

How To Get Great Drum Sounds From Your Home Studio

Nothing makes a home recording, any recording for that matter, sound better than great drum sounds. Pro engineers spend more time getting their drum sounds than any other instrument on their recordings and it shows. I've personally seen situations where engineers have spent days, several days in fact getting the drums to sound just so, before they'll move ahead with the rest of the record. What a bunch of wussies! Do they actually think the drum sound will sell any more records?!! Maybe not, but it's still very satisfying to get a great drum sound, and most engineers will go to great lengths to get one. Kits are changed, heads are changed, cymbals are changed, heads are taped up, heads are un-taped, mics are selected, mics are changed, the kit is surrounded with mirrors, the kit is placed on wood, head damping devices are used, mini pads are cut in half and placed on heads, two kick drums are taped together (end-to-end), and after all these variations are tested, the whole process may begin again with yet another kit, or worse yet, another drummer.

The Rx

So without any further delay kids, here's my prescription for a great drum sound you can get in a (kind of average, these days) home studio: The imaginary studio consists of a console with at least eight inputs (let's hope it's a Mackie or something that has good head room and nice sounding equalizers. Let's also assume you've got at least eight tracks (although you won't need them all for this set-up) on your tape deck and seven decent microphones. My recommendations for drum mics on a budget are 4) Senheiser MD 421's, 1) Shure 57, and 2) Shure SM 81's. There are other more expensive mics that I would use in a pro studio, but I'm not going to mention them because this article assumes you're broke. If you had any money, you wouldn't be reading the crap that I write, you'd be reading the Wall Street Journal.

Rule of Thumb

If the mic has a "pad" switch, use it when recording drums. Always better to pad at the mic than the console.

The Killer Kick

Mic the kick drum with a Senheiser 421, but only after throwing a sandbag in the drum to weigh it down. Let the sandbag touch the head (that the beater hits) just enough to dampen out any obnoxious overtones, but not the good, natural sounding ones. The mic should be placed about half way in to the drum itself and pointing at the beater. If you bring the mic in from the right side of the drum and angle it at the beater you will be avoiding leakage from the snare drum which is a good thing to do. You can experiment with the depth of the mic, but always keep the mic pointed at the drummer's shin bone on the leg that controls the hi-hat and in line with the beater.

The Sumptuous Snare

For the snare drum, it's always a safe and highly effective choice to use the venerable Shure SM57. Bring it in from the audience side of the kit and give it a 45 to 60 degree angle with the capsule about an inch or two above the head. Again, the farther out it is from the head, the roomier the sound, but the more potential you have for phase problems. By the way, it's always a good idea to point the mic at the drummer's crotch - not that it's a particularly good sounding part of the anatomy, but because it's away from the hi-hat and any potential leakage problems.

Thunderous Toms

Mic all three toms with the 421's set at a 45 degree (or thereabouts) angle to the drum head with the end of the mic (the capsule end) pointing at an imaginary spot about 2" past the rim nearest you as you place the mic (this is assuming you're working from the audience side of the kit). The floor tom mic can be placed a little close to the center of the head, but not too close. The distance of the mic from the actual head should range between one inch and six inches depending on how "roomy" you like your

drums to sound. Once again, the further the mics are from the drums, the roomier the sound, but you'll have to pay more attention to possible phase cancellation problems.

Overheads Easy

For the overheads use the SM 81's with the roll-off kicked in. Place the mics about 16 inches over the cymbals' centers and towed out at about 45 degrees. That will give better separation, and also reduce the amount of low end from the toms that is picked up in the cymbal mics. Who needs bottom end on their cymbals?! Please note that I haven't mentioned a hi-hat mic. That's because in most cases, you don't really need one. You'll get enough hi-hat bleeding in to the other mics. If you have the luxury of plenty of inputs and tracks, go ahead and mic the hi-hat, but chances are you won't need to.

And now here's the quick and dirty run-down on equalization and track assignments:

Kick drum - Assign it to track #2, and give it +2@ 100HZ for bottom, -2@300 - 500HZ for posterity, and +2@2.5 K for added attack. Set your mic pre to somewhere in the neighborhood of 12 o'clock (of course this will depend on your console's individual mic pre's). Your input levels should be peaking around -3db VU. Notice the "VU." If you're using peak meters, you're on your own. I was raised on VU's, and they remain my preference.

Snare drum - Assign it to track #3, and give it +2@100HZ, -2 to -4@300 - 500HZ, and +2@ 5K to8K for more snare and general crispness. Be careful on the top end, too much will make the snare sound thin and paper-like. Set your mic pre to somewhere in the neighborhood of 12 o'clock - possibly lower. Your input levels should be peaking around -2db VU.

Tom-Toms - Assign the high tom to track #4, the mid tom to tracks 4 &5, and the floor tom to track #5. Follow the same guidelines as the snare drum for the equalization. Again, set your mic pres to somewhere in the neighborhood of 12 o'clock or lower. Your input levels should be peaking around -2db VU. Pay special attention the mid tom. Because it's assigned to two tracks simultaneously and appearing down the middle of your monitors, it will generate less level at the meters and in your monitors and should be goosed a little to compensate. Have the drummer do a two-stroke on each tom in succession and you should hear a nice even "tacka - tacka - tacka" moving from one side to the other (I usually pan track #4 full left and track #5 full right).

Overheads - Assign the cymbal over the hi tom to the same track as the hi tom (track #4). That will help keep it in phase. Assign the cymbal on the other side of the kit to the same track as the floor tom (track #5) for the same reason. Cymbal mics usually don't need too much in the way of EQ, but you may want to use the high-pass filter to roll off the bottom end and add just a pinch of top end (around 8 - 10K). Keep the input levels of the cymbals fairly low as they have transients that can fool meters and blow tweeters faster than you can say, "Oops." Final Thoughts

Always check your drums in mono. If anything in the kit seems to disappear, then something's out of phase. Be systematic in tracking down the culprit.

If you follow this prescription closely and then, and only then, start to experiment with slight modifications of positions, level and eq, you'll find yourself getting a drum sound that just might sound professional. Of course, individual drummers have drastically different levels of "feel," and feel is very important to the sound, sometimes more important than the drums themselves or anything you can do in the control room.

During **Michael Laskow's** 20-year tenure as an engineer/producer, he worked with **Crosby, Stills, Nash and Young, Eric Clapton, Cheap Trick** and countless others. He continues to write articles for magazines like Recording and Electronic Musician. He's also the founder of [TAXI <http://www.taxi.com>](http://www.taxi.com), an independent A&R company that links record labels with unsigned artists and songwriters.