



API 2448 Recording and Mixing Console

The classic API sound in an uncompromising desk with features and size designed for the modern professional studio

REVIEW BY PAUL VNUK JR.

Photo by Daniel Holter

Fifty Years of API

In 1968, electronics engineer and adjunct professor Saul Walker (1927-2016) cofounded Automated Processes Incorporated (API). One of his first innovations was the 2520 discrete circuit, or *op amp*. The 2520, along with its sibling 2510 *op amp* (introduced in 1983), are still central to API audio designs to this day.

Another of Saul's innovations was a modular approach to console design. His modular preamps and equalizers allowed API recording desks to be easily configured for studio-specific needs, and made upgrades and repairs essentially plug-and-play long before the term was coined.

An eventual bonus was that these preamp, EQ, compressor, input, and filter modules could be used as standalone devices sans console. This concept evolved into the API 200 and 500 Series modules and enclosures, including the portable 500 Series API Lunchbox[®] introduced in 1985.

Despite being the creator and king of the 500 Series, API is one of the few remaining manufacturers of large format recording desks. This month we take a look at their latest design, the API 2448.

The API 2448 combines classic API preamp, EQ and compressor sections with modern API innovations in console automation and routing options, to fashion a desk tailored for the contemporary DAW-based professional studio.

The API 2448

The 2448 made its debut just over a year ago at the 2018 AES New York

conference. Before the arrival of the 2448, the API console line consisted of the Vision and Legacy AXS consoles in the company's upper echelon, the popular 1608 (now 1608-II) in the middle, and THE BOX (reviewed September 2014), which is aimed at project studios.

The 2448 is positioned between the Legacy AXS and the 1608-II and makes use of innovations and technology found throughout the product line. It even goes so far as to share many physical design elements with the 1608-II, which allows for streamlined and more affordable manufacturing across the board.

The 2448 makes use of the same preamps, EQs, compressors, internal *op amps*, proprietary API transformers, pots, and switches found in THE BOX all the way up to the Vision product lines.

The API 2448 at Wire & Vice

I'm not the owner of the 2448 on review here. That honor goes to Daniel Holter, who recently commissioned a 24-channel 2448 for his Milwaukee-based Wire & Vice studios. Daniel was kind enough to let me be present on installation day and then again a few weeks later to run through the features and to listen to some initial sessions tracked through the board; Daniel even set up some mixes on it so I could get hands on with the feel of the console and its routing features.

Options

The API 2448 is available in 24, 32, and 40 channel frame sizes. You can configure

your own custom layout based on your needs vis-à-vis placement of your channel strips, DAW controls, and center section.

One of the biggest API console configuration considerations is making EQ module choices on a per-channel basis. Each channel can be fitted with either an API 550A three-band, 550B four-band, or 560 graphic EQ module. You can also use third party 500 Series EQs, but these need to be VPR Alliance-certified or you'll void your warranty.

For bus compression, there's the option of a 529C Stereo Compressor (500 Series version reviewed September 2018), which is a variation of the API 2500 compressor.

All 2448 consoles can be equipped with the API Final Touch Motorized Fader Automation System. Unlike console automation of the past, the latest version of Final Touch is entirely self-contained—no external read/write computer required. It's also worth noting that Final Touch offers optional independent DAW control functionality; see the sidebar for details.

In addition to each channel's 500 Series EQ slot, the 2448 includes an additional eight slots above the summing and master section that can be filled with any (VPR Alliance-certified) 500 Series modules you desire. Finally, API can provide legs and stands for your 2448 console if you need them.

Channels, preamps, and routing

If your previous API encounters have been limited to individual outboard 19" rack or 500 Series modules, or perhaps

API Final Touch Motorized Fader Automation System

Unlike the fader automation systems of old, which often required archaic dedicated computers, The Final Touch Motorized Fader Automation System is self-contained and operated via the Hi Resolution 7.5" Touch Screen Control built into the arm rest of the desk. Session files can be saved to standard memory cards.

Each large fader can be automated along with its respective mute and insert switches; automation options for the small fader channels include mute and solo only. Panning is not automatable for either fader section. The program fader and the four stereo returns can also be automated. Individual faders can be grouped for automation on two dedicated group master faders. You get unlimited mix restore points and the system also offers DAW control with unity gain audio bypass.

the API Vision channel strip console emulations from Universal Audio, or maybe Waves EQ and compressor plugins, the 648C channel strip module on the 2448 can look pretty intimidating. It has no less than 52 individual buttons, switches, and knobs, and this is not counting the added EQ or physical large fader. In essence though, it's pretty straightforward: the channel module on the API 2448 starts with a choice of line input or an API 212 microphone preamp (-20dB pad, 48v phantom power, +55dB gain). By default, this feeds the small fader of the mixer (more on this below). You can add a highpass filter and EQ, and pan the signal. Then, you choose destinations for that signal. These can include effects and/or a monitor mix on a send, any number of bus options, and of course, the main out.

Small fader, big fader

Before we move on, we need to get our minds around the 'small fader / big fader' concept of the 2448, as this is exactly what sets it apart from the 1608-II, THE BOX, and most other small format mixers. This configuration moves the

2448 into the same league as the Vision and Legacy models, and most other large-format desks both new and old.

Each channel on the 2448 includes two completely independent audio paths. These 'large' and 'small' fader paths have the following functions in common: panning, phase, highpass filter, insert, mute, and solo controls. The only difference between them is that the large path has a 100mm fader where the small has a level knob. The 500 Series EQ slot is normalled to the large fader path but can be switched to the small fader path; signals routed to either path can be flipped to the other at the touch of a button.

Also note that the big fader, small fader signal path is not either/or. Both signal paths are available at all times in parallel, making the 24-channel 2448, for instance, a 48-input channel mixer. If you count the additional aux and bus returns on the desk, the 24-channel 2448 console offers an impressive 56 available input channels at mixdown.

Why does the 2448 offer dual paths and two fader sections? Traditionally, in the days of tape, one path would be



API 2448 Console

used to track to tape; the other would be used to monitor playback from the tape and eventually mix. Replace the word 'tape' with 'DAW' and the 2448 functions similarly. Note that, similar to THE BOX, the faders on the channels can be effectively bypassed, turning the console into a massive summing desk where levels and other critical automation all happens in the DAW.

Buttons, knobs, buses, and sends

The API 2448 offers eight multitrack buses, eight auxiliary buses, one stereo bus, and four stereo returns. The 2448 is also fully 5.1 surround capable in the center section of the desk, along with control room monitoring and talkback functions.

The traditional-style meter bridge contains analog VU meters (34 on the 24-channel desk) that are also configurable; they can be switched to monitor the input of the large and small faders, the direct channel outs 'to tape', as well as the 8-channel multitrack bus. A set of eight small VU meters on the far right

show a choice of the eight mono aux masters or the four stereo aux returns, and a large pair of central VU meters monitor the master output.

For connections on the rear, you get a 'goes into' and a 'goes outta' for almost every input, output, bus, aux, and more. Another modern feature (not found on most classic professional desks but present here) is a dedicated headphone jack. The center section, auxes, and buses are thoroughly comprehensive—download the full 2448 manual from the API website to get up on the complete architecture. Incidentally, the 2448 and 1608-II both share the same manual, which serves to help compare and contrast the two models.

In use at Wire & Vice

Prior to installing the 2448 at Wire & Vice, the studio was configured like many modern rooms—a mixerless collection of individual outboard tracking and mixing gear. When I asked Daniel why he chose to go the console route, he explained that the former (mixerless) Wire & Vice setup was primarily "an extension of my brain." The old way worked the way he needed it to work, but it could be tricky for outside engineers coming in to get the hang of.

When he decided to open Wire & Vice up to outside traveling musicians, producers, and engineers on a full-time basis, he chose a traditional mixer set up to facilitate speed and ease of use, especially for tracking.

When I asked him why he chose the API 2448, Daniel first acknowledged that there are some great options on the market, but that some of these are just too boutique for his tastes. He chose API as a familiar brand that people respect and trust—and a brand that he could market his room around.

He also stayed away from going with an older vintage console for reasons of maintenance and practicality. Daniel wanted DAW control, summing, automation, and modern flexibility. All in all, he and his assistant Ian Olvera were "legitimately blown away" by how much power and flexibility they could get with the 2448, all in a footprint that's small enough to work in a room that's not a massive facility.

When I had a chance to listen to the 2448, I came away with an experience

similar as when I reviewed THE BOX. As much as I enjoy the sound of using individual API preamps, EQs and compressors, the authentic API console sound can largely only be found inside of an API console, where each component section (including summing and output sections) has its own 2520 and 2510 op amp and transformer. Signal paths run from op amp and transformer to op amp and transformer to op amp and transformer—this workflow melds individual tracks together into rich, tangible, harmonious wholes that can really only happen inside a single piece of kit like a traditional console.

I was impressed by the amount of flexible routing on the 2448. While not as open-ended as a DAW, the functions of the sends, returns, and buses are up to you and your workflow. These controls are easily reconfigured on the fly by anyone else needing to track or mix on the desk.

I asked Daniel and Ian if there was anything that particularly surprised them about the 2448. They commented that the routing and especially the automation



was much more straightforward and easy to use than they had anticipated.

Final thoughts

My final thoughts are similar to how I felt reviewing THE BOX, but even more so. I very much enjoy the API sound, and I wish I had space and the funds to have an API 2448 in my room. Luckily for me, Wire & Vice has one less than 30 minutes away.

Daniel's final thoughts sum up whether a console such as this might be right for you. "The 2448 sounds incredible. When you open up a mix and send tracks into the channels, you're already halfway

to making it sound like a record—yes, it's doable in a DAW, but that usually involves a lot of other steps to add the punch, sheen, and cohesiveness that's already there on a kickass console." ➤

Pricing (Base Price):

24 Channel Console \$86,400
32 Channel Console \$112,400
40 Channel Console \$134,750

With Final Touch Automation (Base Price):

24 Channel Console \$98,750
32 Channel Console \$123,600
40 Channel Console \$148,400

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