

7 Tips for Good Audio Recording On Location:

1. Place the microphone as close to the actor's mouth as possible

This is really the most crucial tip. The key to recording rich, clean, high-quality location dialogue is to **place the microphone as close as possible to the subject**. In this way the actor's voice will be much louder than the background noise. This is called **signal to noise ratio**. The signal is the audio you want to record, the noise is everything else. There will always be noise – that's natural – but you must do everything possible to make the signal significantly louder than the background noise. The fundamental way to do this is to get the mic close.

The microphone should also ideally be overhead, pointing downwards at the actor's mouth, **no more than about 12 inches away**. The second best choice is to place the microphone *below* the bottom frame edge, with the microphone pointing upwards at the actor's mouth.

The best way to set the mic position is to make the actor(s) get into position, frame them, instruct the boom operator to dip the microphone into the frame, lift it out until it is just out of frame, set the level using a sample line from the actors, and roll! With this strict technique the microphone will occasionally dip into the frame, requiring a re-take of at least that part of the shot, but the great sound quality will more than compensate for that.

A common problem with the soundtrack on student films is a 'thin' or 'tinny' recording, particularly in interior locations. This is usually the result of reverberation, which is the effect of the same audio signal bouncing around in hard spaces and reaching the mic at fractionally different times. Once again, the principle solution is to get the mic close. But sometimes, in a large space with hard surfaces, it can be difficult to eliminate. In this situation it can be very effective to 'baffle' the space. This means to break up and absorb the pressure waves using soft surfaces. Curtains, drapes, soft furniture, blankets etc. placed strategically around the mic and actors, can all be good ways to improve the quality of your recording.

2. Listen carefully

Sounds obvious but its importance can't be overstated and when working in a busy, pressured environment it's all too easy to let poor sound pass unnoticed. With a pair of quality headphones, it should be one crew member's dedicated role to carefully monitor the recorded audio. They might also close their eyes during a take to improve concentration on the audio. The hard part is often having the confidence, (when the actors, director, and DoP are all congratulating themselves on a great take) to intervene and say that there was a problem with the sound and another take is necessary. They may not like it then, but they will be relieved once they get to the edit. Ideally you should also play back each shot and listen to the audio and watch the levels. Was there handling noise? Were the levels good? Is the background noise too loud?

3. Isolate the dialogue

The ideal situation is to record a completely clean dialogue track with fantastic signal to noise ratio and consistent low background noise. In reality this is often not possible because the world is a noisy place. The sound of planes, sirens and traffic are never far away, for instance. However, what you *can try to control* are all the noises on set and location which interfere with the dialogue - such as footsteps, doors closing, glasses hitting tables, clothes rustling – and all those other noises that we filter out but which a microphone cannot. For example, in a student film, two actors were walking down the street in long shot, wearing radio mics. The shot looked great but the actress was wearing heels. As she walked down the street the ‘clip-clop’ of her feet made a terribly loud and distracting sound all over the top of their lines. It was impossible to remove in post.

The solution is to control or eliminate these noises when shooting and then **record them separately** and add them into the mix in post-production. In the example above, could she have worn other shoes? The soundtracks of films are in reality built up from hundreds of separately recorded ‘spot effects’. This is the work of the Foley artist (see video on QMPlus). But it need not be daunting or complicated, it just requires a bit of thought, planning and attention. The results will be well worth it.

If background sound really is too bad and cannot be controlled, the only solution to getting clean dialogue is to record it separately to the picture and synch it later in post. This is surprisingly common in films and the process is called ADR (automated dialogue replacement) and is carried out in a dubbing suite with specialised technicians. This is a step too far for us but it is definitely possible to record small sections of dialogue again with the actors while still on location. For instance, if it’s too difficult to get clean synch audio for a particular shot, as soon as the director calls cut, take the actor or actors to a slightly different place, away from the problematic background noise. Then, only recording audio, ask the actor(s) to repeat the lines you couldn’t record cleanly when the camera was running. They should be able to give a pretty accurate rendition of the lines and you can get multiple takes for safety. And without the camera in the way you can the mic as close as you need to. Give it a try!

4. Work hard at boom operating.

It’s a difficult job but someone has got to do it and when done well, it will make a huge contribution to your finished film. As well as getting the microphone as close as possible, make sure the boom operator does not move his/her hands along the boom pole during takes, as the sound will be conducted by the pole to the mic and will produce unacceptable noise – called **handling noise**. The boom op. should also plan their operation for a scene and be very aware of how the scene plays. They should read the script beforehand and carefully watch rehearsals for cues and actor and camera movement. They can also actually rehearse their boom operation as the actors rehearse – if the director agrees. When watching a professional boom op. you realize how much work goes into getting the mic in the right place. For instance, as two actors talk in a two-shot the mic will be angled back and forth between them as they deliver

their lines. As actors turn their heads, so the mic is turned to maintain the same distance and angle from mic to actor.

5. Set the right recording level and avoid distortion at all costs.

Using either the camera or mixer the recording level of the audio must be set correctly and monitored on the audio meters. Obviously, loud sounds will register higher and quiet sounds lower on the meters, but **for dialogue the meters should read -12dB**. This is a strong signal, but leaves enough **headroom** to prevent **over-modulation and distortion**, should the signal level rise quickly.

With digital audio, over-modulating the sound recording level produces intolerably ugly distortion which cannot be fixed in post-production. Distorted (or crushed) audio is quite common amongst inexperienced filmmakers. The mic may be in the correct position for most of the scene, but then the actor shouts, or a door slams. The level is much louder and the signal distorts. The way to avoid this is to plan the scene and move the mic away at the right moment. And also listen carefully!

To set audio recording levels correctly, before rolling ask the actor to give a sample of the loudest line in the shot, then give yourself a good 6dB of headroom above that.

Remember you are trying to get the best possible signal to noise ratio. So this means that if the dialogue is not reaching -12dB you can't simply turn the audio recording level up. This will amplify everything, including noise, and give a horrible recording. Instead, **turn the level down and get the mic close!** (Do you notice I'm repeating this a lot?).

Finally, don't rely on auto level. This is not very clever and moves up and down with the incoming signal strength. If there is a moment of quiet, the auto-level increases the recording level, and hence the level of the noise. The resulting pattern of rising and falling background noise is unnatural and definitely to be avoided.

6. Don't settle for the onboard microphone

Whatever you do, remember that the surest way to make your production sound hopelessly amateurish is to record sound with an onboard mic (a microphone mounted on the camera). It will be an easier shoot but your audience will hate the poor sound.

Being attached to the camera, the mic will almost always be far away from the actors, resulting in noisy, echo-ridden dialogue, which will relegate your project to the amateur category. **Get that microphone as close to the subjects' mouths as possible!**

7. Record at least 30 seconds of ambient sound

For every location be sure to record at least 30 seconds of ambient sound. That means shutting everyone up and recording 30 seconds of silence. Of course it's not *real* silence; it is **ambient sound**, and the "silence" will be different for every location and every setup in that location. The use of this will only become apparent in post-production. Cutting audio results in harsh discontinuities that must be disguised. The ambient sound is used to cover these cuts to create a seamless soundtrack.