

HELIX

Reamping – Why, How, and Why Not?

It doesn't matter if you're working in a professional studio or only producing music for your friends and family – if you record guitar at all, you've probably had the experience of hearing a final mix and wishing you could tweak things a smidge.

I'm sure we've all heard the finished mix of a tune we've played on and thought "now I wish I would have used a different microphone on that speaker cab", or "I wish I had backed off the distortion on the solo a little bit". The reality is that hearing our guitar parts in a finished mix can be equally enlightening AND frightening, depending on the circumstances.

Oftentimes, the opinion a guitarist has about this subject has everything to do with what they listen to when they're tracking. If the mix of a song is basically finished and your job as Guitar Session Guy is to come in and add the final finishing touches, chances are good that the tones and sounds you dial up will need little tweaking before the mix is called "final". However, if what you're hearing when you track is un-mixed bass and drums, chances are very good that the sonic relationships between all the tracks will change dramatically at mixdown.

Modern recordings sound huge partially because they no longer have to be mastered for vinyl records – in the old days, too much bass in a mix would make the needle jump out of the groove on the cutting lathe. These days CD's and MP3's don't skip if the kick drum is massive, so mix engineers no longer have to be anywhere near as careful about how much extreme frequency information they pump into a mix. Combine that with the fact that many recordings are not made in professionally designed acoustic spaces these days (so mix engineers employ samples and a ton of other techniques to make the tracks sound bigger), and you get a situation where the raw tracks and the finished mix may sound very different.

That has consequences for us guitar dudes though! Once the mix engineer has turned those tiny drums and bass you listened to while recording into nuclear bombs, your tracks may no longer be cutting the mustard. Maybe that warm guitar sound you chose for the bridge is now too dull to cut through the huge drums and bass, or perhaps that ton of gooey low-end information you dialed in on the verses is clouding up the now-cavernous kick drum.

You can go a long way in the mix stage using eq and compression to shape guitar sounds, but the point I'm trying to make is that the more "finished" the other sounds you hear when you're tracking are, the easier it is to pinpoint exactly what is needed for your guitar tracks. The more rough and unfinished the backing tracks are, the more you'll have to guess about what they're going to sound like in the final mix

when crafting your own sounds.

So what can you do to safeguard yourself in these scenarios? The answer is something that some professionals have been doing in the studio for many years: reamping.

In a scenario where you want to change the core sound of a guitar track, the term “reamping” refers to a situation where the exact same performance is used to send signal back to an amp that is then remiked and rerecorded, instead of simply replaying the guitar part with a new sound.

In order for this to function correctly, at least two tracks have to be recorded at the same time for every part: the full guitar sound that would normally be committed to tape/disk, and the direct sound (straight out of the jack) of the guitar itself. Once that direct guitar sound exists on a separate track, it can be sent back out to a real amp and re-recorded with a completely different tone. You could even use a completely different amp and cab, if you liked.

There are a number of benefits to this kind of scenario:

1. You can change the core tone of the guitar at any time: if you get to the final mix and the printed delay on the guitar track is too loud and the amp is too crunchy, reamp the track and turn down the gain and delay mix while you’re recording it back to disk.

2. You can punch into a solo or part that has printed effects at any time, even months later. Normally, punching into a part with a ton of printed time-based effects is impossible, because you can hear the punch point when the delay and reverb tails stop. With a direct track in the scenario, all you have to do is get the performance right using as many punches as you like, and then simply reamp the part using the same sound and setup. It will sound as if there are no punches at all, because as far as the reverb and delay are concerned, there really aren’t.

Once you realize the huge benefit that reamping can provide, you may be asking yourself “why doesn’t everyone do this all the time?” The answer has to do with the multiple levels of complexity that reamping requires in the real world if it’s to be done correctly:

1. The guitar signal has to be split, so that it can be run straight to the amp and also to the recording interface at the same time. The important part to know is that most electric guitars have passive pickups, so splitting the guitar signal right after the guitar is fraught with danger. If the split isn’t done with an active/buffered splitter (instead of a simple “Y” cable) an impedance mismatch happens, and the guitar pickups are loaded incorrectly. An improperly loaded guitar both sounds and feels terrible, so it

should be avoided at all costs.

2. The output of an electric guitar differs quite a bit from the line output of a recording interface or recording console, in that it is really quiet in comparison. Just as importantly, the input circuits of tube amplifiers expect to see this level from an electric guitar, not the loud line level from a console. These two facts dictate that once the direct guitar sound is recorded to tape/disk, it has to be modified before being sent back to the front of the amp for reamping. If the amp doesn't see exactly the same signal and impedance that it would when connected directly to the guitar, it won't sound the same when reamped.

Professional studios have always had custom gear and experienced tech staff to setup and maintain scenarios like this, so the entire reamp experience has been an exclusive thing until recently. However, now there is a much easier way to accomplish this reamping stuff, because Helix has reamping built-in and pre-routed, when used with a DAW over USB.

By default, Helix automatically passes the direct guitar sound (pulled right from the guitar input before any processing) to your computer's DAW on USB Channel 7, so you don't need to do anything to set it up. Just create a track for the normal Helix output coming over USB Inputs 1/2, and another track for the direct guitar sound on USB Input 7. You'll want to set the output of your direct track to a different USB channel than your stereo mix (USB output 5, for example), and then press record. That's it! If you need to punch in on a performance, go ahead and punch as many times as you need to get the perfect take.

When you want to reamp and change the core tone, simply set the input on the Helix hardware to be USB 5, and you're ready to go. That's it: the direct track will stream back into the Helix signal chain at exactly the same level as it did when you were playing it live with your guitar, so the tone and gain will be exactly the same. You could even use one of the effects sends (set to "Instrument" level) to send the direct guitar track to a real amplifier, if you like.

Helix makes the process of reamping so easy that you owe it to yourself and your music to check it out at a store near you soon. Before you go, head to www.line6.com/helix for more information.