HYPERREAL AUDIO

GUITARS AND BASS

PREPARATION

At Home

• Find a way to practice on a plugged-in instrument — flaws that don't show up on an unplugged guitar or bass and get buried under volume at rehearsal, will absolutely show up on the recording.

• Try to get an audio interface, a DAW, and a couple of good plugins — that lets you practice at home and listen back, record demos, catch performance flaws early, and experiment with tone.

• Consider learning Guitar Pro — it's a simple, convenient tool for writing, capturing ideas, and working out parts in detail. It also makes a great cheat sheet, especially if you're prepping a lot of songs.

• Record demos with all the guitar and bass parts, ideally with scratch vocals too. Make sure there are no unwanted dissonances or mismatches between parts. Check back against the demo and against each other periodically — parts can drift without anyone noticing over the course of rehearsals. It's best to demo on the same instruments you plan to use at the studio, so you can hear at room volume how well they work together.

• Practice to a click, and better yet, work with the drummer to build MIDI versions of the drum parts, find a sample library that fits your songs the best. It's easier to work on the finer details of your playing to a plain click, while MIDI drums help you check how your parts line up with the drums and function in the context of the song. Comparing the MIDI drum track to your own DI track makes it easy to spot exactly where you tend to rush or drag.

Performance

• From day one, in home practice and rehearsals, try not to make unnecessary noise — watch for finger-shift squeaks and any other unwanted mess, all of it will be very audible on the recording. All the cool dirt like pick slides and muted string scrapes should be locked in the part.

• Pay close attention to muting strings that shouldn't be ringing — undermuted strings love to resonate and clutter the signal with overtones you don't want in the mix. Aim for only the intended stuff to sound: the more extreme the tone, the more effort this takes, but it will do a lot for how clearly your instrument reads in the mix.

• Guitarists — work on consistency of attack, and pay attention to your palm-mute tone from take to take, within a section, and within a song. Don't overgrip with your fretting hand, don't hit too hard with your picking hand. Once tension builds up in your muscles, your timing and attack start to drift — work toward a more relaxed playing style, even on aggressive material.

• Bassists — experiment with your picking hand, try moving your attack point closer to the neck or the bridge, and find the position that sounds best. Your attack should be as consistent as a drummer's kick and snare, and should relate logically to the drums. Avoid random one-off clicks, clanks, and anything else that sticks out of the mix. On fast material, you don't have to mirror the drum or guitar pattern note-for-note — a sparser bass part often works better.

• Decide early in rehearsals how you'll mute guitars, bass, and cymbals at the end of a song, and try to do it the same way every run-through.

Planning Ahead for the Session

• By experimenting with tone at rehearsals and working at home with plugins and other quiet-practice tools, arrive at a shared understanding of what sound actually fits your songs — even if you end up recording on different gear, that's still useful information. There's a decent chance a nearby studio has the analog gear your favorite plugin is modeled after.

• If your tone comes mostly from effects pedals, don't underestimate the clean amp you're running them into: a lot of drive pedals, and especially fuzzes, sound best through a dark, thick clean amp, while a shimmering post-rock sound with tons of delay and reverb calls for a completely different platform.

• If you're deciding to record at home on your favorite plugin and skip the studio entirely, keep a few things in mind. First — don't let the DI track clip: this matters both so the plugin responds correctly and so the DI can be used for reamping later if needed. Second — you won't be able to capture natural feedback, and your sustain will be shorter than what you get playing loud at rehearsal. Third — you'll end up with a tone that's already on dozens of records (this isn't a problem with a real amp, since it's practically impossible to mic a speaker exactly the same way twice).

• When choosing a studio and gear to record guitar and bass, don't underestimate the cabinet and the speakers inside it — the cabinet, speaker, and mic'ing together are at least half the sound. Look at more than just the amps a studio has — check the cabinets and mics too.

• Let the studio engineer know your goals, references, and desired sound ahead of time. Confirm with them in advance what gear you'll be recording on, so it doesn't accidentally get rented out on the day of your session. Bring up the need to record a DI. Ask what speakers are in the cabinet or combo if that info is not on the studio's site. Ask which mics they're planning to use. Pass all of this along to your mixing engineer.

Gear Maintenance

• Get your instrument serviced by a good tech, or do it yourself if you know how (YouTube has plenty of tutorials): intonation and neck relief, fixing buzzing, fret leveling if needed, pickup height, replacing the battery for active pickups, checking and cleaning the pots, and restringing with proper setup and stretching so the tuning doesn't drift during the session. New budget-line guitars often need a tech's attention straight out of the factory — grounding or shielding is frequently missing, which causes constant hum and noise.

• Check whether you have enough good cables and patch cables: if not or if you are unsure about any of them, replace or repair them ahead of time. Don't be shy about asking the studio's engineer about their own instrument cables — decent studios usually have a few.

• Think about your pedal power supplies. If you hear roughly the same hum or whine wherever you play, it's most likely your power. Don't cut corners there.

• Bring spare picks, a set of strings, a backup cable and a couple of patch cables, a 9V battery — anything that might come in handy.

RECORDING

Physical Readiness

• The day before, avoid putting serious strain on your hands and fingers, especially if you're playing fast, technical material.

• Get a good night's sleep.

• Stretch your hands and play a bit before you leave, and again during and after soundcheck. Don't record takes with cold hands.

Setup and Soundcheck

• Leave enough time for soundcheck. Dialing in the amp and pedals, mic'ing the cabinet, recording test passes, listening back, and making adjustments can easily take an hour or more, especially if you're trying out different amps, effects, and mics. After soundcheck, takes pictures the settings on everything.

• Run your guitar or bass into a DI box, and from there on through your effects chain and into the amp. Always record a completely clean DI.

• For bass, also record the amp's and preamp's line-out, if there is one. These often blend really well with the cabinet sound and the instrument's own DI, giving you an extra source of low end, clean mids, and bright highs, and they're a great safety net against all kinds of problems.

• Ask the engineer to sort out phase correlation between channels right away, if it's needed — without that, it's hard to properly judge the resulting sound. As a sanity check, look at the frequency response on any spectrum analyzer. For dense, high-gain guitars, avoid big boosts around 3-4 kHz, audible whistling around 2-2.5 kHz, and an overly scooped midrange. Adding aggression later at mix time is easy — what's hard is pulling the midrange back from nowhere without dragging up nasty resonances along with it.

• Try to use shorter cables, especially between the guitar itself and the DI box — this matters even more for guitar with passive single-coils.

• If you're confident in your delay and reverb effect pedals and want to hear them on the track, record them onto the source, especially if they aren't tempo-synced. If they are, be very careful about exactly when you switch the effect on, and once you've got a take, check that the repeats aren't drifting against the beat. If you're not sure, record a backup take without the effect.

Recording Process

• Pay attention to the same things you have been checking on at home: timing, attack, muting. Check how the left and right rhythm guitars line up with each other, especially on palm mutes.

• If you're recording in sections, try to record with overlap — coming in a little early and continuing a bit past where the section ends. Comp the sections right away, between takes, and listen to the quality of the edits — check for gaps or overlapping attacks.

• For bass, pay special attention to how tightly you lock in with the drums and to the tone of your sustain on passages with long held notes: these spots don't respond well to time-stretch editing (you get an ugly low-end thump at the edit point), and a note can start dying out too early if the attack is too hard or sloppy.

• Check your tuning between takes. Don't touch any knobs on the instrument itself unless you need to — mute your guitar with a tuner, not the volume knob: too many takes have been ruined by realizing afterward that you'd been playing on the wrong pickup or with the tone rolled off.

• If you take a break and turn off the amp, check afterward that the right channel came back on and every setting is still where it should be. Same goes for pedals.

Once You're Done

• Check with the engineer on when the fully comped and edited bass/guitar tracks will be ready, and ask for a rough mix so you can make sure everything's in order and get ready for vocal tracking.