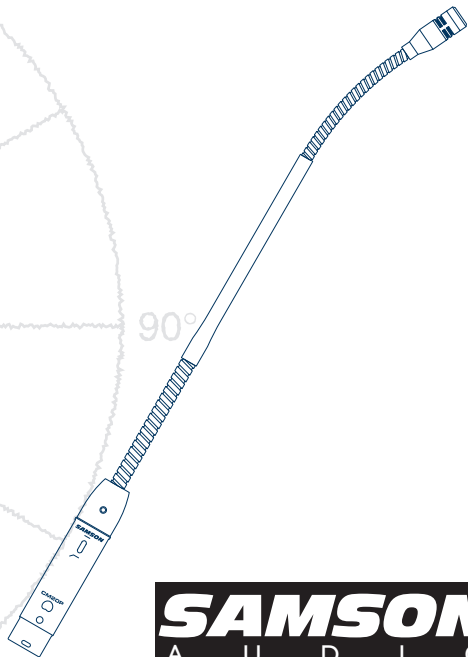


CM15P

CM20P

MINIATURE CARDIOID GOOSENECK
PODIUM MICROPHONES

Owners Manual



SAMSON
A U D I O

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Introduction

Thank you for purchasing the CM15P or CM20P podium microphone from Samson Audio! The CM15 and CM20P miniature gooseneck microphones are 15" and 20" in overall length respectively, and the goosenecks are flexible at the top and bottom with a mid-section stiffener for a straight profile. They feature a permanently charged condenser element with a Cardioid (uni-directional) pick-up pattern, providing good off axis response while maintaining high feedback rejection. The CM15 and CM20 microphones are fitted with a standard 3-pin male XLR connector at their base for easy installation on standard female XLR connectors or cables. An onboard High-pass filter, at 100Hz, is included, allowing the low frequency response to be attenuated which helps remove background noise, stage rumble and mechanical noise, which can sometimes be transmitted by the speaker at a podium. The microphones operate on standard 9 through 52 volts phantom power supply. Each microphone includes a standard and shock-mounted flange for easy installation. A dual-stage, rippled windscreen is also provided to greatly reduce annoying P-popping. The microphone elements are protected by rugged metal housings and the entire microphone is finished in a low reflectance, matte black finish.

Should your CM15P and CM20P Podium 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 material and, if possible, return the CM15P and CM20P in its original carton and packing materials.

CM15P and CM20P Features

The Samson CM15P and CM20P utilize state-of-the-art microphone technology and are engineered to the finest detail. Here are some of their main features:

- CM20P: 20" overall length; CM15P" 15" overall length
- Flexible gooseneck top and bottom, rigid mid-section
- Internal selectable Hi-pass filter
- Standard XLR connector
- FMS1 Standard Flange-mount included
- WS15 Multistage windscreen included
- 9 – 52 Volt Phantom Power Operation

Using the CM15P and CM20P

Powering the CM15P and CM20P

The CM15P and CM20P are condenser microphones and therefore need to be operated by connecting a phantom power supply. Phantom power is standard on most quality mixers. If necessary, an external phantom supply, *like the Samson S phantom*, can also be used. The CM15P and CM20P receive the phantom power directly from a mic connector or cable when connected to a mixer that includes a phantom supply. The power is sent OUT of the microphone INPUT, riding silently along with the audio signal. Most mixers have a switch to engage the phantom power, so be sure to check that the phantom power is on.

Microphone Placement and Positioning

The CM15P and CM20P have been designed to be placed on a podium or table top and connected to a standard XLR connector. In order to reduce the occurrences of "p-popping", always use the supplied windscreen. Since the CM15P and CM20P have a uni-direction pick-up pattern, be sure to position the microphone towards the sound you want to pick up, and away from sound you do not want to pick up. In order to maximize the sound quality, you must pay careful attention to the placement of your CM15P and CM20P and how it is positioned for the instrument or vocalist that you are miking. All microphones, especially uni-directional or cardioid

Using the CM15P and CM20P

Microphone Placement and Positioning - continued

microphones, 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. Generally, you will get a bass boost when miking in close. 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.

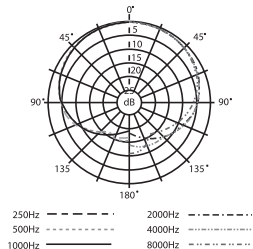
CM15P and CM20P Polar Pattern

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 where 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 cardioid pattern is utilized by the CM15P and CM20P (as shown in the illustration below). For this reason, the CM15P and CM20P excel 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.

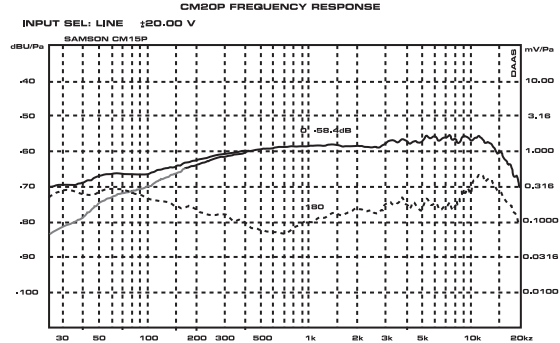
The polar pattern also determines how prone a particular mic is to inducing feedback. Feedback is that characteristic nasty howling sound that occurs when a mic is placed too close to a loudspeaker—the signal from the loudspeaker is fed into the mic, then into the loudspeaker, then into the mic, over and over again until an oscillating tone is generated. Because the cardioid pattern utilized by the CM15P and CM20P is so good at rejecting signal coming from the rear of the mic, you'll find that use of the CM15P and CM20P greatly minimizes feedback problems.

Polar Pattern



CM20P

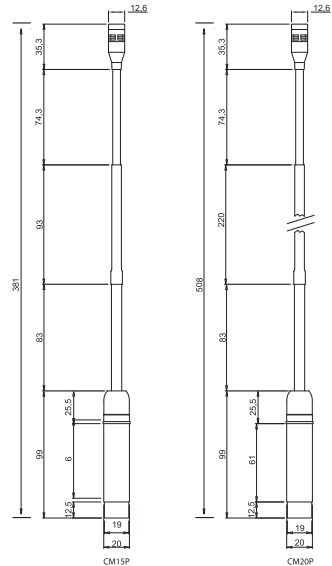
CM15P and CM20P Frequency Response



CM15P and CM20P Specifications

Specifications

Element Type	Fixed-charge condenser
Polar Pattern	Cardioid (Uni-directional)
Frequency response	60 - 16000Hz
Sensitivity	-40dB/Pa
Rated impedance	600 ohms
SPL	127dB
Dynamic range	103dB
S/N ratio	70dB
Power Supply	9~52V phantom supply
Power consumption	4mA



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