

Why Mic Distance Range is Important?

Harry Olson - August 17, 2021, Post on BestShotgunMic.com
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Excellent and clear sound is the key to making a high-quality video. Just as a good video maker takes care of everything to make his content good, a skilled vocalist needs to choose the best range of the shotgun mic. Using the proper shotgun mic range while making your videos is essential in improving the audio quality.

As the name suggests, shotgun mics are much longer than typical mics. That is why they are reassembled as a shotgun. You can see such shotgun mics at sports events, press, movie sets, etc. The most crucial factor is the practical range of a shotgun mic. The average pickup range for a shotgun mic is from 4 to 10 feet.

The shotgun mic has a narrow unidirectional polar pattern that picks the target sound even from a distance while ignoring the noise sounds. It accurately picks up the sound and blocks the unnecessary noises from the rear by using phase canceling.

Shotgun mics are often mounted on top of the camera, or they can be used separately as a boom microphone, depending on your budget. As discussed above, the shotgun mic range has different types for each situation. Let's quickly go through those types.

Types of shotgun mic according to the range:

There are some types of shotgun mic range for different situations. These types have different range limits for recording voice with a shotgun mic. Let's discuss it below.

Long Range Shotgun Microphone (10 ft.):

The long-range shotgun mic is used mainly by professionals during productions or any significant event. It is also called a boom operator. The most considerable advantage of long shotgun mics is that it is a precision long-range shotgun mic which means it has a long-range. The long shotgun accurately records the sound from a distance because of its long and narrow patterns.

Such shotgun mics fall in the category of “highly directional microphones”. So if you want to know how to get more range from a shotgun mic, you can consider long shotgun mics as they can range to **10 feet**, just like stereo shotgun long-range mic. They use a phantom or internal battery to operate and should be kept close to the subject.

Medium Range Shotgun Microphone (6 ft.):

This medium-range shotgun mic is mainly used for voice pickups in the TV and film industries. Just like long shotgun mics, they also require XLR input and a phantom battery to operate. One of the best examples of this type is the medium-range shotgun mic 2017, which uses the directional pickup pattern. You can use these mics from a distance of **6 feet** with minimal background noises. They are easy to use and work well for recording a podcast or a YouTube video.

Short Range Shotgun Microphone (4 ft.)

The short shotgun mics are smaller compared to the other two types. But the length of these shotgun mics plays an essential part. These mics are easy to operate due to their size and are mostly mounted on top of the cameras. They use XLR input and a phantom battery to set off. However, they are less directional than long shotgun mics and can range to **4 feet**.

Things to Consider Before Buying a Shotgun Mic

Below are some factors you should be aware of before buying a shotgun mic with a suitable range.

Narrow Polar Pattern

Most shotgun mics have this factor, but many lack it. While buying a shotgun mic with a suitable range, check out this factor; it accurately rejects the noise off-axis and makes your sounds clearer.

Natural Frequency Response

A shotgun mic having this factor will record the exact sound while blocking the extra noises from the surroundings. Natural Frequency Response also plays an essential role because applications like TV, films, podcasts, etc., need precise and clean sounds.

Low self-noise

Most condenser microphones consist of active electronics, which bring out the self-noise, and microphone signals automatically convert it into noise ratio. So it is necessary to go for low self-noise mics if you want clean and clear sounds.

High Sensitivity

If you are using a long shotgun or a medium shotgun mic, it's necessary to look for this factor. The high sensitivity factor allows the mic signals to stay strong even if the mic is positioned away.

Length and Weight

The length and weight of the mic depend on the type you are buying. However, the long shotgun mics are highly directional, but they can be tricky to be mounted on a camera or end of the boom pole.

Conclusion

Now you know all the factors to look for the best shotgun mic with a suitable range. We hope our research will help you out in this regard. If you have any questions, ask us in the comments section below.