

Royer Labs R-122

Active ribbon microphone

BY MITCH GALLAGHER

Royer Labs has been leading the ribbon mic charge for the last few years; the company's mics have become the ribbons of choice for many engineers, especially the R-121 (reviewed in the September 2000 issue), which is very popular on guitar amps and brass instruments. But ribbon mics have always had a limitation: They're very sensitive to the mic preamplifier they're mated with; generally requiring a high-gain, low-noise preamp for best performance.

At last year's AES show, Royer unveiled a brilliant idea: The R-122 active ribbon mic, for which we presented them an EQ Blue Ribbon Award. The R-122 combines the ribbon transducer from the R-121 with a an active system containing a built-in discrete head amplifier and toroidal transformer . This eliminates any preamp-matching difficulties, and also increases the mic's output by 15 dB and reduces noise problems. Any preamp should work fine with the R-122 since impedance loading is not a problem. Note that the electronics in the R-122 require 48V phantom power.

I had a chance to test drive a pair of R-122 on a number of sources; Royer also provided an R-121 so that I could do side-by-side comparisons. I found that the R-122 sounds extremely similar to the R-121. There's a small difference in the low end — it's tighter on the R-122 — no doubt due to the large transformer in the unit's electronics.

This is the first chance I've had to use Royer ribbons myself, and I was quite impressed. These mics are made for electric guitar amps; capturing all the fat punch and thump without any of the harshness, regardless of the volume level. As you'd expect from a ribbon, the top end is smooth and warm, with a nice amount of detail, but no stridency. However, if you find you need more top end, simply rotate the R-122; it has a figure-8 polar pattern, and their "offset ribbon" design gives the rear lobe a bit more top than the front lobe on sound sources that are 3 feet or closer to the mic. Royer recommends using the rear side on lower SPL sound sources.

I also had good results using the R-122 on trombone, where the sound was round and present. On nylon string guitar, the sound was okay; more "pop" sounding than classical. On finger-

picked steel string guitar, I missed the upper range detail a bit, but on hard strummed steel string, the sound was full and punchy — perfect for hard-driving rock or country strumming.

I liked the sound of the R-122 on percussion as well, where it tamed harshness. However, certain metallic hand instruments didn't have the shimmer or sparkle I was looking for. I expect that it would also be great on drums — Royer's ribbon mics are spec'd to handle high-SPL's; the company claims the R-122 can even be used on kick drum. On vocals, the R-122 is smooth and full-sounding, without excess sibilance. I liked it best on hard-sung vocals; it didn't excel on delicate breathy tracks.

The R-122 is the ribbon mic we've all been waiting for — it has all the sound of a great ribbon, without the limitations and mic preamp issues. If you record electric guitar, you need one. If you record brass, you'll want one. Royer deserves our thanks for bringing the ribbon mic concept into the new millennium.

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