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RECORDING

Guide to Home Recording

Everything you need to know to get professional results
from your home studio setup.

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In this guide

1. Room and Environment

- Choose the Right Space
- Acoustic Treatment

2. Recording Instruments

- Drums
- Electric Guitar
- Bass
- Acoustic Guitar
- MIDI and Virtual Instruments

3. Vocal Recording

4. File Management and Organization

- Project Organization
-

FOREWORD

Quality recordings begin long before mixing.

Even with the best mixing or mastering engineer, a track can only sound as good as the recordings allow. Capturing clean, balanced, and expressive performances at home is entirely possible. It just requires attention to detail and a few smart choices. This guide will help you get professional-sounding results from your home setup. These are guidelines, not gospel. They're refined over time, and there's more than one way to get a great result.

1. Room and Environment

Choose the Right Space

Pick the quietest room possible: one without noticeable echo or outside noise. Avoid rooms with large reflective surfaces (like bare walls and windows). Soft furnishings, rugs, and curtains help reduce reflections and make the space more controlled.

If possible, avoid recording near computers, air conditioners, or other noise sources.

Tip: Clap in the room. If you hear a harsh, metallic echo, it's too reflective. Add some blankets or acoustic panels.

Acoustic Treatment

You don't need a professional studio build. A few simple measures go a long way:

- Hang thick curtains or duvets behind and to the sides of your microphone.
- Place a rug underfoot if the floor is hard.
- Use a reflection filter behind the mic if available.

The goal is to minimize sound bouncing around the room before it hits the microphone.

2. Recording Instruments

Drums

A drum kit's sound is mostly decided before a single mic goes up. Sizes, heads, and tuning shape the tone far more than mic choice or placement ever will.

Once the kit sounds right in the room, mic'ing it well is mostly about capturing each piece for what it's actually there to do, not trying to make every mic sound like the whole kit.

Drums are also the one instrument where editing has to happen first, since everything else in the song will end up locked to their timing.

Start With the Kit, Not the Mics

Size and head choice affect the tone more than most people expect:

- **Snare depth changes the bottom end.** A deeper shell gives a fuller, louder snare; going shallower trades some of that low end for a tighter, quicker sound. Shell material matters too: metal shells tend to add high-end bite and cut, wood shells run a bit warmer.
- **Bigger cymbals resonate more and bleed further into other mics.** Live, that projection is useful. In a treated room, smaller, thinner cymbals are easier to control and cause less trouble later, though it's ultimately down to feel and preference.
- **Kick depth affects punch versus boom.** A very deep, wide kick shell resonates more than a small room can handle cleanly. For a tight, modern, punchy low end, a shallower kick, commonly around 45–50 cm (18–20 inches) deep, is usually easier to work with than a huge one.

If a drummer already has their kit dialed in and sounding good, there's rarely a reason to change much. Step in with tuning or head swaps mainly when it's needed, not as a default.

Replace Heads and Tune Before You Record

Fresh heads read brighter and behave more predictably than heads that are already stretched out or unevenly tuned, so it's worth doing this right before a session rather than days ahead. The one common exception is the kick's batter head, which usually holds its tone and tuning for a long time and doesn't need replacing every session.

A few general tuning principles:

- **Toms:** tune the bottom (resonant) head before putting the top head back on, tapping around all the lugs and listening for an even pitch all the way around. For a punchy, controlled tone with less ring, tune the bottom head relatively higher than the top. For a more open, resonant tone, tune the two heads closer together.
- **Snare:** both heads generally want to be tight, for crack on top and thud underneath, again checking that the pitch is even around all the lugs. Don't chase all the ring out of it, though. A little natural sustain gives you more character to work with once it's sitting in a full mix later.
- **Kick:** loosen both heads until they're barely holding tension, then bring them up just slightly. Combined with some internal muffling (a blanket or pillow resting against the heads), that gives a tight, slappy low end with minimal ringing.

Tuning by ear is mostly trial and error: try it a bit tighter, listen, and back off if it sounds worse. If a head keeps ringing more than you want after it's tuned, taming it with a small piece of tape or a dampening gel near the edge is an easy fix, but avoid deadening it completely. Some natural ring is easier to shape later than a sound that's already been squeezed lifeless.

Listen in the Room Before You Set Up a Single Mic

Once the kit is tuned, get the drummer to play through a section while you walk around the room and just listen. Fix anything that stands out, too boomy, too ringy, uneven between drums, before you commit to mic placement. A mic captures whatever's already happening in the room; it's not a tool for fixing a kit that doesn't sound right yet.

Mic Each Piece for What It's There to Capture

A useful mindset for placement: most mics on a kit are there to capture one specific piece cleanly, not the whole kit at once.

- **Kick:** placed near the beater's strike point, slightly off-center rather than dead-on. Pulling the mic back brings in more low end and room tone; moving it closer to the beater brings in more attack and less boom.
- **Snare (top and bottom):** most mics used here are directional, picking up mostly from the front and rejecting sound from behind. Use that to your advantage by angling the mic so hi-hats and cymbals fall into its rejection zone as much as possible. Aim the top mic at the strike point, positioned 2–3 cm (about an inch) above the rim. Mirror that on the bottom, angled toward the center but sitting a little farther back so it isn't overwhelmed by the snare wires.
- **Toms:** similarly, 2–3 cm (about an inch) above the rim, aimed at the strike point, and tucked between cymbals where possible so they help shield the mic from spill.
- **Overheads and cymbal mics:** the goal here is usually to capture the cymbals clearly, not to get a whole-kit picture, since close mics and a room mic are already handling the rest. Mic them fairly close, and aim slightly toward the edge of the cymbal rather than dead center for a smoother, less harsh tone. If you're running a stereo pair, measure from the center of the snare to each mic and keep that distance equal; that keeps the snare centered and **phase**-coherent between the two, instead of drifting to one side.
- **Hi-hat:** angle the mic off-axis a bit rather than pointing it straight on. A mic aimed directly into hard-played hi-hats can pick up the actual rush of air off the cymbals, which reads as an odd, unwanted sound. Keep it clear of where the stick travels, too.
- **Room mic(s):** how far back to place these depends entirely on your space. A large, lively room can support a distant pair for real ambience; a small or dead-sounding home room usually does better with a mic pulled in much closer, or just a single room mic rather than a stereo pair.
- **A "character" mic, if you have a spare input, is worth trying.** Stick it somewhere unconventional, a hallway, behind furniture, near a doorway, anywhere with an interesting sound. It won't always make the final mix, but occasionally it becomes the thing that defines the whole drum sound.

Label your tracks clearly inside your DAW:

- Kick In
- Snare Top
- Snare Bottom
- Rack Tom
- Floor Tom
- Hi-Hat
- Overhead L
- Overhead R
- Room

Check Phase Before You Track

Once mics are up, sum everything to mono and compare each close mic against the overheads one at a time, flipping **phase** on each and keeping whichever version sounds fuller, with more low end. The bottom snare mic is the one that almost always needs flipping, since it's facing the opposite direction from the top mic relative to the head's movement. Don't get stuck on this step; phase can still be flipped later if something sounds off once you're mixing.

Keep the Signal Chain Simple While Tracking

For most tracks, a clean preamp with healthy **gain staging** and no processing is enough. If you want to shape a sound going in, light compression on the snare, a moderate ratio with a slower attack that lets the initial hit through, can add snap and keep levels consistent, but keep it subtle so you're not locked into a decision you can't undo later. A room or character mic is the one place it's fine to be heavier-handed, since pushing it harder (more sustain, more compression) can add grit that's difficult to recreate afterward.

Capture Safety Samples Before Full Takes

Before tracking full performances, get the drummer to play a few isolated hits of each piece, kick alone, snare alone, each tom, each cymbal, while the kit is freshly tuned. These rarely get used, but they're there if a head starts sounding inconsistent later in the session, or if you need a clean hit to reinforce a weak moment while editing or mixing.

Track in Big Sections, Then Comp and Punch In

Aim for full takes, or the largest sections the drummer can play through cleanly, and get more than one so you can comp the strongest pieces into a final performance rather than relying on a single pass. Listen for energy as much as timing: a drummer who's steady with the click but tiring and hitting softer over a long take is a bigger problem than a minor timing slip you can fix later.

When **comping** between takes, cut on a clear hit, kick, snare, or crash, rather than in the middle of a phrase; it's far more forgiving to splice cleanly. For any **punch-ins**, always roll in a few bars early so the drummer is locked into the feel before the punch point, and pay closest attention to how the

cymbals match on either side of the edit. An inconsistent cymbal choice or dynamic right at a punch is usually the easiest way to give away an edit.

Edit the Drums Before You Track Anything Else

Whatever gets tracked next, bass, guitars, keys, will end up locked to the drums, so finish editing them first. Editing drums after other instruments are already recorded against them is far more painful than doing it up front.

- **Grid-edit off the right tracks.** Quantize based on the kick, snare, toms, and hi-hat, but leave the overhead and room tracks to just follow along rather than triggering edits directly off them; cymbal transients are much harder for any tool to detect accurately.
- **Favor the snare over the kick when they land together.** When a kick and snare hit at the same time but aren't quite aligned, nudge the kick and leave the snare closest to the grid. It tends to read as tighter, since a kick that's slightly off on its own is far less noticeable than a snare that is.
- **Handle odd groupings by hand.** Triplet fills and other non-standard groupings usually trip up automatic quantizing tools. Switch to the matching grid and place those hits manually rather than fighting the tool to get it right.
- **Crossfade every edit point,** and if a fade is clipping a cymbal decay or causing a flammed, doubled-sounding hit, nudge the cut to a different nearby hit instead of forcing it.
- **Clean up once the edits are solid.** Consolidate each track down to a single region per part, and clear out the unused audio regions left behind from editing so the session stays light and easy to work in.

Rough-Mix the Drums Before You Move On

Once drum tracking wraps, spend a few minutes getting them close to a finished-sounding tone, some EQ, light compression, maybe a sample layered under the snare, before moving on to the next instrument. It's not the final mix, but a drum sound that already feels close to finished keeps the session inspiring and gives you a far more realistic target for how everything else should sit against it.

What to Deliver to Your Mixer

A finished drum session handed off for mixing should include:

- **Comped**, edited performances rather than a single raw pass with mistakes left in
- One consolidated, labeled track per mic or piece, not dozens of leftover regions and crossfades from editing
- Isolated safety samples for the kick, snare, and cymbals
- Consistent levels with no **clipping**, and **phase** already checked across the close mics and overheads
- A **rough mix** reference, so the mixer understands the direction you were going for

None of this editing has to fall on you, either. Plenty of mixing engineers and dedicated editors will comp, quantize, and clean up drum edits themselves as part of the job, so it's worth asking what's included before you assume a fully edited session is yours to deliver.

If the kit isn't tuned well or the takes aren't tight, no amount of mixing fixes that afterward. Solving these problems is cheap while you're tracking. Fixing them later is expensive, if it's even possible at all.

Electric Guitar

Always check your tuning before every take. Guitars drift faster than you think. Even minor pitch shifts between double-tracked guitars can ruin tightness and stereo image. Fresh strings and frequent tuning make the mix and performance sound instantly more professional.

Get Your Guitar Set Up Right

Most tuning problems start before anyone hits record. Get these three things right first:

- **Match string gauge to your tuning.** Strings too light for a low or dropped tuning lose stability under hard picking, sagging in pitch right after the attack. Go **a gauge or two heavier**: around 11–56 for half-step-down or drop D, 12–60 for drop C or lower, and a heavy single (upper 60s to low 70s) or baritone set for drop A and below.
- **Restring right before the session, not days ahead.** An older, stretched string drops pitch noticeably as a note rings out, and it only gets worse with age. Bring new strings up to pitch without aggressively stretching them by hand; you want stable tuning for a few hours, not a “broken-in” set for a live show.
- **Use a tuner that reads in cents, and check intonation too.** A cheap clip-on tuner’s in-tune range is often wider than it looks. For **intonation**, play the same note open, then at the 12th fret. If the fretted note is sharp or flat against the open string, that’s a setup issue (bridge saddle adjustment), not a tuning one, and it should be checked at the tuning you’re actually recording in.

Play Tight, Then Edit Tight

No amount of mixing rescues a sloppy performance. A few habits make this much easier:

- **Rehearse until it’s genuinely comfortable, before you record.** Inconsistent picking dynamics, buzzing frets, and timing slips are far easier to fix by playing the part again than by editing around them afterward.
- **Tune at the same intensity you’re actually going to play with.** A string tuned while picking softly reads sharp the moment you dig in for real, especially on a low string. Picking closer to the bridge also helps. Retune often too, even if the last take sounded fine, since a guitar can drift as a whole and still sound in tune with itself.
- **Punch in on just the bad bar**, not a whole shaky pass because “the rest was good.” For a genuinely difficult passage, it’s fine to isolate it: loop just that phrase against a click until it’s clean, then drop it in. Treat that as a last resort though, not your default. A slightly imperfect take with real character almost always beats one that’s technically flawless but robotic.

Record in Sections, Not One Take

Trying to nail an entire song in a single unbroken pass almost always produces uneven energy and creeping tempo or pitch drift, especially past the two-minute mark.

- **Record in pieces.** Track verse, chorus, and bridge separately, or phrase by phrase for tricky riffs, then **comp** together the strongest takes. This is standard practice on professional sessions, and it's the difference between a track that sounds *played* and one that sounds *performed*.
- **Don't pile on layers for size.** Two genuinely tight, clean rhythm takes (left and right) usually sound bigger than four or five loose ones, since it's the tightness between takes that creates size, not the track count. If a part repeats identically later in the song, copy the take you already have instead of re-recording it.

Use a Real Amp or a Proper Amp Simulator

If you're tracking direct through an interface, multi-effects unit, or modeler, confirm that an actual **amp simulator** is engaged before you print the signal: a modeled amp and cabinet, not just compression, EQ, and time-based effects. Guitar run straight into an interface without amp/cab modeling has no speaker breakup or power-amp saturation shaping it. It reads as thin, harsh, and unmistakably "digital," no matter how good the playing is.

Before committing to a full session, record a short test pass and listen back on headphones. If it doesn't sound like a mic'd amp, your amp sim isn't actually in the signal path. Check your patch or plugin chain before you track anything for real.

Always Print a DI Track

Whether you're mic'ing a real amp or recording direct, always capture a clean **DI signal** in parallel with the processed tone.

- **It's a safety net.** This costs nothing during tracking but gives your mixer the option to re-amp or change the tone entirely without needing you back in the room.
- **It makes editing far easier.** A processed guitar track is often just a solid block of waveform, but the DI shows exactly where each note and strum starts, which matters if timing ever needs tightening. A processed-only take with no DI is a dead end if the sound needs to change later.

Label your tracks clearly inside your **DAW**:

- Guitar Rhythm DI
- Guitar Rhythm Amp

Give Leads Their Own Identity

A lead using the exact same guitar, tone, and settings as the rhythm tracks tends to blend in rather than cut through.

- **Change something about the tone.** Swapping guitars, or even just pickups, through the same amp setup is often enough to separate a lead from the rhythms underneath it. A touch more midrange helps it sit on top of a dense mix too.
- **Mute unused strings.** For single-note lines and octaves, lightly muting strings you're not playing with your fretting or picking hand cuts down on noise that gets buried under rhythm guitars but sticks out on an exposed lead.

Clean Up Your Edits Before You Deliver

Before a session is really done, whether you're mixing it yourself or sending it off, go back through every guitar track in solo.

- **Check every edit and crossfade** for clicks, pops, or a fade that got skipped while you were moving fast during tracking.
- **Don't snap everything to the grid.** Nudge anything that's a touch early or late, but over-tightened edits lose their feel and start to sound robotic. A little natural variation is what keeps it sounding human.
- **Trim ringing tails** so a new section hits cleanly instead of bleeding into what came before it, and keep a duplicate of your edited tracks before consolidating them down to one clean region per part.

What to Deliver to Your Mixer

A finished guitar session handed off for mixing should include:

- In-tune, edited performances **comped** from multiple takes, not a single raw pass with mistakes left in
- A clean **DI** track for every part, printed alongside any amp or amp-sim tone
- At least one reference tone print (mic'd amp or **amp sim**) so the mixer understands the direction you were going for
- One consolidated, edit-checked track per part, not dozens of leftover regions and crossfades from tracking
- Consistent levels with no **clipping**, and noise or silence trimmed between sections

Comping and edit cleanup don't have to be your job alone, either. Many mixing engineers and dedicated editors will take that on themselves, so it's worth asking what's included before you assume it's entirely on you.

If a part isn't in tune, isn't tight, or was recorded with no amp sim and no DI, no mix can fully fix it. Solving these problems is cheap during tracking. Fixing them afterward is expensive, if it's even possible at all.

Bass

Bass tuning is simpler than guitar: one string, one note at a time. But that also means there's nowhere to hide a bad note.

A few extra minutes on setup and signal chain save hours of trying to fix a bass part that's out of tune or lost in the mix.

Unlike guitar, bass doesn't need to be edited perfectly tight. A little natural feel against a locked-in grid is usually a good thing.

Track Guitars First

Tuning is the hardest thing to keep airtight on guitar. Technique, strings, and setup all fight against you, while bass is comparatively simple, since it's one note at a time.

Recording all the guitars first means that if a chord somewhere on the neck ends up a touch sharp or flat, you can nudge the bass note to match it during bass tracking, a small, easy fix. Do it the other way around and a slightly-off bass makes it nearly impossible to match a full chord shape to later. It's also easier to shape a bass tone that sits well under the guitars once they already exist, rather than guessing at how it'll fit beforehand.

Get Your Bass Set Up Right

The same setup principles as guitar apply, just scaled up.

- **Go heavier on string gauge for lower tunings.** A half-step or so down, a heaviest-available four-string set (roughly a **.110** low string) is a reasonable baseline. Anything lower, go to a five-string with heavier gauges still.
- **Check intonation the same way as guitar** (open string against the 12th fret). If it reads sharp with no more room to move the saddle back, try lowering the string action instead; less finger pressure needed to fret a note means less pitch-sharpening from the press, and it often solves what the saddle alone can't.

Bass Can Sit a Little Looser

Once the guitars are locked down tight and the drums are gridded, a bass played a touch more naturally actually complements the rest of the track rather than fighting it. Bigger sections and less note-by-note editing are fine here. Aim for solid takes and good tuning, but bass doesn't need the same tightness as rhythm guitar.

A few things worth watching for:

- **String ringing.** The low string can bleed into the next note as the player jumps between strings, a common bass habit that reads as messy against a tight mix. Mute the previous string, or split the take into smaller **punches** if it keeps happening.
- **High notes on a low string.** For a note fretted high up on a lower string, it's often easier to get accurate tuning by punching that note in on the next string up instead.
- **Fret-specific tuning issues.** Problems tend to show up at particular spots, like the first fret of a string. If a part lives there, check the tuning right at that fret rather than trusting a general tune-up.

Blend a Clean and a Dirty Tone

You don't need to mic a bass cab to get a great bass tone. A clean **DI** plus a driven or saturated tone (from a bass preamp/drive pedal or plugin) is a complete, professional-grade approach on its own.

If you're layering more than one source, each one has a job:

- **DI:** stays clean and flexible, and always gives you the option to re-amp or change the tone later without calling anyone back in.
- **Driven layer:** adds midrange aggression that helps the bass cut through dense guitars.
- **Mic'd amp** (if you have one): sits underneath as the heaviest, dirtiest of the three.

Two things to watch when blending them: check that a clean DI and a processed layer are in **phase**, since having traveled through different paths they can land slightly out of alignment and cancel some frequencies (listen for whichever phase relationship sounds fuller). And don't expect the dirty layer to carry the low end; it's there for midrange bite, so it's fine, often better, to roll off some of its low and extreme high end.

Label your tracks clearly inside your **DAW**:

- Bass DI
- Bass Drive
- Bass Amp

Clean Up Your Edits Before You Deliver

Before a session is really done, whether you're mixing it yourself or sending it off, go back through the bass track in solo and check each edit and **crossfade** for clicks, pops, or a missed fade.

- **Judge the edits in context**, against the rest of the rhythm section rather than in solo, so you don't over-tighten something that already sits well with the drums.
- **Reuse clean repeats**. If a section repeats and an earlier pass is noisier or looser than a later one, it's fine to copy the cleaner repeat into place rather than fixing the messier one by hand.
- **Keep a duplicate** of your edited tracks before consolidating them down to one clean region, so you can always get back to the individual takes later.

What to Deliver to Your Mixer

A finished bass session handed off for mixing should include:

- In-tune, edited performances **comped** from multiple takes, not a single raw pass with mistakes left in
- A clean **DI** track, printed alongside any driven or amp tone
- At least one reference tone print (driven or mic'd amp tone) so the mixer understands the direction you were going for
- One consolidated, edit-checked track, not dozens of leftover regions and crossfades from tracking
- Consistent levels with no **clipping**, and noise or silence trimmed between sections

This doesn't all have to be on you, either. Comping and edit cleanup are often things a mixing engineer or a dedicated editor will handle as part of the job, so it's worth asking about before you assume it's yours to finish.

If a part isn't in tune, isn't tight, or has no DI backing up the tone you printed, no mix can fully fix it. Solving these problems is cheap during tracking. Fixing them afterward is expensive, if it's even possible at all.

Acoustic Guitar

An acoustic guitar's tone is decided almost entirely by where you point one mic, not by an elaborate setup. It's a single, mono sound source, and it deserves to be tracked like one. Getting a bright, balanced tone at the mic saves you from ever needing to rescue a boomy or nasal recording afterward, since heavy correction on acoustic guitar tends to reveal itself rather than disappear. Editing options are limited once you're past tracking; acoustic parts don't take well to being chopped up or time-stretched, so the takes need to be right going in.

Start With Intent, Then Pick the Mic

Before setting anything up, decide what the acoustic actually needs to do in the song: sit as a bright, rhythmic layer inside a dense, produced arrangement, or stand on its own as a natural, balanced solo instrument. That call shapes everything after it.

- **A small-diaphragm condenser is the right tool for either goal.** It's brighter, more focused, and more detailed than a large-diaphragm condenser, and it picks up noticeably less of the room, which matters since most home spaces don't sound good enough to want more of in the signal.
- **Skip the large-diaphragm condenser here** unless you're tracking in an exceptional-sounding room. Otherwise it mostly just adds more of a mediocre room to the recording.

Mic It Like the Mono Instrument It Is

An acoustic guitar is one instrument producing sound from one place, so treat it that way rather than reaching for elaborate multi-mic or stereo setups aimed at the guitar itself.

- **Point a single mic at the 12th fret**, straight on rather than angled, about 30–45 cm (12–18 inches) away. That's the starting point for most acoustic guitar parts.
- **Listen and adjust from there.** Too boomy or woolly: pull the mic back a little, or shift it slightly toward the neck, aiming more at the 10th fret than the 12th, to back off the **proximity effect**. Too thin or lacking body: move it a little closer, or angle it slightly toward the body, nearer to where the neck meets it.
- **Skip multi-mic setups aimed at the guitar itself** (one mic at the fret, another at the bridge or body, one over the player's shoulder), and skip stereo-mic'ing the instrument itself. Two mics pointed at sharply different angles on the same source pick up meaningfully different tones, and it reads as inconsistent rather than wide.

Reserve Room Mics for a Solo, Intimate Performance

For a guitar sitting inside a fuller arrangement, a single close mic is normally all you need. Save room mics for when the acoustic is genuinely exposed, like a solo singer-songwriter performance where the goal is an intimate, in-the-room feel.

- **Use a stereo pair in an X/Y arrangement**, about 2.5–4.5 m (8–15 feet) back from the guitar, still pointed at it. Keeping the two mics right on top of or next to each other at a 90-degree angle avoids the **phase** problems a spaced pair can introduce.
- **Treat the room mic as a subtle blend, not a feature.** On its own, a home-studio room track rarely sounds impressive; its job is to nudge the close mic from flat and mono toward a bit of natural width and depth, not to carry the tone.
- **If the room genuinely doesn't sound good, skip it.** A close mic on its own, with a touch of reverb added afterward, beats forcing in a room sound that's actively working against the take.

Double It for a Big, Modern Sound

For a bright, wide, contemporary acoustic tone, the kind that cuts through a full band arrangement, track two passes with the same close-mic setup and pan them hard left and right, the same doubling approach used for rhythm guitar.

- **Acoustic doubles are forgiving.** The two passes don't need to line up as tightly as an electric double does; a little natural drift in timing is part of what makes it sound wide rather than synthetic.
- **Work in long sections, not short punch-ins.** Acoustic parts carry too much ambience and tail to chop into two- or four-bar chunks the way a tight electric part can. Track full sections, a verse or a chorus at a time, and double each one right away while the playing intensity and the player's position are still consistent.

Label your tracks clearly inside your **DAW**:

- Acoustic Guitar
- Acoustic Guitar L
- Acoustic Guitar R
- Acoustic Room

Watch for the Small Things That Wreck a Take

A single sensitive mic on an otherwise exposed instrument leaves nowhere to hide a handful of common problems:

- **Click bleed.** Do a quick test pass and listen back at a healthy volume before committing to full takes; a close mic on a quiet source picks up more click bleed than you'd expect.
- **A player who moves.** Even shifting 15–20 cm (six to eight inches), or changing the angle they're sitting at, is enough for a small-diaphragm condenser to pick up a noticeably different tone. Get them settled into a comfortable position before you start, and avoid breaking up a song mid-take if a player wants to stand and stretch; matching that exact tone again afterward is genuinely difficult.
- **Fading intensity.** Players often play acoustic guitar harder for a recording than they're used to playing it casually, and that energy tends to drop as a session goes on. Listen for a strum or pick attack that's quietly gotten softer than where the song started.
- **Tuning.** An acoustic with a built-in pickup makes this easy: plug straight into a tuner. Without one, a clip-on headstock tuner works in a pinch, though it's less accurate; running the mic signal back out to a tuner is a solid workaround if you need something more reliable.

Punch In Carefully, or Not at All

Punching into an acoustic guitar part cold rarely sounds natural; there's too much ring and tail for a clean drop-in.

- **Have the player play along into the punch**, the same approach used for drums, rather than dropping in cold.
- **Look for a natural break to land the punch in**, a stop, a rest, a rhythmic gap, rather than punching mid-strum.
- **If a clean punch-in genuinely isn't working**, duplicate the track and record the alternate part on a second track, then **crossfade** between them. Treat that as a fallback, not a first choice: acoustic parts don't take well to being edited or time-stretched afterward, artifacts show up fast and are hard to hide. Get the take right at the source instead of planning to fix it later.

The Same Approach Works for Other Acoustic Instruments

These principles carry over to other acoustic stringed instruments too, cello, violin, ukulele, and the rest. A small-diaphragm condenser pointed at roughly where the neck meets the body, with the same restraint around room mics, is a solid starting point for any of them.

What to Deliver to Your Mixer

A finished acoustic guitar session handed off for mixing should include:

- A bright, well-balanced tone captured at the source, not one relying on EQ to fix a boomy or nasal mic placement
- Full-length takes edited in long sections, not a patchwork of short punch-ins
- Both doubled passes, if doubled, panned and labeled clearly
- A room mic track, only if one was actually used and adds something on its own
- Consistent levels with no **clipping**

Comping and edit cleanup aren't really on the table here either way, so there's less to hand off than with other instruments, but that also means there's less room for a mixer to fix a shaky performance after the fact.

If the tone is boomy, thin, or inconsistent coming off the mic, no amount of mixing fully undoes that afterward, and acoustic guitar punishes heavy editing more than almost any other instrument. Get the mic position and the performance right at the source; that's what makes it sound professional later.

MIDI and Virtual Instruments

If you're using software instruments, always **export the MIDI performance and a rendered audio version** once your production is complete.

This ensures the mix engineer can reproduce or tweak sounds later if needed.

Inside your **DAW**, keep naming consistent:

- Piano Main
- Synth Arp
- Pad Texture

3. Vocal Recording

The mic and workflow you choose matter more for vocals than almost any other instrument, since there's no amp or cabinet standing between the performance and the recording.

Comfort and momentum count for just as much as technical setup. A relaxed singer moving quickly through a song will consistently beat a perfect signal chain paired with a tired, self-conscious one.

Editing and tuning happen after the session wraps, not while the singer is standing there waiting on you.

Preparation

Warm up, hydrate, and rehearse the parts before you start recording. Avoid dairy, carbonated drinks, or coffee right before takes, since they can affect tone and clarity.

Get the lyrics in front of you both, printed out or on a screen, before you roll anything. Knowing the words means you can say "let's redo that line" instead of stopping to ask what it was, and that alone keeps a session moving.

Choose the Right Mic for the Job

- A rugged, mid-priced **dynamic mic** built for vocals is a genuinely safe default, especially for rock and heavy music. It holds up to a performer right on the capsule without ever needing to back off, which matters the moment someone starts screaming into it.
- Reach for a large-diaphragm **condenser** mainly for a quieter or more delicate performance. The extra sensitivity and gain works in your favor there. In a less-than-ideal room, though, a condenser will pick up noticeably more of that room's character; a dynamic mic naturally rejects more of the space around it and keeps the vocal drier and more focused, whatever your room sounds like.
- Know the mic's **proximity effect** and use it on purpose. Getting closer builds up low end, which is part of why a screamer right on the capsule sounds so huge. Stepping back trims that low end out and brightens things up. Pull back a little for a clean, bright lead vocal; get right in for aggressive, high-energy parts.
- A pop filter helps control plosives on cleaner takes. For a full-throated performance close to the mic, it's fine to pull the filter and let the singer get right on the capsule; that physical closeness is part of getting a genuinely energetic take.

Keep the Singer Comfortable

How well a vocalist can hear themselves changes the performance more than almost any technical decision, so get that right before you start rolling.

A dedicated headphone mix, their vocal on its own fader against everything else, and ideally under their own control, is the gold standard, but it isn't required. Sending exactly what you're hearing in the room works fine too. If someone wants their voice loud and upfront in the mix, give it to them loud.

Comfort beats an objectively "correct" balance every time.

Set a Clean, Consistent Level

Run a few warm-up passes at real performance intensity, not a quiet soundcheck voice, before you commit to a take, and set your gain from that so a loud line later doesn't clip.

A single compressor early in the chain, hardware or a plugin you can track through, evens out a performance and makes it easier for both of you to judge it. Most rock, pop, and heavy mixes end up compressing the vocal fairly hard anyway, so handling some of that going in isn't wasted work: a moderate ratio, a medium attack that lets the initial hit through, and a release fast enough to recover before the next phrase is a solid starting point. It's optional, though. Going straight into a clean, well-staged preamp works fine without one.

Track Fast, Line by Line

- **Roll a handful of full takes first** just to warm the singer up, then switch to working line by line, or phrase by phrase, rather than stacking take after take of a whole section.
- **Move on the moment a line is genuinely good.** Re-taking something that already works just to have more options is how a vocalist burns out and a session drags. Speed keeps the performance energized, and that energy is far harder to fix afterward than a small timing or pitch issue.
- **Punch in slightly after the start of the previous region** rather than right on top of it, so an earlier pass of that same line is still sitting there on the same track if you end up preferring it. That gives you the flexibility of comping without formally keeping and re-listening to a stack of full alternate takes.
- **Splice on hard consonants, or in between words**, never in the middle of a sustained vowel. Those cuts are far easier to hide.
- **Prioritize timing over pitch while you're listening in the room.** Pitch is usually straightforward to correct afterward with a tuning tool; timing that's noticeably rushed or dragging is much more noticeable once you're stretching audio to fix it, so get that right at the source. Be pickiest of all on rough, gritty, or pitched-but-unclean sounds like heavy yells, since automated tuning struggles hardest with those.
- **Take a listen back with the singer** once you're through a whole section, confirm you're both still happy with it, and punch in anything that needs it before moving on to doubles or harmonies.

Layer Doubles and Harmonies as You Go

For big, melodic sections, doubling the lead left and right, and adding harmonies the same way, makes a chorus sound noticeably bigger.

- **Track into one working take, then copy each good pass onto a second, pre-panned placeholder track** that's already sitting quieter in the mix. The song keeps sounding more finished as you go, which keeps the energy up, rather than everything staying raw until a separate doubling pass at the end.
- **Doubles don't need the same surgical timing and tuning as the lead.** They're sitting lower in the mix specifically to add width and thickness, so a little natural looseness is fine, and chasing perfect tightness on a part nobody's listening to closely is time better spent elsewhere.
- **For screams specifically, track doubles on standout or emphasized words as you go**, rather than saving a separate doubling pass for later. Screamed doubles are usually about a handful of key moments, not the whole part.
- **If a section repeats later in the song**, copy the raw take across as a placeholder instead of re-singing it identically. Give copied regions an obviously different color so that once you're editing, you know at a glance they're duplicates waiting on the finished version, not something to tune from scratch.

Label your tracks clearly inside your **DAW**:

- Lead Vocal
- Vocal Double L
- Vocal Double R
- Harmony L
- Harmony R
- Scream Lead
- Scream Double L
- Scream Double R

Edit and Tune After the Session, Not During

Vocals are usually tracked last, so there's no reason to hold up a live session with detailed tuning work. Save it for after everyone's gone.

- **Duplicate your session or playlist before you touch anything**, so you always have an untouched copy of the raw takes to go back to.
- **Clean up timing and crossfades first**, nudging anything that's obviously rushed or dragging, before you start tuning. A light, automatic pass of pitch correction is enough to confirm you're in the right ballpark; it doesn't need to be hand-tuned note by note for a rough pass.
- **Tune the lead first, then bring doubles and harmonies into alignment with it**, whether by hand-adjusting each region or with a dedicated vocal-alignment tool if you have access to one. Either way, leave a little natural tolerance in both pitch and timing on doubles rather than locking them dead-on to the lead. Align them too tightly and they collapse into the lead instead of adding width.
- **Use the highest-quality time-stretching mode your tools offer** whenever you do need to stretch a region, and consolidate a track once you're happy with it so the edits are committed and it stays easy to work with.
- **Tune a repeated section once, then copy it across**. Those colored placeholder regions from tracking are your cue: finish editing and tuning the original section fully, then copy that finished region over every marked repeat instead of tuning the same line twice.

What to Deliver to Your Mixer

A finished vocal session handed off for mixing should include:

- A tuned, edited lead vocal with timing and pitch checked, not a raw, unedited take
- Doubles and harmonies aligned to the lead with a little natural looseness preserved, not clamped dead-on top of it
- Clearly labeled, consolidated tracks starting from the same point in the timeline, so anyone can drop the session into another **DAW**
- Consistent levels with no **clipping**
- A **rough mix** reference, so the mixer understands the direction you were going for

Tuning and comping don't have to be entirely on you, either. Many mixing engineers and dedicated vocal editors handle exactly this as part of their service, so it's worth asking what's included before you assume a fully tuned, edited vocal is something you need to deliver yourself.

A vocal performance that's tired, rushed through, or stitched together from too many takes isn't something tuning can fix afterward. Keep the takes fast and the singer comfortable while you're tracking; that's what actually makes the vocal believable later.

4. File Management and Organization

Project Organization

A good delivery starts with a good session, not a cleanup pass right before you export. Naming and organizing tracks properly from the moment you create them saves you from a tedious rename-everything session later, and it's the difference between a bounce that takes two minutes and one that takes an hour.

Name Tracks As You Create Them

Name every track the moment you create it, not once the song is finished. Use the instrument and part it's actually capturing, not a placeholder:

- Kick In
- Guitar Rhythm DI
- Lead Vocal

Avoid leaving default names like Audio 1 or Track 5 in place. It doesn't seem to matter mid-session, but once a project has 30-plus tracks, figuring out what "Audio 14" actually is wastes real time, and if you ever bounce stems straight from track names, a vague track name becomes a vague file name too.

Keep a Consistent Track Order

Lay tracks out the same way every time you start a new song, drums at the top, then bass, guitars, keys and synths, then vocals at the bottom, or whatever order makes sense to you, so you can navigate a session on muscle memory alone. It matters more than it sounds like it should once a session gets busy: being able to jump straight to a track without hunting for it is worth the small effort of staying consistent from the start.

Group and Color-Code by Instrument

Bundle related tracks into groups or folders, whatever your DAW calls them, all your drum mics together, all your vocal layers together, and give each group its own color. It keeps a large session visually scannable, turns soloing or muting a whole instrument into a single click instead of ten, and makes it obvious at a glance which tracks belong together once it's time to export.

Build a Template You Reuse

Once you've settled on a track layout, naming scheme, and color scheme you like, save it as a template and start every new song from it. Consistency across sessions means less setup time, fewer naming mistakes, and a project that's always in a state you could export from without a scramble.

Once a song's ready to send off, see [Preparing Files for Mixing](#) for the exact naming format and file checklist your mixer will actually need. A well-organized session like this makes getting there a quick bounce, not a rebuild.