

Jonathan Wilson (Dawes, Roy Harper, Roger Waters) On Making Magic In The Studio

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VOL. THIRTY-TWO
NUMBER TWO
NOVEMBER 2018
USA \$5.99
CANADA \$5.99

LaChapell Audio

500CS and 500DT

Flexible convenience and great new tones from these new 500 Series modules

REVIEWS BY PAUL VNUK JR.

LaChapell Audio primarily makes boutique-level tube-based mic and instrument preamps. We got reacquainted with the firm back in our March 2018 issue, when we looked at the updated 583s MKII 500 Series tube preamp and the 500TDI, a 500 Series true tube direct box.

LaChapell also made the move into the solid-state realm a few years back with the 503 EQ, and this trend continues with two new 500 Series products. The 500CS is a solid-state channel strip, and the 500DT is a dual-topology mic and instrument preamp with the ability to blend between tube and solid-state stages.

At \$499.99 each, these are LaChapell's most affordable models to date. Both units break with the company's longstanding brick-red color scheme in exchange for basic black, but they retain the same knobs, switches, pots, and overall "brick-house" build found in the rest of the LaChapell line.

The 500CS on paper

The 500CS is a full channel strip, complete with preamp, EQ, and compressor. While essentially a single channel/mono device, it does take up two slots in your 500 Series enclosure. That said, it has dual pin/card outs, so it can be used as two separate devices: a preamp on one side and a standalone EQ/compressor on the other. Note that when the unit runs as a full

channel strip you'll use the left input, but the processed output will be present on both the left and right outs.

The preamp is straightforward, featuring a large stepped input pot with a total gain range of 60 dB. It has switches for phantom power and polarity, as well as a miniature old-school VU meter that can be switched between input, output, or gain reduction. The mic pre side also offers the option of direct instrument recording via a self-switching 1/4" TS connector.

The equalizer is a 3-band unit based on the 503 EQ. Its three fixed-Q bands are: Low (30–400 Hz), Mid (325–5000 Hz), and High (2.5–20 kHz). Each band is fully variable and offers ± 12 dB boost/cut. The EQ section also includes switchable low- and highpass filters with a 6 dB cut at 7 kHz and 142 Hz respectively. The EQ and filters can be bypassed and/or used independently of one another.

The compressor is a minimal, 3-knob VCA design, with a fully-variable ratio of 1:1 to ∞ :1, a fully variable threshold, and a makeup gain control that adds an additional +20 dB of gain to the box. Its attack and release are fixed, but can be altered between fast (3 ms attack/13 ms release) or slow (5 ms attack/65 ms release) with a set of rear-located DIP switches. Other DIP switches control hard or soft knee and master/slave linking of two units.

The 500CS in use

The preamp is super-clean, uncolored, and neutral. I would put the 500CS in the "modern recording console" camp, rather than being a clinical "straight wire with gain" type of preamp.

Thanks to its 60 dB of clean gain, it has zero issues handling any mic you throw at it, from vintage condensers to low-output passive ribbons and dynamic mics. As a reference, it is clean and powerful enough for spoken-word work with the notoriously quiet Shure SM7B. In this instance, the noise floor only starts to become noticeable at 55 and 60 dB settings—and the operative word is "noticeable", not "problematic". Likewise, the instrument input is a very capable workhorse, working well on bass with plenty of headroom.

The EQ and the compressor are best described as broad-throat/big-picture sections. The EQ is better suited to gentle shaping, sweetening, and tonal alteration than surgical or band-precise work. The filters on the unit are well chosen; highpass takes care of boom and mud, while the low pass takes a touch of crispiness off



LaChapell Audio 500CS and 500DT

the top. They are both gentle in nature and never make the source sound thin, dull, or pillowy.

Like most vintage units, on the CS500's compressor you push sound in, set your ratio, clamp down with the threshold, and then compensate with the makeup gain—easy peasy. Having said that, it's very nice to have the choices of speed and knee, although I do wish there was some way that said controls could have been shoehorned onto the front panel, even if still in DIP switch form. I left them set up on a pre-determined session-by-session basis.

On vocals, both when tracking and later in the mix, the compressor offers smooth, solid control, and at 2:1 to 3:1 ratios it never sounds overcompressed and lets the voice retain a natural sound and feel. The EQ is also nicely suited for carving out a great vocal tone quickly; just 1–2 dB of boost and/or cut adds just the right top end openness, mid control, and low full resonance.

In a similar fashion, the 500CS is great on acoustic guitars with the compressor at a 2:1 ratio, about 3 dB of compression for control, and gentle EQ shaping. On just these first two sources alone, I can't recommend the 500CS enough as a fantastic front end for the acoustic guitar-based singer/songwriter.

It is also no slouch on electric guitars and bass, and will offer a great sonic capture of most any source without prejudice. About the only place where I did not find much use for the 500CS compressor section was on drums like snare, kick, or room mic. It did work as a gentle drum bus compressor (on a mono bus as I only had one), but this unit will probably not satisfy your squashed/extreme crunchy drum sound needs.

As a mixdown device, LaChapell did a great job with the 500CS' split channel architecture. I had just as much fun using it on mixing as I did tracking; it really shines in how quick and easy it is to dial in a sound.

The 500DT

The 500DT (for Dual Topology) is both a solid-state and tube-based microphone and instrument preamp housed in a single 500 Series slot, a full-featured pre with phantom power, polarity flip, and 20 dB pad. It features a classic dual input-output design with a stepped input. It offers up to 67 dB of clean gain, but with an adjustable ± 10 dB output control as well.

The most important variable control on the unit dials seamlessly between the tube stage or the solid state op amp path. Sonically I

hear little if any difference between the solid state side of the 500DT and the 500CS. Again, you will have zero issues with most any microphone from condenser to dynamic to passive ribbon, and you can get even more gain if need be, thanks to the extra output level. Note that this will make the unit's and the microphone's self-noise more apparent; I recommend setting levels with the large stepped gain and adjusting modestly with the additional output control only as needed. Also note that there will be a popping thump as you step through gain levels—that's because of the complex circuitry needed to make sure that the tube and solid-state circuits change gain accurately in tandem.

The tube stage of the 500DT is based on the company's 250V Truetube technology, which we first encountered in our March reviews of the 583s MKII and the 500DI. This technology supplies the unit with proper power needed to take advantage of the 12AX7 tube stage, which is generally clean and opulent rather than vintage-thick. Thanks to the pad switch, it offers tons of clean tube headroom.

Moving from op amp to tube adds a gentle fullness to the tone and softens the sonic edges just a tad. The tube side does have a slightly higher noise floor, but again, nothing that's noticeable unless your source is super-quiet.

LaChapell did a nice job of maintaining a coherent sonic tone between the two, so it still sounds like the same preamp regardless of which topology is being used. That said, the tube does add a nice saturation that the op amp side lacks.

Note that you can push the saturation in the tube side into a nice overdriven console sound, simply by pushing the input harder and attenuating the output. Note that this saturation is slow and has a long throw and range before you hit flat-out overdrive. On the solid state side, it takes even more level and effort to saturate/drive your signal. Where the tube drive is musical and smooth, the op amp side can get pretty nasty... and sometimes nasty is good!

With the 500DT, you get a preamp that offers a great classic clean console sound on one side and a nice hi-fi dusty tube tone on the other. Better still, you can dial anywhere in between the two to suit your source and your song.

These modules bring the LaChapell sound to a new price but provide beautiful sound and cool features as well. What a treat! 🎵



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