

Royer R-122

Retail Price: \$1,895 each; \$3,865 stereo pair;

Street Price: \$1,795 and \$3,575

David Royer brought back the classic ribbon microphone technology in the 1990s and has put at least one into the hands of every studio engineer I know. The home-recording musician or home-recording audiophile can also take advantage of the superb sound of ribbon microphones, such as the R-122, reviewed in this roundup.

Ribbon microphones are distant cousins to dynamic microphones, in that they work on the principle of electromagnetic induction. But instead of moving a plastic voice coil as in a dynamic, a large, thin piece of aluminum provides the electromagnetic motion that translates all those vibrations into sound.

The details

The R-122 is an active-ribbon microphone that needs the 48V phantom power usually found in condenser microphones. This powered version of a ribbon allows it to be compatible with more microphone preamplifiers. The traditional ribbon microphones often need a special preamp whose input impedance has to suitably match the high impedance of the ribbon mic. With the R-122's Z-Matching circuit, impedance matching is automatic.

Ribbon microphones utilize a figure-eight (bidirectional) polar response pattern, capturing sounds behind and in front of the microphone. Because of the response characteristic, ribbon microphones pick up more of the "room sound" than a cardioid microphone.

The R-122 features good specs, including 30 Hz to 15 kHz frequency response, and 135 dB maximum SPL. A stereo kit comes with the mics and includes foam screens and quality suspension mounts housed in an aluminum carrying case.

Per Royer's excellent Ribbon "[**Microphone Recording Tips for Acoustic Guitar**](#)" found on their web site, I installed the R-122s on two Atlas mic stands and spaced them out so that one mic was about 14 inches from the body and the other about a foot from the 12th fret on the neck.

Since ribbon microphones are brighter sounding on the back side when recording three feet or closer to a source, Royer recommends recording acoustic guitar using the back of the microphones. I recorded with both the front and back aimed at the guitar. In a trial run, I found the rear capsule aimed at the guitar to indeed sound brighter than the front.

In recording my Martin guitars, I could hear that ribbon's magic midrange, very rich and bold

but with good detail. I really liked the way my custom Martin 00-28 sounded with the R122's smooth, open midrange and lower treble detail, showcasing a gentle kind of plucked-string treble that was not overly pronounced. Some might call it rolled-off on the top end, but I loved the sound.

The big maple body/spruce top SJ-200 sounded pretty good. However, some of the bright, jangly strummed character of the SJ's maple wood resonance was diminished. To get that extra sparkle on top, you can use a Royer on the body and a condenser mic on the neck. On two different sessions using other mics in combo with the R-122 — the DPA-4011TL and the Mojave MA100 — both mics added extra sparkle to the recording.

The verdict

The Royer R122 is an excellent example of how the decades-old, ribbon technology has been improved on, yet maintains its warm, smooth dynamic character. For those with financial means, I think it's a great mic for recording small body classical or steel string guitars made with good tone woods. And the R122's Active technology better matches the mic with more kinds of preamps. Recommended!