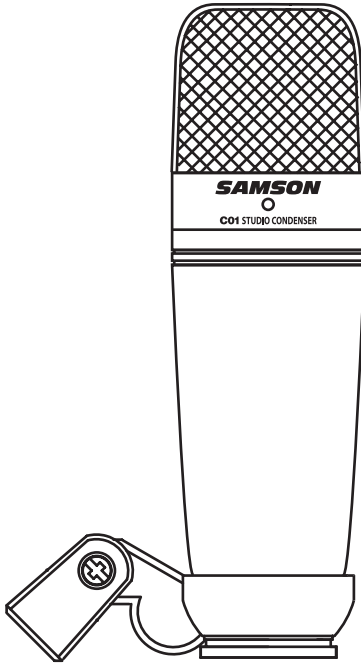


CO1



Studio Condenser Microphone

Owners Manual

SAMSON[®]
A U D I O

Introduction

Congratulations on your purchase of the Samson C01 studio condenser. The C01 features a large, 19mm ultra thin diaphragm capsule which faithfully reproduces a variety of sound sources including vocals, acoustic instruments and overhead cymbals to name a few. The extended frequency and fast transient response insures an accurate reproduction with linier characteristics from bottom to top.

In these pages, you'll find a detailed description of the features of the C01 Studio Condenser Microphone, as well as step-by-step instructions for its setup and use, and full specifications. You'll also find a warranty card enclosed—please don't forget to fill it out and mail it in so that you can receive online technical support and so we can send you updated information about these and other Samson products in the future.

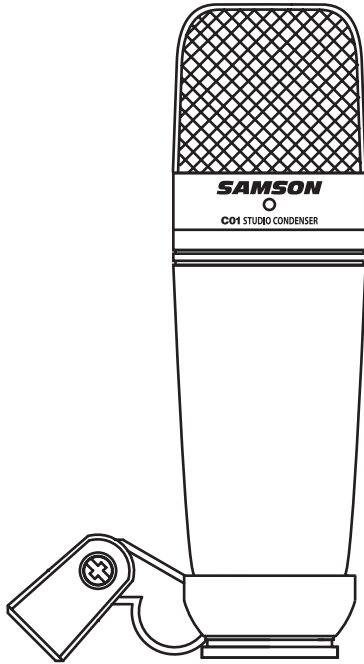
With proper care and adequate air circulation, your C01 will operate trouble free for many years. We recommend you record your serial number in the space provided below for future reference.

Serial number: _____

Date of purchase: _____

Should your unit ever require servicing, a Return Authorization number (RA) must be obtained before shipping your unit to Samson. Without this number, the unit will not be accepted. Please call Samson at 1-800-3SAMSON (1-800-372-6766) for a Return Authorization number prior to shipping your unit. Please retain the original packing materials and if possible, return the unit in the original carton and packing materials.

C01 Features



C01 Features

- Large Diaphragm Studio Condenser
- 19mm Capsule with 3-micron diaphragm
- Smooth and transparent sound reproduction
- Hyper Cardioid Pick-Up Pattern
- 36-52 Volt Phantom Power Operation with Blue LED
- Internal Shock-mount
- Extended frequency response
- Solid Die Cast Construction
- Swivel Stand Mount and Carry Case included

Operating the C01

Powering the C01

The C01 is a condenser microphone and therefore needs to be operated by connecting a phantom power supply. Phantom power is standard on most quality mixers, onboard mic-pres and hard disk recorders. If necessary an external phantom supply can also be used. The C01 receives the phantom power directly from a mic cable when connected to a mixer or other microphone input that includes a phantom supply. The power is actually sent OUT of the microphone INPUT, riding silently along with the audio signal. (Fairly mysterious, eh?) Most mixers have a switch to engage the phantom power so be sure to check that the phantom power is on. The C01 features a blue LED, which will illuminate when phantom power is present.

Polar Pattern

The most important characteristic of any microphone is its directionality or “pick-up pattern”. There are three basic categories of pick up patterns; omni, bi and uni-directional. Omni mics pick up sound from all directions, bi-directional (figure 8) mics pick up the sound directly in front and back of the microphone while rejecting the sound on the left and right sides, and uni-directional (cardioid) mics pick up the sound in front of the microphone.

While omni and bi-directional microphones are very useful for a variety of applications, the majority of micing situations in recording and live sound require uni-directional or cardioid microphones. The uni-directional nature allows for better separation of instruments in the studio and more control over feedback in live sound reinforcement. The C01 condenser’s pick-up pattern is hyper-cardioid, which offers even more side-to-side rejection. When positioned correctly the hyper-cardioid pick-up pattern allows you to pick up more of the sound you want and less of the sound you don’t want.

Microphone Placement

In order to maximize the sound quality, you must pay careful attention to the placement of your C01 and how it is positioned for the instrument or vocalist that you are micing. All microphones, especially uni-directional or cardioid microphone exhibit a phenomenon known as proximity effect. Very simply put, proximity effect is a resulting change in the frequency response of a microphone based on the position of the mic capsule relative to the sound source. Specifically, when you point a cardioid mic directly at the sound source (on axis) you will get the best frequency response, however when you start pointing the microphone slightly away (off axis) you will notice the low frequency response dropping off and the microphone will start to sound thinner.

For most vocals application you’ll want to position the microphone directly in front of the talent. The same may be true for micing instruments, however, you

Operating the C01

can make some pretty amazing equalization adjustments by slightly changing the angle of the capsule to the sound source. This can be a very useful technique in capturing the optimum sound of drum set, acoustic guitar, piano or other instruments in a live room or sound stage. Experimentation and experience are the best teachers in getting good sounds, so plug in!

Setting Up the Signal Level

When connecting the C01 to a mixer or recorder input, be sure that the input is of microphone level. Also, be sure that the phantom power is engaged as explained the previous section "Powering the C01". Most mixers and recorders of reasonable quality will offer a microphone input with mic trim (usual called Trim or Gain) control. The purpose of the mic trim control is to optimize the amount of good signal to any noise associated with the mixers electronics. A good mic pre with trim also will have a PEAK or CLIP LED. To set a good level on the mic, set the C01 up in front of the desired sound source and slowly raise the mic trim control until you see the PEAK LED light up. Then, turn the mix trim control down until the LED does not light any more. On most mixers the ideal setting is that the trim control is turned up as much as possible without lighting the PEAK LED.

P-Popping

P-Popping is that annoying pop that you can get when the microphone diaphragm gets a blast of air from a vocalist pronouncing words with the letter "P" included. There are a few ways to deal with the problem including using an external pop filter. Some famous engineers have relied on an old nylon stocking over a bent clothes hanger, which actually works very well. You can also try placing the microphone slightly off axis (on a slight angle) from the vocalist. This can often solve the problem without using an external pop filter.

Stand Mounting the C01

The C01 can be mounted to a standard microphone stand using the included swivel mount adapter. If you are using a US 5/8" mic stand, you will need to remove, by unscrewing, the Euro stand adapter. Simply screw on the swivel adapter on your mic stand or boom arm. Now, loosen the thumbscrew and adjust the microphone to the desired angle. Once set, tighten the thumbscrew to secure the microphone in place.

Using the Optional SP01 Shock-Mount

Using the Optional SP01 “Spider” Shock-Mount

For additional isolation the C01 can be fitted on the optional SP01 “Spider” shock mount. Follow the steps below to install the SP01.

- First, screw the SP01 shock mount onto your mic stand or boom arm. If you’re using a US 5/8” mic stand or boom, remove the Euro adapter.
- Remove the C01 swivel mount by rotating the threaded collar counter-clockwise as shown in figure 1.
- Install the C01 into the SP01 by fitting the microphone into the center of the web, positioning the C01 onto the bottom mounting plate.
- Secure the SP01 by reinstalling the threaded collar, rotating clockwise until tight. (Figure 2)
- Now, loosen the thumb screw to adjust the angle of the microphone and position the C01 to the desired location. Once set, tighten the thumb-screw to secure the microphone in place.

Note: Be careful not to cross thread or over tighten the threaded collar or thumb screw.

