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## API THE CHANNEL STRIP

500 Series Pre, EQ, Compressor in a Rack



There has been an incredible surge producing 500 Series devices during the past few years. Recognizing this, API has released The Channel Strip (TCS), which combines three of API's 500 Series processors in a rackmount package with a dedicated power supply, API 325 line amplifier and comprehensive I/O. The front panel mirrors its default signal flow. From left to right, there's a 512C microphone preamp, 527 compressor, 550A EQ and 325 output. Anyone familiar with these units has a jump on learning TCS, but there are differences. The 512C's input meter is in the output section and may be switched to show signal level post-preamp or post-master output. Individual bypass is provided for the compressor and EQ sections, and the compressor may be switched pre- or post-EQ. The compressor lacks the dedicated output gain control of the modular 527, instead employing auto-gain-makeup. The line output stage includes a master mute switch (very handy), the aforementioned meter switch, a large rotary fader and an insert switch. All switches are backlit, making them very easy to read.

The insert switch hints at TCS' routing capabilities, which become clear with a look at the 11 rear panel I/O jacks, including an XLR mic input, TRS line input and XLR "channel out." Additional (balanced) TRS jacks are for preamp out, first effect I/O, second effect I/O, compressor sidechain and link, and insert return. (Editor's note: The reason that API labels these jacks "first effect" and "second effect" is because the position of EQ and compressor in the signal path may be swapped via the front panel switch. The default is that the EQ uses the first effect jacks and the compressor uses the second effect jacks. When the compressor is switched post-EQ, the compressor uses the second effect jacks and the EQ uses the first effect jacks.) These jacks enable simultaneous use of the mic pre, compressor and equalizer as discrete devices. Because all outputs are half-normaled to the subsequent stages, you can tap and split the output at any point in the path

without disturbing signal flow to the next stage. The insert return jack facilitates incorporating an external device into the channel by patching "second effect out" to the external device and output of the external device to insert return. This path is inactive until the front panel Insert button is engaged. Initially, I thought this was overkill: TCS provides everything you might possibly need, so why insert another effect? Nevertheless, I inserted a channel of my URE1 1178 for a lead vocal and the sonic result was pretty sexy.

I used TCS on a multitude of sources with excellent results. The 512C and 550A equalizer modules sound fabulous. The 512C pre-amp is clean (until you decide to push it), had enough gain for my RCA 44BX and Shure 330 ribbon mics and—though I wouldn't call it transparent—allows mic character to come through. Recording an acoustic guitar with a Neumann KM84 was perfection; the sound was balanced across the instrument's frequency range, detailed and present yet smooth, with a controlled low end. Substituting a Cascade Fathead II ribbon mic for the KM84 produced a classic euphoric guitar sound: warm and full with a mellow top end.

Combined with a Sennheiser MD421 on rack tom, TCS captured plenty of tone from the shell and a nice attack. The meter switching came in handy for driving the input into distortion, adding a bit of edge to the tom. After setting input gain, I switched the meter back to output to check the level being fed to my DAW and adjusted the output fader accordingly. Used with a Soundelux U195 as a mono overhead/room mic on a drum kit for an alt-rock track, TCS killed it. Setting the 527 to a fast attack, medium release and 3:1 ratio caused the kick and snare to pop, and the hi-hat to pump in a musical manner.

The Old and New compression settings use feed-back and feed-forward gain reduction, respectively. The New setting produces less color in the lower-mids and a slightly less-aggressive low end. At higher compression ratios, any lost high end can be restored

### PRODUCT SUMMARY

**COMPANY:** Automated Processes Inc.  
**PRODUCT:** The Channel Strip  
**WEBSITE:** [apiaudio.com](http://apiaudio.com)  
**PRICE:** \$2,995

**PROS:** Great sound, modules patch access to individual modules.

**CONS:** Not output gain control on the 527 compressor.

### TRY THIS

The Channel Strip (TCS) and Neumann KM84 make a great team for recording acoustic guitar. Place the KM84 (or other small-diaphragm condenser mic) approximately 12 inches from the 12th fret, angled roughly 15 degrees toward the sound hole.

Set TCS' HF EQ to Peak mode and add a 2dB boost at 12.5 kHz.

The mid- and LF EQ controls can remain flat. Dial in the ratio at 2.5:1, the attack and release to 12 o'clock and engage the Knee switch. Set the preamp gain so that when the meter is set to VU Pre, the guitar level peaks between -3 and -1. Decrease the threshold control until you see 1.5 to 4 dB of gain reduction and enjoy a beautiful guitar sound.

with a mild HF boost (2 to 4 dB) on the 550A. My one gripe is in regard to the 527's substitution of auto-gain make-up for the output level control present in the 500 Series module. The auto-gain can add too much make-up gain. For example, with all buttons out, raising the ratio resulted in excessive gain make-up, but when the knee was set to Hard, this was less exaggerated. Engaging Type, Knee and Thrust; cranking the threshold down; the ratio up; and setting attack and release to their fastest, the auto-gain is way too high. The master output fader comes in handy to tame the output level, but I'd have preferred manual control for output level of the compressor. (I do have another minor gripe: Under certain lighting conditions, the blue markings are impossible to read.) At low ratio and high threshold settings, compression can be very subtle, but at lower thresholds and higher ratios, the 527 easily accomplishes aggressive compression (and pumping if you so desire).

The 550A equalizer may be my favorite EQ of all time. It always sounds musical, and even with a large boost or cut doesn't exhibit the weird phase shift characteristic of lesser EQs. Adding 2 dB at 600 Hz and 2 dB at 10 kHz on a male vocal in a pop/rock track created just the right finish, enabling it to cut through the mix without raising the fader. A few dB of high end accentuates the smack of a kick drum without making it stick out of the mix. The high-frequency EQ points (20, 16 and 12.5 kHz) are wonderful for adding shimmer to acoustic guitar. Add a few dB of 16 kHz on a snare drum, and you can practically taste the coating on the head.

On bass, the TCS DI delivered a tight, solid bottom and a subtly more-aggressive tone than a standard DI. Adding a boost at 100 Hz and a few dB of compression produced a great rock bass sound. The combination of 550 and 527 on synth bass is ridiculous (good), producing bottom that can shake the rafters with a nasty upper-mid growl from the EQ.

API has another hit on its hands with The Channel Strip. Its extensive routing capabilities allow simultaneous use of the mic pre for recording while the 527 and 550A process separate signals. This works flawlessly and adds a lot of versatility to the unit. The sound and circuitry is tried and true, the format is convenient without giving up any of the strengths of individual modules, and it's a no-brainer for anyone looking for a money channel. If you're familiar with the component processors, you will not be disappointed.

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