How To Get A Great Bass Sound In Your Home Studio

I spent more time in the early part of my engineering career trying to get a great bass sound than anything else. I tried going through a direct box. I tried miking the amp. I tried different amps. I tried different mics. I tried everything!

No matter how hard I tried, I always fell short of the mark. I went in search of the Holy Grail for bass sounds but never found it. I realized with time that the answer wasn't a singular prescription for success, but a collection of techniques that could be used as each situation dictated.

The first step in getting a good bass sound is of course, having a good sounding bass. "Good" being a subjective word, of course. With that in mind, let me simply say that the bass should have a nice balance between a rich bottom end and an articulate top end, great intonation, nice sustain, and no rattles or buzzes.

A few basic things to know about recording basses; First, and maybe foremost, the player has a great deal to do with the sound. As with many instruments, it's mostly in the fingers.

Second, the natural sound of the instrument is important. If the tonality isn't there to begin with, it's difficult at best to fake it. All the tube preamps and eq in the world can't hide a bass sound that's dull and lifeless.

Third, the strings. Round from flatwound, brass verses nickel. They all have a sound. The sound you like will be a personal choice. But, let me add that the song you're recording can and should dictate the type of sound you are going for. In other words, the bottom shouldn't sound alike for every type of song.

Fourth, recording a bass guitar with a direct box sounds differently than recording the bass by miking the amp.

Fifth, the tone you get on the bass itself will play a major role in getting your sound. Don't set and forget the onboard tone controls. Experiment.

Let's start with a direct box. There are many different brands. Some sound better than others. Do your homework. Ask your friends or engineers you know which they prefer. Try to find the brand and model which gives you the most bottom end, while also giving you the most definition or attack on the mid range frequencies. My personal favorite at the moment is made by Sans Amp.

It's usually best to use a compressor/limiter in line to keep your bass's signal from slamming into the red on the VU meter. A 3:1 ratio with a fast attack and slow release usually does the trick. A little higher ratio will give you more "punch" - too much compression will make the bass sound squashed. As always, experimentation is the key. And yes, tubes do make a difference. They'll arm up the sound, but they won't perform miracles.

I find that with most basses, I need to add about 4 db @ 80 HZ to fatten up the bottom end coming out of a direct box, and moderate compression gives me the "thump" I'm looking for. The more you can do with a bass's tone controls, the less work you'll have to do with equalizers.

I've also noticed that many direct boxes don't have a very fast slew rate. In plain English, that means the signal's rise and fall time is sluggish. What that means to the sound is the attack of the top end is often diminished, not due to the tone of the instrument, but the inadequacies of the box. Keep your ears open, and try several models. You'll be surprised at the wide range of sounds.

For miking the bass through an amp, I'll use a Fender Precision Bass as my imaginary example, and an old Bassman amp. A classic combination. I like to mic the cabinet with two microphones. A Senheiser 421 facing directly into one of the speakers at point blank range, and an AKG 414 (or any other good condensor mic) about four feet back from the cabinet. The close mic will give a more direct sound with an accentuated attack, and the distant mic will give you more of the low end (it takes several feet of "air" for a bass wave to develop).

By using various combinations of the two mics, I'm able to get a great sound that often just can't come out of one mic. While two mics can often spell trouble because of phase anomalies, this is a case where those same problems can work to your advantage. By balancing the signals different ways, you are effecting the phase relationship between the two mics and altering the eq curve, hopefully for the better. The amount you vary the signal is of course controlled by the faders on the respective channels of the console. The amount you move the faders to change the sound can often be measured by hair widths. A little dab will do ya!

Just for kicks, you can try adding a direct box to the aforementioned scenario, and send all three signals to the same track. The direct box often adds clarity to the whole sound that is nothing short of wonderful. Lesson learned: As always, experimentation pays. Be patient, be persistent, and most importantly, don't print it to tape unless you love it . . . or your client is getting ticked-off that you're taking way too long to get the sound!