The Home Recording Cheat Sheet

by Scott Hawksworth



Hey there!

I'm Scott Hawksworth, founder of Recording Excellence.

Thank you for downloading my home recording cheat sheet. I sincerely believe that even if you incorporate just one or two of these tips into your workflow, you will see an immediate improvement in your next mix.

When you're ready take the next step, I have a free DVD that I would like to send to you. "The Art of Mixing Vocals" is my best-selling program. This DVD includes tips, techniques, and shortcuts to create radio-ready mixes with killer vocals.



And as always, don't hesitate to reach out to me and my team if you have any questions or comments. You can email us at support@recordingexcellence.com.

Cheers!

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The Home Recording Cheat Sheet

A 26-Point Checklist to Instantly Improve Your Music

- 1. The quality of sound you put in will impact the quality of sound that comes out. This may seem a bit obvious, but you'd be surprised to find out how many people don't make sure they're capturing optimal sound. Mixing and Mastering can do wonders to a recording, but the best way to get better sound is to treat your takes as though they were finished products. Don't leave it up to the mixing or mastering phase to fix a problem that could be addressed by better recording technique.
- 2. Keep a recording schedule and stick to it (AKA "treat your home studio like a professional studio"). Home studio's will never be professional studios, but they can be modeled after them. Pro studios (and artists recording in them) have to be efficient and effective at all times because time = money. Treat your home studio the same way and make a schedule!

I have a standing recording session every Wednesday at 7:30PM in my Google Calendar. I allow myself a specific amount of time and takes to get it right. Too often quality is sacrificed when obsessing over every little detail of the recording, or heading into a session with no direction or time limit. That's a surefire way to get lost in your own song.

- 3. Treat your recording space, and never be afraid to re-evaluate your current treatment. You control how your space sounds with acoustic treatment and soundproofing. Ambient noise and the natural echo of certain rooms is your enemy. You don't need to go all out and buy expensive acoustic treatments to try to make your area have professional acoustics, because even just a little cloth placed on the walls around your inputs can work wonders.
 - Here's a brief overview of acoustic treatment for beginners.

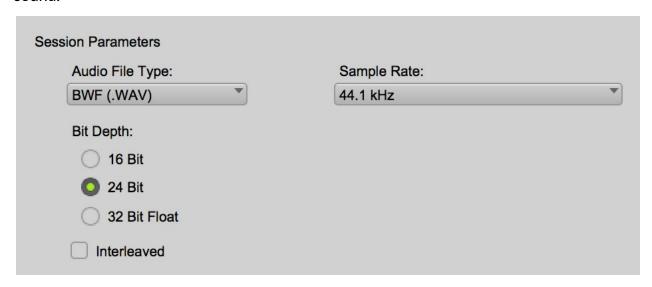


Here's a more detailed overview of acoustic treatment (if you already have
acoustic treatments - read this, there may be things you've missed in your setup
and it will hurt your sound!) Have you thought about every angle of your space and
all of the reflections within it?



Example of simple acoustic treatment.

4. Don't record at less than 24-bit depth unless you absolutely have to. 24-bit recording should be your default (and it will likely be in your DAW). Unless you're using a really old computer that just can't handle more than 16-bit, you should be recording at 24. It's a much larger file size (1.5 times 16bit), but you'll be glad you've got that extra headroom in your recording when you're adding effects, additional tracks, and really building a full sound.



ProTools (DAW) bit depth options.



- 5. **Don't forget about intonation.** This is an essential piece of advice for anyone recording a stringed instrument. When you're sitting down to record, make sure you have new strings, and make sure everything has been tuned with a tuner and the instrument itself. I'd *highly* recommend tuning between each take as well. Being slightly out of tune is a disaster if you record it. If you're drumming, consider replacing those drum heads before you get to recording!
- 6. You should be utilizing scratch and guide tracks. A lot of people like to dive right in and try to record every track perfectly, or start working on a part without a proper guide. This is a huge mistake.
 - I use a guide track because it can be very helpful for drummers, guitarists, vocalists, and basically anyone else you're working with (even if it's just you) to have something to follow along to. Even if it's a simple guitar part with some singing it can keep things together and be used for many parts.
 - Scratch tracks are helpful for many things, but they're particularly great for vocals
 because they're so much more relaxed. I've used snippets from scratch vocals
 before in my final mixes! Tell your vocalist (or if you're it, tell yourself) to just
 record a simple vocal along with the guide track no pressure. You might find a
 keeper and it can help show you any potential problem areas early in the process.
- 7. **Focus on perfecting your workflow.** Your workflow is the process you use to record and mix. If you want to get better sounding recordings, mastering your process can be a significant area of improvement. What do you record first? When do you move to mixing? How do you set up everything? Do you have presets for a new project in your DAW? Like becoming great at anything, *repetition is key*. Find out what works for you, and try to keep the same process. Make subtle changes as needed (if you figure out a more effective way to record your drums, do it, then work it into your entire process). I guarantee you'll start



recording faster and get better sound.

- Here's a more detailed article about workflow in the home studio
- 8. If you aren't learning more about your DAW every day, you're hurting yourself. Your Digital Audio Workstation is the heart of your home studio. If you want your recordings to sound better, put more time in with the DAW you're using. Watch or read at least one tutorial a day if you can even if it's only a few minutes. I don't care if it's GarageBand, Pro-Tools, LogicPro, Ableton, or whatever... keep learning about it! I guarantee your recordings will get better as you get more comfortable with your software.



Screenshot of Garageband, a simple DAW.

- 9. **Don't spend too much money on equipment.** This may seem counter-intuitive, but "top of the line" doesn't automatically mean "will help your recordings sound better". Get solid equipment that fits your skill level and needs. If you drop a couple grand on the finest equalizer you can find and have no clue how to use it, it won't help you! Work on mastering the equipment you have and then slowly upgrade as your recording needs grow. Technique and experience will almost always trump gear in my mind.
- 10. Have as many mic options as you can get your hands on, and choose the right mic to fit your needs. I know I just said don't spend too much money on equipment, and I stand



by that... but if you are only using one or two mics you're doing your recordings a disservice. You should be aware of the different types of mics used for recording. Each can be helpful in different situations (depending on the type of music, the instrument, and even the voice of the singer). If you want your recording to sound better, know when to use each type. Here's a quick and easy reference:

- **Condenser** Great for vocals, acoustic guitars, and capturing anything that isn't too loud. They are *sensitive* and can overload much easier than other microphone types. Watch out.
- Dynamic Less sensitive, great for powerful vocals (screaming), big drums, etc.
- Ribbon Popular for guitar amps and drum overheads. The strength is in their ability to deal with high frequencies in a much more pleasing manner, reproducing them with a flatter response.
- 11. Are you trying enough different setups with your mic positioning? If you're recording straight into a microphone, positioning matters. Test out different positions, and compare the results... and unless you have found just the perfect position that works time after time you should ALWAYS try at least one more.
 - Quick Tip: I like to follow a "two position rule" for everything I mic. I set up a
 position, then listen to how it sounds. Then I move the mic to a new position, and
 record that too. Try it out and compare the results! You've given yourself choice,
 which is GREAT in home recording... because you should do everything with
 intention.
- 12. **Utilize the close microphone technique.** In a home studio, ambient noise is likely going to be a problem at some point. You can limit what your microphone picks up by making sure it's as close to the sound source as possible. Put it right next to your amp! If you're recording vocals, get right up in the mic (note: you may need to back off a little as you can



have some issues with oversaturation. See tip 7, try different setups). This will help to drown out other unwanted sounds from getting picked up.

- 13. Know your computer's limitations, and save on CPU when you can through using aux tracks and sends. The computer you use to record limits how many tracks you can ultimately use. It will also limit how quickly things are mastered and exported. If you try to take your computer beyond its limitations, sound quality will suffer. It's fun to apply all kinds of effects and be fancy... but too much can bog things down.
 - Quick Tip: Utilize AUX tracks whenever possible for effects (especially reverb). I
 know a lot of people like to apply reverbs right to the track, but I think this is often
 ill advised. Set up a reverb aux track and then send it to your track. It will lower the
 CPU processing taking place and as a bonus it gives you greater automation
 capabilities with the reverb!
- 14. **Use effects with care.** Since we're talking about effects... Effects are fantastic, and can really make a recording go from good to great. With that said, *use effects with care*. For example, too much reverb can make a previously excellent recording sound awful by cluttering/muddying it and taking out any punch. Take your time when mixing, and don't get too overzealous with the bells and whistles offered by your DAW.



Common effects in Ableton Live, a popular DAW.

15. Be aware of the Fletcher Munson Effect and masking (hearing limitations). I don't want to get too technical but I think these two phenomena are worth mentioning.



- The Fletcher Munson Effect describes the fact that humans cannot hear the low frequencies (bass) and very high frequencies (treble) as well at low volumes.
- Masking describes the phenomenon that when two sounds are at similar
 frequencies, the louder sound make the slightly softer sound unable to be heard.

This means that you should consider these two things when you're mixing and listening to your recording. For the Fletcher Munson Effect, turning the volume up and focusing on the outlying frequencies is helpful. For masking, generally the best solution is to just be aware of the phenomenon. However, if it becomes a huge problem you may want to look into <u>utilizing equalization</u>.

16. Make your home recording space a sanctuary. Okay I can't prove that this will help you make better recordings... but if your home recording space has a calming vibe, you may be surprised to find how well it can help things flow. Especially if you're working with another artist for the first time, or if you're recording after a stressful day at a 9-5 job. Add a lava lamp, add some mood lighting... find the comfiest chair in your home and add it to the space.

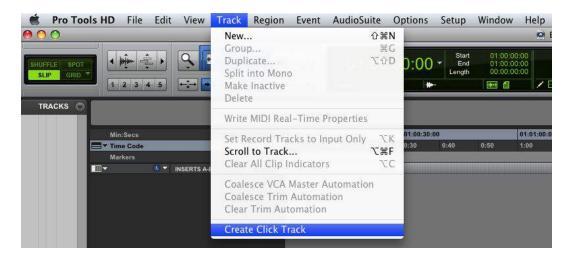


I don't know about you, but this chill lava lamp makes me want to create music.



- 17. **Don't be afraid of retakes, but also set a limit on them.** Retakes are fine. If you did a great job with something but had one part you think you could do better, you can always re-record. That said, set a limit. If you spend too much time trying to get everything perfect, you'll end up sacrificing quality as you wear yourself out and get frustrated.
- 18. Use your ears and listen to recordings at different volumes when mixing. Don't assume that one volume will cut it. Use your ears when you're mixing and really *listen* to your recording. Some sounds can't be heard clearly at certain volumes. You should do most of your mixing at a moderately low level where you could carry out a conversation with someone while the music is playing... but you should also play with different volumes.
- 19. Recording too hot can be disastrous... so dial it back and watch those meters. No matter what kind of music you're recording, keeping an eye on the levels you're putting in is critical. Too high and you can overload things and ruin your sound, but too little and you'll have to work really hard to get a clear sound after you've recorded.
 - If you can monitor levels visually, don't ever let anything go into the red.
 - Otherwise a good rule of thumb is to go as high as you think things can go without overloading... and then crank it back just a tad from that to make sure you're safe.
- 20. Always, ALWAYS make use of click tracks. It's shocking to me that some people actually try to record these days without using a click track... but it happens. My wife told me a horror story of a band she was in where they worked with a guy who recorded them without using a click track (seriously...). When they took their sessions to a mixing engineer with a bit more knowledge, he was basically pulling his hair out from all edits and adjustments he had to make. Some takes had to be completely re-done. Don't do that to yourself! Always use a click track for *at least* the drums.





Creating a click track in ProTools

- 21. Consider recording your beats first, then adding the rest. Unless you're recording something that has no drums or beats of any kind, I highly recommend starting with recording them. As mentioned above, click tracks are fantastic (and I'd suggest using them!), but I do find there's a difference in my playing when I'm going along with drums as opposed to only a click track.
- 22. Consider doubling your recordings for a fuller sound. A lot of the best recording engineers make use of this. If you've got a guitar, piano, or vocal part pretty much nailed down, consider recording it again on a separate track. Lining the tracks up together, then panning them apart left and right in the stereo spectrum can generate a really full sound. You may not have access to all the fanciest compressors and EQs in the world in your studio, but that doesn't mean you can't make your tracks sound beefier.
- 23. Understand that your home studio will never be a pro studio. Earlier I talked about treating your home studio like a pro studio and I stand by that advice! At the same time, you have to understand that it will never be a pro studio (well, unless you have tens of thousands of dollars to make it one). Work within those limitations understand that your space will have imperfections you'll have to work around.



24. Consider purchasing a microphone/vocal isolation shield. I

hate recommending a gear purchase, but capturing great vocals in a home studio is one of the biggest challenges. Unless you have a space where you could set up a solid vocal booth (such as a closet), you may find you get a lot of echo and unwanted noise. Here are a few really great (and affordable) options:



- <u>Talent VB1 Folding Portable Vocal Isolation Booth</u> \$72.99 on Amazon. Great portability.
- CAD Audio AS32 Acousti-Shield 32 \$94.95 on Amazon. Stand mounted.
- Monoprice Pro Audio Desktop Adjustable Acoustic Microphone Isolation Shield \$99.81 on Amazon. Desktop mounted.
- 25. **Don't be afraid to re-evaluate your gear.** If you're more advanced, you probably already have headphones, monitors, and a stable of mics that work for you... and like I said, more investment won't magically improve your recording quality... but it never hurts to evaluate your gear and make strategic upgrades.
- 26. **Never stop researching and learning.** There are many fantastic resources available for learning about recording. It's important to keep that in mind as you encounter challenges; use Google before throwing your hands up in despair! Here are three of my favorite learning resources:
 - http://homerecording.com/bbs/ Great forums for beginners and experts wanting to learn more about home recording.
 - http://lifehacker.com/tag/home-recording-studio Great series from LifeHacker on home recording.
 - http://recordingexcellence.com Shameless plug.



So there you have it, 26 tips to instantly help you improve your home recordings. I hope you had as much fun reading this cheat sheet, as I had creating it!

Wait! Here are some bonus tips...

If you're just getting started with home recording you may not have all the equipment I've talked about above. I put together a few additional items to consider (with some links to great cost-effective options).

27. Owning a great pair of headphones that won't bleed into your recordings is a must.

Monitors are great, but perhaps you need to record in an environment where making a lot of noise could upset the neighbors. Or maybe you want to get a great sounding recording tailored to be listened to on headphones. Or you may want to record some raw vocals without a backing track getting picked up. For all of these goals, a nice pair of headphones is a must. As a rule, closed back headphones are used for recording, and open back headphones are used for mixing. Here's a few affordable options (all below \$100):



- Sennheiser HD280 Pro Closed back headphones. <u>Find them on Amazon</u>.
- AKG K 240 Open back headphones. Find them on Amazon.
- Samson SR850 Open back headphones. Find them on Amazon.
- 28. **Owning the right mic (or mics) is a must.** I spoke above about building out your mic options. Again you *don't* have to break the bank, but a good mic can do wonders for your sound quality. Consider the type you want and purchase them. I think a large diaphragm condenser is a great mic to have for most needs. Here are some recommended



microphones (all under \$150). USB mics can be a solid place to start, but also do some more research and consider XLR mics:

- Audio Technica AT2035 Find it on Amazon.
- Blue Microphones Snowball USB Microphone Find it on Amazon.
- Audio-Technica ATR2500-USB Cardioid Condenser USB Microphone <u>Find it on</u> Amazon.
- 29. Invest in an audio interface that fits your needs right now. Unless you're recording for some massive band, your audio interface doesn't need to be top of the line or have a bunch of inputs. Keep it basic and then expand as needed. Here are some affordable audio interface options for starting out:
 - PreSonus AudioBox USB 2x2 Fantastic for beginners. Find it on Amazon.
 - Focusrite Scarlett Solo Compact USB Audio Interface Another great alternative for beginners. <u>Find it on Amazon</u>.
 - Avid Fast Track Duo with Pro Tools Express Comes with Pro Tools DAW. <u>Find it</u>
 <u>on Amazon</u>

30. Owning great studio monitors is a must. You don't have to break the bank, but quality

monitors are *critical* when it comes to getting good sound from your recordings. If you have regular old speakers, you'll miss out on some subtleties and recording/mixing will be much harder to do well. By the way, if you CAN afford better monitors, definitely go for it - the point is it's not a must. Relatively inexpensive monitors can be great if used well. Here's a few affordable,





quality monitors I'd recommend:

- Mackie CR4 LTD Limited Edition 4" Creative Reference Multimedia Monitors.
 Under \$200, great for beginners. Find them on Amazon.
- KRK RP5G3-NA Rokit 5 Generation 3 Powered Studio Monitor. Under \$300 for a fantastic set of monitors. Find them on Amazon.
- Adam Audio A7X Powered Studio Monitors/\$749.99 per monitor, so a bit more expensive, but fantastic quality. Find them on Amazon.

Don't forget! This **SPECIAL OFFER** is still waiting for you...



Want to create radio-ready mixes that showcase the best of your music?

Listen to any great mix, and you'll notice how awesome the vocals sound... truth is, a well mixed vocal can be the difference between a killer track, and a lifeless one.

The Art of Mixing Vocals DVD gives you tips, techniques, and shortcuts to improve your mixes RIGHT NOW.

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