

My trials with the EQ were a revelation. I was confused at first, "Is it supposed to sound this good?" It can't be used for surgery, but if you're asking for (more or less) lows, highs, or mids, this Baxandall thing has a beautiful answer. I think there will be a Baxandall revival if enough people check this out. The EQ is before the tubes in the circuit, so you can also use it to color the way the tubes are driven. In conjunction with the drive knob, you can get pretty creative. It's just viscerally great sounding; check it out.

A cool trick for digital recording is to add inaudible amounts of distortion to each track in a mix. Even though you can't hear it on the solo'ed tracks, it can, for instance, produce a mix with more apparent loudness. Some mixing consoles do this naturally. I tried this with *Tube Saturator* on a 96 kHz session, for a "real" tube version of this trick, without adding noise. Since I can only run one, I bounced one track at a time. It took an hour for 11 tracks, but it was worth it. With the settings used, the mix didn't get louder but without changing the overall tone, all of the little ear-piercing moments that I had been struggling with were gone. Overhearing, my fiancé asked me what was going on; she said, "Well, you can tell *Tape Op* I could hear it; it sounds great."

Mastering engineers could also add a bit of tube distortion to stereo masters and to use the Baxandall EQ as a tone balancer between songs. For high-end mastering folks, I think it would be worth buying a dedicated computer just to run this plug-in, and the whole setup would likely be price competitive with a similar analog unit, if it existed. Plus, *Tube Saturator* doesn't have the noise of analog tube circuitry.

Wave Arts dropped the price from \$149.95 to \$99.95 while I was writing this review. I think they are valuating *Tube Saturator* too low, because it's relatively impractical to use due to the CPU load, unless you are limiting its use to just a track or two on a high-powered rig. But it sounds spectacular, and this is the only way you're going to get this sound. If I was doing the marketing, this would be called the "Baxandall Mastering EQ with Tube Saturation" and would sell it for at least \$495. Be glad I don't work for Wave Arts. In fact, my only wish is that you could disable the tubes and just use the EQ for a much lower CPU hit. Highly recommended. Download the 30-day unrestricted demo, and try for yourself! (\$99.95 direct; www.wavearts.com)

-Joseph Lemmer <jlemmer@siriusmedia.com>

Classic Audio Products of Illinois

VP26 preamp Scott Liebers Labs

SL-2520 op-amp

As an owner of a 1976 API model 3232 console, Jeff Steiger has years of experience restoring, repairing, and modifying his desk. The modular build of those APIs is modification-friendly. Being a tech-nerd, he built, duplicated, or sourced many unique printed circuit boards and other components that are crucial to the 3232's sound. He founded Classic Audio Products of Illinois as a way to help other vintage console owners and to share his work with other audio electronics enthusiasts.

Classic Audio Products offers two DIY preamp kits. The VP25 comes with an Ed Anderson EA 2503 output transformer and is more in line with a 312-style preamp. The VP26 uses an EA 2623-1 output transformer and is more aligned with the vintage console preamp sound. We tested the VP26.

As I've mentioned in other DIY reviews, every project has a unique story when it comes to parts/component sourcing. The Classic Audio Products kits come complete except for a Discrete

Operational Amplifier (DOA), which must be obtained separately. The project uses the standard 2520 footprint. And since the DOA attaches to the circuit board via Mill-Max sockets, swapping out DOAs is simple. If you don't have your own opamp, Classic Audio Products has two options at their store. First is the gar2520, which is a nine-transistor DOA by Gary Barnett of Barnett Industries in Amherst, Ohio. Second is the SL-2520 Red Dot, a ten-transistor DOA hand-built and tested by Scott Liebers of Scott Liebers' Labs in Minneapolis, Minnesota. We used the SL-2520 because (a) it comes assembled, and (b) I had been reading about them for a while on Eddie Ciletti's site (www.tangible-technology.com). Neither op-amp is potted, meaning they are not encased in an enclosure filled with epoxy. Manufactures resort to such measures to prevent theft of their designs. Instead, they are exposed, which translates to greater heat dissipation, longer life, and ease of service should they require repair. As of this writing, I have yet to build and test the gar2520, but I will say patience, a steady hand, and experience are required to build one; there are a lot of parts in a very small space.

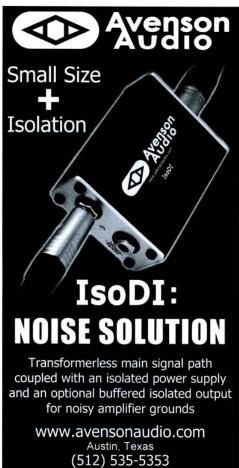
Everyone's definition of "soldering experience" is different. This kit is designed for moderate to experienced builders. Perhaps I'm biased, but I believe most *Tape Op* readers are much more prepared for this kit than the average recording enthusiast. So, if you've made many microphone / instrument cables, built a few projects from PAiA or your own guitar effects, and know your way around a multi-meter, you're probably ready for this kit. That said, this was one of the quickest projects to build (again, I used the pre-assembled op-amp from SLL). The full-color directions are a solid "A" in terms of clarity and illustration. There is even a page that helps with resistor separation.

Enough of the building, how does it sound? We did direct comparisons against our API 212 preamps, which live in our Sony MXP-3036 console. If you're not familiar with the 212 line, I would describe them as beefier than today's 512c and 3124 preamps, but slightly less colored than '70s era preamps from the 3232 console. Depending on how you set up the gain stage, the 212s can be reference-quality clean. In fact, we purchased our 212s from Sony Classical, who were using them for symphonic recordings.

Our first impression was the VP26 is not just similar to the API 212, they're closely related. Specifically, on snare drum, it was difficult to tell the two apart, although it seemed that the VP26 had more headroom and broke up a hair later than the 212. On picked acoustic guitar the difference was more noticeable, with the VP26 having more clarity. The 212 seemed veiled in comparison. On strummed acoustic, the two were so similar I gave up trying to force a difference for the sake of the review. Likewise, electric guitar was the same story. These tests led me to conclude that on loud sources, the VP26 is virtually identical to our API 212s. But on softer sources, it's much more revealing than our 212s. Honestly, it was like comparing a Millennia Media against the 212; that's how much more clarity there was.

Speaking of other brands, we decided to shoot the *VP26* against some other makers. Singer/songwriter Ben Shannon was in for a vocal session and volunteered to be our test subject. Using a vintage Neumann U 87, we compared the *VP26* against a Millennia Media TD-1, a Purple Biz (*Tape Op #55*), and a FiveFish SC-1 (#72). Ben has a voice that lives in the midrange but can wander in higher registers. I would say he's similar to Tom Petty from a frequency standpoint. All the preamps sounded good listening to them alone. When we added the backing tracks we started to form opinions. The FiveFish was too thick, leaving Ben's voice fighting with the acoustic guitar. In a similar sense, the Purple let the vocal sit lower in





the midrange of the mix. Both the TD-1 and the VP26 tended to showcase the vocal, with the TD-1 being gentler on the low end and the VP26 being more forward in the mid and upper midrange. In the end, Ben and his engineer chose the TD-1, but it was a close call. This goes to show that our preconceptions about what certain brands "sound llike" aren't always how things play out in the real world. As always, it pays to do real tests with real performers and then make educated choices. In this case, we forgot how open and clear the APIfamily can be when not driven hard.

that the VP26 was very easy to drive, providing that ten more are hybrid kits that use multiple layers of samples to "aggressive rock" sound we often want. Hitting the input hard and pulling back on the output attenuator sounded completely different than minimal gain with the output wide open. For electric guitar, just grab an SM57 and experiment with the gain structure of the VP26. Most people will tend to drive the input, bringing out the harmonic color this preamp can provide, but the range of options is vast. As I finish this review, I'm just marveling at what a drum set would sound like through a full console of these bad boys.

it. Best of all, at low gain settings, it's open, detailed, and revealing in a way that is completely different from its driven sound. If you're handy with a soldering station, I urge you to order a pair of these for your collection. (Of course, fully assembled kits can be purchased at the Classic store.)

The VP2x kits are GroupDIY 51X Compatible and require an appropriate 500-series lunchbox or chassis. I'm off to build other things. Stay tuned for more DIY reviews. (VP26 kit \$199.37 direct, fully-assembled \$535, SL-2520 \$70; www.classicapi.com, www.scottliebers.com) -GH

Steven Slate Drums

Platinum, EX, and Essential Rock/Pop Vol 2

The thought of replacing drums may seem outright offensive to many of us. After all, aren't we supposed to be recording things? But sometimes, we're called to mix projects that we did not track. Other times, a client may want a contemporary might be your best option. But if you want the results to sound convincing, you can't use just any sample library. We put Steven Slate Drums samples through months of scrutiny. The following is what we found.

As a mix engineer, bad drum sounds can paint you into a corner — not to mention damage a band's sound. For all things rock, SSD samples have been the saving grace of many of my clients. Simply put, the samples sound great and can take a mediocre project with no budget to a higher level, or conversely can be blended with already great sounds for a stellar outcome.

First, a short anecdote — a recent project (with less than ideal sounds) came to me with the instructions, "We don't care what you do to the drums, just make us sound like [Big Name Radio Band XYZ]." I usually laugh when I read mix notes like this, but knowing the quality of the Steven Slate samples, I decided to take it as a challenge. After two minutes of browsing, I had matched the kick and snare of "Big Name Radio Band" almost perfectly, blended them with the original drum sounds, and, given the quality of the original sounds, the band was blown away.

The SSD drum (and cymbal) samples were prepared meticulously — tuned to perfection, cut to 2" tape, digitally transferred with high-end converters, and finally, processed by Steven Slate himself with vintage and modern analog gear. The samples are accessed through the SSD Virtual Instrument, powered by Kontakt Player 3, which is a standalone or

RTAS/VST/AU plug-in that can be easily integrated into your DAW. Should you be recording your epic rock opera in your dorm room, SSD comes with keyboard mappings and a universal mapping for all Roland V-Drums. We conducted our tests using Drumagog (Tape Op #69). However, at press time, SSD explained that they will be discontinuing support for Drumagog so they can focus on their own drum-replacement application, Trigger, which promises unique features and algorithms.

One great thing about the SSD samples is that they are versatile. There are over forty kits in the platinum library, Speaking of driving a preamp, one of our engineers noted thirteen of which are models of classic artists and albums, while create larger than life sounds. Additionally, for those of you who have been frustrated by machine-gun-like results with previous samples, new to SSD 3.5 is Yellow Matter's new Advanced AMG software that ensures your double-kick will never bring the cops to your front door. And before you feel quilty of having powers such as these, consider that top industry mixers such as Mike Shipley, Chris Lord Alge, Jay Baumgardner, and many others have used SSD samples in their work.

One interesting aspect of the SSD library is the option of room If you want a truly retro-sounding preamp, the VP26 nails mics. There are two sets of room mic sounds, which are meant to be blended with your sampled drums, or with your existing drum sounds, for added size and space. The first set was recorded in a large warehouse with concrete walls, and the second was sampled at NRG Recording Studio A, which is a great sounding drum room.

> Perhaps its most unique feature, each kit is presented using the "Z System". Each sample set is processed in one of four ambient spaces, providing a non-cookie cutter approach to drum samples. The Z1 mono sets have a slight amount of overhead mic'ing. Z2 sets are stereo samples and have heavily compressed far-room mics that are mixed in with closer mics. Z3 mono sets are unprocessed dry sounds. Finally, the Z4 sets offer isolated room sound of each sample. Best of all, you can mix and match Z systems. So, there is nothing stopping you from using very direct Z3 sounds with Z4 ambience. You're not stuck with a drum set that feels like it was dropped into the mix from a store bought box.

Street price for the SSD Platinum library is about \$300, commercial sound. In those situations, replacing the drums making it very worth the asking price. It can enhance a project like few other libraries on the market. (Platinum \$499 MSRP, EX \$149; various expansions \$59 direct; www.stevenslatedrums.com)

-GH & Dave Hidek, www.theworthyghosts.com

Keith McMillen Instruments

Batt-O-Meter battery tester

Keith McMillen Instruments has hit the nail on the head with a very simple, yet oh-so-handy gadget that measures the voltage and remaining life of batteries. The Batt-O-Meter can test any 1.5 V battery but is optimized for checking 9 V batteries that are nestled inside effect boxes, instruments with active electronics, and other gear that can be time-consuming to open and inspect. The key is a custom-designed power probe that plugs into the standard 1/4" output jack of any battery-powered effects pedal or instrument. Hit a few buttons on the Batt-O-Meter, and you're quickly told what kind of battery is inside (alkaline, carbon zinc, rechargeable), how many volts the battery is delivering (in my tests, I was somewhat surprised that hardly any 9 V batteries put out exactly 9 V), and the number of hours of power the battery has left. It accomplishes this last feat by actually placing a load on the device being tested to simulate the amount of work the battery would have to do for that particular device. Very accurate and quite ingenius.