



VIEW

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API The Channel Strip

A flexible bundle of classic console sounds for your rack



For close to five decades, Automated Processes Incorporated has been creating professional studio gear. In fact API is one of the few companies left that still build large-format consoles.

Early on, the company adopted a modular approach to its desks that has served it well over the years, allowing consoles to be easily configured and customized to a studio's needs. Over time these console modules gave birth to two product lines: the venerable 200 Series and the insanely-popular 500 Series. In these two formats, modules like mic preamps, compressors, EQ and more, could be purchased individually and placed in portable and rackmount enclosures.

We looked at API's latest 8-slot lunchbox® enclosure in December 2014, and in our February 2015 issue we looked at a pair of the company's latest 500 Series

The entire unit features all-discrete electronics. Unlike many all-in-one channel strips that share op amps and transformers, each module here retains all of its individual and original circuitry and components, most notably API's 2510 and 2520 op amps. As we saw in my review of API's The Box mixer back in September 2014, it's this routing of op amps into op amps and so forth that is an integral component of the "API sound" when multiple modules are combined.

Additionally TCS also includes a fourth output stage module, full-featured metering, and extensive patching and routing capabilities. Each module is internally fed into the next, but also retains individual rear-mounted ins and outs as well. That's a feature I love to find on all-in-one channel strips, as it lets me turn them into individual effects with ease, when needed.

that selects between the three input sources, changing color to indicate which source is selected: off for line-level, blue for mic, yellow for instrument (and red for input clipping at +27 dB). There is also a frontpanel $1/8$ " instrument input; I will mention now that this is one killer bass DI! On the back, this section has an XLR mic input, a $1/4$ " TRS line in, and a $1/4$ " TRS line out.

Second base: the 527

Next up: the 527 VCA-style compressor, a newer API creation which we last looked at during The Box review. It also uses 2510 and 2520 op amps, and despite its simple three-knob appearance it's a full-featured compressor and then some. It has a continuously variable [detented] Threshold with a range of +10 to -20 dBu. Attack and Release are controlled by a stacked/dual concentric pot that is also



offerings, the 565 Filter Bank and the 505-DI module. Of course, not everyone has jumped onto the 500 Series bandwagon, nor is a full-fledged API desk in everyone's future. Luckily, API offers a mic pre, compressor, and EQ in a single traditional 19" rackmount option, called simply: The Channel Strip.

Cruisin' the strip

The Channel Strip is housed comfortably in a steel rackmount enclosure, standard 1U 19" format. It is finished in API black and each module contains the same distinctive knobs, buttons and more, that you would find on API modules and desks.

First base: the 512c

It all starts with the 512c microphone preamp. Built around both the company's 2510 and 2520 op amps, this is the sound of API. All these years later, the 512c remains faithful to a company founder Saul Walker's original preamp designs.

It offers 68 dB with a low -129 dBm EIN noise floor. In addition to mic signals, it can also accept line level sources as well as high-impedance instrument sources with 50 dB of gain.

The 512c also states a small blue gain knob followed by four banked pushbuttons for polarity (phase), 48V Phantom Power, Pad [-20 dB Mic / -6 dB Line] and a multi-function button

continuously variable, yet detented to aid in recall. Attack is on the outer ring (0.1 to 25 ms) and release is on the inner ring [0.3 and 3 seconds]. The last knob sets the Ratio between 1:1 and ∞ :1.

There is a 10-stage red LED gain reduction meter with markings of -1.5 to -23 dB. Further controls include a choice of Hard and Soft Knee settings, the ability to link the compressor sections if you have a pair of Channel Strips, a hard bypass button, and pre/post EQ routing choice.

The final two buttons on the 527 are where its personality and its versatility lies. The 527 can be switched between Old [feedback] or New [feed-forward] style

compression. Feedback compression is where the RMS (Root-Mean-Square) detector gets its signal from the output of the VCA. This is how most vintage VCA-style compressors like the UA1176LN, older dbx units, and API's classic 525 design work. API describe it as "smoother, softer and more transparent." In the New mode, the RMS detector gets its signal direct from the input or from a sidechain signal. This offers a faster CLT but more aggressive compression style. Both can be split punchy, pump and forward, but each in its own way.

The last button on the 527 is labeled Thrust®. It's a patented process, found previously on API's 2500 compressor and the

Home run: the 325

The 325 Line Driver is not an individually available module, but is found on the output of many API consoles. Think of this as its large black detented knob (-6 to +10 dB) as the master fader. This section has its own 2520 op amp and a 3:1 output transformer. It has a 10-segment VU meter that can be switched to show the 512c's input or the unit's full output. There is a large CLT but more thought-out master mute, which can be remote controlled via a rear-panel 9-pin connector.

In addition to a front-mounted power button, the last button on the unit engages a send and return should you want to patch in an external processor. The return has its

R22 compressor from API's sister company JDK (Reviewed April 2011). The original Thrust circuit was taken from the compressors found on the ATI Paragon series of live consoles in the 1980s. This circuit gives the compressor a forward, focused punch by allowing bass signals to pass through the detector circuit without clamping down.

There is a $1/2$ " balanced sidechain input on the back, as well as the $1/4$ " DC Link out for linking two units. The rear panel also has $1/4$ " balanced Ins and Outs for First and Second Effects (the compressor and EQ, depending on selected order).

Third base: the 550A

And speaking of EQ, next is the 550A. It's one of the company's oldest and arguably best-known modules, essentially unchanged from Saul Walker's original discrete 2520 op amp-based design.

The 550A is a 3-band EQ which uses a trio of stepped, dual concentric pots for frequency (inner pot) and gain/attenuation (outer pot). The 550A offers no Q control; its Q is proportional, narrowing with more boost or cut.

The 550A offers 12 dB at 30-400 Hz, 400-5000 Hz, and 5-20 kHz. Unlike many other modern and vintage equalizers, the 550A has minimal overlapping of the bands, especially when pushed hard, due to the proportional Q. This makes the 550A a very precise focused EQ rather than a general blender.

Both the high and low bands can be set to shelving or peaking EQ settings, and there is also a button labeled B.F. Filter which engages a band pass filter fixed at -30dB @ 50 Hz and 15 kHz. The EQ can be either audio or soft bypassed, the latter meaning that hard pass through the 550A's op amps without the EQ being engaged.

own $1/4$ " input on the rear panel; the Second Effect Out is used as a send.

Working the strip

Despite what may look first to be complicated routing options, this device is about as plug-and-play as its gets, if all you want to do is run it as is, from input to output. Integrating it into a good patch to access the intermediary signal patch points only heightens the fun. As to the sound, what can I say that tens of thousands of albums have not already said? API has proven time and time again that they are masters of sonic consistency across all of their products.

Despite having some differing components between the 200 and 500 Series and even consoles, the sonic signature of API remains distinctive. It is a sound that is often thought of as punchy and aggressive, "the sound of rock'n'roll," but there is also a cleanliness, headroom, and a solid fullness that makes this channel strip a great link of all trades for many musical styles.

Conclusion

API has done a great job of bringing the API console sound into a 19" rackmount box, thanks in no small part to the 325 Line driver. It's a significant purchase for any home or project studio, but if you purchase just the first three modules in their 500 Series format, you'd pay more... and still be minus the 325 and a rack enclosure.

As I said at the start, this is the API Sound for a user who aren't into module racks or buying a full console. If there's a downside to The Channel Strip, it's that you're probably going to end up wanting two more.

Price: \$2995 (\$2545 street)

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