

Royer Ribbons

RECORDING ELECTRIC GUITAR

Grammy winning Producer/Engineer Ross Hogarth and session guitarist Tim Pierce share their mic blending and positioning secrets in a video series for true tone aficionados.

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Rascal Audio *Two-V dual mic preamp (500-series)*

The *Two-V* is a double-wide, two-channel preamp module for the 500-series format. It comes painted battleship grey with minimal markings denoting the usual features: polarity, high-pass filter, phantom power, and input impedance. The front panel seems a bit austere at first — deceptively so! The build quality of the *Two-V* also resembles a battleship. I like that some 500-series modules feel cheap in the hand; the combination of market saturation and the necessity to have a presence in said market has actually made it much easier to tell when someone gives a crap. Joel Cameron of Rascal Audio is just such a chap. The *Two-V* is a classic example of someone designing something that is great, and then going the extra mile to make it stellar.

The gain-staging took some getting used to mostly because it's so simple. As engineers, we aren't really used to three separate gain knobs! Once I figured out the input knob functions as a pad between the mic input transformer and the first active gain stage, and the output knob is the master fader, it all made sense. Both the input and output fully attenuate at zero. Add to that a 6 dB-stepped gain switch that goes from 40–70 dB, and a 300/1200 Ω impedance switch, and you have a ton of tonal flexibility! A good starting point for me is setting gain at 40 dB, with the input all the way down and output all the way up. I then gradually turn up the input to where I want it, adjusting in larger blocks of 6 dB as needed.

Apparently, Joel spent considerable time picking out the custom transformers for the *Two-V*, and it really shows! The circuit has a legitimate heft without being too colorful. This character becomes exaggerated in a very pleasant way when pushed! On first use of the Rascal, I wanted to get a good idea of the clean tone before I went harmonic crazy, so I started with some familiar sources and mics, and then moved into uncharted territory.

Frontier Ruckus are a band in transition. I love doing records like theirs. They made a name writing extremely well crafted, emotive, densely-fricative folk music, with a pension for the geography of South Central Michigan. When they came to me to make a “rock” record, I jumped at the chance. We first used the *Two-V* with an AKG D 12 on the kick and a Lombardi LM2060 on the snare, per the usual here for a '70s vibe. With some adjustment to gain and impedance, I was able to dial in a variety of different tones for the few songs we tracked that day. Fred Thomas the drummer is dynamic, to say the least! The *Two-V* was well suited for this type of recording. As Fred played louder, the *Two-V* saturated just a touch. The tones were at once familiar and totally unique. The harmonic character changed greatly or slightly with gain adjustments, but the overall tone remained consistent. It wasn't until mixing that I realized the big advantage to how the drums sat in the mix. Using the gain and impedance controls really affects how your tracks sit later. I like to make as many decisions as early as I can, if the project allows, and in a way, we “premixed” the kick and snare sounds during tracking!

Next up, we tracked some acoustic guitar. Matt Melia has a super nice 1976 Epiphone large-body acoustic guitar that sounds great but has some tonal idiosyncrasies. We set up a Korby convertible mic with a KAT 47 cardioid capsule [*Tape Op* #38] square with the 12th fret, and a Josephson C42 [#34] very close but behind the Korby pointed at the sound hole. This configuration tends to eliminate some “charming” fret buzz the instrument has. Panned left/right, we got the perfect image — dual-mono with a slight spread. Total “Street Fighting Man” vibe. Again, adjusting the gain, and therefore dialing in the amount of transformer saturation, proved super useful. The impedance switch did something super cool at higher gain settings; it seemed to increase or decrease the space around the guitar. Not necessarily room sound — just a really nice space around the instrument. This is something I began to notice happening on all tracking with this box. It's not unlike the Forward/Back switch on the AwTAC Awesome Channel Amplifier [#93].

The next task at hand was a smattering of overdubs. Davey Jones (yes, that's his real name) is a savant on banjo and a Telecaster/banjo hybrid called “Scruggsteen.” Using the now classic AEA R84 [*Tape Op* #38] and the stunning AEA N22 [see this issue] on the acoustic banjo and the Fender Deluxe amp proved more than satisfying. Again, the premixing and spatial effect was evident, capturing some very real-world sounds that needed only fader adjustments at mix. Zach Nichols is a beyond-talented instrumentalist who plays anything you can throw at him. Sensing I was on a roll with the AEA mics feeding the *Two-V*, we put down piano, trumpet, saw, and some amplified synth tracks for the next few hours. I don't normally use a single preamp for 5 or 6 hours straight, on almost everything in a mix, due to issues with buildup. In fact, I haven't done this since I bought a second preamp in 1995! With simple gain adjustments, impedance manipulation, high-pass filtering, my ears, and a little forethought, I was not only able to use the *Two-V* for the entire day, but fully inclined to do so. We even laid down some scratch vocals for Matt that he liked the sound of so much that we kept a large chunk of them as final vocals! There's a certain transformer hotness you can get from the *Two-V* that allows a vocal to be super present in a mix without it being loud in comparison. But when going for a cleaner vocal later in the record, it was again easy to dial in a cleaner sound that was still huge without being over-present.

Frontier Ruckus like to work fast, moving from instrument to instrument to vocal, and song to song — full-band tracking to overdubs back to full tracking even in one day. The simplicity and sheer fidelity and musicality of the *Two-V* made this possible. Plus, the ability to sculpt the sound “on the way in” saved me and the band hours of automating at mix time. Priceless!

The *Two-V* shares some DNA with classic Neve Class A designs, but it is by no means a clone! I've used various Neves in the past, and I know their sound; at this point, with the amount of cloning happening, most of us do! After using the *Two-V* for a few weeks, I called Joel Cameron and was remarking at the unit's flexibility and how classic it sounded, but said I wouldn't describe it as Neve per se. I was ignorant to it sharing *any* similarities in terms of the circuit design. I learned a lot that day! Joel explained that, while Neves were an inspiration, he found certain aspects frustrating. He went on to explain that the *Two-V* has a unique gain structure that not only allows more gain shaping, but offers it in a continuously-variable nature, instead of 5 dB chunks. Apparently, the classic Neve design has a gain switch that does multiple things within various parts of the circuit; it's not a simple increase in active gain in 5 dB steps. In actuality, it's changing various pads within the circuit, altering active gain with one preamp stage, and routing between various stages. Therefore, its tonality changes alongside changes in gain! The lowest active gain setting on a Class A Neve is 40 dB. The lower positions are achieved through a switched pad network between the input transformer and first gain stage. The *Two-V* replaces this switched pad network with a separate, continuously-variable input control. This input control can be used at any gain setting. (Neves permanently switch out the pad network at 40 dB!) This means you can drive the gain stages harder or softer in the *Two-V*, and adjust the input for a way wider variety of options in terms of transients and harmonics! I've often been frustrated with the Neve design; I get something dialed tone-wise and wish for a hair more gain — one 5 dB click up and the tone changes alongside the jump in level. This is not a problem with the Rascal.

The *Two-V* has fast become a go-to for me. I love it when I'm patching for a session, and I'm like, “I know, I'll use it on kick and snare! No wait, guitar! No, vocals!” At less than \$650 per channel, you'd be losing money not buying this thing. At least that's what I'm telling myself! (*\$1289 street*; www.rascalaudio.net)

—Chris Koltay <www.highbiasrecordings.com>