



## Introduction

Thank you for choosing the Studio Vocalist Microphone. This product has been engineered and built using all original components needed for the performance expected in demanding studio environments. We care about the Studio Vocalist, and believe it will provide you with a versatile recording capability. Like any fine instrument, reasonable care will result in long service.

Each microphone is built in our lab by people dedicated to excellence. Hugh Tripp has personally machined parts, and Bob Crowley has personally tested every ribbon motor, transformer, and finished unit.

Please contact us if you have any questions or comments about the Studio Vocalist. We take research, design, and development as seriously as customer service.

Bob Crowley

Hugh Tripp

## About the Studio Vocalist

The Studio Vocalist is a bi-directional, full size ribbon microphone housed in a durable stainless steel casing. It is an efficient instrument that delivers high output levels while maintaining a low noise floor.

The internal transducer is designed to tailor bass response without attenuating the overall output. This produces a frequency response that sounds full in the low and midrange, and provides great presence on amplifier cabinets.

Utilizing an impedance-matched ribbon assembly, the microphone achieves an accurate, slightly bright high range response, ideal for capturing fast transients in vocals, acoustic instruments, and in concert halls.

The Studio Vocalist ribbon microphone incorporates a matched, full size transformer that minimizes signal loss and maximizes output. The transformer is rigidly mounted to eliminate resonance and tighten bass response. It is also oriented 90° to the long axis of the microphone, and is double shielded, to further reduce magnetic and radio frequency interference.

## **Studio Vocalist: Features at a glance**

- 30 – 15,000 Hz frequency response. Full low and mid ranges, slightly bright upper range response.
- Highest strength custom manufactured magnets for maximum output and efficiency.
- A precise and durable 2.5 micron symmetric ribbon accommodates sound pressure levels (SPL) of 126db at 1 kHz.
- The “figure eight” or dipole polar response is symmetrical and not biased to one side or the other. Each side of the microphone can be directed towards various sound sources without asymmetric coloration
- Side address design, made of machined steel, stainless steel, silver, gold and aluminum materials.
- All wiring connections are hand soldered, point-to-point.
- Hand assembled and tested in our own lab.
- Gold plated silver contacts and ribbon mounting surfaces
- Published specifications and frequency response curve compiled by an independent acoustics lab, Cross Spectrum Labs.

*Never blow directly into any microphone. Inform vocalists of this precaution.*

## **Amplification**

The Studio Vocalist is a low noise microphone. The combination of its efficient transducer, robust shielding, and full size transformer give the microphone a low noise floor and output level equal to moving coil (dynamic) microphones. Certain ribbon designs have weaker magnets and less shielding, and require up to 30 dB of additional gain for optimum performance. This is not the case with the Studio Vocalist. Most professional level preamplifiers with normal gain and high input impedance are well suited for the Studio Vocalist.

The Studio Vocalist, like all ribbon microphones, performs optimally with the least amount of loading on the ribbon element as practical. The higher the impedance input on the microphone, the better the low end and mid range frequencies are represented in the output signal. We recommend using preamps with impedance settings of 1000 Ohms or more. Contact us if you would like specific preamp recommendations.

The Studio Vocalist is quite natural sounding and does not require coloration at the preamp stage for optimal performance. Preamps that provide simple, transparent gain usually provide the best results. However, you may prefer a more colored sound, and we encourage you to experiment to find the right combination that suits your taste.

The Studio Vocalist is an acoustically driven ribbon microphone, which means that no power supply is required for its operation. +48 Volt phantom power will not burst the ribbon element, but over time, exposure to phantom power and switching transients will affect the overall output of the system. Therefore, disable this function when using the Studio Vocalist.

## **The Proximity Effect**

The proximity effect is an acoustic phenomenon that can be very useful in creative recording. Bass response increases as a function of microphone distance from the sound source. In a nutshell, the closer the microphone is to the sound source, the higher the bass response will be.

An understanding of the proximity effect enables the user to fine tune bass response. Appropriate placement of the microphone differs from application to application, and as with any microphone, the best way to hit the sweet spot for your application is to experiment with different distances and angles from the sound source while listening.

Weak, thin vocals can be significantly enhanced by reducing distance, and other instruments can be fattened, if desired. For vocals closer than about 8”, a pop screen is recommended.

## Care and Handling

The Studio Vocalist is a precision instrument. It should be treated carefully to ensure reliable results during each session. To protect your Studio Vocalist microphone, keep a few simple precautions in mind to ensure long term performance:

1. The Studio Vocalist should be stored in its protective case when it is not in use. Leaving the microphone lying around will expose the ribbon element to dust and other airborne particles that can adhere to the inner assembly and decrease performance. This advice stands for all high quality studio microphones!
2. Never blow into any microphone to test it. We know you are already aware of this rule. Inform set-up crew, gaffers, vocalists, other performers, and visitors, before tracking.
3. When setting up the Studio Vocalist, maintain a reasonable distance from fluorescent lights, power transformers, and other strong electromagnetic sources to avoid hum.
4. This is a full size microphone which weighs 1.35 lbs/ .61 Kg. Use a secure mount and stand and a good quality balanced, shielded XLR connecting cable.

## Technical Specifications

Transducer Type – Velocity Ribbon

Housing Material – Stainless Steel

Characteristic Z @ 1Khz – 200 Ohms

Typical Load Z – 1000 Ohms

Polar Pattern – Figure 8, symmetrical

Frequency Range – 30 Hz – 15,000 Hz

Maximum SPL – 126 dB

Sensitivity – -50 dB @ 1 KHz

Weight – 1.35 lbs / .61 Kg

Dimensions – 6” H, 2” W,

Pin 2 High

*“It would be possible to describe everything scientifically, but it would make no sense; it would be without meaning, as if you described a Beethoven symphony as a variation of wave pressure.”*

-Albert Einstein

## **Also Available from Crowley & Tripp**

**Soundstage Image** – A full size ribbon microphone designed for use in stereo recording and ambient room miking. Ideal for soundstage and concert hall applications requiring a natural response.

**SPLx** - A very robust ribbon microphone optimized for higher SPL handling and moderate output, with just the right sound. Great for close miking the loudest sources in the studio, or on stage.

**Proscenium** – The most conservatively balanced ribbon microphone we make. For delicate and distant concert hall recordings of classical music.

We are able custom build microphones to suit your specific recording needs. Please contact the lab to discuss features, specifications, and pricing.

## **Limited Lifetime Warranty**

The Studio Vocalist microphone

Serial Number \_\_\_\_\_

Is warranted to be free of defects in materials and workmanship. This warranty extends to the original purchaser and is recorded by filling out and sending the warranty registration card supplied with each new unit. This warranty does not cover damage resulting from accident, misuse or causes outside the control of Soundwave Research Laboratories.

Notice: This device is patent pending. The artistic design of the Studio Vocalist microphone, labeling and packaging are copyright 2005, Soundwave Research Laboratories, Inc.

## **Feedback**

Contact us if you have any question, comment or issue with the Studio Vocalist microphone. We will do what we can to help you successfully use this instrument for your recording needs. We are musicians and engineers too, and would like to hear your Studio Vocalist recordings! Audio samples and user feedback are important for new product development.

## **Contact**

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**“Sound With A Purpose”<sup>sm</sup>**