Reverb Tutorial – What Is Reverb In Music, What It Does, When We Need It And Its Controls

Paschalis

What Is Reverb In Music Production?

Many people wonder what reverb is, but in fact, we hear it every day! We even hear it right now.

All sounds before they reach our ears, even a simple conversation between your friends, hit some surfaces first (walls for example) and then we hear them.

Each surface gives a certain "color" to the sound signal *(we all sound better when we sing in the shower don't we? :D)*

If We Could Give A Terminology For Reverb…

We create Reverberation when we send the sound to a closed space and "force" the sound to hit a surface and create a reflected sound that is heard again by its initial observer, known as ***echo****. Hundreds of quick echoes produced together (with really tiny time differences in Milliseconds between each Echo) create the sound known as* ***Reverb****. Echoes fade away from time to time cause they are getting absorbed by the air and the surfaces.*

Why We Need Reverb

Every single sound that we can hear has Reverb in it (except the speakers that are **next to** our ears – the speaker of our cellphone for example).

We may not understand that we hear it, but it's there. It's a part of the sound that we got used to from the day we were born.

To Better Understand Reverb Let Me Give You An Example

Have you ever noticed how different the voice of a radio broadcaster is? It feels like it talks next to your ears.

This happens cause there's no time for the sound to get reflected on a surface and create echoes. The sound is entering the broadcaster's microphone and gets redirected right to your ears!

As you can see, the lack of reverb may charm the broadcaster's voice but it's not the same for the vocalists or even for our whole mixes!

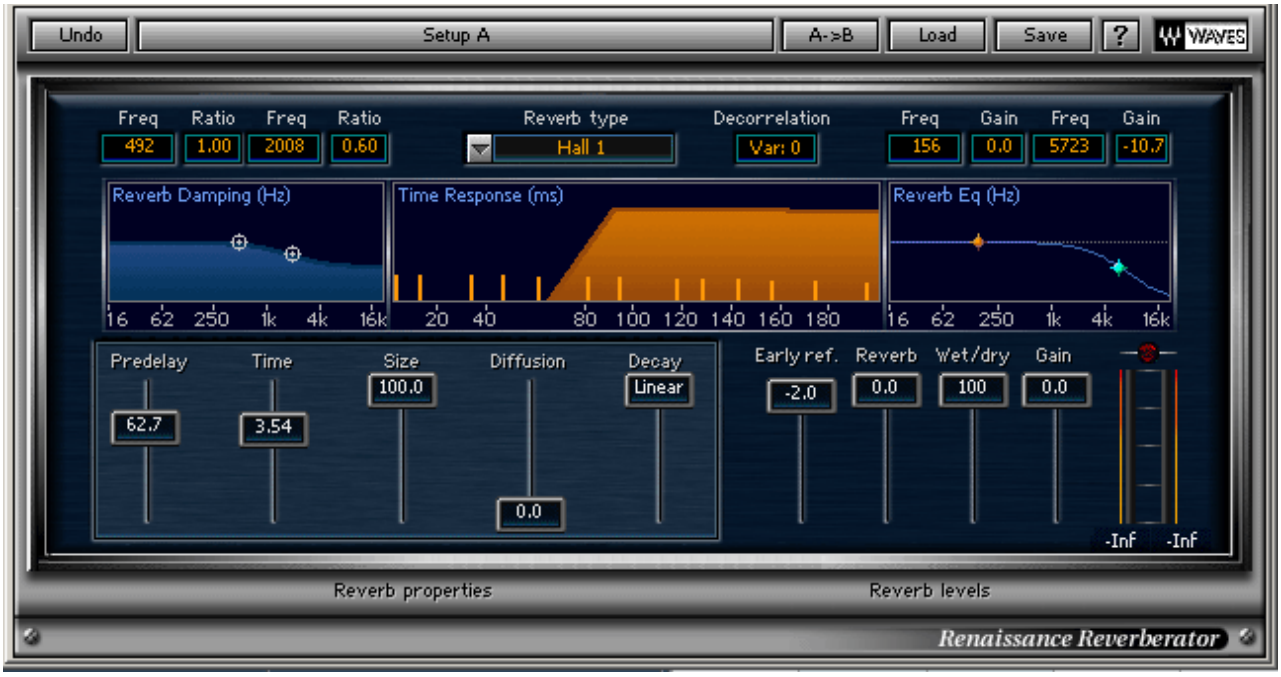
Without reverb, our mixes will sound weird on the vocals and some parts of the drum kit (snare and toms mainly).

I will create a separate article with reverb tips but let's stick to the basic in this article

Controls and Parameters

Each Reverb plugin has almost the same knobs and settings.

But I will I teach you everything without leaving a parameter unexplained.



PreDelay - The time in Milliseconds (ms) that the sound needs to reach the wall (or any other surface). It's like moving the wall nearer or further-er from the sound. If the "dry" sound needs more time to reach the wall then we'll hear it more time without reverb. This is especially perfect for the vocals, cause we need to apply reverb to the vocals, but at the same time we don't want to "drown" them with reverb. With no pre-delay at all we will possibly drown them resulting in vocals with no clarity. So, 40 to 100ms for vocals is a nice starting point.

Time/Decay/Tail - The time that the reverb needs in order to completely fade out or else the "tail" of the reverb. If the Reverb doesn't "glue" with the instrument/vocal and seems out of place chances are that you use too long decay.
0.5 to 3ms is a nice starting point.

Room Type/Size - How big or small the size of your room is. There's a difference between the sound and the size of a church and a small garage room.

Diffusion - How fast you "kill" the Early Reflections (read below).

Early Reflections - As the word implies, these are the very first reflections of the reverb before the original reverb. They give a certain "character" to the sound and at the same time they don't drown the sound in reverb keeping the sound's clarity in the mix.

Reverb EQ - If your reverb program doesn't give you EQ knobs then you can easily use your own EQ VST Plugin. This is perfect for cutting the low frequencies of the reverb producing "muddiness" in the mix and also cutting the annoying high frequencies that don't really flatter the reverb sound.

Damping - Similar to EQ but better for the higher frequencies. It's just a more natural way to reduce higher frequencies. You can think of Damping just like using… carpets and clothes to your digital room space, which in reality carpets absorb the higher frequencies naturally (damping) comparing to EQ which is considered to be an "external tool" to edit/reduce the higher frequencies. Both ways of editing are correct, there's no better or worse if the sound sounds good.

Reverb - Reverb. The slower Reflections after the Early Reflections that give a warm and sweet sound. Use this knob to blend the Reverb volume with the Early Reflections volume and vice versa.

Dry/Wet - How much Dry or Wet the final Reverb volume should be. It's the combination of both the Early Reflections and Reverb (slower reflections as I mentioned above).

Room Types

Now that we saw the Controls let's check out the room types.

Controls/knobs remain the same but the Settings change when you change a Room Type.
Also each room type has its own characteristic sound.

For example, the sound is different when we sing in our bathroom and when we sing in the elevator… Let's check out the room types then!

Room

Oratorium, Austria

In the Room category belong the classic rooms that have a medium tail. (check out what tail means above).

Some examples of Room Types are:

The WC, Professional Recording Studios that record their sound into software and you use it as a sample – known also as IR impulses (more about these in an another article) and of course any other types of rooms which considered to be small and medium sized.

Hall

Philips Hall (Small Auditorium), Netherlands

Halls are bigger rooms they are great to create an 80′s sound to the Drums or the vocals.

The way they use it in the 80s though was so professional and I have no problem to listen to Depeche Mode and The Cure no matter that Reverb was really noticeable.

It's worth to mention that as time has been passing by reverb has been used less.

Today's productions have a really small amount of reverb comparing to the older productions. Especially in metal productions where you can hear reverb only to the vocals and the drums.

Plate

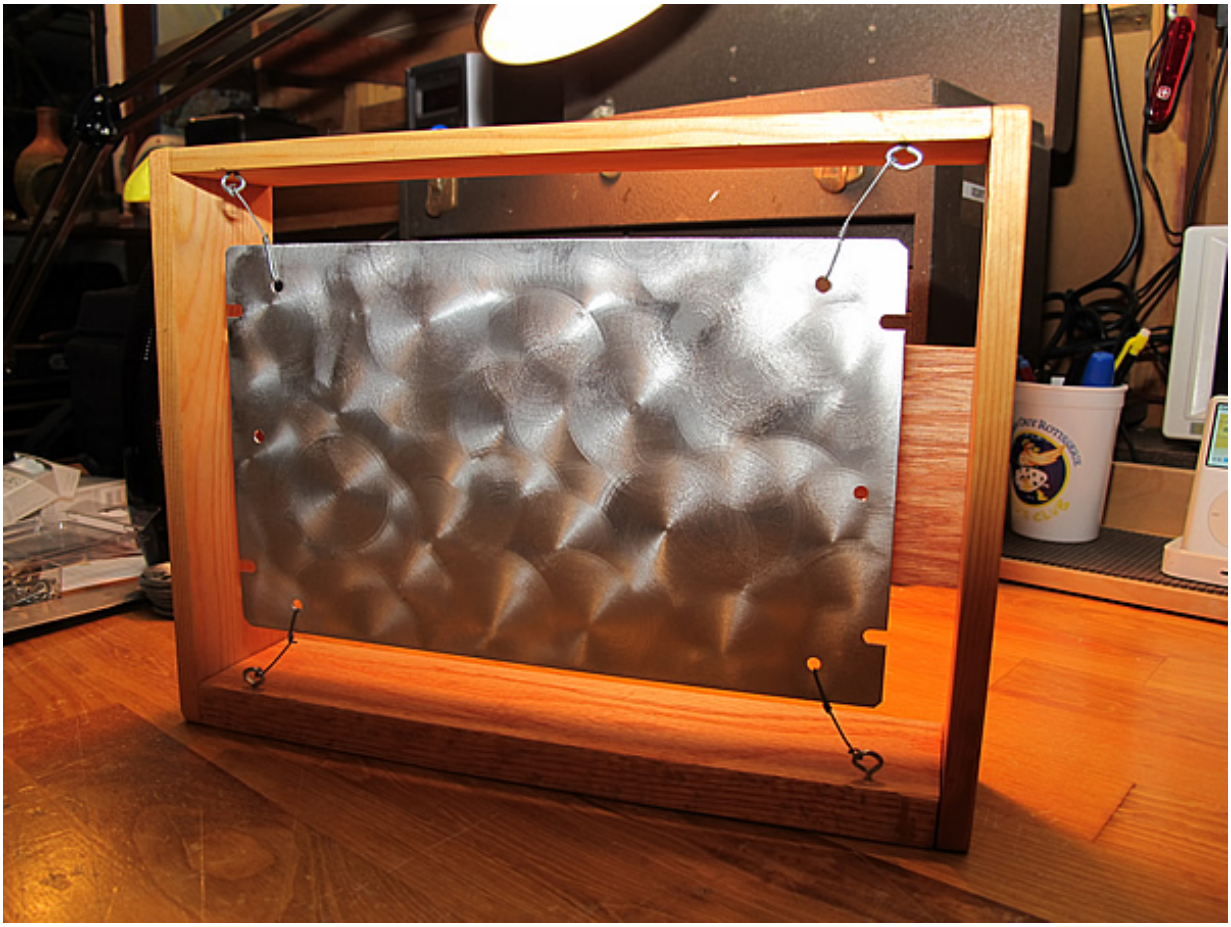


Plate Reverb

Plate Reverbs are artificial reverbs, they **aren't a simulation of a real room**.

That doesn't also mean that is bad cause it's one of the best reverbs that you can use on your snare drum. Using plate reverb on your snare, gives it a really fantastic sweet sound and the "tail" of each hit gives the sensation that the hit lasts longer.

As a metal fan, I really like to use more reverb in slower parts of a song.

For example, in breakdowns where the instruments pause suddenly and the reverb fades away, creates a "whoah!" feel, old but solid tip ^^

I was also amused with plate reverb on Vocals. Experiment!

Spring Reverb

Spring Reverb is the famous reverb type that most guitar amps have.

I don't really use it when I record guitars unless I feel like that I am not going to regret recording the sound this way.

Just the fact that I don't like recording with spring reverb doesn't mean it's wrong though.

Everything is possible in mixing. You may even open a different VST by accident and create a superb effect (happened to me this month but with chorus not reverb hehe).

Clean Unwanted Frequencies Using EQ… Even On Reverb!

I always tell you how important it is to create room for instruments by cutting frequencies from other instruments that don't really need these frequencies.

Guess what then… I'll say this to you again!

You can't imagine how much frequency space the reverb uses. For this reason, it's a good idea to open an EQ (unless your reverb has a built-in one) and **cut till 500Hz** and **till 5.000hz** using filters – in short keep most of the mids.

This way you won't use reverb on the lower frequencies that that create muddiness in the mix and of course, you won't use reverb on the higher frequencies that get harsh when you apply reverb to them.

As you can see, mids play the biggest role when applying Reverb. And it's common sense to keep on EQ-ing if you like that just the high and low pass filters are not enough.

The biggest "secret" though is to find a reverb that sounds really good without any EQ on it and perfect with EQ or it.

How Much Reverb Should I Use? What Reverb Should I Choose?

Some common questions I come across are "**what's the best reverb**" and "**how much reverb should I use**"?

I will be 100% honest with you just as I was when I started the blog…

If I won't listen to your mix, it's not possible to give you a correct answer and it would be not wise to answer in general… cause these questions can't be answered in a general way.

Each song, each track, each vocalist is a separate situation. It's like asking "what color should I choose for my car"?

But I Would Not Like To Leave You Disappointed,
So Here Are Some Quick Tips That I Can Share With You:

*** Hi-pass and Low-pass filters -** Really help for the reasons I explained above.

*** Less is More -** It's true! Don't fall into temptation and think I CAN'T HEAR IT SO I NEED TO MAKE IT REALLY LOUDER cause you are just one step before overdoing it.

*** Mute -** If you feel like that the reverb can't be heard then try to Mute and check it out again.

*** A Happy Medium** – When you cannot distinguish Reverb while all the instruments play together but you can fee that something is missing when you mute it you are on the right track!

1
inShare

Related Posts:

Get My Latest Posts

Subscribe to the blog to get the latest updates delivered direct to your inbox.

You Can Find Me On...

Get to know me better and follow me on the top social networks below.