

H O W T O G O F R O M
D E M O T O

PRO

THE TOP 5 TECHNICAL
MISTAKES

BASED ON LISTENING TO HUNDREDS OF TRACKS FROM MUSICIANS ALL OVER THE
WORLD, THIS GUIDE WILL SHOW YOU HOW TO AVOID THE TOP 5 TECHNICAL MISTAKES
THAT MAKE THE DIFFERENCE BETWEEN AN AMATEUR '**DEMO**' SOUND, AND A
PROFESSIONAL COMMERCIAL SOUND

WHY READ THIS BOOK?

I constantly get people asking me to review their tracks and give them some ‘constructive criticism’. This is great, because it tells me that they want to learn and improve.

Unfortunately, I had to stop reviewing tracks years ago as it’s just impossible to get to them all.

Of course, I made an exception when a good friend of mine asked me to listen to some of her recordings and tell her what she can do to improve them.

And then it hit me.

The mistakes she was making were the EXACT same mistakes I’ve heard in hundreds of tracks by musicians all over the world – regardless of the style of music or gear they may be using.

Your music may be unique, but the mistakes holding it back, are not.

If you’ve been feeling a little frustrated with your music lately – like you KNOW there’s something not quite right about it, but you can’t put your finger on it, you’re in the right place.

I’m going to be sharing with you the 10 most common mistakes that cause people’s tracks to sound more like amateur demos, than professional sounding commercial tracks.

I’m going to show you how to go from “demo” to “pro”.

Now, your tracks may not sound like amateur demos, they may sound pretty good already, but maybe you’re missing just one or two distinctions that will really make the difference you’ve been looking for.

In the first book (part 1), we looked at the top 5 MUSICAL mistakes. Now we’ll be covering the top 5 TECHNICAL mistakes that make the difference between ‘demo’ and ‘pro’.

The reason I wrote this was to help you become aware of what’s holding your music back.

Once you know this, you can start to purposely improve it, and you’ll find yourself making rapid progress toward that professional sound you’ve been looking for in your music.

DEMO VS PRO

DEMO

A recording made to demonstrate the capabilities of a musical group or performer or as preparation for a full recording.

I use the word ‘demo’ because it has the connotation of an unfinished, non-professional sounding track.

Demo’s don’t always sound bad, but most of the time they sound like ‘rough recordings’ – which is fine if that’s all they’re meant to be.

The original purpose of the demo was to do a rough recording which could then be shopped around to record labels in the hope that one would sign you up.

As we all know, those days are LOOOOOONG gone!

Today, we’ve got more music making capability in our laptops than many million dollar recording studios of years before.

It’s incredible.

We’re no longer producing demos, we’re producing final, commercial tracks that we can send straight into the world for people to enjoy.

Of course, this means that it’s more important than ever that our tracks sound like professional productions, not amateur demos.

PRO

Short for **PRO**fessional – We want our music to SOUND professional – polished, complete, on the level of other commercial records.

Even if someone is just making a ‘demo’ for the fun of it, no one wants their music to SOUND like a demo!

As much as I wish I could say the sound doesn’t matter and it’s just about the music, we both know that isn’t true – SOUND is the vehicle for music.

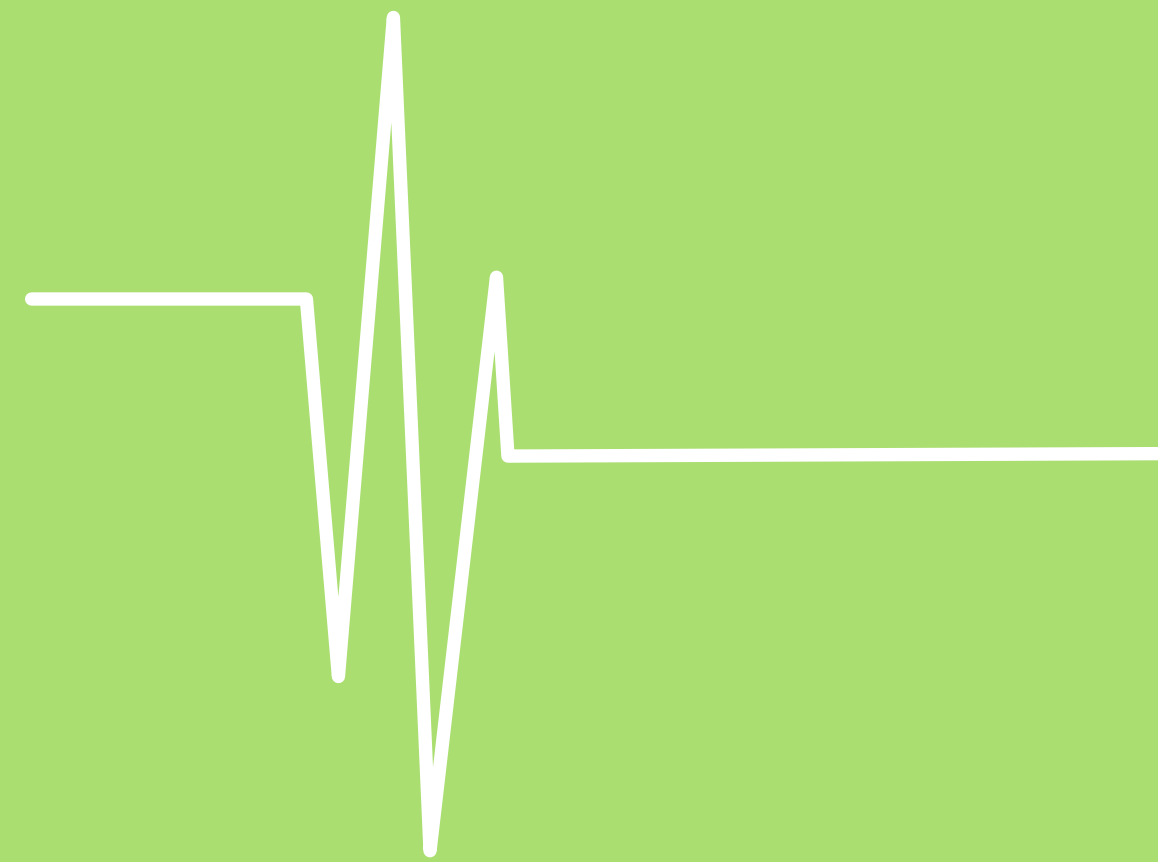
Without sound, we can’t experience the music, because music IS sound.

You want people to be able to listen to your music and just ENJOY the MUSIC – not be distracted by something weird about the sound.

Simply put, a professional sound is essential to your songs reaching their full potential and having the biggest impact possible.

TECHNICAL MISTAKE

#5



NOISE & GLITCHES



"**Demo**" tracks often have noises or glitches that distract from the music



"**Pro**" tracks sound clean and noise free

TECHNICAL MISTAKE #5

NOISE & GLITCHES

Unless you're doing some sort of underground dubstep where noise and glitches are part of the sound, it's best to make sure we don't include these in our tracks.

Nothing screams "Hey everyone, I recorded this myself at home!" like hearing someone's miniature dachshund barking in the background.

(Unless of course your miniature dachshund is part of the band... then it's totally cool)

Fortunately, even cheap sound cards these days are incredibly clean and even quieter than the fancy (and very expensive) tape recorders used in the past.

This means that as long as you choose a relatively quiet time to record any live instruments, there's no reason your tracks shouldn't sound clean and noise-free.

Here's a couple of tips...

Make sure that you're recording using at least 24bit (not 16bit) – it provides more headroom which means less chance of clipping and a lower noise floor.

Clipping – fortunately most DAWs handle clipping pretty well these days, but it's always best to try and avoid it. Clipping can cause harsh glitch-like noises that don't sound very good.

Tops and tails – The beginning and end of a song is often quieter and so any kind of noises are a lot more obvious.

I often mute or edit out any instruments that aren't playing there. For example, if a song fades out on the last note, remove any instruments that aren't part of that.

Vocal tracks – make sure to edit out any talking, coughs, or mouth noises in-between.

While I don't recommend mixing or mastering using only headphones, they are great as an additional reference, and they're particularly great for hearing small details like little noises or glitches you may have missed before.

KEY LESSONS

Make sure your working sessions are at **24 bit** (32 bit floating point is also fine)

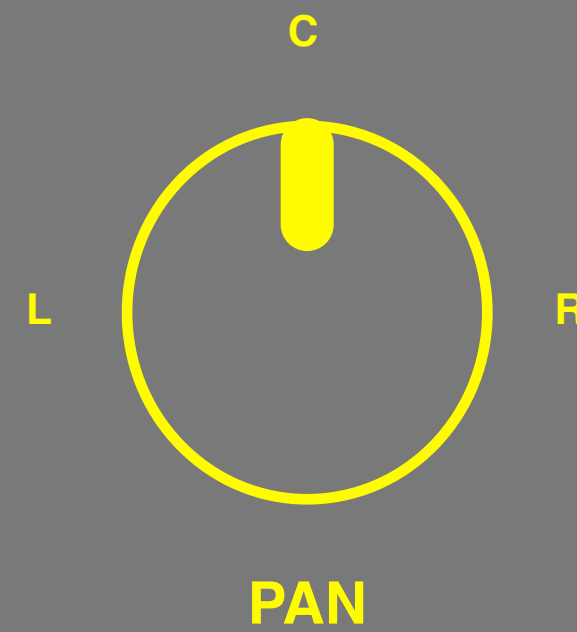
Avoid clipping

Check **tops and tails** – of individual regions and the entire song

Make sure **vocal tracks are clean** – Use a pop filter while recording, clean up any parts where the vocalist is talking or making a noise, use fade-ins and fade-outs on individual regions if necessary

TECHNICAL MISTAKE

#4



PANNING



"**Demos**" often have strange, inconsistent panning, that sounds confusing and out of balance



"**Pro**" tracks use simple, balanced panning that creates width while focusing attention on the lead elements

TECHNICAL MISTAKE #4

PANNING

Back in the day when stereo first started coming onto the scene, it was quite a novelty – “WOW! It’s coming out of two different speakers!!” ...said one hippie.

The Beatles had some crazy panning going on, with an entire drum kit coming out of one side and vocals the other.

Aah... the good old days.

The truth is, that kind of psychedelic panning may have been cool back in the 60’s, but not so much today.

“But WHY???” (I hear someone exclaim in horror)

Well, for one, people aren’t taking as much drugs as they were back then...

But more importantly, a little invention has since come along called the “headphones”.

I don’t know the exact stats, but if I had to take a wild guess, I’d say that at LEAST half of all music being listened to in a day is by people using some sort of headphones.

The thing is, creative panning may sound ‘interesting’, but it’s often not very practical – and headphones make any sort of exotic panning far more obvious.

There’s certain things in most styles of music that should almost NEVER be panned anywhere but center – e.g. The lead vocal, the kick drum, the bass.

Low frequency sounds are essentially mono directional as far as our ears are concerned – in other words, we can’t really tell where the sound is coming from.

Not only that, but they take up a lot of energy (because of the low frequencies) so we want to spread that out evenly over both the left and right channels.

As for something like a lead vocal, this is generally the main focal point of the song and we want to keep it up center.

The exception to this is if you’re using panning to create a ‘realistic sound stage’ – you’re panning all the instruments to slightly different places as if they’re sitting on a stage in front of you.

This can work, but only for more mellow, ‘unplugged’ styles of music. For most pop, rock, rap, EDM type styles, just stick to center, hard left, or hard right.

KEY LESSONS

Keep your panning simple - unless you're going for a 'realistic' sound stage approach, just pan hard left, hard right, or center

Keep the **most important things** in the center

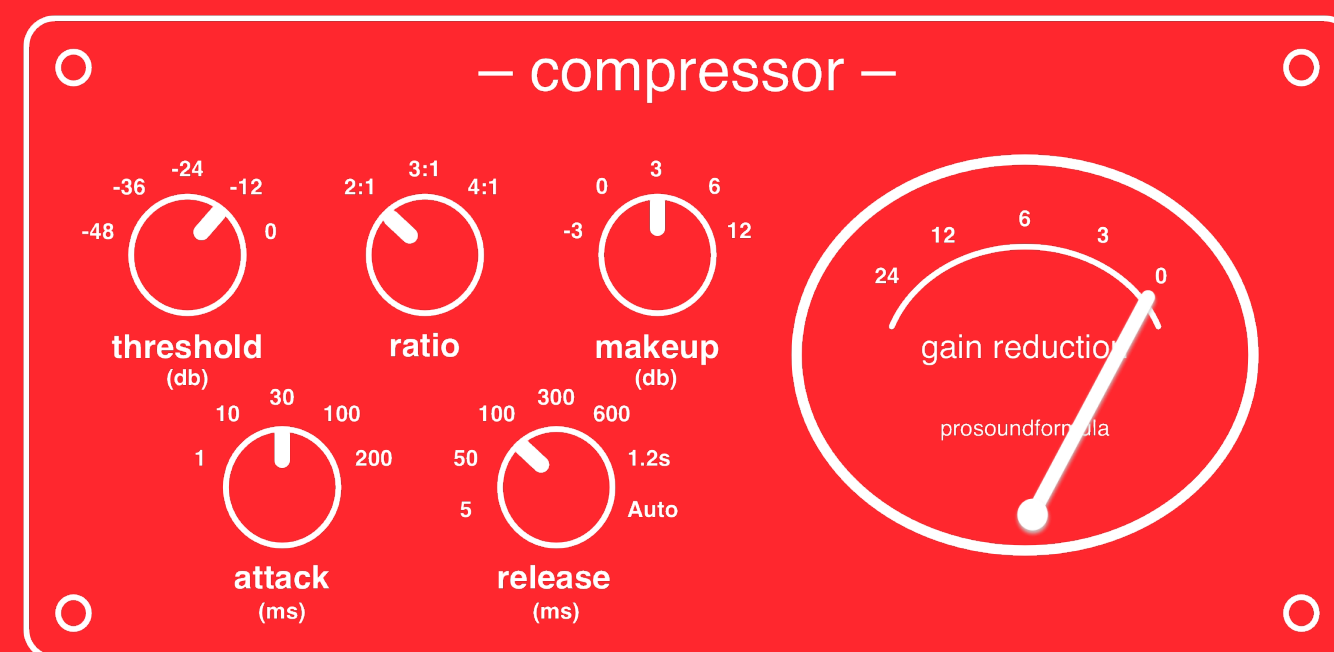
Keep **bass instruments** in the center

Balance out the **left and right** – what you do to the one side you do to the other.

This does depend on the arrangement and what parts are available, but when at all possible, you want to try and create balance between the left and right speakers. If you put a guitar on the left, try and find a guitar for the right. If you pan a backing vocal to the right, try find another one to balance out the left.

TECHNICAL MISTAKE

#3



COMPRESSION / LIMITING



"**Demos**" typically sound over compressed and aren't up to 'commercial level'



"**Pro**" tracks use compression and limiting to bring out the energy in a song and make sure the overall level is up to commercial standards

TECHNICAL MISTAKE #3

COMPRESSION / LIMITING

After EQ, compression is the most powerful tool we have to transform the sound of our tracks – it's completely changed the sound of modern music (and by 'modern', I mean the past few decades).

Used the right way, compression can bring out the **energy, power, and subtle nuances in a performance**.

But used the wrong way, it can ruin an otherwise good sounding recording.

I've put limiting in the same category because a limiter is really just an extreme form of compression. It's a compressor with a very high ratio that prevents the sound going past a certain point, which essentially "squashes" it, making it sound louder.

A certain amount of limiting is done on just about every mastered track in order to bring up the level to match other commercial records.

The two most common compression problems I hear are...

1. Too much compression
2. Using the wrong settings

Too much compression is without a doubt the MOST common compression mistake made by not just beginners, but even many professionals.

The reason for this is simple – we naturally want to HEAR the compression – otherwise how do we know it's 'working' or not – so we tend to add more than we should.

Most of the time, compression isn't supposed to be an effect that you can clearly tell has been added to the sound, it's supposed to just enhance the existing sound.

It's beyond the scope of this short book to go into the specifics of compressors and how they work, but if you've found compression confusing, I recommend making learning this one of your priorities if you really want to improve the sound of your tracks.

KEY LESSONS

If you're not sure what you're doing, use **less compression than you think** - If you can hear the compression, it's probably too much!

Make sure the compression you use is **CONSISTENT throughout the song**

Make sure the compression **matches the energy of the song**

Try the extremes – try using way too much, and then way too little, to find the right amount

Use a limiter when mastering your tracks to bring them up to commercial level

TECHNICAL MISTAKE

#2

FX

EFFECTS



"**Demos**" use way too many effects that often sound cheesy and distracting



"**Pro**" productions use simple, tasteful effects to enhance key elements of the song

TECHNICAL MISTAKE #2

EFFECTS

When I was starting out learning how to produce music, I didn't really understand the basics – things like using EQ and compression – so I did what any over enthusiastic novice does the first time they hear an echo effect...

“That’s SOOO cool!! Let me put that on EVERYTHING...”

I just figured that I wasn't getting the sound I wanted, so perhaps all these cool effects would provide the ‘magic’ my tracks were clearly missing...

Little did I know at the time that this is one of the most common mistakes made.

A telltale sign of an amateur production is **TOO many, and TOO much, effects**.

Now, just to be clear:

1. This does differ depending on the style of music - some styles, such as most dance music, rely on more effects, and that’s totally fine.

2. I’m not talking about effects being used intentionally to create a specific sound, I’m talking about effects just being thrown on for the sake of it.

Effects should never take over or distract from the song.

In general, effects are not meant to be a ‘feature’, they should be used to **ENHANCE** the existing instruments or vocals in a way that makes the song sound better.

A great analogy is film. Amateur video producers love to use **ALL** the ‘fancy’ effects transitions – the ‘checkerboard’ effect, the ‘twirly spin in’ and the ‘bounce out’ (to name just a few), but if you watch a big budget Hollywood movie, you’ll **NEVER** see any of these. It’s mainly just clean cuts and fades.

The same applies to music. If you listen to most of the top productions, they keep things pretty simple.

A good approach is to **first get a mix working WITHOUT using any effects at all**.

Just use some good old fashioned EQ, compression, and balance the faders to make the song work, and then add the effects toward the end.

KEY LESSONS

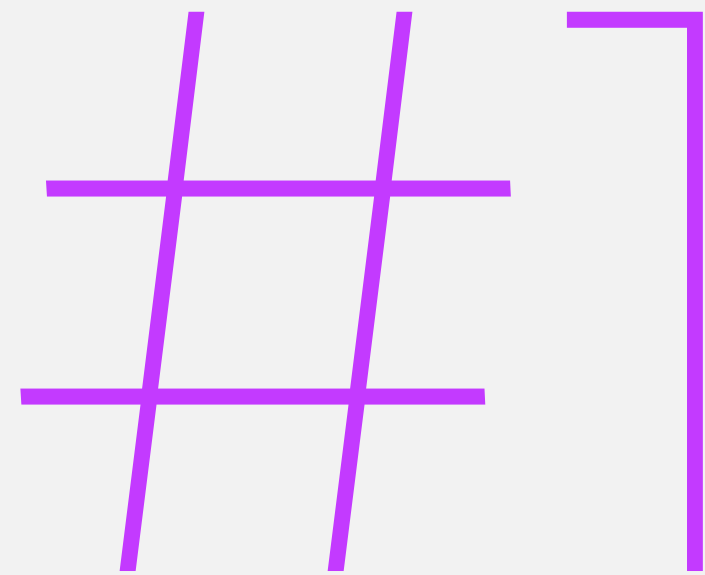
Unless you're purposely going for a very reverberant sound, **don't use too much reverb on the vocals**, it pushes them back and makes them sound washy and unclear (a pre delay of around 30ms - 50ms can help keep the vocal upfront when adding reverb)

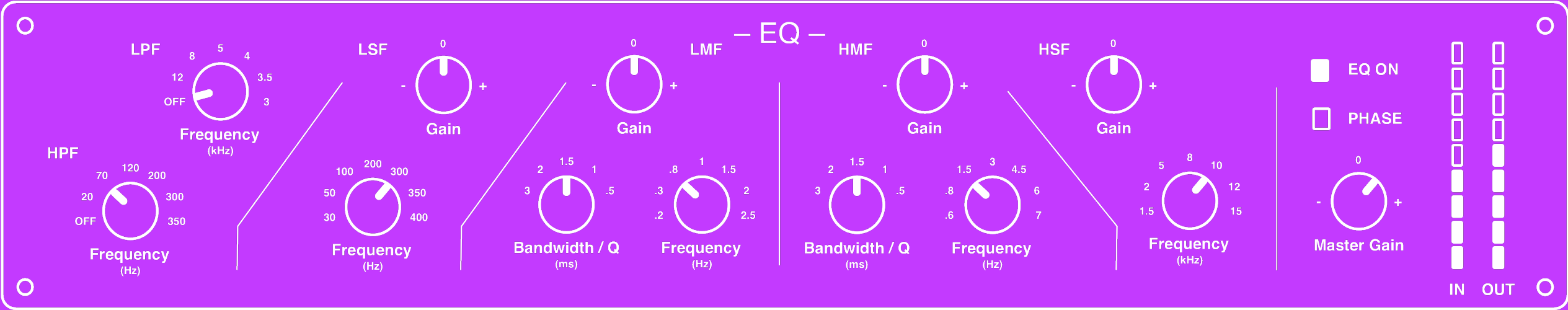
Get the mix working **WITHOUT using any effects at all** – then add them toward the end

Add effects **using a buss** instead of putting them directly on the track

Keep in mind that mastering limiting will make any reverb or delays louder, so you generally want to add a little **less than you think in the mix**

TECHNICAL MISTAKE





EQ



“**Demos**” often sound dull, muddy, and lack clarity in the mix



“**Pro**” tracks have a good solid frequency balance, a clear mix, and sound great no matter what system you play them on

TECHNICAL MISTAKE #1

EQ

Without a doubt, the biggest cause of an amateurish ‘demo sound’ comes down to EQ – either the lack of it, or more commonly, using it in the wrong way.

What we’re really talking about here is the levels of the various frequencies that make up the sound of a song.

For example, if a track has too much bass compared to other commercial tracks, it’s not going to sound good on the majority of playback systems.

EQ is the TOOL we use to control how loud the various frequencies are, and shape the sound of our songs.

There’s 5 major reasons we may use EQ, let me give you the top 4:

1. To **FIX** any problems with the frequency spectrum. This could be a boomy bass guitar, or a harsh sounding drum overhead track.

2. To **ENHANCE** the different instruments and vocals to sound their best. An enhancement is anything that makes the sound better – it could be making a kick drum fatter, or a lead vocal brighter and clearer.

3. To **SHAPE** the various instruments to fit together better in the mix. When you try and blend together a whole bunch of instruments, there’s a LOT of overlapping frequencies, which lead to a muddy sounding mix. Shaping is mostly about taking away frequencies so that we have a cleaner, clearer mix.

4. To make sure that the overall frequency balance is similar to other commercial records - what I call “**SONIC CONSISTENCY**”, because we want to make sure the SOUND is CONSISTENT with commercial standards.

The reason commercial tracks sound great no matter what system you play them on, is because they have a well balanced frequency spectrum, e.g. it’s not too bassy or trebly.

If you want your tracks to sound as good as the best, it’s important that you learn how to do each of these things.

Obviously, this is a fairly big topic and we can’t get into all of them over here, but if any of these things have been a challenge for you, I encourage you to get some solid EQ training – whether it’s from me, or someone else you trust.

It really will make an incredible difference to the sound of your songs.

KEY LESSONS

EQ the **individual tracks**, not the overall mix

Use a **spectrum analyzer** if possible to compare your tracks to other commercial tracks

Choose **2 or 3 commercial tracks to compare to** while mixing or mastering

Listen softly most of the time – It prevents ear fatigue and makes any EQ changes you make a lot easier to hear

Listen at **different volumes** – our ears hear frequencies differently at different levels

#1 EQ

- ✓ It sounds good on most playback systems
- ✓ The frequency balance sounds similar to other commercial tracks with a similar style
- ✓ The mix sounds clear (not muddy)
- ✓ It sounds good when played back at both a very low, and very high, volume
- ✓ Any frequency problems have been fixed
- ✓ The individual instruments and vocals have been enhanced to sound their best
- ✓ The frequency spectrum looks similar to other commercial tracks when viewed using a spectrum analyzer

#2 EFFECTS

- ✓ The mix sounds good even without any effects added
- ✓ The vocals sound natural and not too “effecty” (unless you’re purposely going for that sound)
- ✓ The effects used match the style, energy, and tempo of the song

#3 COMPRESSION / LIMITING

- ✓ The overall level is similar to other commercial tracks
- ✓ Any compression used on an instrument or vocal is consistent throughout the song
- ✓ The attack and release settings used sound good and enhances the instruments / vocals
- ✓ The compression used matches the energy and style of the song
- ✓ There isn’t any obvious over compression or limiting
- ✓ There’s no ‘pumping and breathing’ happening (unless being used on purpose)

#4 PANNING

- ✓ The left and right sides sound balanced
- ✓ The lead elements are in the center
- ✓ Bass instruments are in the center
- ✓ It sounds balanced on headphones

TECHNICAL MISTAKES CHECKLIST

Use this checklist to make sure your tracks are free from the top 5 technical mistakes that cause tracks to sound like amateur demos instead of professional commercial quality productions.

#5 NOISE & GLITCHES

- ✓ The beginning and end of the song sounds clean and noise free
- ✓ Regions with noisy ins or outs have been faded in and out
- ✓ Recording / mixing / mastering sessions are at 24 bit
- ✓ There’s no clipping (and if there is you can’t hear it)
- ✓ Vocal tracks have been cleaned up so there’s no noise in-between takes

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TOP 5 MUSICAL MISTAKES

1. TIMING
2. ARRANGEMENT
3. BALANCE
4. WRONG NOTES / CHORDS
5. TUNING

TOP 5 TECHNICAL MISTAKES

1. EQ
2. EFFECTS
3. COMPRESSION / LIMITING
4. PANNING
5. NOISE / GLITCHES

RATE YOUR TRACKS

Now that you've learnt the top 5 musical, and the top 5 technical mistakes, you can now rate some of your own tracks.

I know this can be tough because we naturally don't like seeing all the things we're doing wrong, but this is essential if you want to move past these things and improve your sound.

Using the checklists to help you, go through each of the musical and technical mistakes to see if you recognize any of these things in your tracks.

Now, you may not always know whether something is a problem or not, for example, you may be unsure whether your compression settings are right or not.

What I'd say is... if you're not totally sure of something, then chances are, it's a problem! :) In the example I just gave, if you're not sure about your compression settings, this probably means you don't fully understand compression yet and so this is something you're going to want to learn.

I recommend writing down each type of mistake that you find... So if you notice timing issues, write that down. If you're second guessing your EQ settings, then write that one down.

Once you've done this, you'll have a clear list of the things that you know you need to work on.

So it's really just a matter of figuring these things out – and if you're reading this right now, I can tell you for a fact, you have what it takes.

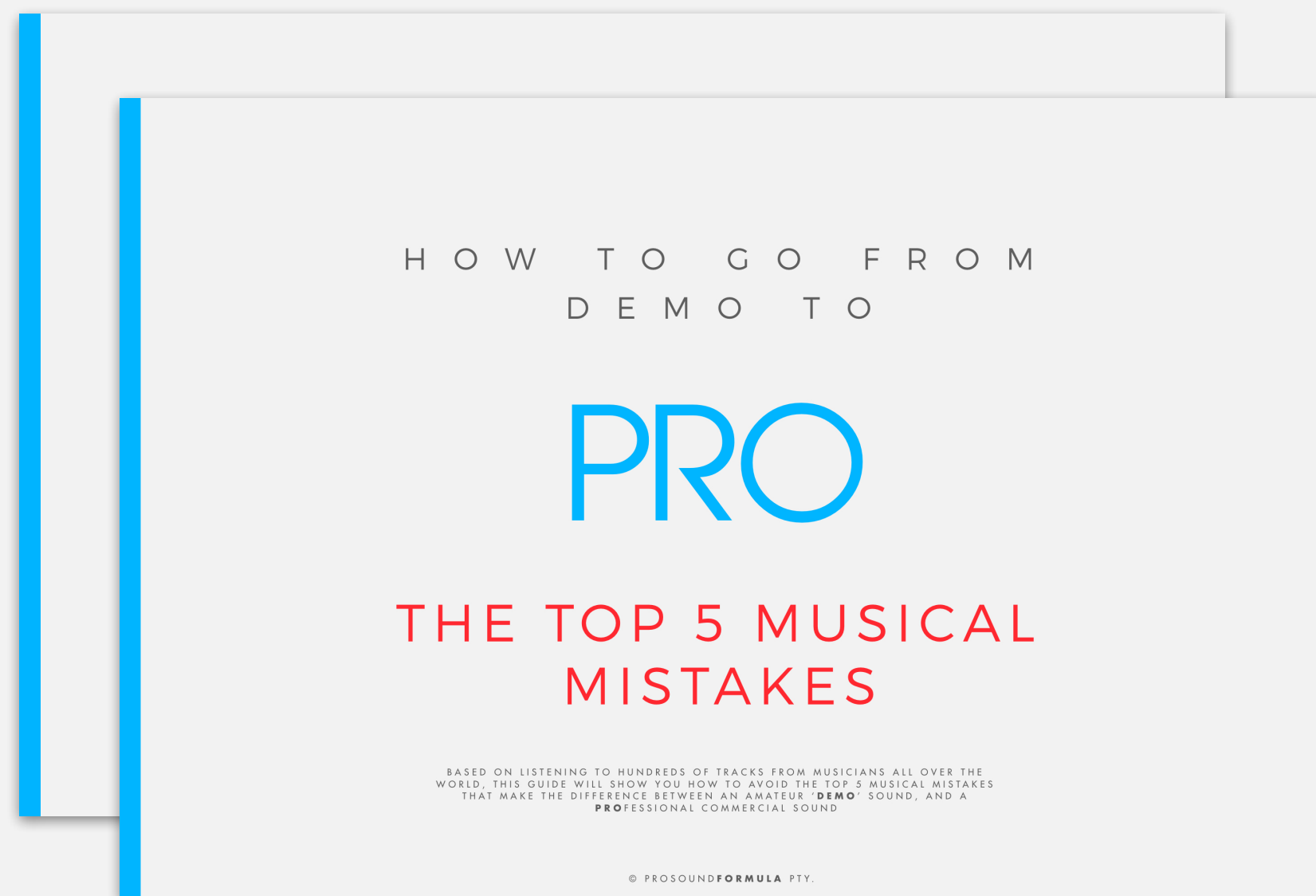
The reason I say that is because you're one of the very few who is actually reading this right now, which tells me that you're searching for the answers and are serious about making your music sound great.

If you'll commit to figuring each of these things out, you'll see (and HEAR) a dramatic improvement in your tracks.

So this could mean buying a certain book, or investing in a training program – either from me or someone else you trust, or it could just be browsing YouTube and various blogs.

At least now you have a clear idea of what it is you need to work on and what you need to learn to get your sound to the next level.

I wish you all the best with your music, and hope that some of my trainings will help you to get that professional commercial sound you've been looking for!



PART 1

THE TOP 5 MUSICAL MISTAKES

In this book, we looked at the top 5 TECHNICAL mistakes that cause people's tracks to sound more like amateur demos than professional commercial tracks.

If you missed part 1 – 'The Top 5 MUSICAL Mistakes', make sure to get that so you can give your tracks a complete rating on both the musical and technical aspects. Here's the link:

[http://prosound**formula**.com/the-top-5-musical-mistakes/](http://prosoundformula.com/the-top-5-musical-mistakes/)