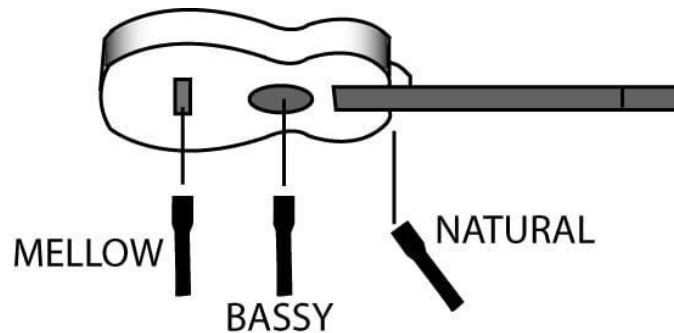


BEGINNER'S GUIDE TO HOME RECORDING ON A BUDGET

Part 4: Microphone technique basics



Where you place your microphones has a huge effect on the sound of your recordings. For example, the closer you place a mic to an instrument or singer, the less room acoustics you pick up. Close miking sounds close or "dry"; distant miking sounds distant or "live".

Close miking also reduces background noise and leakage. Leakage adds a distant, muddy sound. It happens when a mic picks up the sound of an instrument other than the one the mic is aiming at.

A typical starting distance for miking acoustic instruments and vocals in the studio is about 8 inches. If you place a mic closer than that, you hear a bass boost called "proximity effect". You might like that sound, but it can lend a boomy sound to the recorded track. If you don't want that bassy sound, mike farther away or turn down 100 Hz a few dB in your low-frequency shelving EQ.

If you mike a singing guitarist with two mics, that can cause "phase interference" or "comb filtering" in the recording. It's a hollow or tonally colored sound. To prevent it, mike the guitar and vocal fairly close and turn down the excess bass. Aim the vocal mic partly upward and aim the guitar mic partly downward. That increases the separation of each mic's sound and reduces the interference. Other options are:

- * Delay the guitar track by about 1 millisecond. That synchronizes the vocal sound in both mics.
- * Record the guitar first, then overdub the vocal.
- * Record the guitar and vocal with one mic. Vary the height of the mic to get a good balance.
- * Use a pickup or clip-on mic on the guitar to get more separation.
- * Use two bidirectional (figure-8) mics with grille sides touching. Aim one mic at the mouth and aim the other mic at the guitar.

The position of a mic near an instrument also affects the recorded tone. Each part of an instrument radiates a different tone, and close miking emphasizes the part of the instrument that the mic is near. Also, an instrument radiates a different tone in every direction. So, position a mic up or down, left or right, and record the results. Choose a mic location that sounds good to you.

For example, a mic placed close to a guitar's sound hole sounds bassy and thumpy. A mic near the bridge sounds mellow. A mic about 8 inches from the 12th fret tends to sound clear and natural.

Experiment with all sorts of mics and mic positions until you record a sound you like.

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