

Compression

Compression is one of those things that too many budding engineers and producers struggle with... using too much of it, or not enough. Keep these ideas in mind the next time you sit down to compress something.

Be wary of over compression (especially vocals). Unless the style of music calls for it, over compression can suck all of the life out of the mix and kill your dynamic range. There's a lot of debate and discussion around the loudness wars, but one thing is for sure (in my mind)... Too much compression is a BAD thing.

Don't kill your transients. When using a compressor, setting attack times that are too short (especially on drum tracks) can absolutely kill your transients ([click here](#) if you don't know what those are). You don't want that!

Try to avoid low threshold and high ratio settings. There are no hard and fast rules when mixing, but in my experience, setting low thresholds with high ratios on compressors can really squash your sound and make it devoid of any life. If you are going for a specific sound... go ahead and do what you want, but in general, I'd avoid it.

Use automatic settings... with caution. Auto settings on compressors can be great, especially for those newer to compression. They can reduce "unnatural" compression effects. However, they can also allow you to use too much compression without knowing it. The automatic settings can act like a crutch that takes you down a less-than-optimal path. Be aware of that!

If the gain reduction meter doesn't return to zero several times each bar, you are most likely over compressing. This is just a simple rule to follow with compression.

Want that "punch" and "thump" sound? Use high ratios and high thresholds. Simple as that, high ratios and high thresholds create a sound that hits harder.

Want to add "warmth" "thickening" or "glue" to the track? Use low ratios and low thresholds. This is a less "in your face" way to compress and serves a much different function.

Unless you're very experienced with compression, just use one type of compressor. I still have a lot to learn about compression, and I only use a few compressors that I'm familiar with. If you're less experienced with mixing, start by focusing on becoming an expert in one compressor before you start plugging in all kinds of fancy compressors to your track. Know what the knobs do, know how that compressor affects your sound and build from there.

Be smart when setting makeup gain. If you are setting makeup gain, try to set it so that the overall loudness will remain the same even if you bypass the compressor (unless that's your specific intention). This is key because you don't want to fool yourself into thinking you're doing a better job compressing than you are. Louder does not always equal better!

Know when NOT to use compression. Compression is a fantastic tool, but it's one that need not be applied to every track always (especially on vocals). Don't think "I need to compress this now" as just another step. Mix with INTENTION, always.

Eq

Effective equalization can help create greater separation between tracks in your mixes, can reduce muddiness and other problems with certain frequencies, and make a huge difference in many other areas. Here are some great tips to keep in mind when EQ'ing.

Cut narrow, boost wide. This is a general rule that's great to follow. Here's a helpful post breaking this concept down and showing the differences.

Try EQ'ing in mono. You don't have to do this all the time, but EQ'ing in mono can help force you to make sure there's enough separation between tracks in your mix.

Make use of frequency charts and reference them often. This interactive frequency chart is the best one I've ever come across. It's so helpful when you're trying to fit multiple instruments into a mix and don't want to risk crowding tracks out.

EQ tracks both solo and in the context of the entire mix. EQ'ing exclusively in solo, or never in solo are equally catastrophic mistakes to make. You should EQ with the entire mix in mind, and use solo EQ to really dial in and hear what you're doing. Go back and forth!

Slight EQ changes can go a long way. Keep this idea in mind when you're EQ'ing. As with compression, you don't need to make massive changes to have a significant impact on the mix. In fact, going overboard with EQ can sometimes create more problems.

Presets are okay... within reason. There's some debate around this, and I know some people will say "presets are the worst" – but I don't see it that way. Yes, presets have limitations (because every voice and instrument is different), but they CAN be great starting points... especially for beginners. So, feel free to use presets from time to time. I sometimes make use of presets make further changes to them to shape my sounds. Maybe some people will say I'm crazy, but it works for me! As long as you know what the limitations are and work on developing your EQ skills outside of presets, I think it's a fine decision.

Learn what frequencies, cuts, and boosts work best for your vocalists. Every voice is different, and if you're EQ'ing a vocalists, try to learn what frequencies sound good, where some cuts and boosts might be needed, and so on. This doesn't really work if you only work with a vocalist once, but if you have repeat business (or you're mixing yourself)... try to learn!

Make use of an EQ sweeping technique to find harsh frequencies. I personally love this sweeping technique to help identify and clean up harsh frequencies.

Cut before your boost. This is another one of those preference things... some people are in the additive EQ school and others are in the subtractive school. I tend to use both, but am a big fan of cutting BEFORE boosting. I think of it this way, when you make a cut, you're naturally "boosting" everything around it by virtue of not cutting them... it's fewer moves, so why not try that first?

Know when NOT to use an EQ. As above, you don't have to always EQ everything. Never approach EQ like something that must be done on each and every track for the mix to sound good. EQ with INTENTION. Do it because it will help, not because you think you have to! So there you have 20 compression and EQ tips. There are so many other great pieces of advice out there... do you have any tips for EQ'ing or compressing? Let me know on Facebook, Twitter, or in an email!