

# Recording Acoustic Guitars in the Control Room

By [Cliff Goldmacher](#)

Like a lot of musicians, I tend to wear several hats in the recording studio. Along with engineering and production, I do a lot of my own acoustic guitar work. The issue here is that in order to effectively engineer and play acoustic guitar at the same time, I'm forced to record in the control room so that I can run my Pro Tools rig. Over time, I've cobbled together an approach to help me get a clean, full, and detailed acoustic-guitar sound without using an isolation booth, bringing in another engineer, or resorting to piezo or onboard pickups (I feel a large part of the sonic beauty of the acoustic guitar lies in the way the instrument pushes air out of the soundhole).

## The Room

Nothing can take the place of a quiet room for recording. You might want to put up some sound-absorption panels on the walls nearest your setup. You can even go as far as to put sound diffuser panels on the ceiling above you. Essentially, you're trying to deaden the environment so you won't be recording a lot of room sound with your acoustic. However, I do like the clear and bright tone produced when the mic picks up some reflections from a hard floor. Also, distance yourself as much as possible from your computer to minimize the volume of the fan noise. Of course, as you'll be recording yourself, you'll need to keep your computer within reach, but you can always improve the odds by facing the microphone towards your acoustic and away from the computer.

## The Microphones

There are many microphone choices you can make when recording an acoustic guitar. For my ear, a large-diaphragm condenser set in a cardioid pattern, and pointed at an angle where the guitar neck meets the body at a distance of about six inches works best. I like the broader tonal spectrum I get when I use a large diaphragm mic as opposed to a small-diaphragm, "pencil" mic, and the cardioid pattern helps focus attention on the guitar, rather than the room. Also, by not pointing the mic directly at the soundhole, you get the fullness of the tone without low-mid woof. The proximity of the mic to the guitar also enables you to get a much higher direct-to-reflected sound ratio.

## Click Track Bleed

Now that your room is ready and your mic is placed, you'll need to take precautions to avoid signal bleed from your headphones from leaking into the mic. This is one of the most common mistakes people make when recording acoustic guitar to a live mic. Avoid high-frequency click tones with sounds that tend to pierce through the headphones—such as shaker or woodblock—and consider a sampled kick drum or floor tom. Also, once you've played the song through the first time, you can automate the volume of the click sound so that it plays back lower in soft passages, and drops out entirely at the end of the song in order to allow a clean ritard, or a long sustain on the last note. There's nothing that kills the mood of a song like the sound of an audible click track over the final chord.

## EQ/Compression

If you're using a preamp and/or compressor between your condenser mic and DAW, there are a couple of things to bear in mind. If the mic preamp has a high-pass filter, setting the frequency to between 60Hz and 80Hz will minimize control-room noise. Keep in mind that heavy front-end compression can give the acoustic a very present and powerful sound, but it can also amplify the noise of the room you've worked so hard to quiet down. While recording, I compress very light at a 3:1 ratio to take the edge (2dB or 3dB tops) off the loudest parts of the performance, which then allows me to make the overall recording level hotter.

Once you've already recorded your acoustic, there are a few additional EQ and compression applications that can help enhance the final mix. My EQ approach changes depending on whether the recording I'm making is a simple guitar/vocal, or one where I'm planning to overdub additional instruments. For a guitar/vocal, I employ EQ sparingly. I tend to use 125Hz as a place to pull a few dB if the recorded acoustic sound is slightly muddy or diffuse, and 5kHz as a place to boost if I need a bit more brightness (Figure 1). When it comes to integrating an acoustic into a fuller mix—especially one with drums and bass—I have a more dramatic approach that involves setting a high-pass filter to effectively remove all frequencies below 120Hz. This allows the proper sonic space for the bass and kick drum, while leaving the meat of the acoustic sound untouched. The approach to adding brightness is the same as above, and it can be added by boosting a few dB at 5kHz. I tend not to compress the acoustic in the mix on guitar/vocals, but when it comes to a band mix, compression can really help the guitar maintain its presence. I will generally compress at a 2.5:1 ratio with a fast attack and a slow release (Figure 2). Finally, given how easy it is to store settings, you might want to create acoustic guitar EQ and compression settings in your favorite plug-ins to speed up the process.

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