ROYER SF-24

Active Stereo Coincident Ribbon Microphone

The Royer SF-24 active stereo coincident ribbon microphone is the only microphone of its kind available, combining high quality audio performance with outstanding stereo separation and imaging. It is a modern ribbon design with no audible diffraction effects or cavity resonance. The SF-24's active electronics (patent pending) produce an output comparable to studio condenser microphones and provide an optimum impedance to the ribbon elements, preventing overdamping of the elements and assuring consistent microphone performance. The high gain and low output impedance of the SF-24 allow it to operate with any microphone preamplifier with phantom power, including those of nominal gain and input impedance characteristics.

Reduced Size

The SF-24 is actually two matched ribbon microphones placed one above the other and fixed at a 90˚ angle. This arrangement allows for Blumlein and M-S recording with one microphone, as well as excellent monaural compatibility when summing the two elements to mono. The frequency response is excellent regardless of the angle of sound striking the ribbons, and off-axis coloration is negligible. The SF-24's extension cable comes with an adapter which splits into two separate left and right XLR connectors, labeled "upper" and "lower."

The SF-24's two 1.8-micron ribbons are of pure (99.99%) aluminum and provide superb transient response due to their low mass. The SF-24's transducers incorporate "cross-field" motor assemblies (patent pending) which are comprised of four powerful Neodymium magnets and Permendur iron pole-pieces. This cross-field design delivers excellent high frequency response due to the extremely short path between the front and rear sides of the ribbon elements. The microphone's case is ingot iron and forms part of the magnetic return circuit, an effective system with low leakage flux which contributes to the mic's high sensitivity

SF-24 FEATURES

- True stereophonic (Blumlein and M-S) recording from one microphone
- Operates on standard 48-volt phantom power
- Active electronics provide high output capability
- Absence of high frequency peaks, "ringing" and phase shifts
- Extremely low self-noise
- Ribbon elements unaffected by impedance/load, heat or humidity
- Equal sensitivity from front and back of elements
- Very low magnetic leakage
- Gold plated XLR contacts

RECOMMENDED APPLICATIONS

- Stereo & distance miking
- Choir, orchestra, string sections
- Overhead drums & percussion instruments
- Room miking, distance & ambience miking
- Brass instruments, horn sections
- Woodwinds, flute & other reed instruments
- Stereo acoustic piano, harp
- Acoustic guitar, mandolin, stringed instruments

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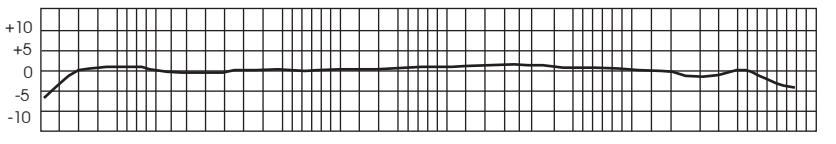
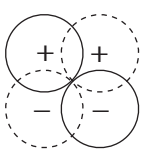
Technical Specifications

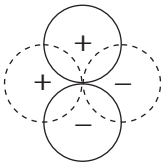
Acoustic Operating Principle	Electrodynamic pressure gradient with active electronics.
Polar Pattern	Crossed figure-8's
Generating Element	1.8-micron aluminum ribbon
Magnets	Rare Earth Neodymium
Frequency Response	40 - 15,000 Hz ± 2dB
Sensitivity	-38 dB (re. 1v/pa ±1dB)
Self-Noise	< 18 dB
Output Impedance	200 Ohms
Output Connector	Male XLR 5-pin (Stereo)
Rated Load Impedance	1K-Ohm minimum
Maximum SPL	130 dB @ 50 Hz
Power Requirements	48-Volt Phantom Only
Supply Current	4 mA per channel
Dimensions	270mm X 39mm (base) X 25mm (top) (10 5/8" X 1.5" X 1")
Weight	583 grams (20.5 oz)
Finish	Optical Black, 18K Gold (optional)
Accessories	25' Cable (XLR5 to 2 standard 3-pin XLR male), shock mount, protective case, mic sock
Optional Accessories	Wind screen, 50 or 100 foot extension cables
Microphone Warranty	Lifetime to original owner (repair or replace at Royer's option)
Ribbon Element Warranty	One Year

Frequency Response and Polar Pattern

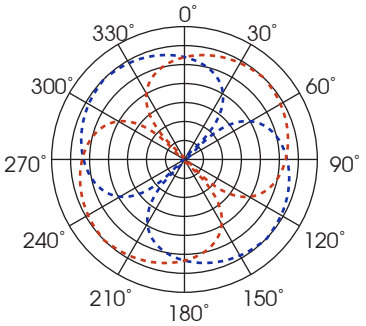




X-Y



M-S



Upper Element
Lower Element

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