

Royer Labs

R-122V vacuum tube ribbon mic

By now, most of you who have read this magazine know that at WaveLab, we love ribbon mics. We record a lot more acoustic instruments than electric at times, and ribbons are always employed for their natural sound. This is mainly due to the fact that we have had a Royer R-121 microphone since it was first introduced. We also own the SF-12 (Royer's original, passive stereo ribbon), and both of these mics get used all the time on every recording we do. We also now own the R-122, which is the phantom-powered version of the R-121. While the difference between the R-121 and R-122 is fairly subtle and derives more from impedance placing different demands on the preamp, it has never been a case where we felt one was better sounding than the other. Our choice usually comes down to the R-121 for loud sources (e.g. guitar cabs, drums, etc.) when not a lot of preamp gain is needed and the R-122 on quieter sources (e.g. acoustic instruments). The main advantage of the R-122 to the R-121 is that you don't have to worry about impedance matching as the extra circuitry in the R-122 keeps the ribbon under proper load at all times, regardless of the preamp's input impedance. Now along comes the R-122V, which employs a triode-wired JAN 5840W tube in its head electronics, and according to Royer, the R-122V has far more headroom than its phantom-powered siblings.

John Jennings at Royer sent us a pair of R-122Vs, and as soon as we got them, we put them to work on our Hardman baby grand piano. Over the years, we have tried many mics and positions on this little piano. Our piano tuner is always complaining about the difficulty of tuning our piano because the lowest notes are only single strings. In fact, that is where it will go out of tune the quickest. We don't get all that hung up on this problem as we feel that those low notes are for the bass player anyway. Our piano sounds best in the middle, and the top strings also get a little lost when recorded. We sometimes mic it from the side with the lid on the prop stick and use one mic for a mono recording, and sometimes we will use two mics for a stereo recording. When we record the piano in stereo, we generally open the lid up all the way (and lean it against the wall to the right of the piano as it's in our vocal booth) and come over the top of the soundboard and look down on the strings with the stereo pair. We usually use the SF-12 or a pair of small-diaphragm condensers like the Mojave MA-100s. While the SF-12 always provides the best stereo image, it usually requires some brightening at the mix to get the piano to sit right. Even the brighter condensers still need a little help, as the piano is by nature a darker piano. It's definitely not that bright zingy sound like so many real and sampled pianos sound like today.

With the R-122Vs set up over the piano as a coincident X/Y pair, we got busy working with Devotchka on all the keyboard overdubs we needed to do for their new record. Within seconds—and before the first chord had time to decay—we realized that these mics are amazingly great. Suddenly, our little dark piano was sounding much larger and fuller. This seemed to come from the clearer detail the mics provided. All the complex harmonics generated by the chords were there regardless of how high or low the part went. Even those high strings stayed present and loud and held up with the middle of the piano. It was quite astonishing. It was like the piano grew the missing length of a grand piano. Even those dull-sounding single bass strings sounded deep and full.

Since Tom Hagerman of Devotchka is a multi-instrumentalist, we proceeded to use the mics on violin, toy piano, and accordion. These are things on which we used the Royer ribbons in the past anyway, and we were always satisfied, but using the R-122V added even more satisfaction to our ears. The tube circuitry is supposed to be "devoid of typical vacuum tube coloration" (is there a "typical" version of tube coloration?), but clearly the addition of the tube stage has changed the sound of the ribbon motor. All the good things about the R-121 have been enhanced and the extended headroom really makes an audible difference.

The R-122V was especially great on instruments with loud transients and sharp attacks. Ribbons, by nature, already are well-suited for these applications so no big surprise there. With the R-122V, however, we found that bows on strings were less scratchy, shakers were smoother, tambourines were less spiky, cellos were rounder, trumpets were warmer, drums were fuller, and everything we tried it on sounded really natural and expansive. We found it hard to believe that Royer has actually improved the sound of their ribbon element because now it means we need a pair of our own. Unfortunately, that will be a little ways off as these mics are not cheap. At a street price of \$2795 each, this mic is probably out of reach for most home and small-budget studios. But then again, when we got the R-121, we spent more on mic preamps than anticipated, as it took awhile to find the right one to complement the low output of the passive ribbon. The R-122V obviously sounds better with high-end mic preamps, but it also sounded quite good with a small Mackie mixer with VLZ preamps. We got to check that out in a remote live recording we did recently, and it was very satisfying. So you could use this mic with even those wheezy single-knob preamps that come with DAW interfaces, and you'd hear a noticeable improvement in your recordings. Royer has created a winner. (€ 2040 MSRP; www.royerlabs.com)

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