ProdSecrets



CHECKLIST 10 STEPS FOR FIXING A BAD MIX





Learning how to achieve high quality mixes is easier than ever.

We've all been there. You have an awesome idea for a song and you open up your DAW to get started. Your melodies and harmonies are written, the drums have been laid down, but something just sounds off. It's not quite hitting right and you don't know how to fix it. This is where mixing comes in.

Mixing songs has always been a very confusing and complicated process for new producers to learn. There is so much mixing theory out there (along with hundreds of FX plugins and techniques) that so many producers don't even know where to begin.

In fact, one of the most popular questions people send to us is: how can I get a better mixdown? And we're not surprised by this. Mixing is an absolutely crucial part of bringing your musical vision to life so others can connect with it more deeply.

My name is Andrei and I've been the lead product manager at Cymatics working closely with Drew over the last 5 years. Producing and mixing hundreds of records during this time, as well as collaborating with countless industry specialists, has helped me develop a set of core principles that I use when approaching any mixdown.

In this guide, we're going to walk through a simplified 5-step checklist that you can follow every time you need to mix your song.

And while I've learnt that there are no shortcuts or "one size fits all" solutions when it comes to mixing, these steps have helped me immensely over the years to improve my mixes and simplify the process. And I know they will help you too.



Step #1: Audition and choose the best possible sounds for your mix.

The samples and sounds you choose when you first create your song are extremely important. For this step in the checklist, I'll use the analogy of a chef cooking a meal. The first thing a chef will want to do is make sure they're working with good, fresh ingredients. If the ingredients are spoiled, the entire dish will fall apart (no matter how good the chef is).

The same can be applied to music production. If the sounds you choose are over processed and don't work well together, no amount of subsequent mixing will save you.

Make your life easier by choosing great sounds and samples right from the beginning. Doing this will often involve auditioning different drum samples like your kick and snare to make sure they work well with the rest of the instruments and sounds in your song.

And the "audition" part that I just mentioned shouldn't be overlooked. For example, don't be afraid to load up multiple tracks that all have different kick drums, then turn them on one at a time to hear them in proper context to see which fits best.

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• 6. 2	Cymatics - Orchid Kick - Dancehall (A#)	
0001	Cymatics - Orchid Rick - Layered (F#)	
	Cymatics - Orchid Rick - Tight (6)	
0 0 0 5	Cymatics - Orchid Clap - Basic	
8 9 G 6	Cymatics - Orchid Fihat - Closed 2	
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Step #2: Avoid over processing your sounds.

Once you've landed on some great sounds that work well in your mix, be careful not to over process them further. What exactly do I mean by this? Well, going back to the chef analogy, you don't want to burn your ingredients or over season them with too much salt, garlic etc.

In the same way, many of the best samples we've made at Cymatics are already processed by professional sound designers -- so adding too many extra effects on top can potentially ruin them.

To recap: keep it simple. Find good sounds from the beginning that work in your mix and don't over process them. Doing this consistently will make the next steps in the checklist much easier.

Step #3: Remove unnecessary layers & elements that are muddying up your mix.

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Step #4: Make sure relative volume levels in your song are balanced properly.

Before you touch any EQs, compressors, limiters, or any other FX, you need to do some gain staging. Gain staging is a term that is often used very frequently in the mixing world -- and for good reason.

But many new producers might be asking, what does this even mean? Essentially, gain staging is just making sure the volume levels of each element in your song are balanced properly.

But proceed with caution here, because just turning everything up to sound louder isn't the goal. The key word is "balanced". You want to make sure that each element is loud enough relative to everything else in your song.

This could mean lowering the volume of your pianos and synths and raising the drums up so that they stand out more and sound more impactful. Or it could also mean lowering the volume of your bass track or 808 slightly if it's overpowering everything else.

These are just a few examples of the many problems and scenarios where gain staging becomes a relevant solution to having a better mixdown. Referencing something similar to the mix profile that you intend to achieve is the best way to learn how to improve your gain staging.

For example, if you are referencing a commercial trap mix and you notice that the kick is the loudest element, then you should try to make the kick the loudest element in your own song. It is important to think about relative volumes as well — for example, how much louder is the kick than the bass?

Every song and genre will have different levels and gain staging methods, so referencing something similar to your own song is the best way to learn. There are other tools you can use to help with gain staging such as using "pink noise" or utilizing the "fletcher munson curve", but we think that for most beginners it is more helpful and practical to train your ear through lots of reference listening.

Having a trained ear for this kind of thing will help you understand those more advanced tools more clearly later on.



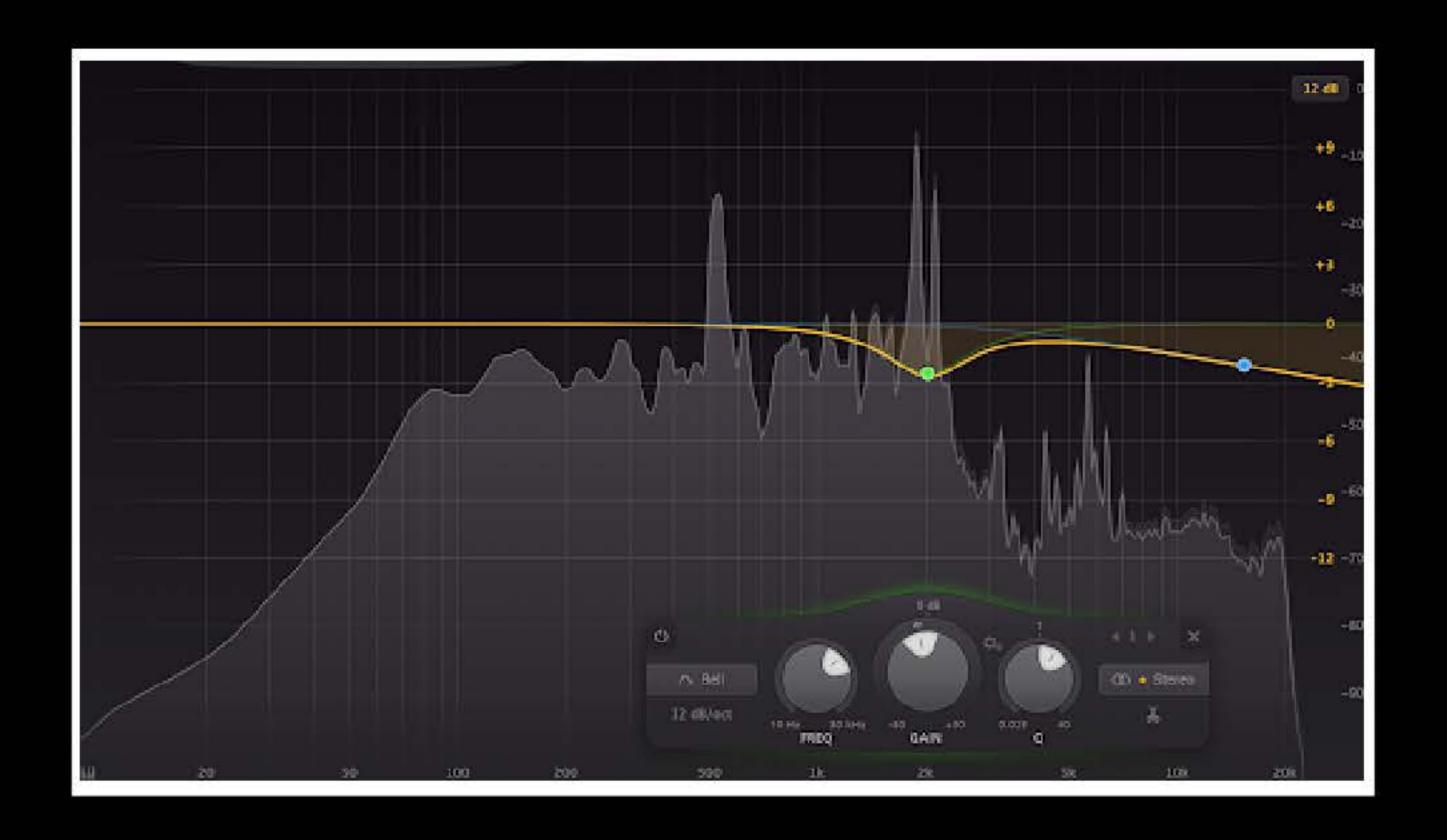
Step #5: Identify any undesirable frequency clashing or clutter and tame it with EQ.

Now that you have good quality sounds that are balanced properly, we can finally start to narrow in on problematic areas of the mix.

During this stage, we can use common mixing tools like EQs, compressors, and stereo imaging. But the key here is to keep changes and adjustments very minor. We don't want to overdo it.

There will often be some unpleasant frequencies coming through (especially noticeable at louder volumes) such as shrill high end or overly boomy mid frequencies -- for example. Using EQ plugins to tame and cut these unpleasant frequencies is a very important part of having a good mixdown.

You should also be aware of how your sounds and instruments fit together on the frequency spectrum. Let's use the analogy of trying to fit a bunch of clothes into a drawer. If you try to stuff them in then they probably won't fit. But if you take time to fold each piece nicely and stack them in an organized way then you'll have more success.



The same can be said here for how your sounds will fit together. For example, you can use EQ to remove certain frequencies of a sound, freeing up space so another sound will fit nicely in that spot on the spectrum.

The goal here isn't to cut everything though. Some frequencies are necessary to add character to your mix and you need to make decisions at this stage about what you want to keep and what you think is undesirable or unpleasant to the ear. Using reference songs to guide your decisions here is also very useful as you continue to train your ears

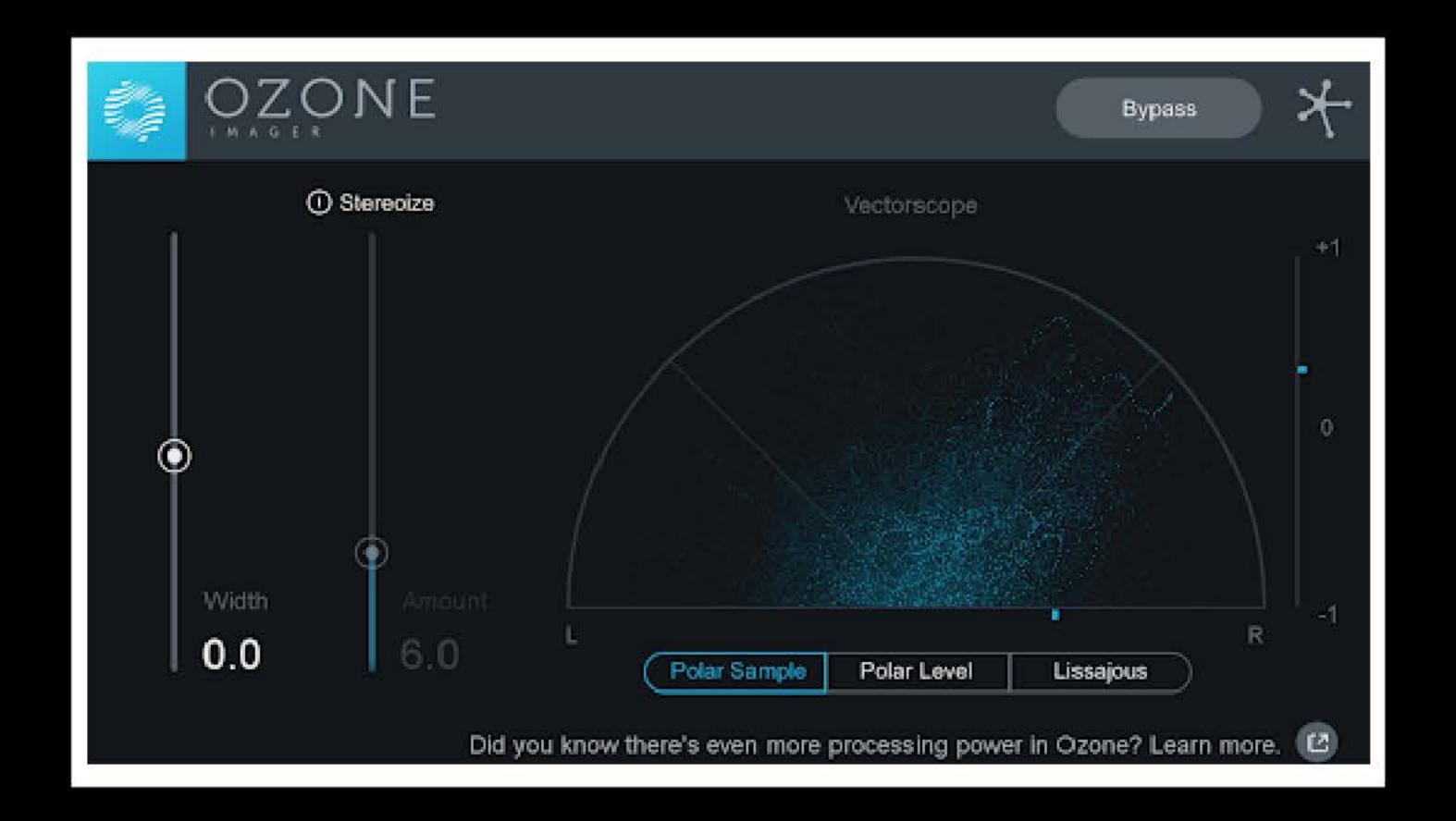


Step #6: Take advantage of the stereo spectrum and spread sounds out using panning and imaging to create more space.

Adjusting frequencies and volumes are not the only ways you can make space in your mix for different sounds to fit. You also have access to the stereo field (space across the left and right "sides" of your mix) where you can place different elements through panning.

If you have too many sounds building up in the "center" of the stereo field then you might want to widen some elements and make use of the extra space you have on the left and right sides. Panning certain sounds more left or more right will not only free up space in the "center" of the mix, but will make your overall song feel more lively and wide.

There are a number of free tools you can use to assess and adjust the "width" of your sounds. One great free option is Ozone Imager by iZotope to get you started.





Step #7: Identify any dynamic inconsistencies and tighten them up using compression.

When we say inconsistent dynamic range we're referring to situations where certain sounds or instruments will have drastic peaks or dips in volume where it becomes too loud or soft at certain points throughout the song.

For example, you may have a vocal track where certain words are quieter and hard to hear, while in other sections the singer is too loud. You can control these peaks and dips by using compression.

Essentially the goal here is "level out" the volume of the sound so it's consistent throughout the entire song and there are no surprise moments of loudness or quietness.

As mentioned in before though, take a "less is more" approach here as well. It can be very easy to over-compress your mixdown which will make it sound very choked and stale because there is no dynamic range left.

Step #8: Examine your mix for any leftover imperfections like audio clicks & pops - fix them with fading or automation.

At this stage, you may notice there are a number of leftover imperfections such as random clicks, pops, etc. This normally comes from audio samples or clips that start or end abruptly, and need to be faded in or out. There may also be some left over sounds that run too long into other sections that need to be shortened or controlled through automation.

These points don't represent absolutely every possible problematic area of a mixdown, but in my experience they are the most common and most essential for beginners to start thinking about.

At first, it might be difficult to really identify and rectify these problems -- but don't worry, that's completely normal. The more you reference other songs and train your ears, the more you'll understand how all of these concepts work and fit together! Which brings us to the last thing on our checklist.



Step #9: Compare your mixdown to a commercial mixdown that you like and adjust it accordingly to accomplish a similar result.

Now that you have a nicely balanced mix and you've ironed out some of the more problematic issues, you can begin listening to your song in different environments. I've already mentioned the importance of referencing other professionally-mixed songs to help you train your ear. But now I'm talking about listening to your song through different types of speakers to hear how it translates.

Step #10: Listen & compare your mixdown versions in a variety of different environments. If something sticks out, go back through the checklist and make the necessary adjustments.

Export your song and listen to it in as many places as possible. Most people will not hear your music on the headphones or studio monitors that you used to mix it. They'll be listening through car speakers, laptop speakers, smartphones, Apple Airpods/Earpods, Google Home speakers, etc.

And your job when mixing is to make your music sound as good as possible in all of these different environments. When you're listening to your song through different speakers, it's very important that you take notes on how it sounds so you can compare and contrast how it translates differently in new environments. Then you can go back to your mix and make small adjustments as needed.

Achieving higher quality mix downs takes a lot of time, experience, and practice. So don't be discouraged if you're not seeing instant results. The point of this checklist is to give you a very practical, simplified guide so you can focus on the most important areas of mixing and improve on things that will actually make a real difference over time.

I hope this has shed some light on the mixing process and has given you a good starting point to help you on your music-making journey. Don't hesitate to write into ProdSecrets with some more questions and problems you're having so we can keep making courses and resources like this to help you!

