

CAMERA-MOUNTED MICROPHONE



The camera-mounted microphone is a powerful ally to help you record quality sound. A properly set-up onboard mic will not only do a good job of capturing all your b-reel sound, but it can also save your hide if an unexpected quick interview or sound bite occurs. Yes, you can get very usable dialogue from your camera mic!

Now, to be clear, I'm talking about a professional quality shotgun microphone mounted in the microphone holder of the camera. I'm not talking about microphones that are integrated or built-in to the handle or front of the camera by the manufacturer. Yes, these are easy to use and do record sound, but the overall sound quality is poor, they have no wind protection and are vulnerable to picking up any handling noise you generate when using the camera.



Don't rely on a built-in microphone as your primary source of sound. If you want to use it to record your child's birthday party, that's fine. But for a paying professional gig, not a chance.

Choosing the right microphone to mount on your camera is extremely important. Over the years I've seen many camera operators grab any kind of mic they can find and attach it to their cameras in the most ridiculous ways - usually with a way-too-long audio cable coiled and hanging off the side. It also appears that many of you are under the impression that the longer a shotgun mic is the better. Well, for camera microphones it's actually just the opposite. You have to choose the right mic for the job.

Think of camera lenses. Would you use a 400mm lens for hand-held interviews on the street? How about a 24mm wide angle to shoot wildlife way off in the distance? Of course not.

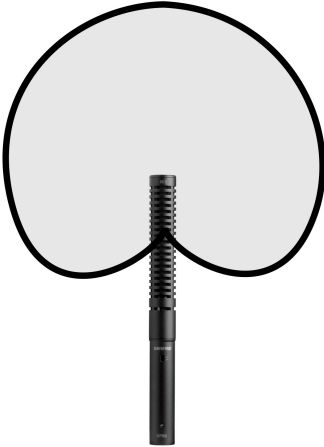
It's time to do it right. So, let's get to it and talk about the best types of microphones to mount on your camera.

▣ WHAT TO LOOK FOR IN AN ONBOARD CAMERA MIC

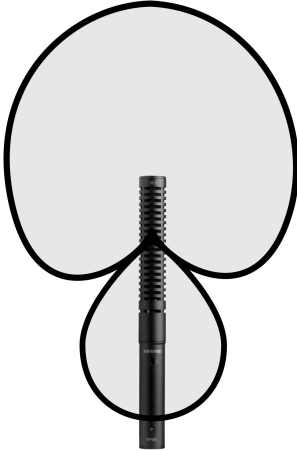
Your first priority is a high quality mic. If we compare a microphone to a camera lens, you'd all agree that good glass yields a nicer picture. It's the same when it comes to microphones. A good microphone produces better sound. But, more importantly, a good microphone produces better sound in a wider variety of locations - and this is huge! You want a camera mic that is versatile and produces quality sound in as many sound environments (locations) as possible.

I'm going to get a little sound-tech-nerdy on you because it's time to understand what a pick-up pattern is. The high quality mic you're going to use will have either a cardioid or hyper-cardioid pick-up pattern.

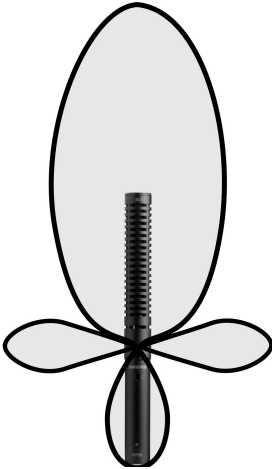
DIAGRAMS OF PICK-UP PATTERNS



Cardioid pick-up pattern



Hyper-cardioid pick-up pattern



Shotgun pick-up pattern

You can see in the diagrams of the pick-up patterns that I've placed photos of microphones. This should help you understand what these pick-up pattern diagrams are showing you. First, notice where the microphone is positioned on the pick-up pattern. This shows you from which direction sound will be recorded.

The cardioid pattern picks up a wide area in front of the microphone but doesn't reach very far. The hyper-cardioid pattern is similar but there's also a small amount of sound getting into the mic from the rear. The shotgun pattern can reach very far but has a narrow pattern with sound getting into the mic from the sides and the rear.

A camera-mounted mic should be recording the sounds in front of you – what the camera is seeing. It shouldn't be picking up what's going on beside or behind you. This is the main reason NOT to use a stereo mic. You also don't want a mic that reaches too far. The majority of video work is hand-held and up close. The subject of your shot is usually no more than 4-feet away. If you choose a mic that's designed to reach 10-feet and beyond, it will shoot past your subject and pickup too much background noise – that's why you don't want to use a shotgun pattern mic. This is critical to remember if you're going to rely on your camera mic to record usable dialogue.

I recommend your camera-mounted mic have a cardioid pick up pattern for several reasons. First, they don't pick up sound from the rear. This prevents the mic from picking up and recording camera handling noise and a camera operator's heavy breathing – yes, you camera ops do that! Second, they have a fairly wide pattern. This is great for recording dialogue for a two-shot and groups of people. It also produces great b-reel ambience on wider shots. And finally, the mic I prefer only reaches about 4-feet – which is perfect.