

Q4

DYNAMIC MICROPHONE

OWNER'S MANUAL

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v2



SAMSON®

Thank you for purchasing the Samson Q4 Dynamic Microphone. The Q4 dynamic microphone brings a high level of accuracy and audio performance to vocal miking applications thanks to its low mass, neodymium element.

The Q4 is a hand held, dynamic microphone that excels in both live performance and recording 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 super cardioid pattern to reduce feedback. A special shock-mounted element minimizes handling noise and provides additional protection.

In this manual you'll find a detailed description of the features of the Q4 microphone, as well as instructions for using your Q4, and full specifications. You'll also find a warranty card enclosed—don't forget to fill it out and send it in! This will enable you to receive online technical support and will allow us to send you updated information about other Samson products.

Should your Q4 ever require servicing, a Return Authorization (RA) number must be obtained before shipping your unit to Samson. Without this number, the unit will not be accepted. Please visit samsontech.com/ra or contact us at support@samsontech.com for an RA number prior to shipping your unit. Please retain the original packing materials and, if possible, return the unit in its original carton. If your Q4 was purchased outside of the United States, contact your local distributor for warranty details and service information.

Features

The Samson Q4 utilizes state-of-the-art microphone technology and is engineered to the finest detail. Here are some of its main features:

- Ultra sensitive element picks up all of the nuances of any performance.
- Super cardioid polar pattern minimizes feedback problems and effectively rejects signals not originating directly in front of the mic capsule.
- Extended range frequency response for optimum reproduction and exceptionally clear, crisp sound.
- Handy ON/OFF switch for on-stage control.
- Special shock-mounting allows movement of the mic element to greatly reduce handling noise.
- Rugged zinc alloy die-casting case ensures reliable performance in even the most demanding environments.
- The Q4 can be mounted on any standard microphone stand (using the included mic clip).
- Withstands high SPLs lending itself to a wide range of miking situations.
- Low impedance output lets the Q4 send a strong full bandwidth signal over long cable runs.
- Gold plated XLR Connector.

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.
- When operating outdoors, use a foam windscreen to suppress unwanted wind noise.
- Never cup your hand over the microphone grill.

Operating Notes

- The Q4 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 Q4 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 (Samson part number, WS5) 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.

Q4 Hook-up and Mounting

The Q4 can be connected to any mixer, mixer/amplifier, or mic preamp using a standard microphone cable. Connect the female XLR end directly to the Q4'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. *Detailed wiring diagrams for XLR and XLR to 1/4 cables can be found on the back page of this manual.*

The Q4 can be mounted to any standard microphone stand (using the included mic clip) or can be handheld; due to its unique mic element shock mounting, it generates significantly less handling noise than most other microphones. If handheld, take care not to cover the any part of 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 Q4 is specially designed to be used up close, since it provides a built-in windscreen for removal of pops, sibilance and on stage noise. The key to developing the best mic technique is experimentation, along with awareness of the general principle that, the closer your Q4 is to a signal source, the greater the bass response.

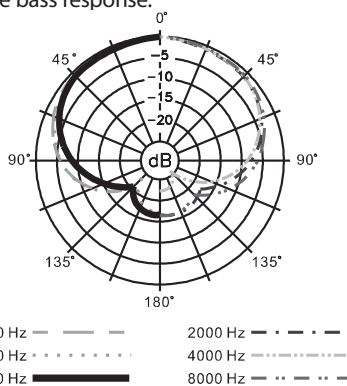
Q4 Polar Pattern

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, unidirectional, *or 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.

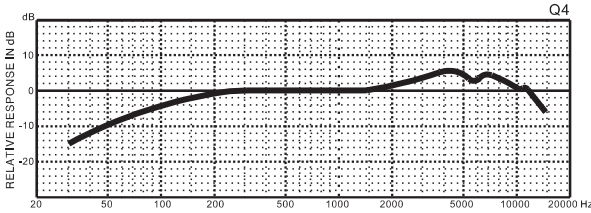
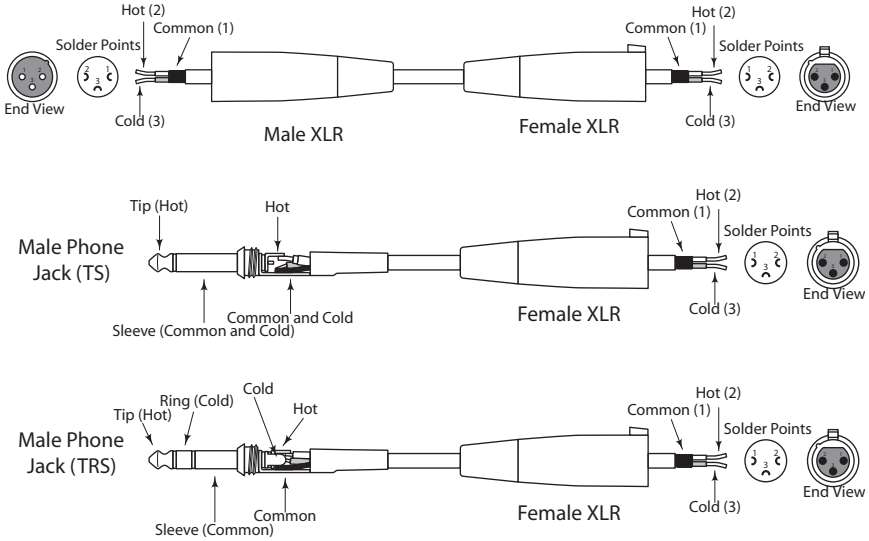
The super cardioid pattern is utilized by the Q4 (as shown in the illustration below). For this reason, the Q4 excels in environments where there is a good deal of unwanted ambient sound—it delivers those signals originating directly in front of the mic capsule itself while rejecting those that originate 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 super cardioid pattern utilized by the Q4 is so good at rejecting signal not coming from directly in front of the mic, you'll find that use of the Q4 greatly minimizes feedback problems.



Q4 Polar Pattern

Q4 Mic Cable Wiring Diagram



Q4 Frequency Chart

Q4 Specifications

Type	Dynamic
Frequency Response	80 Hz - 12 kHz
Polar Pattern	Super Cardioid
Output Impedance	500Ω
Sensitivity	-50 dBV/Pa (3.2 mV/Pa)
Connector	3-pin gold plated balanced XLR male
Dimensions	
Diameter	2.13 in. / 54 mm
Total length	6.70 in. / 170 mm
Weight	9.88 oz. / 280 g

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