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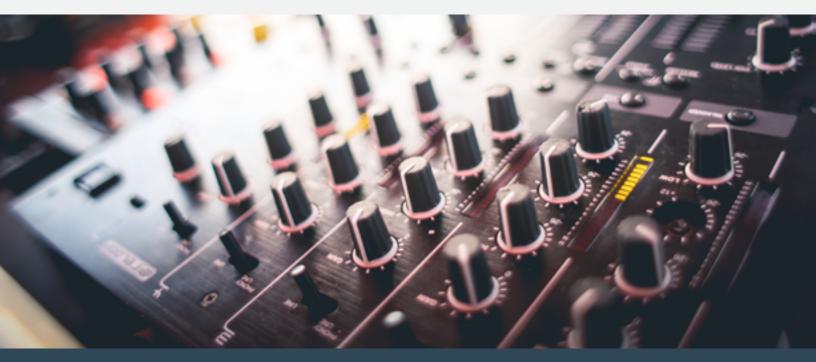
Instantly improve your Electronic Dance Music productions



# Here are my top 30 tips & techniques for mixing Electronic Dance Music (although the principles really apply to mixing any genre of music).

Mixing is the blending together of all the elements of a track to make it sound cohesive and balanced. It's the phase in music production before mastering. There's a lot to learn - and it takes practise - but with some fundamentals under your belt you'll be crafting better mixes in no time. Here are some of the very best techniques I've picked up over the years...

Caveat: Not all of these tips should be applied to every mix. In fact, some of them will detract from some mixes. They are a tool kit from which to draw, but always let your ears be the final judge. If there are any terms that are confusing, check out my EDM glossary here and it should help clear things up.





## 1. The mix starts before choosing your first sound!

Even in the planning stage of your project, you should develop an idea of which elements will be needed, and which frequencies you'll need to include. Don't worry, it's simpler than it sounds! For instance, if you're creating a Trance track, you'll know that you want a kick drum, a clap or snare, some hi hats, a bass line, chords and a synth or vocal top-line. If you have an idea of what you want to achieve, it will make achieving it much easier.

## 2. Sound design and sample selection

Before even touching the mixer controls, the most important stage of the mix is choosing samples and sounds that work well together and hit many of the right frequencies. Remember, the only thing that matters is how good it sounds together - not as individual parts. You might have a killer synth lead that melts your brain when played on its own, but in the mix it might muddy your drums. Spend time getting your sounds right BEFORE the mix down.

## 3. Tune your drums

Almost every drum sound has a predominant "note". If you can tweak the pitch of each of your drums sounds to match the key of your track (particularly the kick drum), it will help avoid a muddy, dissonant mix. Try it... you might be surprised at the difference it makes!

## 4. Use automation

The overall mix should sound spot on BEFORE automating, but then you can use it to help really accentuate certain parts of the track, for example, when a DJ slowly filters out the bass during a build-up, then brings it back in on the



drop. You could also take the whole track's volume down a little in a break, and bring it back to OdB on the drop.

## 5. Cut EQ rather than boost

As a general rule, it's better to cut frequencies with an equaliser rather than boost. This helps prevent a build up of frequencies that can make your mix clip. E.g. If you want a piano to sound brighter, try taking out some of the bass and mid frequencies and increasing the channel volume, or, try the tip below...

## 6. Use distortion as EQ

By adding some slight distortion to the upper frequencies of a sound, you can help it cut through the mix a bit more without boosting the EQ. Used sparingly it can work wonders. A tried and tested technique used by Calvin Harris.

## 7. Starting fader levels

Leave the master fader on OdB, but pull all the other faders to the bottom before starting your mix. Bring what will be the loudest track (usually the kick drum in EDM) up so it's peaking at about -11dB\*. By doing this, you are mixing at lower levels, so as you bring the rest of the tracks up in the mix, the master fader should be peaking at around -6dB (important for mastering later on). You'll probably need to turn up your audio interface to hear properly. \*Remember, this number isn't definitive...it will depend on the project.



## 8. Check the mix on different speakers / headphones

This is über-important! Think about where your audience will be hearing your music; it almost certainly won't be in a perfect studio environment. It'll more likely be from their headphones, car stereo, or (God forbid) even directly from their smartphone speaker! This is why it's important to listen to your mix on different systems. Just bounce it down and play it from your smartphone or listen to it in the car and make mental notes of what to tweak.

## 9. Check the mix at different volumes

I suggest mixing at lower levels to prevent ear fatigue, but turn the volume up now and then, too. Humans hear different frequencies better at different levels (see this response chart), and checking your mix at different levels will give you a better idea of the overall truth. Mixes generally sound more pleasing at louder levels, so it's important not to be fooled by your ears.

## 10. Don't mix with mastering effects on the master channel!

There is so much about this online, and - as a heavy practitioner of both - I can confirm that mixing WITHOUT mastering effects on the master channel is definitely the way to go! For years, I started by adding compressors and limiters to get my kicks sounding as phat as Deadmau5's, and - whilst I achieved it - by the time I brought everything else into the mix it was a horrible, squashed, distorted mess with no dynamics. A mastering engineer will want to receive your mix peaking at -6dB (and if you're doing the mastering, you'll want the same) so sending them a completely squashed OdB brick will not allow them to do their job properly.



## 11. Use parallel processing to "fatten" the sound

So, how do you get a phat sound without slapping effects on the master channel? Ah, the million-dollar question. In a nutshell, by using the techniques in this list, as well as advanced techniques such as parallel processing. Parallel processing is basically mixing an affected signal into a dry signal to maintain transients, and compression works really well in this way. You get the in-your-face compressed signal, but the transients of the dry signal cut through and maintain the dynamics.

## 12. Check your mix in mono (or mix in mono completely)

This was a game changer for me. I remember I had just finished a hot new track, and was DJing later that night. I dropped it at peak time, and the vocals were completely missing! This was before I knew about phase cancellation. Some stereo sounds will cancel themselves out in mono, so always mix (or at least check your mix) in mono before working on the stereo field. You can do this easily in Ableton Live by adding a "Utility" plugin on the master chain, and assigning a keyboard shortcut to toggle the stereo width between 0% and 100%. All DAW's will have a similar capability.

## 13. Treat mixing and mastering as seperate beasts

Further to number 10, treat the two processes as separate. Eric Prydz says his mastering engineer basically makes his tracks sound a little bit louder, but all the "fatness" is there in the mix beforehand.



## 14. Use side-chain compression

Create space in your mix by side-chaining certain sounds with others. For instance, use the kick to slightly compress the bass, or use the vocals to sightly compress the synth's higher frequencies.

## 15. Make any bass under 130Hz monophonic

This is done for three reasons:

- 1. to avoid phase cancellation in the bass frequencies (see number 12).
- 2. Because club and venue sound-systems have the bass in mono anyway.
- 3. Because sub bass is omni-directional, meaning you can't really determine where it's coming from anyway.

**ProEDMtip:** If you want a big, wide bass, try using a higher mid-bass that exactly follows your sub-130Hz mono bass, and add stereo effects to that (again, check in mono to avoid phase cancellation).

## 16. Create a radio edit in the same DAW project

This is a pro tip for those who need to provide two mix-lengths of a track (e.g. a 5 minute version for club DJs, and a 3 minute version for radio). If you have two separate sessions, tweaking the main mix in one means you then have to open the radio edit project and manually repeat the same changes. Keeping the radio edit in the same project as the club mix (just further along the timeline) means that any mix tweaks are automatically applied to both versions.



## 17. Make use of grouping and bussing

Try grouping (or bussing) similar tracks together and processing them as one channel, e.g. group all the drums into one channel, then apply compression and EQ to that whole group to get a cohesive "gelled" sound.

## 18. Keep a copy of your arrangement session before starting the mix down

You'll naturally mix anyway as you compose and arrange, and once or twice my dedicated mix down hasn't sounded as good as when I was arranging! In these cases, you can always open the original session and work out what was better.

## 19. Highpass filter "almost" everything

This is because bass frequencies take up a lot of headroom in the mix, and can very easily make a mix "muddy". Most recorded sounds have some bass information - even hi-hats and claps. If you add a high-pass filter to pretty much every channel, you can raise the EQ frequency threshold until only the information you want remains. Quite often, rogue bass information won't be audible, but it DOES effect the final mix (a good way to check is to use a spectrum analyser).

## 20. Use a reference track

This is über important. Your ears trick you. They get used to a mix and tell you it's great, even if it's not. Pick a professionally released track you like (of the same genre you're mixing), and use it as a reference to compare yours to. The reference track WILL sound louder than yours (as it's been mastered), so make sure to bring its volume down to a similar level as your mix.



## 21. Test and ask for feedback

This is an extension of number 8. Play your mix on as many speakers as you can access, and play it to friends, family, fellow-producers and mentors, then ask for feedback

ProEDMtip: DON'T ASK THEM IF THEY LIKE IT! Almost everyone will say "yes" to avoid hurting your feelings. It's better to say something like "I'd really appreciate it if you could have a listen to my track and give some critical feedback". Then, when they've listened to it, ask "What could be stronger? What doesn't work as well as it could?" This gives them a comfortable invitation to be honest, which is vital for development.

## 22. Mix the next day

After you're happy with the composition and arrangement leave it a day or two before mixing. You're ears will have had a rest, and you'll be able to be more objective when mixing. Also, if you ARE going to do your own mastering, leave it a day or two after mixing for the same reason.

## 23. Bounce to audio

Bouncing your tracks to separate audio stems has two distinct benefits: 1. It saves computer power as your effects are all bounced to audio, and 2. It allows you to "see" the audio track, and trim unwanted reverb and delay tails. The negative (and sometimes, positive) side of this technique is that you then can't go back in and tweak the sounds (over and above your mixing effects), so make sure you're happy with the sound design and arrangement before bouncing.



## 24. Don't over-compress everything

When I first got the ability to apply compressors, I compressed EVERYTHING. It might make that one instrument sound phat on its own, but a whole mix of compressed sounds gives a dull, flat result that tires the ears. Dynamics are key - even in EDM - so don't kill them before they've even had a chance to flourish \*SNIFF\* (wipes away tear).

## 25. Use a spectrum analyser

These can be useful plugins for checking your mix's frequencies against your reference track (see number 20). Don't rely TOO much on this visual representation, but you'll be able to see if you're way off the mark.

## 26. Give your ears rest

Don't mix for more than a couple of hours at a time, tops. You'll get used to your mix and lose objectivity, so take a break, get some air and get back to it a bit later when your ears have recalibrated.

## 27. Don't keep going if it sounds great

As I wrote at the beginning of this post, not all of these tips need to be applied to every mix. If it sounds good, don't worry about adding parallel processing or tuning your drums. When it sounds right, it sounds right.

## 28. Mix the kick and bass first

For EDM particularly, you'll want to balance the bass and the kick as early as possible. The lower end is SO important in dance music, and if these elements aren't working at the very beginning, your mix will suffer as a result.



**ProEDMtip:** Decide if you want a subby kick OR a subby bass, and choose the other to compliment it. e.g. a subby kick AND a subby bass will often clash, where as a subby kick with a growly mid-bass will compliment each other. Which brings us to the next point...

## 29. The less going on in the low end, the better

As mentioned before, bass frequencies take up a lot of headroom in the mix. If you have a particular bass line, see if you can cut out any notes not needed. This is a general rule of thumb for the whole mix. James Wiltshire from The Freemasons once told me that every single element should be fulfilling a specific role, and if it's not it should be removed. You'll get a louder, cleaner mix in the end.

## 30. Apply effects to auxiliary channels

If you have a Reverb, Delay or other effects assigned auxiliary sends, make sure there aren't rogue frequencies on these channels by using an EQ. You can even side-chain your aux channels slightly to create space in the mix (see number 14).



### **BONUS WORKFLOW TIPS:**

## 1. Do the right things in the right order

Getting your audio signals travelling through the correct effects in the correct order is essential. Experiment with their order to achieve the results you want.

## 2. Assign keyboard shortcuts

Toggling from mono to stereo on the master channel, or solo-ing the reference track are two examples where keyboard shortcuts will save you a ton of time. Take the time to set some up that work for you.

## 3. Take breaks often

Music is subjective and you need to be as objective as possible, so let your ears have a rest as often as you need, as they WILL tire throughout a mixing session and be less reliable.

Cheers, and happy mixing! If you liked this guide, head over to <u>Facebook</u> and <u>YouTube</u> and join our community of like-minded dance music producers.

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