and uncompressed signals. This switch has a third setting whereby the unit can be linked to another FC500 for stereo work.

Switching the compressor on activates a bright blue LED at the top of the unit as well as a lamp on the VU meter, leaving you in no doubt about your current status. Speaking of meters, a neighbouring toggle switch lets you choose between gain reduction level, +10dB and 0dB VU output metering options – always handy on any compressor. Attack and release controls are situated at the bottom of the unit and these utilise the smaller variable (and beakless) pots. The FET circuit in the

FC500 is a *very* fast one, making it suitable for a wide variety of compression effects including extremely sensitive and speedy attack settings. This strength can also be its weakness in the wrong hands.

ENHANCING A CLASSIC

Although it's 'reminiscent' of the classic UREI compressor of yore, in fact the FC500 departs quite significantly from the famous Bill Putnam design in several respects. Firstly, the compression ratio is continuously variable from 3:1 to 20:1 whereas the 1176 provides stepped control via buttons that begin at a ratio of 4:1. Mechanically speaking, you won't find an equivalent for the 'all buttons in' setting either, but be assured, when you crank the input gain full throttle and the ratio to 20:1 you can still give your signal a fair old shellacking in the time-honoured fashion, and depending on how the unit's other controls are setup, this ratio can in practice be more like 40:1. The other important innovation in Joe's design is the internal side-chain high-pass filter, which allows you to effectively remove the bottom-end from the compressor's control signal anywhere below 10 – 200Hz. This is a great addition to the circuit that allows you to either avoid blatant pumping on bass-heavy material, 'tune' the sidechain for maximum musicality, or even relatively *increase* the dynamics of the bottom-end. Needless to say this feature is *not* about making the audible signal at the output 'thin' sounding; it only removes bass frequencies from the sidechain signal that feeds the compression circuit. These last two controls make the FC500 a more versatile compressor and greatly increase the unit's tweakability.

Finally, a small output control that sits above and to the right of the VU meter allows you to balance the signal before it leaves the lunchbox. After using the unit for a while my main gripe became the size of this dial, as you need to accurately set this level to properly A/B your compressed/uncompressed sounds. Like a lot of modern 500-series modules, the FC500 controls are a little crowded and there's a certain finickiness when accessing all the

smaller controls, but I guess that's kind of the point – if you take your lunchbox to a location recording session and leave your cumbersome 2RU devices behind, a little delicate finger work is a small price to pay.

One last feature that may surprise many, but which is also common to the original 1176, is the capacity of the FC500 to act as a 'medium level' mic preamp. If you have mics that don't need phantom power or indeed mics with their own dedicated source of phantom, you can get 45dB of gain out of the FC500 without needing a dedicated mic pre – nifty indeed when you're running low on preamps in a session!

OUT OF THE BOX

Now that we've got the ergonomics and other paperwork out of the way, let's look at what the compressor is best at shall we? For starters there's no doubt this is a great sounding compressor. The FC500 shares something of the euphonics of its cousins in the JLM range: it's fast and vibey and does that little something to the sound that you can't quite put your finger on. Perhaps a little coloration and harmonic enhancement, perhaps a little resetting of the soundstage so that things feel like they sit together more comfortably. It's the hallmark of great gear and the FC500 has definitely got it without being overly coloured for meat and potatoes work.

The FC500 may share some aspects of the 1176 design, but it's certainly no clone and definitely has its own sound. It's great on bass guitar and really shines on percussive tracks where it reveals rich detail and balanced tone, even at more aggressive settings. Having said all that, I'd also have to add that the FC500 is not the easiest compressor in the world to use. It took me quite a while to find the sweet spot on some vocals and other instruments where I needed subtle control. As opposed to a Summit or a dbx, say, where there's generally a certain level of confidence and predictability about the majority of the settings, the JLM demands a much more precise approach. The meter has an alarming tendency to flip right out to 20dB of gain reduction, even at low compression ratios on some material, so you really have to use your ears to hear what's going on and really work on your attack and release settings to get them settled. [Apparently this problem has been rectified since we received the modules for review. According to Joe Malone, a mod to the circuit has damped the VU's response, reducing the 'flip-outs', and making it behave more like the meter in an 1176 – Ed.] On the flipside there's danger too at extreme settings. Heavy transients can slip through and create alarming pinging sounds and even cut off the signal altogether for a few milliseconds if you get the setup all wrong. This is, however, fairly easy to solve through the judicious use of the I/O levels, HPF and ratio settings, but nevertheless this tendency may freak some users out at first.

Using the two FC500s in 'link' mode I was able to get some pretty bombastic stereo drum bus action going on at high settings – a little less distorted than an 1176 maybe, but still very aggressive. They also retained that certain euphonic sheen and evenness of tone that gives this unit its mojo. On program material the FC500 did a beautiful job of smoothing things out without leaving telltale artefacts and again it added its own subtle tonal signature, which I really enjoyed. On vocals the FC500 seemed to add a smidge of low-end warmth to the signal while otherwise being pretty transparent.

PASS THE FILTER

I found the compressor pretty sensitive to bass frequencies in general and this was where the HPF really came into its own. A world of options comes into play here depending on where you set your filter, ratio and I/O levels, and the variations within

> **When you crank the input gain full throttle and the ratio to 20:1 you can still give your signal a fair old shellacking in the time-honoured fashion…**

these four controls kept me busy for a good half an hour on one particular drum bus setup. I did try out the FC500 briefly as a mic pre and it did a very creditable job on strummed acoustic guitar through a condenser with its own power source. On snare through an SM57 it had just enough juice to do the job and again sounded more than adequate in this role. I love this trick and reckon it's a real bonus having a multitasking compressor like this in the rack.

While I was testing the FC500 I couldn't resist patching in its neighbouring module, the PEQ500 passive EQ, and I had a blast running the EQ into the compressor on various sources. The standout was a King Curly track I'd been asked to mix where the main vocal had previously been heavily compressed and EQ'd in ProTools to create a thin midrange effect which was a little harsh. I undid all the digital effects and set about creating something similar with analogue gear instead.

I EQ'd the vocal with a very heavy (yet passive) 1.5kHz boost and some bass roll-off and then hit the compressor hard with pretty fast attack and release times. I had to work at it to get the compressor to catch the transients without sucking all the life out of them but after some patient twiddling I found what I was looking for… replete with strange sucking and breathing noises between words that were accentuated by the FC500. As luck would have it, this perfectly suited the song's lyric about a lonely bong-pulling misanthrope. In the end I achieved a really dramatic vocal sound that, remarkably, still had some hint of warmth and softness in it despite the extreme treatments. The sound started to bleed and break-up beautifully at the edges and generally did all the pleasant 'analogue' things that we bang on about all the time in AT. It was a million miles away from the harsh nasal sound of the digital treatments and added a theatrical edge to the song that worked a treat.

TWEAKER'S DELIGHT

Although I've had a pair of the JLM FC500s on my desk for almost a month now I feel like I'm still learning more about this quirky FET compressor's strengths and weaknesses. A one-trick pony this compressor certainly is not, but conversely, it's not a compressor you can just patch in, set and forget either. It's a bit like a racehorse; it performs beautifully if you know how to ride it, but it's somewhat sensitive and can misbehave in unexpected ways if you're not careful with the reins.

For myself I found it easier to work with in a mixing rather than tracking scenario where there's more time to explore the possibilities on offer. Like a lot of gear with the capacity for more subtle control, there's a fair learning curve to get through and I wouldn't recommend the FC500 for the home recordist's first foray into outboard compression. However, for the more seasoned tweaker, this is a quality module with a lot going for it in both single track and bussing applications. You get a functional mic pre thrown in and, most importantly, it sounds very good indeed. ∎