

Second Opinion By Russ Long

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Early last year, the Royer R-121 changed the way I record music. The R-121 combines the smoothness and accuracy for which ribbon microphones are famous, with the ability to accept extremely high levels of volume — something ribbon mics are not, historically, known for being able to do.

Since purchasing a pair of R-121s more than a year ago, I have put them to work at every tracking session I've done. When the opportunity arose to give a second opinion on the Royer SF-12 stereo ribbon microphone, I jumped at the chance.

The Royer SF-12 is essentially two matched-ribbon microphones mounted in a single casing (one above the other). The two ribbons' pick-up patterns are 90 degrees off axis from each other; the 1" diameter microphone is 8" long.

It is important to note that the Royer SF-12 is not a stereo R-121. It is, rather, a stereo pair of microphones that are similar, yet still unique, from the R-121. The SF-12 can handle approximately 130 dB SPL (5 dB less than the R-121) and it includes a lifetime warranty to the original owner (repair or replace at Royer's option). Warranties of this caliber have become nearly extinct in the audio industry and only appear when a company truly stands behind their product. The microphone is cased in a beautiful wood box and includes an 18' cable that splits the microphone's output into two M-XLR connectors.

In the studio

The day after the SF-12 arrived, I put it to work as the drum overhead microphone while working on a Steven Curtis Chapman/Michael W. Smith duet. The microphone sounded stellar without any EQ or compression. The imaging was perfect and the microphone captured a fantastic kit sound rather than just a cymbal sound. When the drummer came into the control room to listen to the kit, he loved it and was truly surprised when he discovered that the entire sound was the SF-12 and the kick mic. In other recording situations, I have achieved good results using the SF-12 as the drum room microphone, especially using the M/S (mid/side)

technique. Percussion is another strength of the SF-12. I found myself recording a lot more in stereo than I usually do. This is due to the fact that stereo recording is so much quicker and easier with the SF-12 than it is using two independent microphones.

I had great results recording chimes and tambourine. I had positive results recording vibes and glockenspiel as well, but in both of these cases I found myself having to boost the gain to the point where preamplifier noise became audible (though not to the point where it was unusable) because of the low output of the SF-12. Ribbon microphones typically are 20 dB less sensitive than condenser microphones, which have a built-in head-amplifier (ribbon mics have no built-in amplification). Royer recommends a mic preamp with 68 to 70 dB of clean gain for making very soft, ambient recordings. Otherwise, any quality mic preamp will do the job. The SF-12 also works well with acoustic guitar. Depending on the song, I found myself using it in both mono and stereo. For mono recording, I found that using only one of the SF-12's mics yielded the best results. Occasionally, though, I achieved better results using both outputs and bussing them to a single track. This resulted in a fuller and thicker sound that still didn't take up too much audio space.

I tried using the SF-12 on lead vocals, but found it wasn't right for the particular circumstance. While it sounded quite nice — and I wouldn't consider lead vocals its strength — I would expect to find it recording lead vocals from time to time.

The manual includes a diagram that demonstrates the use of the SF-12 to simultaneously record an acoustic guitar and vocal (the same person) to two tracks with minimal leakage between tracks. Although I was not able to do a lot of recording using this method, I did have positive results and it seems as though it could solve the age-old problem of recording acoustic guitar and vocals simultaneously without any phase problems. I had fantastic results using the SF-12 on my Steinway grand. The piano sounds full, wide and warm. My Steinway has the tendency to get a bit piercing when played loud in the upper register and the SF-12 eliminates that problem completely. It never sounds brittle or harsh yet it retains its top-end and sparkle. In most circumstances, I found the SF-12 required little or no EQ. Almost always if I did use EQ it was to add top, cut bottom or both. The short and simple manual is well written and should prove especially helpful to engineers who aren't as familiar with ribbon microphones. The manual also includes an extremely helpful tutorial on M/S recording.

The only real problem I had with the SF-12 was using the shockmount, which has difficulty supporting the weight of the microphone in a horizontal position. I ended up using a heavy clip

to support the mic when using it horizontally. Royer promises a new shockmount for the SF-12 will be ready shortly. In the meantime, pulling on the elastic bands of the current shockmount temporarily corrects the problem of positioning the mic horizontally.

Summary

The SF-12 is a well-made stereo microphone that sounds excellent. Though it may be beyond the price range of many project studios, it should be a welcome addition to studio mic vaults and engineers equipment cases worldwide.

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