



## **HOME RECORDING IN NINE PAGES**

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**RecordingReview.com**

This guide is for humans who want all the things they need to know about Home Recording in one short sweet wallop upside the head.

It took me more than 13 years of recording full time to figure out this stuff for myself and I wrote it all down in my zillion page opus, Killer Home Recording (KHR). That covers just about every issue under the sun and in the kind of detail any recording nerd would insist on.

Here I've gone in hard and fast so that this guide packs the about same punch as KHR but in a fraction of the space, time, or hangover. The sections may be short - VERY short - but each little lesson is vital.

It was difficult restraining myself from writing ten pages for each section so .....if you have any questions, don't hesitate to ask.

# SO WHAT MAKES A RECORDING GREAT?

Even if you're not a philosopher, let's take five seconds to talk about what a great recording is.

1) **A great recording is right for the song.** That's a given. Any bad decisions that don't hurt the song get a free pass. They don't matter. If the song is effective in its recorded form (warts and all), you win.

*Hint: We could stop there and we probably should.*

2) **A great recording contains individual tones that are awesome enough to act as a catalyst which increases the intensity of the listeners emotional response.** That gets screwy in a hurry. I've got a zillion albums I think are full blown robo awesome in every way and I never run off to tell my buddies about some random element. However, it has happened before. I'm positive that certain sounds have added to the fun of a song and those are almost always individual tones where other instruments don't step on them. That's it.

## THE PRODUCING DILEMMA

I was tracking this week. The singer was way too close to the mic. She had WAY too much low end in her voice. The solution to that is not any of the stuff that gets talked about on forums. I simply had to stop her and move her back a foot or so.

Asking a singer to do something different kinda sorta moves you onto the "producing" side of the fence even though, in this case, it was purely an issue of audio engineering. But you'll find that, **if you don't have the ability to ask the musicians to alter their thing to get you what you need, you'll have big audio problems no matter what gear you have.**

I cover this in greater detail here. [Want Better Vocals? Ask!](#)

## ACOUSTICS IS A DISASTER

Acoustics is a big ass mess. You can read books and books about this topic, but the reality is humans don't notice gigantic changes in frequency response of studio monitors. I mean, you may have a 30dB dip at 58Hz. Unless you have some trigger to let you know this - maybe some song has a bass drop that starts at that frequency and you say, "Hey! Where did the damn bass drop go?" - there's a strong chance you won't notice that some frequencies are completely missing on your monitors until you hear the artifact elsewhere.

### When You Do Notice Acoustic Flaws:

When listening for fun, dips and peaks in frequency response aren't a big deal. Our brain fills in the details. When mixing, however, a really good mixing engineer will compensate. If a monitoring system has a 2dB boost @ 1Khz, he'll cut 1Khz by 2dB and when he renders that mix, his mix will be lacking in 1Khz by 2dB everywhere.

*Note: The world's best mixing engineer - whoever that is - can't compensate for frequencies that simply aren't there. If he doesn't hear mud at 300Hz, he won't cut it.*

So peaks in our monitor's frequency response can be learned, worked around, or even used to our advantage, but the dips are just gone.

## Acoustics Treatment Is Expensive:

You won't be crowned king of mixing simply because you get your room treated. Getting killer acoustics is VERY expensive and requires a room that's freakin' huge. Most people don't know that a typical major label studio control room has a ceiling that's 30' tall because there is a false ceiling hiding it. There are often false walls on the sides concealing what could be five feet or more of bass trapping.

Spend \$4,000 on acoustic treatment for a room, and you'll notice you get less intense peaks and valleys in your monitoring system's frequency response. You'll get fewer surprises in how your mixes translate. It won't sound as though your skills are flying off the charts.

## TOOLS AND TACTICS

*If you really want to sound great, you'll find that very good inexpensive tools hang with expensive stuff with little issue.*

### Variety Of Tools vs One "Ultra" Tool:

The beauty of **not** blowing all your cash on only one or two ultra-high end gadgets for \$2k, \$3k, or \$5k is you have leftover cash to obtain a variety of tools. I'd rather use the stock preamps in my Focusrite Scarlett 18i20 and have access to [Slate Trigger](#), string samples, Antares Autotune, multiple monitoring systems, etc. It doesn't make sense to spend \$1,000 on a Phillips screwdriver and \$2 for a flathead....or maybe no flathead at all.. **I'm not sure a screwdriver is ever worth \$1k. I feel the same way about most audio hardware.**

### The High End Gear Fiasco:

To put it bluntly, I dumped nearly \$100,000 into my studio gear. I saw no improvement in my work. I still sounded like Brandon. I've sold most of this gear and I still sound like Brandon. My mobile rig costs peanuts. **I still sound like Brandon.**

I firmly believe that no microphone needs to cost \$1,000. I use my \$350 ADK Vienna Mk8 (which I'm absolutely happy with, btw) and my results are better than when I used my \$2,600 Soundelux U99 or Neumann TML127. Why are my results better? Because I got better. The end.

If using one gadget over another makes an overt improvement (and not just a subtle "character" change) while listening in blind tests, that gadget is worth looking at. When you encounter mic shootout after mic shootout with no clear winner, it's a sure sign that the tools they are testing are too close to show interesting differences. **I'd focus on the interesting tools if I were you.**

## TRACKING

### Eliminate Undesirables BEFORE You Start:

You should always do your best to eliminate any undesirables before you record. Fixing stuff after tracking is much more time consuming than getting it right at the get go. Put all your time into tweaking the things in front of the mics and line inputs, but do so while listening to what's being tracked.

## Your Ears And Mic(s) May Disagree:

The guitar amp or drums sound awesome in the room. Put a mic on them and they sound weird. Get used to it. It happens 99% of the time.

*Hint: A trustworthy monitoring system is the most important thing ever on this side of the microphone. Make the monitors happy even if that means doing strange things in the room.*

## The “Right” Mic Placement:

The “right” mic placement is not something you can memorize from a picture you saw online. The right microphone placement will be what sounds best. Mic placements that deliver results tend to differ radically. Don’t be afraid to be radical - branch out here. **You guys who follow “the rules” are at an extreme disadvantage on this one.**

## Underrated And Overrated Mic Placement:

Mic placement is extremely important, but that doesn’t mean 120 minutes of micing an acoustic guitar is going to be better than taking five minutes. A few minutes with a pair of headphones, a mic, and a buddy playing acoustic guitar will teach you everything you need to know. Even if you don’t work miracles, you’ll almost certainly find the sweet spots.

## Your First Time Recording An X:

When the aliens land with some new instrument, the basic concepts for capturing the sound are the same. No excessive mud. Try cramming the mic down its throat, but also try 2’ and 10’ back.

*Note: That’s three VERY different mic placements. It should take you about nine seconds to develop a strong opinion of which one you like best.*

From there on out, it’s a bit of fine tuning and adding cherries on top. Don’t overthink it. Just capture it. **If “just capturing” doesn’t satisfy you, rethink the source.**

## The Genius Kid In The Bedroom:

The kids in their bedrooms that took three months to find the magic snare, kick, and a handful of synth sounds will come out sounding like geniuses in dubstep. The same applies to the guitar master who picked up [X Mega Drum Samples](#) and downloaded doom-like presets for his [Axe FX](#).

Guys like these, with full control of their tracks, won’t look towards mixing as the savior. It ain’t. If the dream sounds are there, there ain’t much left to do.

# MONITORING

## People Excited By Their Studio Monitors:

If a person is hyper excited by their studio monitors, it’s a clue they’ve never taken those monitors to another room or have only mixed in incredible rooms. I bought my Focal Solo6 BE monitors (with matching sub) for \$4,000. When I temporarily moved to an untreated room, the Focals were unusable. The room is more important than the \$4k monitors without a doubt.

## Fancy Monitors And “Details”

When a peer upgrades from mid-priced studio monitors to high-priced jobs, the first cliché you hear is “The new X2000s expose all kinds of hidden details”. I don’t deny that these people heard new things in new ways, but they aren’t hearing “details”. They are simply telling us their old monitors had a dip at X frequency and their new monitors do not.

Since just about every reputable studio monitor measures near-flat in an anechoic chamber, this change in frequency response from monitor to monitor is almost entirely due to acoustical issues.

To put it another way, calling this new found audio information the rather-mystical term “detail” makes it sound like this info won’t show up when measuring frequency response. It will.

## It’s The Name Of The Game:

You need a monitoring system that allows you to crank out work that sounds badass *everywhere*. But take ANY pro guy and make him mix in a new room with monitors he’s never used before and he’ll screw it up.

Most beginner’s blame their “low quality speakers” for a poor mix. That’s BS 99% of the time. Most intermediate types blame their acoustics. Advanced types accept that perfectly flat monitoring isn’t the magic bullet, either. You need to account for human psychology a bit with your monitoring options. So let’s get into that.

## How To Avoid Psychological Issues In Monitoring:

By far the best way to have your mixes translate is to get your final mixes up to competition loudness levels. Have multiple speakers in multiple locations in your room (including headphones), learn individual trigger points that each set of monitors/speakers shows you, and constantly compare your mixes to major label productions.

I bought a pair of Yamaha NS-10s to see what all the hype was about. It turned out that in my room they sounded VERY not-so-typical. They had no bottom, no top end, and this incredible boost at 1.5Khz. Ninety-nine per cent of all mixes I played through ‘em had the vocals just piercing at this frequency. It was crazy... until I accepted it. I started making my vocals piercing on purpose. I knew that if a vocal wasn’t piercing, it was “too mellow”. I found a trigger that I learned to match and this trigger led to a radical improvement in the way my vocals translated to the outside world..

Now suppose that, with the volume on 11 o’clock, Busta Rhymes has a low end that buzzes some gadget in your room. Assuming the low end is tuned similarly on your track, it should create the same kind of buzzing. You can go nuts with this stuff and probably should.

Ironically, these “triggers” just prove that our ears and brains are meters, too. Some meter plugin that looks like something a meteorologist would use may not mean much to you, but when one vocal is “piercing” us humans have this way of taking note - we notice in a hurry.

*Note 1: The only way to find these triggers is to do a bunch of listening in your room on multiple playback systems. Hint! Hint!*

*Note 2: The Yamaha NS-10ms changed radically when I switched rooms. They no longer had this useful “piercing vocal” trigger. Bla!!!*



# REFERENCE MATERIAL

How does you mix stack up? Check it against something you know is awesome.

## **Your Perspective Will ALWAYS Be Screwed:**

Anyone who's great at mixing has learned tricks to keep themselves from losing perspective. Using meters is one (a great one). Using a second set of speakers that sound TERRIBLE with no bass or treble is another. (A trick I LOVE, actually.)

By far, the best way to keep perspective is to check your mix CONSTANTLY with major label reference material. By referencing a constantly rotating array of big boy mixes every 3 minutes, you'll keep your brain in line.

*If a person claims they don't lose perspective, you know they are a liar.*

## **Reference Material Trumps Everything:**

When you are in the middle of a mix and you stop to take a listen to reference material which you normally think sounds great, you'll eventually hear a little voice that says, "Geez! Those guitars are bitey!" or "Damn! Those vocals are LOUD", etc. That little voice is wrong - but it IS giving you a warning. If that recording really is awesome then those guitars aren't bitey and the vocals aren't loud. More likely, your guitars are dull and your vocals are buried.

## **There's No Magic In The Reference Material**

It's easy to believe the big boys are just doing incredible things that you simply can't do in your home. BS! It's been done too many times. Don't believe that there is anything "magical" or "too expensive" holding you back other than access to other humans.

# METERING:

Meters will help overcome inaccurate monitoring, our constantly changing moods and just about every other hogwash issue humans have with audio.

## **Going Further With Meters:**

If you want to get DAMN GOOD at recording fast, download the free Voxengo SPAN, learn it inside and out, analyze a hundred major label songs paying attention to everything from kick drum center frequency to RMS levels at 1k. Then do a mix and look at the meters. If you are breaking a "rule", you'll know it. You can decide if breaking that rule is good for the song or not. However, if you don't know you are breaking it, you are mixing blind. Don't. It'll hold you back for years.

## **Every Technical Aspect Of Audio Can Be Measured:**

Everything in audio can be measured, at least the technical stuff. The crack in the snare drum, the "air" in a vocal, and the center frequency (and width) of an 808 kick drum will show up in meters quite well.

*Hint: Measuring audio is a skill and it takes some time to get good at it, but there is no faster way to radically improve your audio work than measuring.*

# MIXING

## If You Are New To This, You Have Tracks Overlapping... Count On It:

Yesterday, I made a sandwich with just about everything I could find in the fridge. I was disappointed. When I get a Gargantuan at Jimmy John's, I can taste the salami. I couldn't taste the salami on my sandwich - all that other crap was covering it up..

There's no point to putting salami on a sandwich if I can't taste it and there is no point to great sounding drums, synths, guitars, etc if they are being masked by something else. The day you get all the pieces in the puzzle to fit together without masking is the day you rule this mixing gig.

## Use Overlapping Instruments To Your Advantage:

I was in a phase where I was using nothing but my trusty Royer R121 (sold on Ebay...I don't miss it) on electric guitars. The guitars came out dark. This is the characteristic sound of ribbon mics - no fizz to be found. Some fizz is good for high gain electric guitar tones if you ask me.

I did a "rock pop" tune where the guitars exploded when a bright synth came in. I got quite a few compliments on my guitars on that song and not so many on the rest of the album which didn't use synths. The lesson here is the overly dark guitars were perfect when the synth was given the job of handling the fizz. Without the synth, the guitars demanded more top.

## The More The Merrier?

Nope. The more stuff you cram into a mix, the odds that one tone will stand out are reduced radically. If you come from the school that metal guitars should be all-consuming and you want tuba *and* pulverizing metal guitars in a song at the same time (nothing wrong with that, btw!) go for it. But remember you will have to make room for the tuba and that will come at the expense of the metal guitars.

## Vocals On Top Of The Mix

In any music that sells (define that however you want), the vocals are on top of the rest of the mix in a way that no one ever hears in a live band. It doesn't matter if it's Pantera or Pink, the vocals are always on top. You don't hear your favorite recordings that way when listening for fun, which is a clue.

If you don't mix with the most important stuff explicitly on top of the mix, these critical elements will sound buried and the song will cease to function. There are times when the vocals can be too far on top. This has happened to me....uh....never. You hear this sort of thing on the radio every once in a while... and that may be my point, too.

## When Pounding Drums Disappear:

If you are mixing for the loud genres (anything on the radio and then some), it's easy for drums to become weak or even lost when you get mix's loudness where it needs to be. The absolute secret to pounding drums is to get the drums to sound as loud as possible while using as little peak energy as possible and still sounding great. This moves the drums into "RMS" territory.

## When Processing Is Integral:

Some sounds do require a few mixing tricks - drums is the most obvious. You've heard drums that have been relatively lightly processed. I call that "Throwback Rock Music". Anything "modern" has been shaped quite a bit by EQ, samples, and compression to sound decidedly differently than they did in the room.

*Note: The drums in Toontrack's Metal Foundry library are unprocessed. These sound like exceptionally well-tracked drums. They don't sound finished, however, and the odds of a person loving them with no additional processing is extremely small.*

## There Are No Morals In Audio:

Chances are you own and love a bunch of recordings where they "cheated". So, If you feel a moral apprehension about using some particular tool - maybe autotune or pitch correction - get over it. That doesn't mean you should use such a tool. *It means that any tool which delivers the results you want is always the right tool for the job.*

## OUR UNDERRATED FRIEND: THE EQ

EQ is an exceptional tool for fixing any frequency related issues once you've made every effort to get rid of undesirables during tracking. Don't let anyone tell you differently.

### An EQ Without A Real Time Analyzer (RTA) Is A Waste Of Time:

If your stock DAW equalizer doesn't have a real time analyzer to confirm the location of frequency related problems, find one! I cover this topic in detail here. I use (and love) [Voxengo GlissEQ](#).

### They Say "Don't Mix With Your Eyes":

I say use every tool at your disposal to make music that is as effective as possible. There are plenty of times when the eyes can give the ears some clues. So use them but remember: **the ears are ultimately the boss.**

### How Much EQ Is Too Much?

You can't get "too much EQ", it's never happened. But you can get "bad sound" - that's happened a zillion times. So the answer to the question is: **when the sound isn't right.** At that point, the EQ is probably wrong. If your vocals are 1dB too bright at 10Khz after applying 49dB of boost, then the Eq's wrong by 1db. That's it. Use 100dB of EQ if you want. Just listen for when the sound goes bad, and NEVER apply morality to any of the knobs you use.

## ONE LINERS WORTH KNOWING

- I'm not aware of any rule that always works. If you hear of a rule like "don't use reverb", the guy telling you is probably an idiot... even if he's right some of the time.
- The not-so-secret tool to help get your mixes a few dB louder and up to competition volume levels is called a "brickwall limiter". Your DAW probably has one that works pretty good. I prefer [Voxengo Elephant](#).



- Vocals that have been compressed all to hell are the norm in most big-boy circles for just about anything on the radio. Don't be shy about nuking the dynamic range in a vocal. Try it.
- Listening to major label material in mono can offer tremendous insight.
- Listening to your own work in mono can offer tremendous insight. Check out my free [Panipulator Plugin](#).
- Mastering is awesome because a skilled veteran in audio land will help you make a mix that rules. The tools and processes used in mastering are all found in your DAW already. It's the mastering engineer's skill that you pay for.
- Mastering is not a "black art". A jackass made that up. If you don't believe me, attend a mastering session with a big name. You'll quickly realize that your definition of "subtle" wasn't near extreme enough.
- When you find a singer that sounds perfect with one of your mics, she/he probably sounds perfect with 10 other mics you own, too.
- Match the vocalist to the "perfect mic for their voice" is BS. Try it on any singer who sounds different in the verse than the chorus.
- Having 20 different vocal mics was simply annoying. After realizing that my locker full of mics wasn't helping I sold them. No regrets. I'm completely content with using my ADK Vienna MK8 on everything.
- There's nothing magic about analog distortion or tube distortion that makes it more spectacular than other sources of distortion, particularly in the subtle context of recording. [In blind tests, people can't tell a real JCM 800 from an Axe FX any more.](#)
- There is a reason you almost never see a high end tool compared to an inexpensive tool in audio marketing land.
- Compression is something some genres abhor and some value more than food and water. In general, genres on the radio compress the living crap out of just about every individual instrument as well as the overall 2bus mix. Jazz and classical tend not to use compression as much.
- Knowing a lot about recording doesn't mean you'll be good at it. A lot of the A-list guys are going to disappoint you in interviews. Then again, if you've got mega talent in front of the mic, maybe the engineer doesn't need technical knowledge
- UAD is pushing its 1073 plugin as "the sound of the 70s". If the thing sounds like the 70s, how is it people are using it and sounding "modern"? Food for thought.

## **Online Forums Are The Best And Worst Sources For Information:**

Way too much forum talk doesn't account for your situation. So jazz guys give metal guys advice. Most are decent and intelligent enough human beings to acknowledge that the needs of the metalhead are often different to the needs of a jazz guy, but I can't count how many hours I've wasted listening to the oppressive jazz guy for my metal productions.

Always ask. People want to help you. At least they want to help you at [RecordingReview](#). Try everything you read, but ditch everything that doesn't work. If it costs money be double skeptical.... maybe quadruple skeptical.

## **The Ultimate Rule For Mega Recordings:**

If.... (a) The song rules and we didn't screw that up we can take a nap and catch an episode of Night Court.

OR.....

If.... (a) the recorded tracks sound awesome AND (b) tracks don't step on the toes of other tracks, then c) It's hard to screw up a mix. In fact, there isn't a whole lot of mixing left.

# OUTRO

The end! I hope you liked this mess of a “book”. It would have been easier to write a 120 page book than to have crammed all of these concepts into such a small space. Unfortunately, I do kinda/sorta feel like I’ve compromised a bit simply because I’m normally so obsessed with being “thorough”. Most of my “humor” had to be cut to make the 9 page limit. It’s sad. You wouldn’t believe how damn funny I am! (sarcasm SMILIE)

If any concept covered here isn’t crystal-clear, immediately shoot me an [email](#).

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### Killer Home Recording



Killer Home Recording is a massive 13-book, 3GB Wave File, 800MB of mp3 collection to absolutely destroy the first three years of the home recording learning curve. This was a monumental undertaking that took more than two years and \$50,000 in recording gear to pull off.

[See more](#)

## Surviving And Thriving In This BS Recording Studio Business



While recording for many is a hobby, more and more individuals are serious about making a real living recording music. There are many vultures, vipres, and politicians standing in your way. This book is jam packed with everything I've learned by recording bands for a living since 2003. Everything from how to choose your rates to keeping the studio booked is covered in great detail.

[See more](#)