

Q1

CONDENSER MICROPHONE

OWNERS MANUAL

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Thank you for purchasing the Samson Q1 Condenser Microphone. The Q1 condenser microphone brings a high level of accuracy and audio performance to vocal miking applications.

The Q1 is a hand held condenser vocal microphone that excels in both live and project studio applications. Equipped with a linear frequency response for superior reproduction, it is also designed to withstand high sound pressure levels. Extremely sensitive, it employs a tight cardioid pattern to reduce feedback. A special shock-mounted element minimizes handling noise and provides additional protection.

Should your microphone 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

Features

The Samson Q1 utilizes state-of-the-art microphone technology and is engineered to the finest detail. Here are some of its main features:

- Tight cardioid polar pattern minimizes feedback problems and effectively rejects signals not originating directly in front of the mic capsule.
- Full range frequency response for optimum reproduction and exceptionally clear, crisp sound.
- Special shock-mounting allows multi axis movement of the mic element to greatly reduce handling noise.
- Rugged zinc-casting and silicon anti-dent ring ensures reliable performance in even the most demanding environments.
- Lightweight and compact, the Q1 can be mounted on any standard microphone stand (using the included mic clip) or can be easily handheld for long periods without inducing fatigue.
- Included foam-lined carrying case for convenience when transporting the Q1 from venue to venue.

- Withstands high SPLs lending itself to a wide range of miking situations
- Ultra sensitive element picks up all of the nuances of any performance
- Accepts a wide variety of phantom power source voltages from 11 to 52 Vdc

Microphone Placement and Tone Quality

Listed are some common microphone placement techniques. Use these suggestions as a guide and let your ears determine what works best in your situation.

- Sound source less than 6 inches away from mic—Full sound, pronounced bass, increased isolation from background noise.
- Sound source 6 inches to 2 feet away from mic.—Balanced natural sound, less bass, some background noise.
- Sound source 3 to 6 feet away. from mic—Thinner ambient sound.

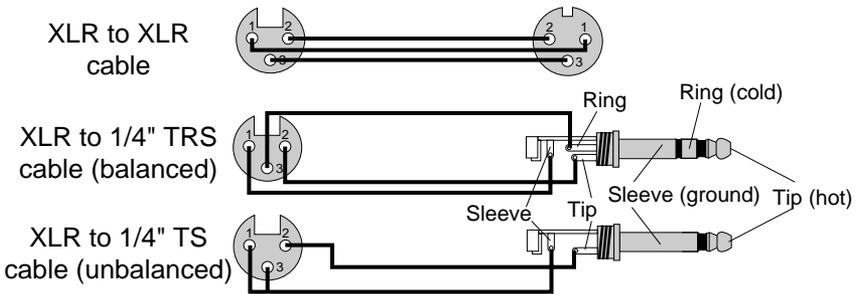
Guidelines for Microphone Use

- Aim the microphone at the desired source. Keep unwanted sound sources at a 135° angle from the front of the microphone (see polar pattern).
- Place the microphone as close to the sound source as possible.
- Use the proximity effect to your advantage. The closer the mic is to the sound source, the more emphasized the bass response will be.
- Use a windscreen to suppress unwanted wind noise.
- Never cup your hand over the microphone grill.

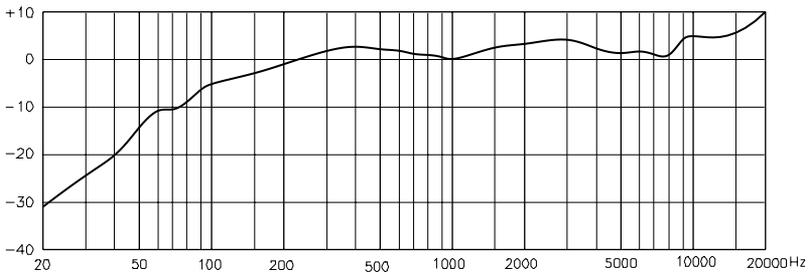
Operating Notes

- The Q1 requires phantom power to operate. This is supplied to the microphone via the XLR cable when connected to preamplifiers, mixers, or consoles with built-in phantom power. The Q1 will operate with phantom power sources between 11 to 52 Vdc.
- The Q1 will boost bass frequencies when the microphone is between 0—6 inches from the sound source. As you move the sound source further away from the microphone, the bass response will gradually roll off.
- The Q1 has a built-in wind screen which protects against most wind and breathing noise. Under adverse conditions, such as high winds, an optional foam windscreen can be used.
- For maximum signal handling capability and minimal distortion, a minimum load impedance of 800 ohms should be used. A reduction in output signal strength and output clipping level will result with the load at 150 ohms.

The Q1 can be connected to any mixer, mixer/amplifier, or mic preamp supplying phantom power, using a standard microphone cable. As shown in the wiring diagrams below, connect the female XLR end directly to the Q1's gold-plated connector and the other end (normally a male XLR end, although some mixers use 1/4" connectors) to the mixer, mixer/amplifier, or mic preamp.



The Q1 can be mounted to any standard microphone stand (using the included mic clip) or can be handheld; due to its unique multi-axis mic element shock mounting, it generates significantly less handling noise than most other microphones. If handheld, take care not to cover the head grille with your hand. Be aware of a phenomenon called the proximity effect which causes a noticeable increase in low frequencies (bass response) when a microphone is close to the audio source. This can have positive impact—for example, it will cause your voice to sound much fuller when you sing close to the mic than when you sing at a distance. The Q1 is specially designed to be used up close, since it provides a built-in windscreen (as shown in the illustration below) for removal of pops, sibilance and onstage noise. The key to developing the best mic technique is experimentation, along with awareness of the general principle that, the closer your Q1 is to a signal source, the greater the bass response.



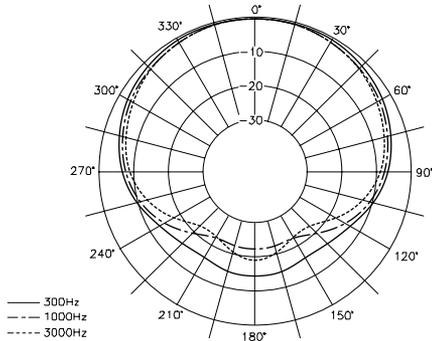
Q1 Frequency Chart

Every microphone has a characteristic polar pattern that determines how well it accepts or rejects signal coming from various areas around the microphone. For example, omnidirectional mics accept all signals regardless of wherever those signals originate (in front of the mic, behind it, to the side, etc.). In contrast, directional cardioid mics are specifically designed to accept mostly signal coming from directly in front, and to reject signal coming from behind or from the side. The most extreme variation of cardioid is the cardioid pattern utilized by the Q1 (as shown in the illustration on the following page); this yields maximum rejection of signal coming from any direction other than directly in front of the mic. For this

reason, the Q1 excels in environments where there is a good deal of unwanted ambient sound—it delivers those signals originating directly in front of the mic capsule itself while rejecting those that originate from behind.

The polar pattern also determines how prone a particular mic is to inducing feedback. Feedback is that characteristic nasty howling sound that occurs when a mic is placed too close to a loudspeaker—the signal from the loudspeaker is fed into the mic, then into the loudspeaker, then into the mic, over and over again until an oscillating tone is generated. Because the cardioid pattern utilized by the Q1 is so good at rejecting signal not coming from directly in front of the mic, you'll find that use of the Q1 greatly minimizes feedback problems.

Q1 Polar Pattern



Q1 Specifications

Type	Condenser
Frequency Response	50 Hz - 20 kHz
Polar Pattern	Cardioid
Output Impedance	Rated at 150Ω (90Ω actual)
Maximum SPL	142 dB w/ 800Ω load, 134 dB w/ 150Ω load
Connector	3-pin gold plated balanced XLR male
Power Requirements	
Supply Voltage (Phantom)	11 to 52 Vdc
Current Drain	1.0 to 1.2 mA
Dimensions	
Head length	2. in. / 51 mm
Main unit length	5 in. / 127 mm
Total length	7 in. / 178 mm
Weight	8.4 oz. / 240 g