



PRIME LOOPS

Reverb vs. Drums

There are countless ways to beef up your drums, ranging anywhere from creative use of EQ and compression all the way through to the use of effects chains. In this tutorial we are going to look at the latter, focusing on two great tips for using reverb. This effect that can be a drum's best friend when used with care and a basic knowledge of the relevant parameters, so let's get started!

The first thing you should consider is which reverb you are using. Since we're talking about Reason here, there are two options: The impressively-featured "RV7000" and its little brother, the stripped down "RV-7." Honestly, the RV7000 sounds much better, has a much better feature set, and is still very light on your processor. I suspect that the RV-7 is included more as a legacy device than as a primary reverb. Therefore, I recommend you stick with the RV7000:



The first use of reverb that I want to show you focuses on emphasizing the sustain phase of a drum. The most important tip here (and this goes for almost any drum) is to filter out the low frequencies from entering the reverb. The reason for this is that low frequencies do not benefit greatly from reverberation and are notorious for muddying up a mix with wasted energy. This problem is amplified by an order of magnitude when you needlessly emphasize an already powerful low end with reverb. Check out

our previous Reason tutorial, "EQ'ing in the Mix," for more information on this.

The next image illustrates how to prevent the low frequencies from entering the reverb:



To get at these settings, open up the "remote programmer" for the reverb and then click on the EQ section, indicated by a white arrow in the image above. Once there, you can define a low frequency rolloff using the two knobs in the upper left hand of the programmer, "Low Gain" and "Low Freq." Set low gain all the way down and then adjust low freq. to the point where you would like the cutoff to occur. I simply set low freq. as high as it would go, at 1,000 hz., and this was totally sufficient for a broad range of drums. However, if you want to make further adjustments, you can always utilize the parametric eq controls located on the right side of the programmer in the image above. The parameters there work the same as in the low frequency section, except now you have access to a "Param Q" control which lets you define how wide you want your boost or cut to be. Once you have your reverb set up like this, your drum will retain its original low end while having a longer decay on the mid and high frequencies due to the reverberation. For more variation, adjust the "Decay" parameter at the top of the reverb unit to change the length of time that the drum sustain is emphasized. The shorter the decay time on the reverb, the shorter the sustain on your drum.

The second use of reverb involves another helpful feature of the RV7000, the "Gating" function:



Historically speaking, snares have been the most often used drum when it comes to gating. The gate provides a way to control the reverb effect's volume based on an audio, CV, or MIDI signal (we'll just focus on audio for this tutorial). In this manner, you can change the reverb's behavior depending on how loud the combined sound is that enters the effect. For instance, you might want to keep a drum kit's reverb turned down until a certain decibel level is reached:



I included the drum pattern in the image above to show you where my kick drum is hitting. I also have a snare hitting on every quarter note, but that pattern is not visible in the image. The Redrum's stereo output is going directly into the RV7000, so the entire drum kit is affected. Every time the

output of the Redrum hits 4.3 decibels or above (the "Threshold"), the gate is opened, which means that the reverb is made audible. The time and manner that the reverb is made audible depends on the the "Attack," "Hold," and "Release" settings. When the threshold is reached, the gate takes 293 ms (attack) to turn up the reverb, it holds for 107 (hold), and takes 416 ms (release) to turn the reverb back down. The result of all of this is that the reverb is off unless both the kick and snare are hitting because this is the only time that the combined sound coming out of the Redrum exceeds the threshold level of 4.3 decibels. The sound that this renders is very dynamic and adds a LOT of movement to an otherwise plain kick/snare pattern. I highly recommend that you try it out for yourself and see just how much leverage you can gain out of these few simple settings! When you do so, first try using a short snare sound and then try a longer snare and note the difference. The length and volume of the snare will drastically affect the rhythmic potential of gated reverb: The shorter the snare the more staccato the effect will be.

Hopefully the above tips have given you some food for thought on how to use reverb to beef up your drums. Always keep in mind that reverb can ruin your drums just as easily as improve them. It all comes down to subtlety in the settings that you use, and making sure that those settings are appropriate for the genre and sound you are writing for. Be sure to high-pass out low the frequencies from being affected by reverb unless you are specifically going for that sound. Upper-mid and high frequencies will benefit the most from reverb, and it's best to avoid overcrowding your mix with reverberated low frequencies.

Keep practicing, have fun, and stay creative!

- Nick Maxwell

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