JLM AUDIO MAC RACK

Made in Australia – by *you* if you'd prefer – this opto compressor is as brilliant sounding as it is simple to use.

Text: Andy Stewart

NEED TO KNOW

Price
$1195
Fully built and tested: $2195

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Pros
Easy to use.
Sounds big and fat, never thin or edgy.
Bucketloads of headroom.
Great looks.
Quality components.
Full email and phone support during the 'construction period' for anyone buying a kit.

Cons
No instructions with the do-it-yourself kit – only via download.

Summary
If you can build the Mac yourself it's a total bargain. If you do, I'm sure there would also be the added satisfaction of knowing that one of your best compressors was also hand-made in Australia – by you! Great sound, forgiving controls and classy looks. Full marks.

It's taken ages for me to review this fabulous new Mac compressor by JLM Audio. Joe Malone, Australian audio circuit designer extraordinaire and owner of the company, initially sent the compressor down to me in kit form – it's a compressor you make up yourself you see – and for months the unit sat optimistically on my workbench waiting for me to find spare time to construct it. It seemed appropriate, I thought, that if I was going to review it, I should be the one building it.

But that day never came. I went close on one occasion, but on that ill-fated day I quickly discovered there were no instructions – *crazy* – you have to download these from the JLM website, which I wasn't in a position to do. Damn!

The box was opened on the workbench, and there the components lay in neat plastic-wrapped piles for some months. Later still it became an unwrapped shemozzle of resistors, capacitors, opto cells, VU meters, transformers, switches and screws… which were somewhat disturbingly starting to merge with all the other VU meters, transformers, switches and screws already on the workbench. Eventually I had to admit that, for as long as I was the one constructing it, this thing was never going to come together. Sheepishly, after some months, I rang Joe, asked if I could send it back and get him to build it for me, which he most graciously agreed to do. Only then did I find out you can buy them already made-up! "Now you tell me!"

MAKE-UP GAIN

The Mac is a single-rack unit dual-mono/stereo compressor based around an opto cell, which delivers the gain reduction to the circuit. The Mac shares this design component with some very famous analogue compressors of yore, the LA-2a and LA-3 by Universal Audio being the most notable among them. But that's basically where the similarities end. The Mac is a solid-state design of arresting simplicity, but which also offers plenty of controls on the front panel for manipulating the audio signal – quite *unlike* an LA-2A. Look inside the unit and its mostly made up of wide-open space. Joe's approach to the design of the Mac was to essentially, "keep the circuit well out of the way of the audio signal," by which he obviously meant, maintain the audio integrity of the signal by building an elegant and simple circuit featuring low-distortion components, high-voltage rails and plenty of headroom (+28dBm). In this regard he seems to have succeeded brilliantly.

Like all kit-form compressors I suspect the most critical aspect of reviewing the Mac for others is to describe in some detail how it sounds, given that the compressor is not something you can test by walking into a shop and trying out yourself. For my part I've never bought a kit-form compressor for this very reason, no matter how much hype surrounded it, mainly because there's essentially no way to decide whether it sounds sublime or crap until after you've paid for it and spent ages building it – assuming you even can.

TO THE SOUND THEN…

If you're contemplating building a JLM Mac compressor yourself, take it from me: the sound of the device is quite simply fantastic. I have a stack of compressors in my rack these days but none sound like this one. The simplest way to describe the Mac is that it makes things sound bigger and fatter the harder you hit them. Whether the signal you feed into it is an out-of-control, overly dynamic pair of raw drum overheads, or a nearly finished stereo mix, the Mac has an uncanny ability to place a resistive, near transparent elastic film across it that sonically presses back against the signal in a most luxurious, forgiving and almost tape-like manner. Things get appreciably bigger sounding, less edgy, brittle and sharp, and all in a beautifully attractive way.

The Mac is brilliant at taking edges off harsh guitars, spiky cymbals and sibilant singers. It makes overly dynamic mixes come together with class, almost like a half-inch Studer tape machine – creating a big, round bottom-end with attenuated tops. The harder you compress a signal – and believe me you can give this thing a damn good pasting – the bigger, fatter, flatter and mellower the signal gets. Eventually of course the thing starts to pump and sound pretty squashed and dull, but even strapped across a mix bus I regularly found there was a window open to me of around 15dB, depending

on what I wanted to achieve. There are very few stereo compressors I know of that can provide this many options when called up for mix bus duty. Indeed, some barely provide one, and many of the more famous among them can get pretty jumpy at gain reduction levels barely above 4 or 5dB. With the Mac you can tickle the signal for ultra-transparent compression, give it a moderate amount of control for a slightly fatter, more curvaceous tone, or perform a half nelson on it and wrestle it to the mat. The best thing about all these options is that every one them sounds sonically valid, you just have to choose which one you prefer. I think that's the main thing I've drawn from my experiments with this compressor; that no matter how ludicrous the compression you apply seems, the signal still holds together in a way that's musically worthy of consideration.

CONTROL OPTIONS

The other great thing about the Mac is that it's fantastically simple to use. Moreover, you'd be hard pressed to cause a train wreck with it unless you wind the controls way out of whack. Like on an LA-2A, two of the Mac's central controls – repeated on the left and right sides of the stereo unit – are 'Gain Reduction' and 'Output'. The more you turn Gain Reduction clockwise the more action you draw from the compression circuit. It's worth noting here also that although there's a 'Link' switch for stereo operation, all these controls remain active, and it's better to manually adjust setting for left and right first before you flick the link switch in – easy enough to do.

Between the fancy round VU meter and gain reduction knob (on both sides of the unit) there's a vertical trio of three-position switches. The uppermost of these provides ratio control of 3:1, 5:1 and 10:1. Below this is a 'VU/GR' switch that controls the VU metering of either the overall output of the unit, or the gain reduction value of the compressor. The middle position of this switch bypasses the compression altogether and simultaneously turns the meters off. This is an unusual feature of the Mac that I initially found slightly odd, but quickly grew to like. Having all activity on the meters cease when the compressor is in bypass is a perfectly lateral and logical way to show – even from metres away – that the unit is merely passing signal.

The bottom switch provides high-pass filter control over the sidechain input to the compressor, to help it avoid undue pumping when it comes up against bass-heavy transients like monster kicks and the like. Remember, these aren't filters you hear in the same way as an EQ on a desk, they only affect what goes to the compressor side-chain *inside* the unit. The overall output doesn't get thinner sounding. The three positions offered here are: 'Flat', '100Hz' and '200Hz', the two roll-off crossover points kicking in gentle 6dB per-octave filters. Funnily enough I virtually never used these filters during my time with the unit, even when logic suggested maybe I should. Switching them in certainly makes a difference but any pumping the compressor does generate I actually seem to prefer. Each time – sooner or later – I've eventually disengaged the roll-offs, even when using it as a mix bus compressor. They're handy to have onboard though…

BIG MAC

The sound, look and feel of this compressor is very impressive – frankly, I'm hooked on it. I'm surprised the Mac is as versatile as it is, that it looks as good as it does in the rack (with its fancy pearlescent white VUs and green and red link and power LEDs) and that it sounds so much like tape compression on some signals. (If you're thinking of buying a tape machine, perhaps just consider this instead). What's more, it's nice to have something this good made in Australia – by *you* no less, if that's your preference. It's a shame I didn't get to experience making the review unit myself, but it's nice to know that JLM can make them for you if, like me, you're a bit 'time poor' or incompetent on a soldering iron. The Mac is a worthy analogue opto compressor for your rack, even if you think you've already got everything analogue compression has to offer. ■