8 EASY STEPS TO REALISTIC AMP SIMS



Step 1 – Use a Proper DI Box

Before you even reach for your amp sims, you need to make sure you have a good source to work with.

Guitars aren't the same as microphones. You can't just plug them straight into your audio interface.

Instead, you need to use a dedicated DI box. These aren't expensive and it's worth having at least one in your home studio.

Step 2 – Record with Your Usual Pedals

Think of the virtual amp as a real amp. When using a real amp, you place your pedals before the amplifier. So do the same when using an amp simulator.

Use the same pedal chain that you would use live. Engage the effects as you usually would during the song.

If you like, you can use virtual pedals with your amp simulator. I love doing this with BIAS FX, which is one of my favourite virtual amp plugins.

But, in most cases, real pedals will sound better.

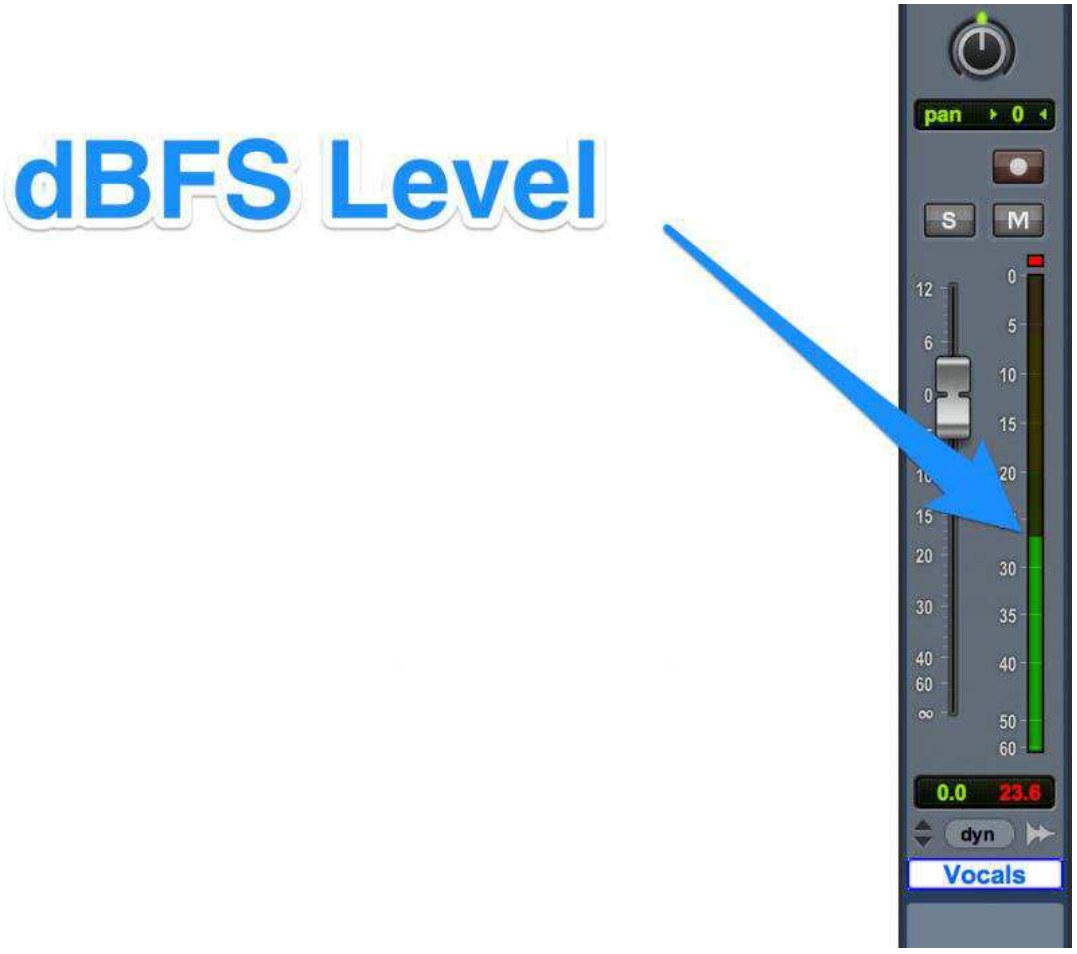


Step 3 – Apply Proper Gain Staging

Make sure you leave plenty of headroom when recording. Try not to peak any higher than -10dB (or just avoid ever hitting the red on your interface).

Then, when it's time to mix, use a gain or trim plugin to put the guitar in the digital sweet spot of -18dBFS.

You don't need to be too accurate with this – you can just eyeball it on your channel meter inside your DAW.



You can learn more about gain staging here.

This is important, especially when working with a guitar amp simulator. The drive on the amp will be affected by the level of the guitar coming in.

If the gain is too high, the amp sim will sound over-driven and distorted. If it's too low, the amp sim will sound weak and thin.

Step 4 – Focus on the Tone Controls

Just as you would with a real amp, spend plenty of time getting the tone right with the EQ controls on the simulator.

Don't resort to parametric equalizers and other EQ plugins in your DAW.

In fact, try to finish mixing the guitars with as little EQ as possible outside the simulator.

Adjusting the tone on the virtual amp will sound more natural and realistic.

But, at the same time, try to be subtle with the tone controls. Some presets are quite extreme and need taming.



Do all of this in the context of the mix – NOT in solo.

It doesn't matter how the guitars sound in solo. It only matters how they sound in the mix.

In fact, I find that when electric guitars are mixed right, they sound pretty bad in solo. This messed with my head for a long time.

So avoid the solo button. It's dangerous.

Lastly, I also recommend that you reduce the bass control on the virtual amp.

You don't need a lot of low end on the guitar, and lowering the bass knob will help the guitar to cut through and sit better in the mix.

Step 5 – Use Different Settings for Overdubs

If you have multiple takes or overdubs, don't use the same tone for every part.

To achieve more space and separation in the mix, make each part sound slightly different.

To save time, find a tone that you like on the lead guitar part, and then copy that plugin onto the other guitar channels.

BUT then go into each plugin and adjust the tone controls to make each part sound unique.



You can also do this with a dedicated EQ plugin, if you run out of tonal options.

If you boost one guitar at 2kHz, cut the others at 2kHz (and visa-versa).



One more consideration is to vary the tone on the guitar when you record extra parts.

Try using different pickups for each overdub, or adjusting the tone controls on the guitar itself.

Step 6 – Apply a Low-Pass Filter

Using a low-pass filter (or at least a high-shelf cut) to remove some of the top end achieves multiple things:

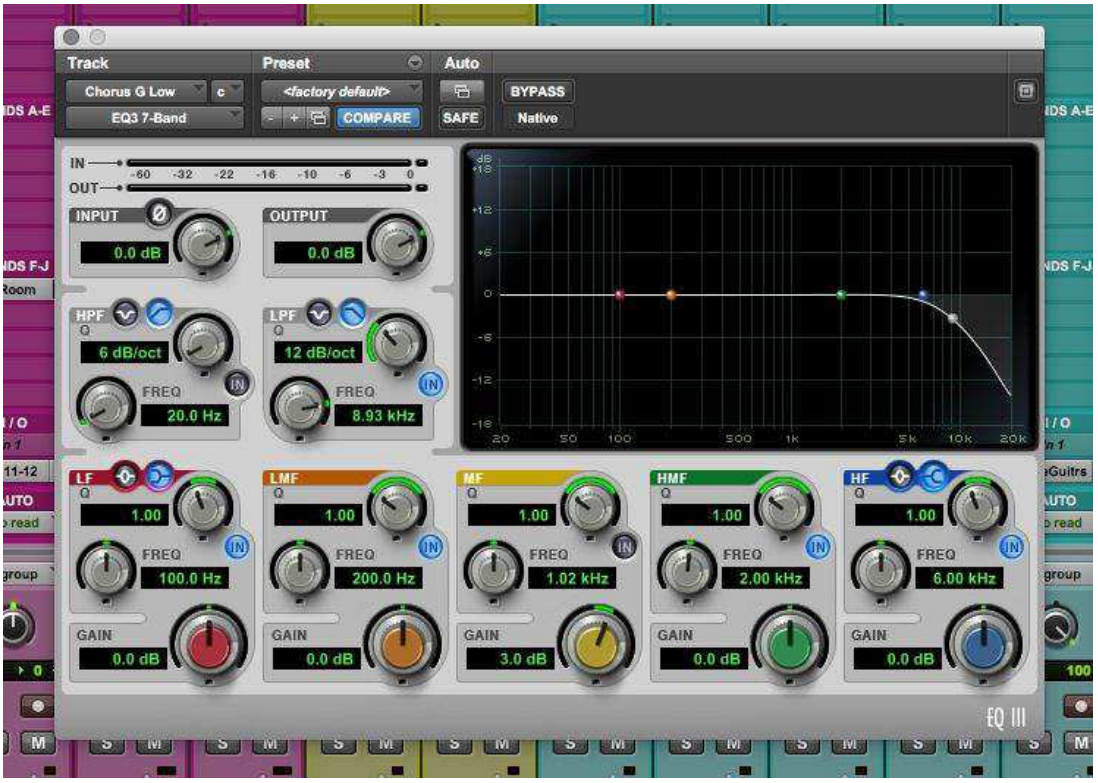
1. It creates more room in the top end for the vocals, cymbals etc.
2. It puts the guitars a bit further back in the mix, creating the perception of depth.
3. It makes the virtual amps sound more realistic.
4. It can remove some of the top end fizzle that makes virtual distortion and drive sound unpleasant.

Start with a low-pass filter at 12kHz. Now bring the frequency down until you notice a distinct loss of clarity (do this in the context of the mix, not in solo).

When you notice a change, bring the cutoff frequency back up a touch.

This is usually the sweet spot, but it's entirely up to you. Sometimes you might want to make the guitars sound even darker.

To save time, you could even do this on a group buss that all of the guitars are being sent to.



Step 7 – Try Adding Saturation

A touch of warm saturation can also achieve many of the same things as a low-pass filter – but with the added benefit of adding more warmth and excitement.

I love using the 'Keep Low' mode on the free Softube Saturation Knob plugin for this purpose. The 'Neutral' mode also works for a slightly brighter tone.

Again, you can apply saturation on the group buss to save time.



Step 8 – Create a Space

One more ting that can make an amp simulator sound less realistic is the lack of a space or 'room sound' on the guitar.

For modern styles of music, this step generally isn't necessary. The direct, intimate sound of amp simulation tends to suit modern genres.

But for older, more 'natural' genres (like classic rock, jazz, folk etc.) adding some space to the guitar can make it sound more realistic.

There are two ways to achieve this:

1. Adjust the microphone position on the amp simulator.
2. Use a subtle small room reverb on the guitar group buss.

If your virtual amp plugin allows you to change the microphone position, try moving the microphone a bit further back from the amplifier.



If that doesn't work, or isn't possible with your plugin, you can use reverb.

Load up a very short, small room reverb on your guitar group buss (or create a new effects/aux channel, put the reverb here and send the individual channels to it).

Try to keep it really subtle – you don't want to it to be noticeable.



You just want it to make the virtual amp feel more realistic subconsciously.

Start with the reverb at 0, and then bring it up until you notice it. At this point, bring it back down a touch.

When you mute the reverb you should feel it missing. But it shouldn't be a noticeable effect.

That's all for today.

Check out www.musicianonamission.com/blog for more free advice. See you there!

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