API 529 Stereo Compressor

The famed 2500 stereo bus compressor meets the 500

REVIEW BY PAUL VNUK JR.

The American firm API is one of the longest-standing manufacturers of analog recording consoles, dating back to the 1960s. Thanks to its modular console designs, API also gave birth to the wildly popular 500 Series of modules, rack enclosures, and the portable lunchbox®.

API also makes standard 19" rackmount outboard processors. One of the most respected of these is the 2500 Stereo Compressor. Introduced in 2000, this VCA compressor can be found on the master bus in mixing studios, as well as in the racks of many mastering houses and live sound rigs.

Curiously, it took until the 2018 Winter NAMM show for API to introduce a 500 Series stereo compressor that takes many of its features from the 2500. The 529 Stereo Compressor, while not API's first 500 Series compressor, is its first stereo 500 Series device and its first two-slot module. The 529 is not a 1:1 copy of the 2500, but they are similar enough that API President Larry Droppa has been known to jokingly call the 529 a "baby 2500."

Two channels, one control set

Like the 2500, the 529 is designed as a stereo bus device, with only a single set of controls controlling both channels simultaneously. You can use it as a pair of mono compressors if you wish, as long as both channels are content with being compressed with the same settings.

This highlights the major difference between the 2500 and the 529. The 529 lacks the 2500's Variable Link control, which releases the linking of the left and right threshold and gives more flexibility when it's used as two mono channels. This makes the 529 a tad more stereo-only and bus-focused than its sibling. If you wish to use it as a mono box, I suggest you use one channel alone.

There are five continuously variable detented pots for Gain, Threshold, Attack, Ratio, and Release. Note that the controls on the 2500 are stepped pots, along with an added variable release knob. There are also six backlit square pushbuttons for: Metering, Manual/Auto makeup gain, Compressor Type, Knee, THRUST®, and Out (bypass). While many of the above controls are typical to most compressors, a few will merit explanation.

With no room for the dual traditional analog VU meters of the 2500, the 529 has a switchable 10-segment stereo LED meter for input or output. A second 10-segment meter row shows gain reduction. An additional single red LED by the Threshold control also flickers as the Threshold is hit, even before visible gain reduction kicks in. Not to get ahead of myself, but this Threshold LED has a nice feathery hair trigger that makes it easy to set the unit for gentle bus glue without getting heavyhanded too quickly.

Feed me

Inside, the 529 is built around API's well-known 2520 and 2510 discrete op amps and features a transformer output stage. The 529 uses a Voltage Controlled Amplifier (VCA) for gain reduction. As with the 2500, this VCA circuit can be switched to the more common Old Feedback design, which is slow and squishy, but can also be set to New or Feedforward mode which is super fast, ultra grabby, and more noticeably in your face.

For makeup gain, the 529 gives you a whopping +24 dB. There is also an Auto mode; while an Auto setting might make you think that the unit self-adjusts its gain to your needs, here it effectively takes the makeup gain out of the circuit and lets the output level be controlled by the compressor's threshold and ratio. If you want the signal louder here, you feed more signal into the unit and make up your gain in your mix. Threshold, in addition to being affected by the Ratio setting, is also affected by the choice of Knee—soft, medium, or hard.

One of the 2500's most classic features is its 3-stage Thrust filter first found on the old Paragon live mixing desks from ATI, of which API is part of the same universe. This is included in full on the 529 as well. Thrust is essentially a sidechain filter, but back when Thrust was introduced, a compressor's sidechain was nearly always a send/return that fed an external EQ. While sidechains are almost ubiquitous in modern compressors with preset or variable settings, Thrust is still a different animal.

Normal is the flat (or off) setting. Medium is a highpass-style filter that allows frequencies of 200 Hz down to 20 Hz in a linear slope to pass through the unit unaffected. It simultaneously adds more compression to the signal with a linear EQ boost of 3 kHz and up. In Loud Thrust mode, the process uses a sort of "tilt" EQ, with signals from around 1.5 kHz and below being highpassed and signals above 1.5 kHz being pushed into the threshold. This leaves the low end full and big, while adding extra clamp and control to the upper midrange

and especially the highs. This yields a unique forward and punchy sound with rounded highs, making the whole sonic range more even overall.

In use

In my studio tests, based on the 529's design, I used it exclusively on stereo sources and bus work. From adding heavy Thrust on the way in while tracking an analog drum machine, adding medium Thrust and heavy feedforward parallel compression on a drum bus in my DAW, or just tickling the threshold on the master bus—with little visible gain reduction, no Thrust, soft knee, slow attack, and fast release timed to the feel of the song—the 529 is quite the compact little champ.

Despite its stereo-bus-focused paradigm, it's incredibly versatile. About the only feature I would love to see on the unit is a parallel mix control, so one could do parallel compression in the unit rather than through routing.

I also took the unit to Justin Perkins' Mystery Room mastering studio for some side-by-side comparisons with his API 2500. There were some slight sonic openness/width differences between the two, the 2500 being a touch wider, cleaner, and more transparent. This was even more apparent with the 2500's Link engaged and dialed in. However, you could easily tell both units exhibited the same compression feel and the classic API sound.

Wrap up

When you consider that the 2500 is around $3130 street, compared to the $2085 price of the 529, these slight differences are in no way a dealbreaker. If you've already bought into the 500 Series world, it's a bargain and a half!

While the 2500 still has the edge for mastering use, sonically and functionally the 529 is a smart choice for stereo bus duties of all kinds in a tracking/mixing environment. I predict that the API 529 will be a classic revered bus compressor in its own right in decades to come. ⌒
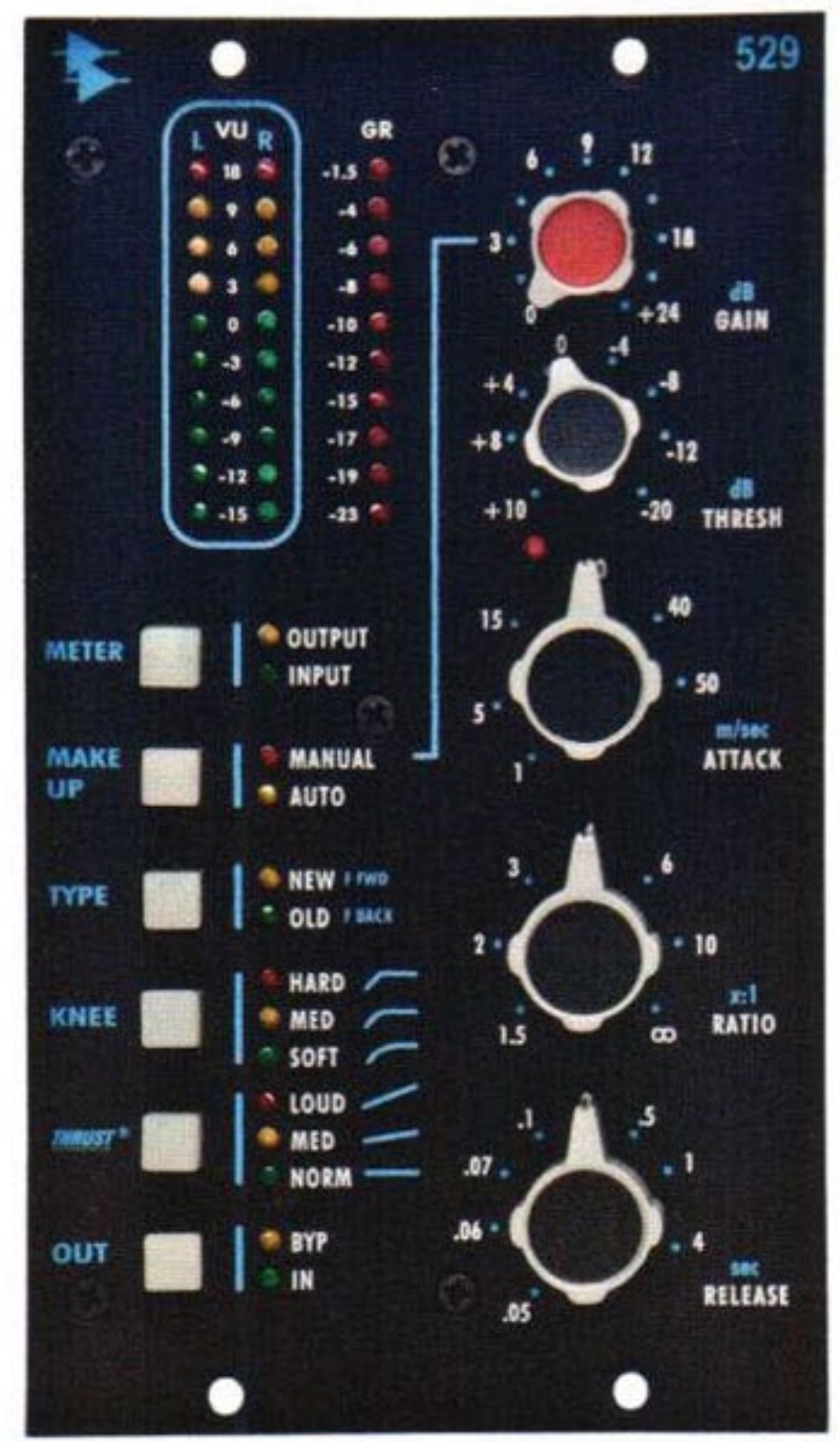
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