

Audio Mastering Secrets

The Pros Don't Want You To Know!

By John Rogers



AudioMasteringSecrets.com

This PDF is a 42 page preview of the full 184 book. I didn't go "first" 42 pages. This preview is the first 17 pages, then I included various topics and sections you'll find throughout the book (in no specific order).

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Who This Book Is For

Someone who wants to learn how to *correctly* master audio to commercial radio standards, either for themselves in their home recording studio or for their business.

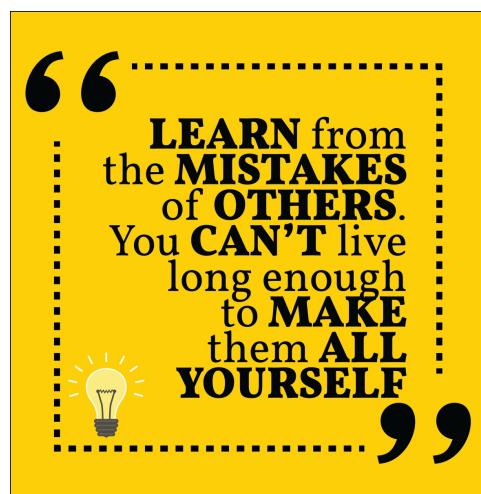
You want to save a lot of money mastering your own album, or you want to have the necessary audio mastering skills to be able to earn \$100,000 a year online like I do!

You want all the information needed to become a great audio mastering engineer, presented in a way that's easy *to* understand.

I wrote this entire book in simple plain English (layman's terms). I eliminated all words you never heard of and hi-tech jargon, so anyone at any level can understand and learn from this book as well.

You've invested *hundreds*, if not *thousands*, of hours into your music. If you're serious about it, now's the time to make a very small financial investment in this book so your music will sound the very best it can!

I wrote this book so you can quickly learn (in a matter of weeks) the techniques, tips, and secrets that took me over 17 years to learn!



What You Will Learn From This Book

I love the saying, "If you *give* a man a fish he eats for a *day*, but if you *teach* a man how to fish he eats for a *lifetime!*"

Well, from this book you will learn how to professionally master audio for a lifetime! Then you can properly master your entire CD, your friend's CD, even open your own audio mastering business. If you're already mastering audio at your own recording studio, I'm sure you will still learn a lot from this book.

This book is a learning guide, filled with in-depth information. I wrote it from the perspective of a recording studio owner who's worked with over 7,500 satisfied clients. One reason I did this is because I wanted to cover *only* typical situations and scenarios you will experience while audio mastering, not a hundred extra pages of theory and worthless topics you'll *never* use. I included only the information you need to know.

Audio mastering is a highly technical field. There are 1,000's of different effects combinations and sonic scenarios. And when you first start out in audio mastering, you'll trial and error your way through hundreds of combinations for each song. It's very easy to get lost in technology and become overwhelmed.

In this book, I simplify the entire audio mastering process down to a handful of basic concepts and effects combinations, detailing only the ones you need to properly master music.

Also, this book was first released in 2017. It covers *current* mastering techniques using *up to date* gear. Since 90% of the current software plugins weren't available at that time, books written around 2007 or earlier are primarily analog gear using old school mastering techniques.

In this book, I explain:

- *What* your mastering goals are.
- *How* to use the processors involved in audio mastering.
- *When* to use them.
- *Why* you are using them.

I start out with basic terms, audio mastering laws and procedures before moving on to advanced sonic adjustment techniques and detailed step-by-step instructions. I not only use pictures, but also incorporate a few online sound and video references. **Everything you need to become a great audio mastering engineer!**

Important Note - Please read this book in its entirety. I try to repeat the most important concepts and tips, but sometimes I mention very important information *only once*. If you read only 75% of this book (or less), **you will miss out on a lot of great stuff!**

About The Author

Hello, my name is John Rogers. I'm a professional sound engineer and have been mixing and mastering at my Las Vegas studio <http://JRmastering.com>, since 1999. **I've worked with over 7,500 highly satisfied customers and mastered over 30,000 songs in every genre and style imaginable.**

I have several thousand emails from clients that absolutely love what I've done with their music. **Everything written in this book is based on these real-world factual results.** Not on biased opinions, what a teacher or friend told me, what I read in another book, what another sound engineer thinks, how I'm feeling that day, etc. **My techniques and philosophies are based on over \$1 million cash earned from thousands of highly satisfied clients.**

I've worked with several Grammy nominees and winners. I've also mastered many billboard top 10 songs in Europe, movie soundtracks, videos that have appeared on MTV, and dance/EDM music that has been played in dance clubs all around the world.

After receiving *thousands* of highly favorable email comments from my clients, most not believing what I achieved with their music, I realized I have great audio mastering skills and knowledge that I can pass on to anyone who wants to learn it.

Learn in a matter of weeks what took me over 17 long years to learn! Let's get started!

Testimonials

Here are a handful of testimonials from the over 7,500 clients I've worked with since 1999. **I want you to know you'll be learning from an audio engineer that not only achieves amazing mastering results, but also displays a high-level of professionalism, patience, and speed.** I do everything I can to get my clients's music sounding the very best it can! And treat each project as if it were my own.
<http://JRmastering.com>

That is very kind of you to give me such detailed notes on ways I can improve future mixes and recordings.... I've been reading up on your mixing tips articles, and they are very informative, but having something thats personalized feedback on my mixes is beyond fantastic! I really want to thank you, John, again for everything, all the tips, all your time and work, you've got loyal clients here, I will certainly continue to always bring my business your way... **Aaron F.**

Every project I work on always goes to John! He has an awesome way of turning your track into something really great! I always suggest him to other producers. I will continue to use him on ALL my tracks, and I would recommend him for all of your projects!

Jake W.

They sound great!! Thanks for finishing so quickly! **Jared Reddick, Bowling For Soup**

I don't now how you do it, but you are amazing! You are so dead on with your instincts and skills. I'm gonna drop \$36 into your PayPal account. Keep the extra \$30 as a tip. Go have a beer on me. An EXPENSIVE one! Wow, you have just blown me away with your work. I'm coming to you every single time, man. You are the tops. Give me a call anytime you need anything, and if I can help, I will. And when we gear up for our next CD, I'll give you a shout. Thanks again, man. You're just awesome. **Felix**

I wanna thank you for your help and for going over everything with me. You don't know how much I appreciate it. I've had a few projects mastered, but none compare to your service! As far as customer service, patience and punctuality you have been A1 and I appreciate it. In the future any projects I do I will be coming straight to you. Thanks.

Erick B.

Thank you so much! I dig it and am ready to call it a finished product. You've helped me turn a small basement project into something that sounds bigger than I'd ever thought I was capable of having, and I'm very grateful for it. I'll be recommending you to all of my friends. **Rich A.**

I've listened to the songs a lot and I still think they sound absolutely amazing! Everything sounds outstanding and I am completely happy with the songs! It was a pleasure working with you as well man, the songs kick ass!! Thanks a ton. **Nick V.**

Thank you John. I really appreciate your professionalism and honesty. So far they sound great, great, great. I'm very happy. I will listen back to them as you suggest, but so far they sound perfect. It's definitely been pleasure working with you and I'll absolutely be in touch for anything else / referring others. Thanks so much John!
Xavier A.

I think you are a genius, it sounds SOOO good. You spread the frequencies so beautifully. I am so glad to have found your service!!! **William L.**

AUDIO MASTERING FAQS

Here are answers to a few of the most common audio mastering questions.

What Is Audio Mastering?

I've seen a lot of different answers on the Internet to this simple question. Some were pretty technical and confusing.

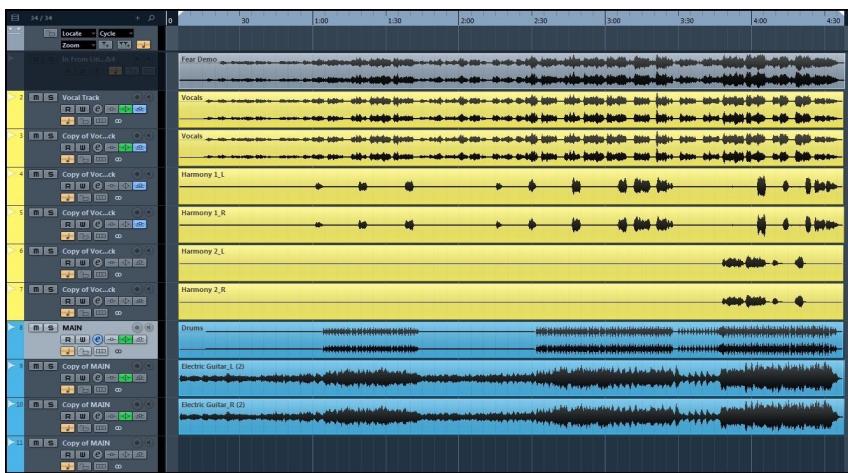
A lot of people think audio mastering is *only* making all the songs on a CD a comparable volume level. Yes, this *is* done in mastering, but it's only one of many processes, not the *only* process.

The simple answer – **Audio mastering is applying effects to a full song mix (on the stereo/main out bus), in efforts to replicate the sonic qualities of a well mastered industry standard commercial song.**

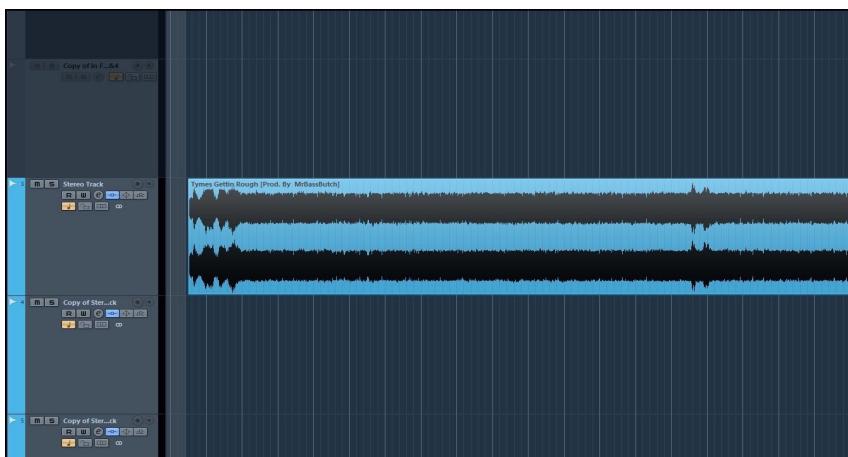
In mastering, you're adding effects to the entire song as a whole. Effects such as compression, spectral enhancement, EQ, etc.

An example of a mastering process is adding bass to a song you're listening to on your car stereo. When you add bass, the entire song gets it. You *can't* add bass to *only* the vocal track. This is comparable to a mastering EQ process because it affects the *entire* song.

How Does Audio Mastering Compare To Mixing?



In music mixing, you're "mixing together" multiple audio tracks to create a song. Different tracks like the lead vocal, bass line, guitars, drums, etc. are being *combined* together. Then proper effects like EQ, reverb, delay are added to each track, along with panning and volume adjustments. In the final step, the mix is exported to create a song in the form of a single stereo interleaved .wav or .aiff file.



In audio mastering you're working with one stereo interleaved file. And, the *entire* song is affected by effects processes, *not* individual tracks.

At least once a week, someone uploads one song .wav file and says they want it *mixed and mastered*. **Well, you can't mix one file.** The word "mixing" is a verb and you need at least two tracks (files) to be able to mix them together. You need at least two of *anything* to be able to mix it together!

What's The Main Goal In Audio Mastering?

Your main goal in audio mastering is to replicate the sonic qualities of a well professionally mastered commercial song, in the same genre and style as the song mix you are working on.

Yes, everyone has their own slight preference adjustments like a little more bass, brightness, etc., **but overall you want to be at least 80% similar to the current industry standard.** The *only* exception is if a client specifically requests an old school master. If that's the case, then you're going to have to replicate the sonic qualities of songs from a past era.

Once every couple months, a client tells me they *don't* want their songs to sound like songs on the radio, because they don't listen to the radio. That's a good reason. Ha! Then they give me a few crazy mastering requests like, "Make my song's volume level -8db below industry standard, or keep the song real muffled, etc."

My two favorite requests happened while writing this book:

Genre Hip-Hop, "I want my CD to sound soft and analog." Ok, you want me to master the first soft analog Hip Hop CD? I talk more about this at the end of this article.

Genre Heavy Metal, "Can you make my CD soft and warm?" That's like saying, "I want an ice coffee, but can you make it hot?"

When this happens, I pretty much refuse these requests. Here's why.

Every song I master is at some point going to be played along with other professionally mastered commercial songs. If the song is very poorly mastered and way off industry standard, it will be *painfully obvious* to any listener when played right after a professionally mastered commercial song.

When I first started in the mastering business, I did whatever crazy request a client gave me, they approved the masters and paid the balance. A job well done. Or was it?

The problems came weeks later after their family and friends listened to these ridiculously poor masters. That's when I got a nasty "You don't know what you're doing" email and a demand for a full refund! Even though I gave them *exactly* what they asked for. This is also why the customer *isn't* always right when it comes to audio mastering.

My Point Proven - While writing this book, a guy uploads 20 hip hop songs. I master an initial preview (like I have for 10,000 other hip hop songs) and upload it for him. He tells me he and his producer want the songs warm and analog sounding. I tell him no one has ever requested warm analog hip hop songs in my 17 year career (which should mean something). **They don't care. They know more than I do about audio mastering.**

So, I send him another preview with the bass up and brightness cut, a nice warm hip hop song. Also, I noted this is wrong for hip hop. He tells me its great, that's *exactly* what he's looking for! I proceed to master all 20 songs this way (which I mention in this book *not* to do). Ha!

The guy got all 20 warm analog hip hop masters, but I didn't hear from him for about two months. Then I get an email requesting a refund of his 50% deposit, because **he and his producer don't like the warm analog hip hop songs.** Really? I'm so surprised they didn't like songs that have the OPPOSITE sonic qualities for the genre! Shocking!! Fortunately, since the client went past the 30 day money back guarantee, his 50% was kept as a non-refundable labor fee.

The general public is used to, and expects, the sonic qualities of today's music. This is why your goal is to try and replicate it. If you don't, they will know it.
PERIOD!

Why Do Songs Need To Be Mastered?

I've seen this question on the Internet many times. The answer I always see is "Because all songs on the radio have been professionally mastered, yours should be too." **This is a true fact, but not an answer.**

Yes, your songs need to be mastered because you want them to have the same qualities of a well professionally mastered commercial song, but this can only be achieved by using effects on the stereo/main out bus. Which is what mastering is (using effects on the stereo/main out bus). Many critical processes can only be done in mastering.

Here are couple of examples of why a song needs to be mastered:

- ◆ **Do you want to be able to play your song loud without it breaking up?** Then you need mastering. **In mastering**, you can compress the entire song as a whole (or in separate BANDS) so it doesn't peak too hot or distort during loud playback. Compressing a song in mastering also kind of meshes everything together. **In mixing**, you can only compress individual instruments like the bass, vocals, etc. This does nothing for loud playback nor does it mesh the song together as a whole.
- ◆ **Do you want your songs to be as loud as the songs on the radio?** Then you need mastering. **In mastering**, you can use a loudness maximizer and make your songs as loud as needed without distorting. **You can't do this in mixing** just by cranking up your levels. You will distort before reaching your desired loudness.

SOLUTIONS TO COMMON MASTERING PROBLEMS

In this section I will cover common sonic quality problems you will encounter in audio mastering and how to fix them. Problems like a song being too bright, harsh, tinny, not boomy enough, not loud enough, etc.

Brightness, Tone, Sparkle (UPPER-MIDS & HIGH Band)

Brightness, tone, and sparkle are some of the most important sonic qualities in the audio mastering process. The vocals, lead guitar, synths, and music melody are often the main focal points of a song, which makes getting these elements correct very critical.

We all know what brightness and sparkle is. But the "tone" of the brightness is something a little different. I guess a similar comparison of tone would be the contrast control on a TV.

A good music example is the lead guitar in a rock song. When mastering a rock song, I have to use the right combination of **Spectral Enhancement** and **Standard 5-Band EQ** in the UPPER-MIDS, so the guitars have a nice tone (bite) to them. An **EQ boost** between 3k to 6k changes a guitar's tone. Sometimes I might *boost* only 4k with a narrow Q to achieve the proper tone I'm looking for, or even the entire 4k to 6k range.

Most of the time I employ a staggered range. Example, *boost* +2db at 3k (narrow Q), and then +6db at 6k (medium Q). Whatever gives me the bright tonal bite I'm looking for. Its trial and error with the **Standard 5-Band EQ** and the **Spectral Enhancer** until I find it.

DIAGNOSIS AND REMEDY

Some or *all* of the actions given might need to be taken to solve your sonic problem. Decide which processes to use, trial and error with them, and then a little tweaking of the settings will be necessary. **What I'm trying to say is, these aren't blind "set it and forget it" presets.**

PROBLEM - NOT BRIGHT ENOUGH

You're going to either add brightness or remove mud (anything that conflicts with brightness). Sometimes you need to do both actions.

Important Note - Before applying any of these actions, when you first start out, make sure your **Multi-Band Compressor's** THRESHOLD and RATIO settings aren't cutting brightness in the UPPER-MIDS. You don't want to do counter productive processing. Remember, natural sound first.

Processor	Control	Action	Location	Notes
Spectral Enhancer	Gain	Boost	UPPER-MIDS	I always try to <i>add</i> at least one unit of spectral enhancing (if possible) to every song for the clarity and separation it brings. <i>Add</i> more if needed for brightness.
Standard 5-Band Equalizer	Gain	Boost	3k to 6k	Move around this range or use the entire range to achieve your desired brightness and proper tone. <i>Boost</i> as needed. Note - Many times I employ a staggered range. Example, <i>boost</i> +2db at 3k and +5db at 6k. This might give me the nice bright tone I'm looking for

MASTERING EQUIPMENT FAQ

I'm going to give a few brief recommendations here. I don't want to get too much into buying hardware and software. I'd rather focus more on *how* to master music.

If you want to read more on my music gear recommendations checkout my forum –
<http://AudioEngineer.School/forums.html> (Note- This address is .school, not .com).

What Hardware Do You Need For Mastering?

Here's the basic hardware you need to master music:

A Computer (preferably a quad core or faster)

An Audio Interface (which contains a mic preamp and instrument cable inputs)

Studio Monitor Speakers & A Sub-Woofer

An Audio Control Unit To Control Speaker Volumes (optional but it makes life a lot easier)

If you're looking to get started real cheap, you could make a decent *hardware only* set-up for about \$1,500. High-end hardware will run you roughly \$3,500-\$4,500. Still not too expensive.

What Software Do You Need For Mastering?

If you've mixed songs in the past, you can more than likely use that same software for mastering. As long as you can add effects to the stereo/main out bus, you're good to go.

DAW (DIGITAL AUDIO WORKSTATION) SOFTWARE

Top and popular DAW software like Pro Tools, Cubase, FL Studio, Logic, Sonar, Reaper, Ableton, etc. you can definitely master with all of these programs. I personally use Cubase.

SOFTWARE PLUGINS & MASTERING EFFECTS HARDWARE

The DAW software I mentioned above all comes with software mastering effects you could use (on the cheap). I personally don't use *any* plugins that comes free with the Cubase, but that doesn't mean they're not high quality. I don't know. On second thought, I do use the de-esser that comes with Cubase.

If you know how to master very well, you don't need thousands of dollars in mastering software and hardware to get great results. And after reading this book, you *will* know how to master very well!

Which Mastering Software Plugins Do I Recommend?

If you want to read *more* on my software plugin recommendations checkout my forum – <http://AudioEngineer.School/forums.html> (Note- This address is .school, not .com).

When it comes to effects plugins I love Universal Audio (UAD) plugins, and Waves too. Hardware, I like SSL and Manley products.

IZOTOPE OZONE MASTERING SOFTWARE



I believe iZotope Ozone is in a category by itself because of the number of hi quality effects you get at such a great price (around only \$200). Not to mention the great sound quality. iZotope Ozone is a single plugin that chains together 6 of the 8 main mastering effect processors. I personally use a couple of the Ozone plugins during mastering, but if you used all of them I wouldn't say that's a bad thing.

Check it out here - <http://BestMasteringSoftware.com>

SHOULD YOU BUY OZONE?

I would definitely say, "YES!" It's relatively inexpensive and even if you don't use all of its mastering processors, it's a **MUST HAVE** learning tool that will help you see what an effect processor actually does to an audio file. In Ozone, as the music plays you can see the audio file moving in real time. It's very easy to compress just the peaks of an audio track because you can see *them*. This also helps you learn compression ratios and thresholds through visualization.

SETTING UP YOUR LISTENING ENVIRONMENT

Audio mastering starts with your listening environment. **If it isn't giving you a *true* sound, you'll be lost.**



Room Size

Technically, you can properly mix or master in any room size. But, I believe a *smaller* room is better than a very large one for someone who's just starting out. And when I say *smaller* I mean closer to 12'x15' than to 20'x30'. I've mixed and mastered songs for a number of years in a 20'x30' room. It took me a few days to get used to it, but after that I could do it.

The obvious problem with a big room is it's a very open space. If you don't have a good acoustic setup, the room will add reverb to every song.

You have to compensate for this on every song you mix or master, because the extra reverb you hear isn't really in the music. It's coming from the room.

In a smaller room, even with no acoustic treatment, your mixes and masters will all sound more true. They won't be discolored from bouncing around a big room.

Speaker Choices

I've used dozens of different brands of speakers in my career and I do like a few better than others. But, this article deals more with types and sizes of speakers, not with the brand choices.

I talk more about brands in my forum at <http://AudioEngineer.School/forums.html>
(Note - this domain is .school NOT .com)

The main mixing and mastering speakers I currently use are Dynaudio 100w powered studio monitors with 7" woofers and 1.1" tweeters. They have nice EQ adjustment options on the back and I know these speakers very well. If you get speakers that are a little larger, you'll get better LOW-end out of them, but I'm happy with the size I use.

The most important part of your speaker setup (that a lot of newbies don't know about) is having a sub-woofer on the floor between your main studio monitors. It's *impossible* to correctly mix or master any music content under 150hz without having a sub-woofer. 7-8" studio monitors will not play the low 50hz sub-bass *AT ALL*, and they're weak at best in the 100hz area.

Speaker Placement

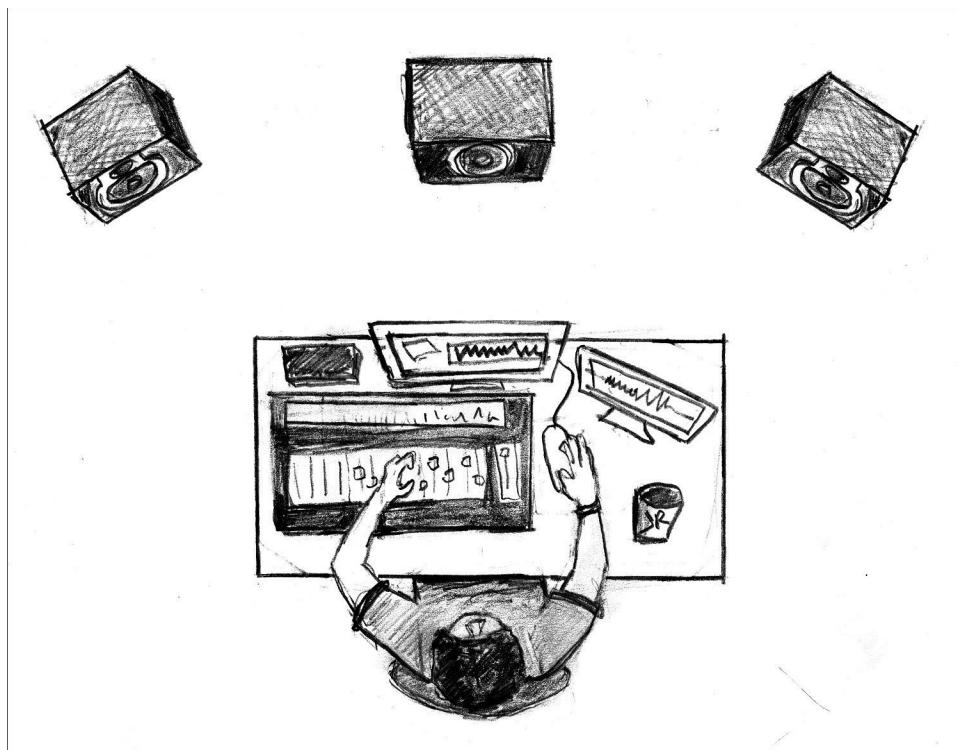
Before I tell you the setup I like best, after *many* years of experimentation, I'd like to first tell you the setup I personally don't like (even though a *lot* of sound engineers do this). Two studio monitors, five feet apart, on a desk *two feet away from their face*. And NO sub-woofer! I think they call this "near field" monitoring.

But at some point during the audio mastering process, you *must* crank the music up very loud to set your final compression and to hear how it translates at high volume levels. You can't do this if your speakers are right next to your ears! At least I can't.

Maybe this is why the songs I get in for re-mastering badly break up when cranked up loud, and the bass is totally washed out. They were originally mastered at very low levels without a sub-woofer, and not optimized for loud playback.

I also find it hard determining the overall depth and stereo width in music when the speakers are two feet in front of me. Which makes sense. Its like watching a 50" TV. I want it to be far enough away so I can take the whole picture in. No one puts a 50" TV on a table right in front of them, yet this is done with speakers.

My Personal Speaker Placement



First off, I use speaker stands for my studio monitors, and the speakers stand 3.5 feet off the ground. I have the stands roughly 7 feet apart, and the speakers are about 6-7

THE 18 LAWS OF AUDIO MASTERING

In this chapter, I will discuss what I'm calling the "Laws Of Audio Mastering." **Very simple concepts, but very *important* ones because most of them are used every time you master a song.**

Read through these laws now, and then again when you're finished with this book. Write them down and *learn* them all! If you want to be a great audio mastering engineer and skip a few of these laws during your mastering sessions - you won't be.

These laws will not only help you become a great audio mastering engineer, they'll show you how *not* to become a bad one. I guess you could also call this section "Mastering Mistakes To Avoid."

Note - Every month I get in a few re-master jobs. A client goes to another studio and the mastered CD they get back sounds terrible, regardless of the price they paid. Honestly, sometimes \$100 a song! **Unfortunately, the sound engineer is breaking several of the laws listed in this chapter.**

Audio Facts Are Facts, Not Just Opinions

I wrote this section because it needs to be mentioned. **Audio facts are the same as visual facts.** They say, "Seeing is believing" but a lot of people think,"Hearing is a matter of opinion." Well, it's not! Yes, you can have a personal sonic quality preference, like some people like a lot of bass, but that doesn't change the *amount* of bass a song actually has. All it means is *you prefer* more bass.

1080 HDTV vs 720 STANDARD

Here's a visual example to start with. When 1080 HD TV first came out, my uncle would argue with me that 1080 HD TV was *exactly* the same as standard 720. "There's NO difference! The only difference is in the price," he used to tell me.

Well, just because someone *believes* 1080 HD TV is the same as standard 720, doesn't mean its true. The fact is, 1080 HD has a much superior picture quality compared to 720. If someone doesn't believe this, *they're wrong!* **This isn't something you can have an opinion on, it's a fact!**

Why am I even mentioning this? Because I want you to know if you're working with clients, you will get a small percentage that are clueless and will challenge obvious sonic facts. And there's nothing you can do about it because they *think* their opinion is right.

I would like to say *most* of the clients I work with are sharp. 60% are very sharp. They don't know *how* to master a song themselves, but they can tell if a master is sonically wrong within a couple dbs.

But, when you are working with a sonically clueless client, their comments and suggestions are all over the map! They'll tell you their original mix is brighter than the master you boosted +3db in the upper-mids. They'll tell you one song on the CD is way louder than the rest when they're all the exact same volume. They'll give you a bunch of opinions that are contrary to the facts.

What do you do with a client like this? First, I tell them what the facts are. It's 50/50 whether they believe me or not. Many times I end up granting their crazy requests with a disclaimer stating I don't agree with them, and they're wrong.

Regardless of what the circumstances are, audio facts are facts. They're not just an opinion.

The 4-Band Frequency Ranges In Multi-Band Processing

In this book, many times I've mentioned that audio mastering is an *overall* process. It affects a song as a *whole*. If you make a song louder, the *entire* song is made louder, you can't make *only* the lead vocal track louder. This is true.

But the concept "affects a song as a whole" technically isn't entirely true. I explained it that way to start because I didn't want any confusion between mixing and mastering.

The truth is, the 4-BAND frequency ranges used in audio mastering splits a song into four independent parts. This gives you a little more flexibility when making adjustments.

THE 4-BAND FREQUENCY RANGES IN MULTI-BAND PROCESSING



Several of the processors used in audio mastering are multi-band processors, which work within the four frequency bands (LOW, LOWER-MID, UPPER-MID and HIGH). You have control over the frequency range each BAND covers, but there are basic settings for these BANDS that most people use (at least initially). I will go over the initial frequency range setting for each BAND in the upcoming pages.

These BANDS are the reason why audio mastering technically is not an overall process, since you can work independently with them. For example, with a **multi-band compressor** you can *slightly* compress *only* the LOW Band, but compress the UPPER-MIDS *very heavy*.

Using a "**single-band**" compressor, if you add heavy compression, the *entire song* is compressed heavy, *not* just a specific frequency BAND.

As you can see, multi-band processors give you more options and flexibility. Its like comparing a regular one-speed bike to a 10-speed bike. Even if you don't use all 10 gears, you still have them if you need them. The one speed bike, you're limited to one option.

Important Note - On the upcoming pages, I give you several tips but unless you SOLO each BAND it will be difficult to analyze them. During your A/B comparisons, be *sure* to SOLO each BAND on the song you're mastering *and* your reference track.

LOW (20hz-130hz)

This frequency range is the absolute BOTTOM-end of the song. This BAND is where you'll find punch, bass boominess, and hip hop sub-bass. Also, the lower range of the bass guitar/synth resides here too.

How This BAND Should Sound -

You want to make sure your *boominess* and bass *loudness* are correct for your genre. That's pretty much the whole ballgame in this BAND.

Unless you make the bass way too loud, this BAND is too far away from the UPPER-MIDS to run them over and muddy up the song.

WORKING WITH SONIC QUALITIES

In this section I will cover the sonic qualities you're trying to replicate in audio mastering. It includes a basic overview of the sonic qualities you will be working with, how to adjust them, how to handle a song with erratic sonic qualities, and the differences between 5 Band EQ and Spectral Enhancement.

The Sonic Qualities In Audio Mastering

When you master a song, your goal is to match a well mastered commercial song. **During a mastering session you need to A/B compare each sonic quality one at a time.**

After 18+ years, I still mentally run through my entire sonic quality checklist. This is a must!

For example, does the song have too much or not enough boominess, brightness, bass volume, etc.? If I don't do this, eventually I'll start missing sonic qualities to the point where my masters start sounding poor, and I'm no longer a great mastering engineer.

This section is an overview of the sonic qualities in audio mastering. **When you breakdown your reference track for A/B comparison, these are the sonic qualities you are trying to match.** I included a few notes for each one. Later in this section, I explain everything in greater detail.

Clarity & Separation (Any BAND)

Clarity and separation differs from brightness and tone, though many don't understand this. I have a great non-music example that explains this.

COMPRESSION MADE EASY

Since compression is such a big part of audio mastering it has its own separate section.

Add a little bass or treble, even a child knows the basics of EQ. But when it comes to compression, many audio engineers who own a recording studio, or work in one for a living, don't understand it very well. I know this by the number of re-master jobs I receive from studios all around the world that don't apply *any* compression at all!

After reading this section, you'll know everything you need to about compression in audio mastering.

Which Compressors Are Used In Audio Mastering?

Before I get into what compressors can do in audio mastering, I have to mention which two I use.

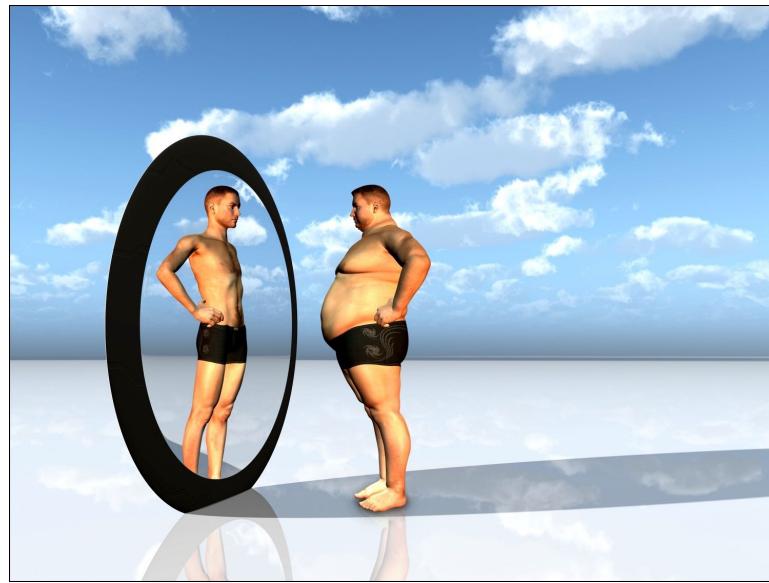
1. Loudness Maximizer - Is used to raise the overall volume level of a song to industry standard level, without distorting.

2. A Multi-Band Compressor - Has several functions that I explain in the next section.

Important Note - From here on out in this book, when I mention COMPRESSION I am referring to actual compressing, limiting, squeezing an audio track.

If I mention GAIN, I'm referring to a volume level increase using the **Multi-Band Compressor**. YES, in addition to compressing, you can increase or reduce the volume level of a BAND with a **Multi-Band Compressor**.

The Power Of Thinning Out A Band



This isn't a ground breaking concept, but I use this compression technique so often to correct errors, I had to repeat it and give it its own section.

Here are the common errors I see in each BAND, which can be improved by BAND thinning:

UPPER-MIDS - Super bright, Distorted, Very Thick/Total Saturation (a mash of noise).

LOWER-MIDS - Distorted, Vibrating, Very Thick With No Clarity (a big muffle).

HIGH Band & LOW Band - I rarely ever thin out these BANDS. If they're problematic, volume adjustment is my chosen solution.

HOW BAND THINNING WORKS

When it comes to problematic UPPER-MIDS and LOWER-MIDS the logic here is **you're trying to eliminate a large PORTION of the problematic BAND by using the Multi-Band Compressor**. You could say I'm trying to cut it in half.

AUDIO MASTERING PROCEDURES

Here are several audio mastering procedures you need to remember when working on your projects.



Should You Export Your Mix To .WAV Or Mix And Master At The Same Time?

Myself, I mix and master at the same time. Effects are applied to all the individual tracks *and* the stereo/main out at the same time. If you're mastering and mixing a project, you have the option to do it like this too.

Now, if a friend or client gives you a stereo .wav file of a song, obviously you only have one option because you're only doing the mastering.

What should YOU do, If you're mixing *and* mastering a project?

I HIGHLY recommend that you export your mix as a stereo .wav file (at least a few times even if you're a pro at mixing). Then import this file into a mastering project session.

This book is written from that viewpoint. You start with a stereo .wav file song mix, analyze it, and then apply the proper mastering effects.

This is a mastering book, and that's where I'm keeping its focus. Mastering a single stereo .wav file. When you have a *great* understanding of this, then you can mix and master at the same time, like I do.

If I wrote this book from the viewpoint of "mixing and mastering" at the same time, there would be mass confusion concerning where the corrective actions should be taken. In mixing or mastering?

Note – I understand you might be mastering a .aiff file or maybe an mp3. To keep it simple, I always refer to a song mix file as a .wav.

But What If The Mix Is Terrible, Shouldn't You Fix It?

YES! A lot of fixes can't be done in mastering. For example, if the vocals are way too low in volume and need to be raised, this can't be fixed in audio mastering. If you have access to the raw mix, by all means fix it. And export a new .wav file.

Also "after" mastering, the fact alone that the song is much louder reveals unknown problems in the mix that might need to be corrected.

AUDIO MASTERING STEP-BY-STEP

You FINALLY made it to the "Audio Mastering Step-By-Step" section! I hope you didn't jump to this section first. Ha!



This section covers my audio mastering session, step-by-step. I use the techniques I've outlined in earlier sections of this book, and explain the logic behind my actions.

If you haven't read anything else in this book, this section might not be of great help to you because I only give vague instructions. For example, I might say, "check the UPPER-MIDS, compress them properly, and then make sure brightness and clarity are correct."

Now you might ask, "Where are the UPPER-MIDS? How do you compress them properly? What compression threshold and ratio do you use? How do you know when brightness and clarity are correct? How do you adjust brightness and clarity? How do you know when the BAND is correct?"

These questions, and hundreds more, are answered in previous sections of this book.

MASTERING DIFFERENT GENRES

In this chapter I will discuss the specific sonic qualities of over a dozen different genres.

How Do I Know The Sonic Qualities For Each Genre?

This might be a dumb question, but I wanted you to know it's not *only* from years of experience and A/B comparison using industry standard songs. Customer feedback from over 7,500 clients has also played a big part in writing these sonic quality pages, and this entire book.

Why would you even care? Because if you are working with clients, my sonic quality overviews and advice are going to satisfy most of them since it's largely based on their feedback.

Also, since I've worked with so many real clients and songs, you're getting solid real-world information. Not theory.

Surfing the net, you will find many sound engineering and online teachers have *very little* real-world positive experience. Some haven't even worked with very many customers! All they have is book theory or what they learned in school, or from a course.

Granted some of them have made TONS of money selling courses, but that's because they aren't good enough to actually mix or master someone else's music, so they can't get any business! They can't properly mix or master a song for someone else, but they can take your money and tell you how to do it. Ha!

It's kind of like the "make a million a year with no money down" flipping houses infomercial guys. They personally make millions telling you *how* to do this, but they've never made a dime doing it themselves. And you won't either...

WORKING WITH CLIENTS

In this chapter, I'm going to give a few *must know* tips pertaining to working with clients.

Should I Ask Clients For A Reference Song?



I saw this question asked on music forums several times. And the answer is always, "Yes, of course. Then you know what the client is looking for." **This is a common sense answer anyone can give, not based on actual real world experience.** And it's a very wrong answer...

I've worked with over 7,500 clients since 1999. But, roughly only 200 clients either uploaded a reference track, or told me a band they're trying to sound like. Most of my clients just let me do my thing, without any recommendations.

I'm very good at matching reference songs. Well, a funny thing happened with these 200 clients. **An astounding 75% (150 of them) all told me word for word, "Wow, you did a great job matching my reference song, but I don't like it for my song!"**

Ha! Then why did you send it to me and tell me to match it?

I really don't know why this happens, and there's no reason to elaborate. I've worked with enough people to know it's a fact. **75% of the time matching a client's reference track doesn't work.**

Armed with this information, if a client gives me a reference track or a band recommendation, I now give them back two masters. One is a reference match, and the other is how *I feel* it should be mastered.

What's the end result? 75% of the time they choose my master.

Just like in any other business, this is just another example of how *real world experience trumps common sense and theory.*

Using The Initial Preview As A Reference

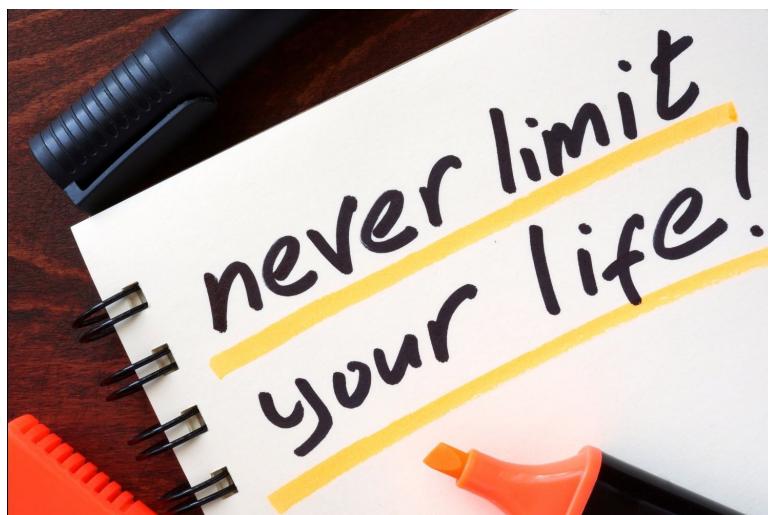
Before I start mastering a CD project, the client gets an initial master preview of one song. They then give me any preference adjustments. Now I have a master they like, and I *could* make all the songs on the CD similar.

The question is, **should I?** The answer is, yes but loosely.

Most clients do well with the initial preview. If they approve it, they usually really do like it. It's rare for them to approve an initial preview, then complain about the entire project that you mastered similarly. This usually only happens if the mixes are very poor, which means the masters are too. If this is the case, you shouldn't have mastered the poor mixes to begin with.

Yes, I import the client's approved initial preview into the project so I can reference it for each song, but when the actual mastering process goes on, I **DO NOT** A/B compare it and try and replicate it *exactly* for every song on the CD. **I still try to replicate an industry standard song for every song in the project.**

Buy The Full 184 Page Book!



That was the preview. Here are a few more notes about the book.

My debut book, Audio Mastering Secrets, is one of the first audio mastering books on the market that focuses entirely on “How to master audio to radio quality standards,” all from the comfort of your home studio. No expensive gear required to get amazing results!

My book covers the following:

This Book Is An 8.5” x 11” Learning Guide (184 Pages)

It focuses on how to master audio, how to become a great audio mastering engineer, and how not to be a bad one. I don’t get into the specifics of brands of gear you should buy, the history of audio mastering, 1,000’s of compressor settings (of which maybe 40 you’ll ever use), or a dozen pages on how to sound proof your room. If you’re looking for that information, there are several other books on the market that explain those topics very well.

Common Mastering Problems And Their Solutions

In audio mastering, you will face common problems like a mix being too thin, tinny, distorted, over-saturated, muddy, or not bright enough. Sometimes you can't get the song loud enough, boomy enough, no separation, too much bass, no sparkle, and many other problems. I explain in detail which effects processors to use and their exact settings to solve these common problems. This is a great tool to refer back to when needed.

Written In 2017

In this book I work with up-to-date software and a digital DAW system, using current audio mastering techniques for this day and age. I show you how to get great mastering results using your home PC, DAW and plugin software, and basic hardware. No expensive old-school equipment required.

This Entire Book Is Based On Real-World Experiences

Not entirely on theory, what I learned in school, what I heard from some other engineer, etc. I've mastered over 30,000 songs for over 7,500 highly satisfied clients. Why is this important?

1. Because I know the techniques and secrets that I'm teaching work very well! The proof is in the thousands of positive email testimonials I've received.

2. I also know which problems and situations arise very often, and which ones never happen at all. Knowing this allows me to focus only on what you will actually experience when working on an audio mastering project. Someone who hasn't worked with a large number of customers won't even know what areas to focus on.

My Step-By-Step Audio Mastering Session

You will learn the 18 steps I take in the audio mastering process. From importing your file, down to loudness maximization and finally exporting a perfectly mastered song!

Mastering Different Genres

Here's where I break down the sonic qualities of sixteen different genres. How much brightness, bass, boominess, compression, etc., you're trying to achieve for each genre. And several tips on what clients are looking for. This is a great tool to refer back to if you don't know the sonic qualities of all the different genres very well.

My Audio Mastering Laws

In this section, I cover a series of do's, don'ts, and facts that basically apply to all audio mastering jobs regardless of genre. I also cover several pitfalls you will experience (just like I did) as an audio mastering engineer, and how to get through them.

Compression Made Easy

After reviewing hundreds of masters and re-masters from other online studios, I've found that most sound engineers don't know how to properly use compression. A lot of them never use it at all! This causes their songs to break up badly during loud playback. In this book, I cover everything you need to know about compression in audio mastering. I eliminate 95% of the needless threshold/ratio combinations, which makes the entire process much simpler.

Setting Up Your Listening Environment

In this section I cover calibrating your speakers, learning your speakers, speaker placement and room size. And, the myth about soundproofing your room.

The Effects Processors Used In Audio Mastering

The basics of what they all do, how to use them, when to use them, and my initial settings templates.

Working With Clients

I cover a handful of important must-know facts if you're working with clients. Why lose jobs learning on your own (trial and error). Learn from my past mistakes!

This Book Is A Very Easy Read

I left out all the high-tech jargon and rarely used words that slow down sentence flow. I want everyone to learn how to properly master audio, while not having to try and figure out what I'm trying to say! Ha!

And Much More!

In this book I cover audio mastering FAQs, definitions, concepts, and procedures. I also talk about working with sonic qualities, A/B comparison, working with 4-BAND processors, creating headroom and dynamic range, evaluating the mix, protecting your hearing, EVERYTHING I've learned in the last 17 years!

If you started audio mastering ***on your own*** this year, by 2034 you might learn everything that's in this book. Ha! Why not just invest in this book and learn it all ***by the end of next month?***

I wish you the very best of luck in all that do! Cheers! God Bless!

Your Friend,

John Rogers

MONEY-BACK GUARANTEE!

If this book isn't the best audio mastering book you've ever read, email me and I'll give you the return address for a 100% refund.

In Stock! Order Now!

<http://AudioMasteringSecrets.com>