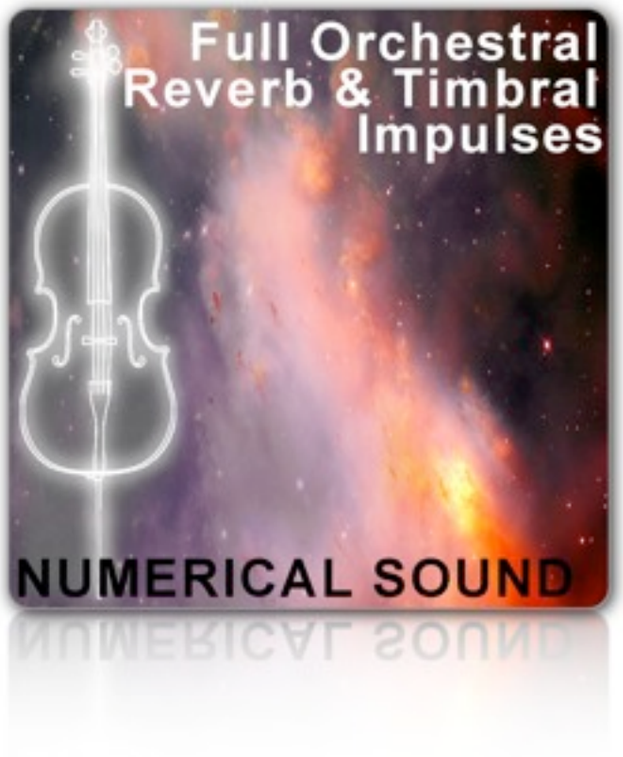
FORTI and SERTI Quick Start Guide



Numerical Sound

custom sound synthesis & ambient creation / impulse technology

 www.numericalound.com

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Introduction

This guide will show you how to load any of these Reverb & Timbral impulses, adjust the parameters in the VSL convolution plugin and use them inside a mixer. Routing diagrams with a generic virtual mixer is used.

This document assumes that you have successfully authorized and installed Vienna Suite and one of Numerical Sound's Full Orchestral Reverb & Timbral Impulse (FORTI) or Small Ensemble Reverb & Timbral Impulse (SERTI).

In mixing there are many creative ways to route ambience and timbral impulses. This guide is simply an outline. Once you understand the basic concepts you can experiment and create your own unique mixer routings.

Special Thanks

Greg Fraser for the FORTI & SERTI graphic design.
Garth Hjelte of Chicken Systems for the software utilities.
Per Lichtman for his invaluable assistance with several aspects of the project which called into service his eyes, ears and editing instincts.
Martin Tichy and Diez Tinhof of Vienna Symphonic Library for there assistance with these products.

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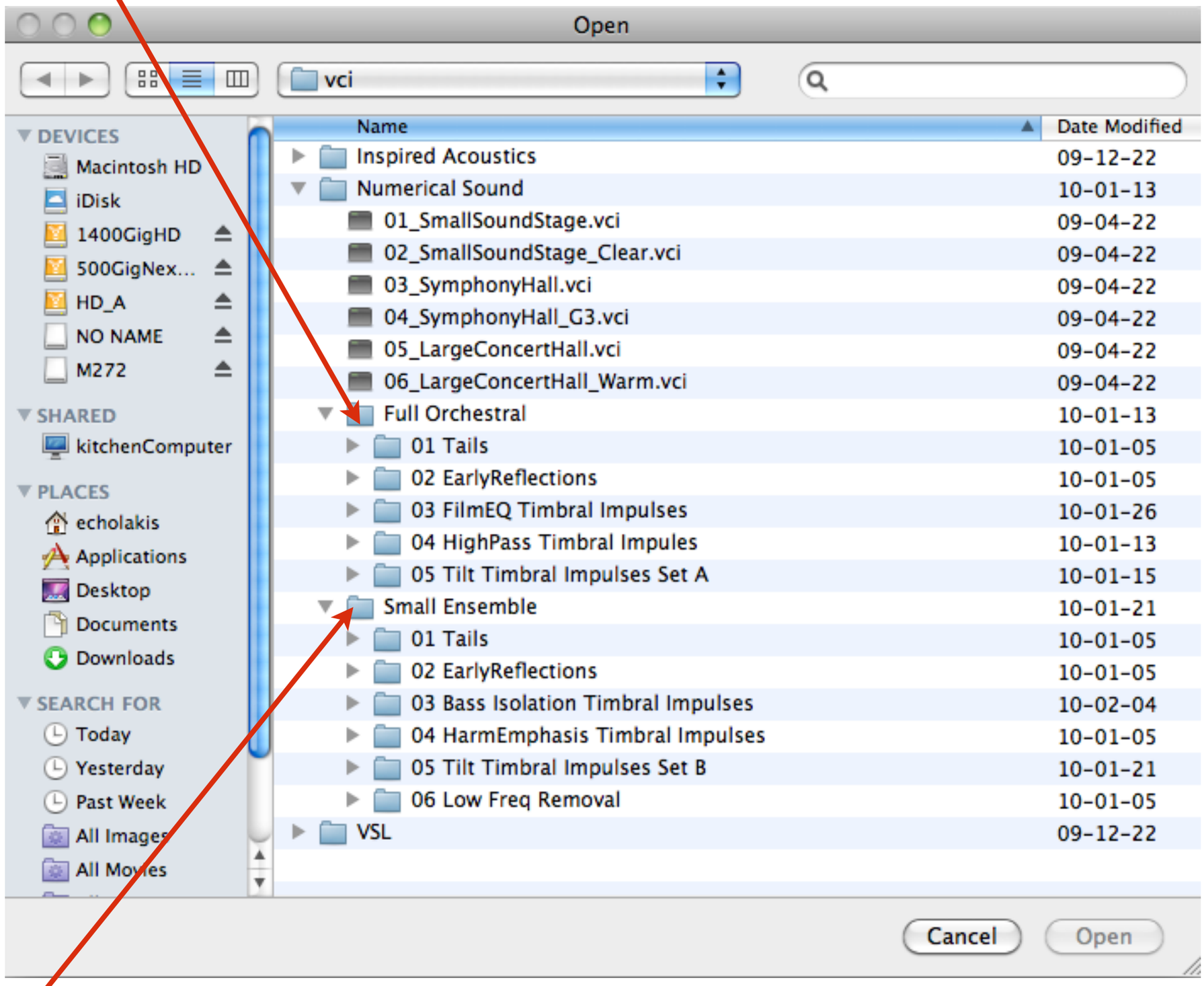
Loading Reverb & Timbral Impulses

Click & drag to see the available RI's & TI's.

For the **Mac** the location of the impulses is
/Library/Application Support/VSL/VSL Convolution Reverb/Numerical Sound/Full Orchestral or //////Small Ensemble.
The Library is the global one in the Root directory.

For the **PC** the location of the impulses is
Documents and Settings/All Users/Application Data/VSL/VSL Convolution Reverb/vci/Numerical Sound/Full Orchestra
or ///////Small Ensemble.

FORTI files are here.



SERTI files are here.

Configuration for Timbral Impulses

Select a Reverb or Timbral Impulse.

Adjust the Level.

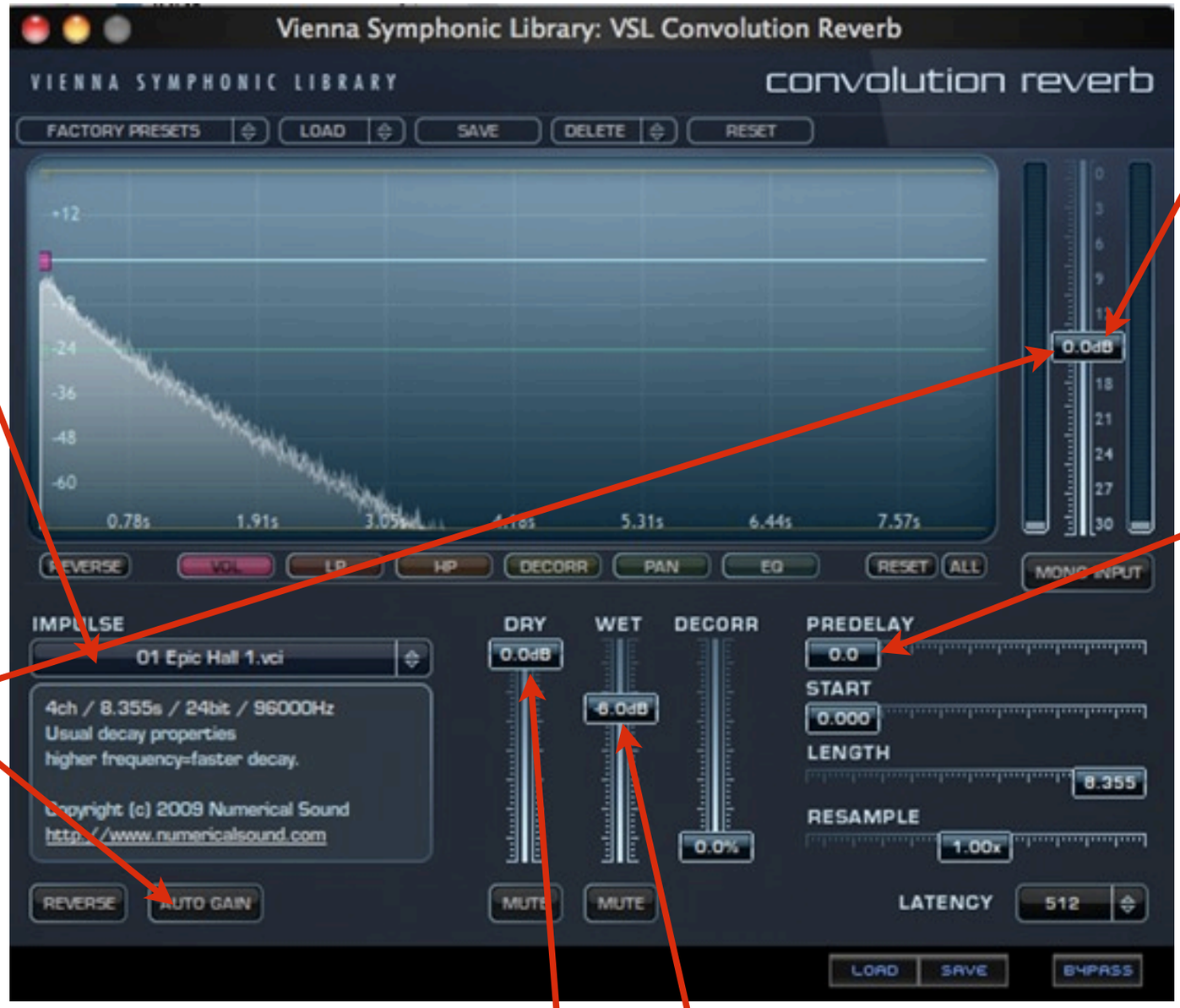
Can activate AUTO GAIN but still adjust the Volume Slider level.

Activate the Mute Button and/ or reduce the dry level to -inf.

DECORR show always be 0.0%

Configuration for Reverb Impulses

Select a Reverb Early Reflection Impulse.



Adjust the Level.

Can activate AUTO GAIN but still adjust the Volume Slider level.

Early Reflection Impulses have the Pre-Delay built in so this value should be 0. For the Reverb Tails the PreDelay should be the largest total length of the Early Reflections (2nd number in the file name).

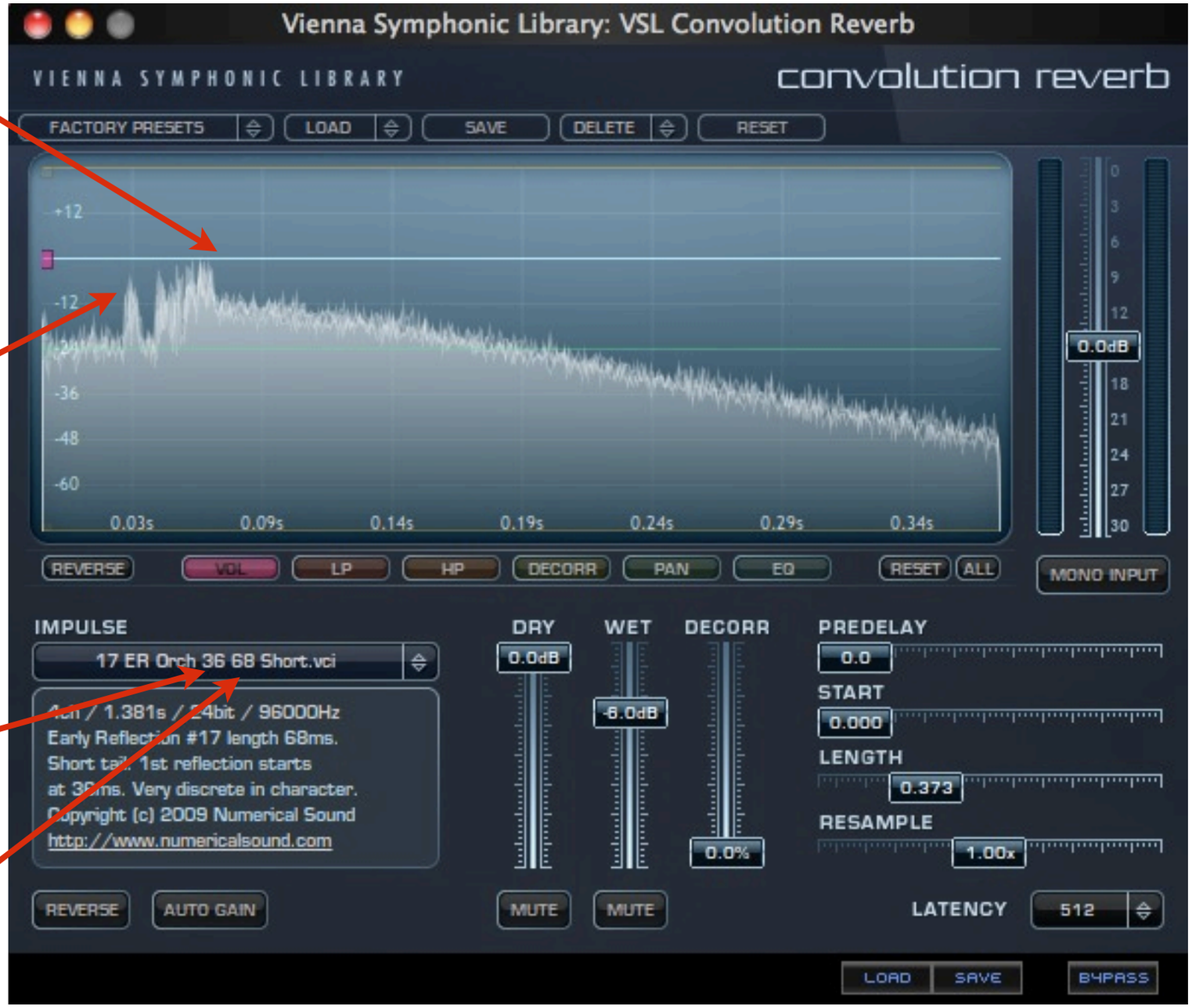
For Insert both the Dry and Wet levels can be active
For Aux routing set the dry to -INF.

Early Reflections (ER) Parameters

Total Lenght of Early Reflection 68 milliseconds.

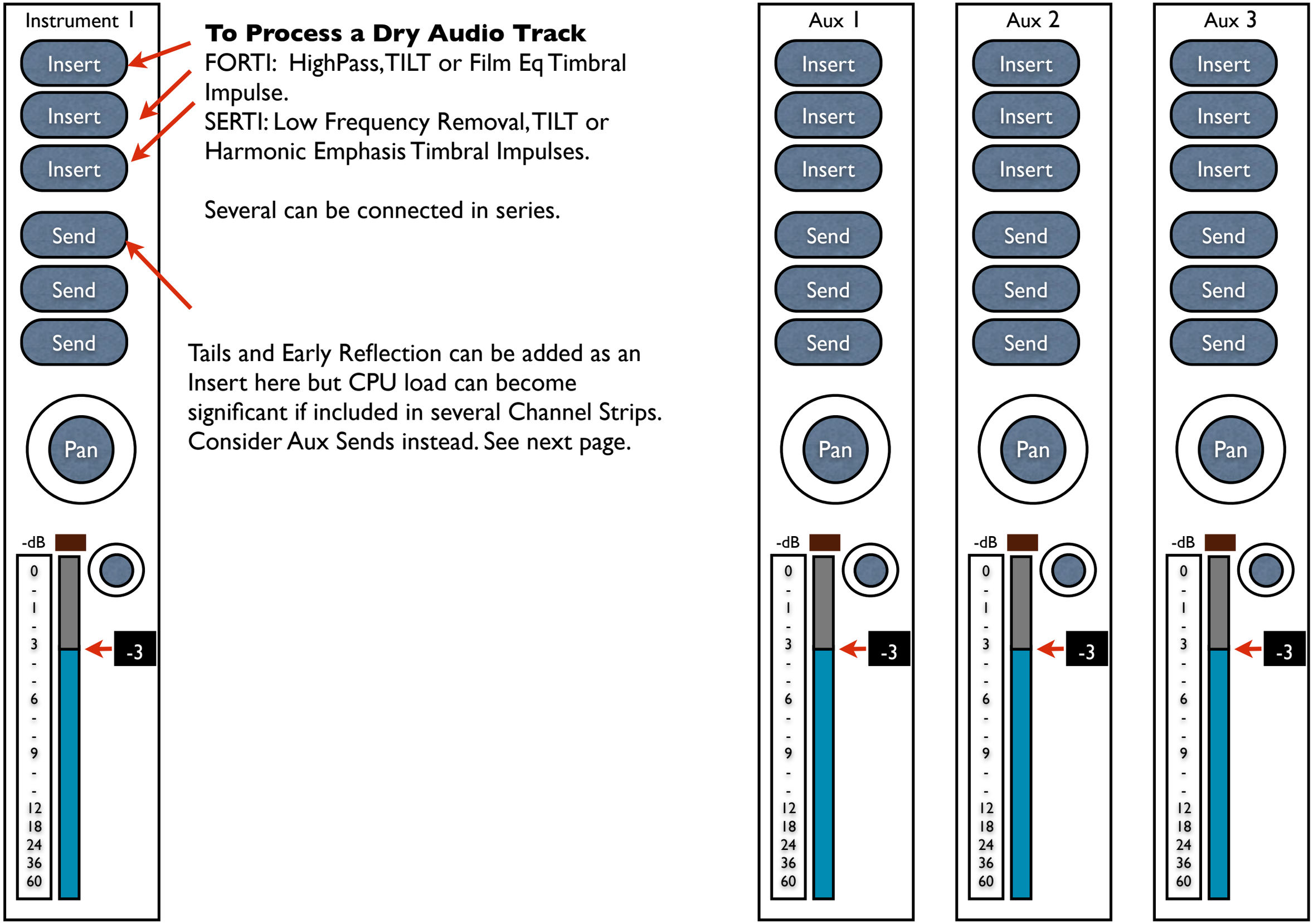
The 1st Early Reflection 36 milliseconds.

In Early Reflection file name the 1st number after "17 ER Orch" is 36 which is the length of the 1st Early Reflection and the 2nd number 68 is the total length of the entire Early Reflection.



In most cases there are 3 versions of the same Early Reflection: Short, Medium & Long. Select and use only one in a mix. Note that the character of the Early Reflections is the same for all three the only parameter that changes is the size of the accompanying tail.

Using Timbral Impulses in a Sequencer Mixer

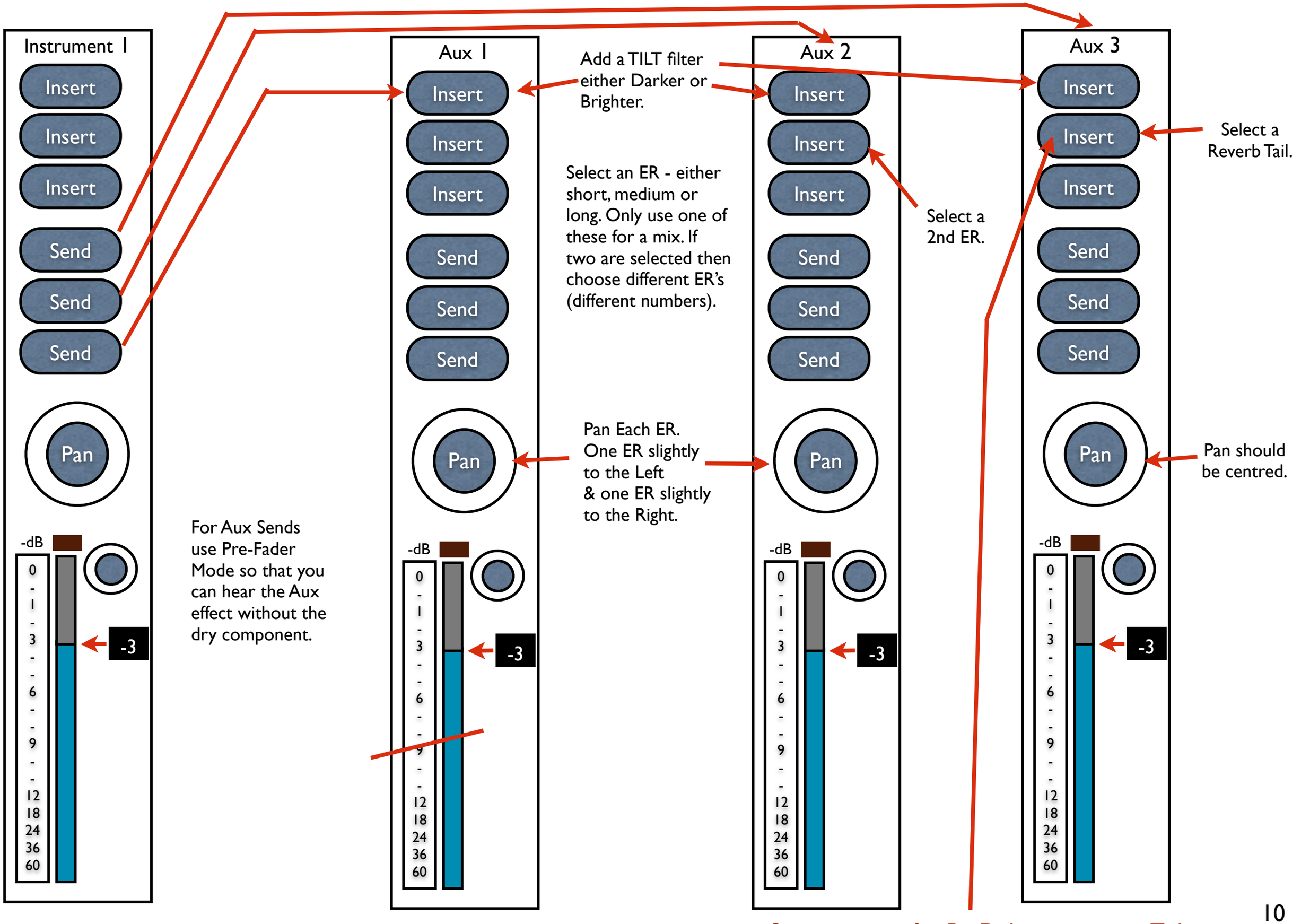


To Process a Dry Audio Track
FORTI: HighPass, TILT or Film Eq Timbral Impulse.
SERTI: Low Frequency Removal, TILT or Harmonic Emphasis Timbral Impulses.

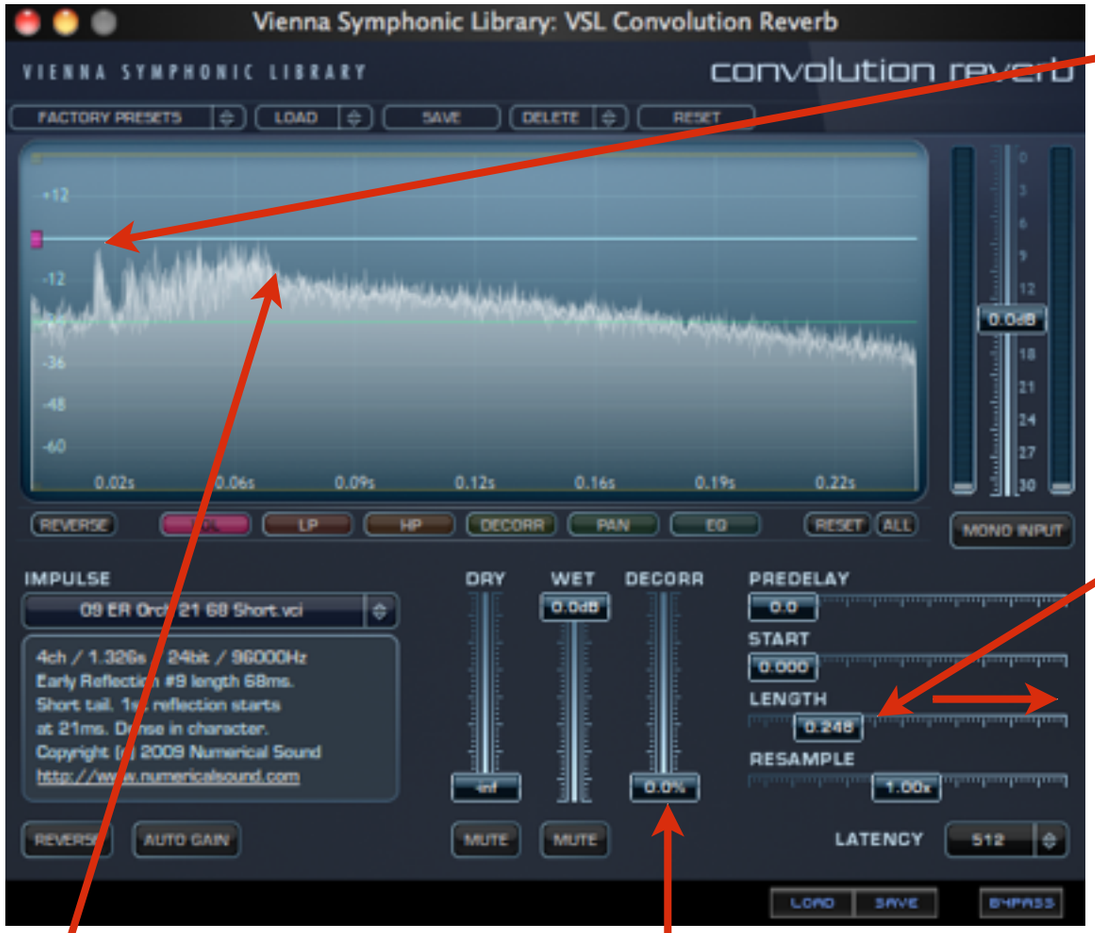
Several can be connected in series.

Tails and Early Reflection can be added as an Insert here but CPU load can become significant if included in several Channel Strips. Consider Aux Sends instead. See next page.

Mixer Routing & Parameters of Reverb Early Reflections and Tails



See next page for PreDelay amount on Tail.



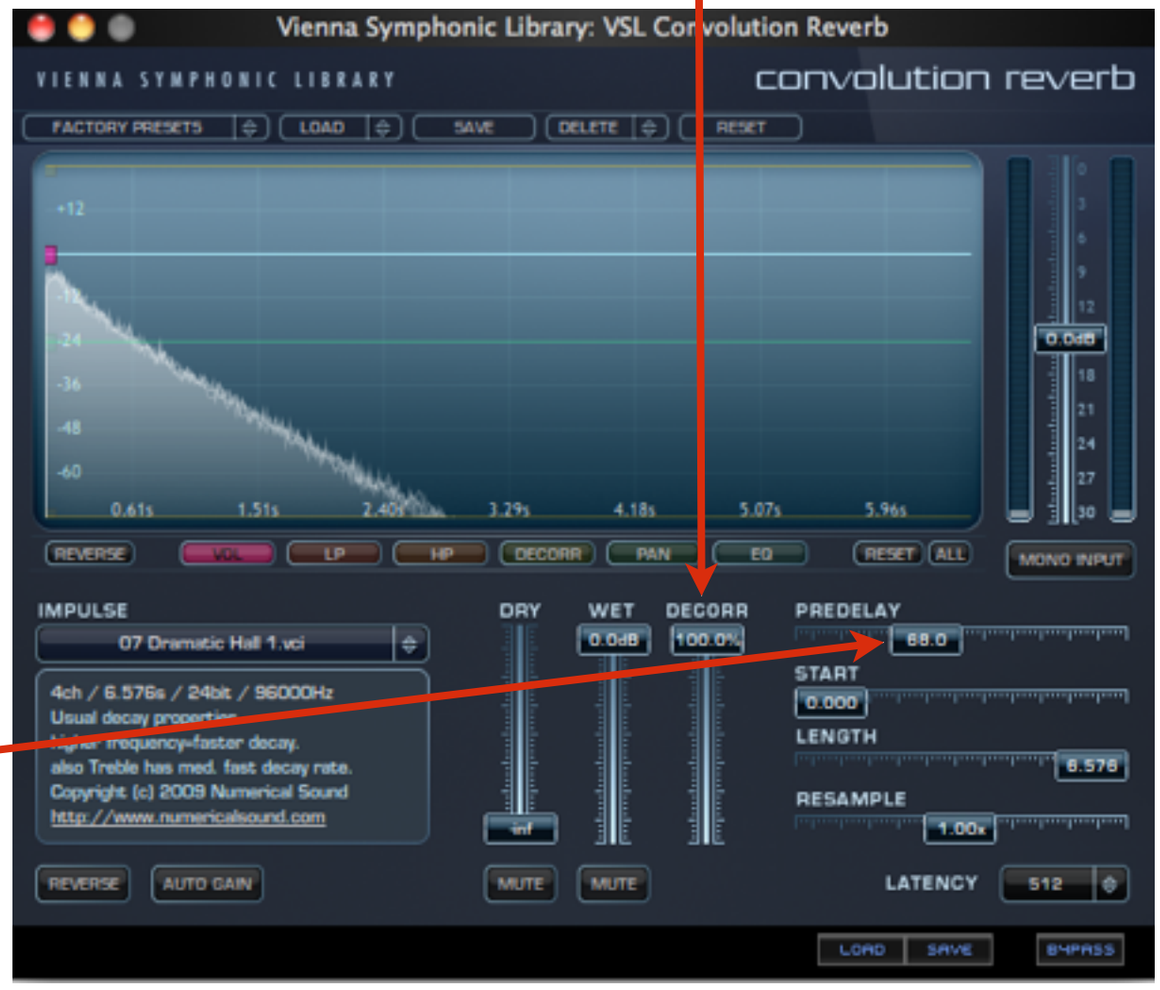
1st Early Reflection is 21 milli-seconds after the start of the attack in the dry audio track.

Note length should be set to the far right. The length was shortened so that the Early Reflections can be clearly seen.

Early Reflections total length 68 milli-seconds

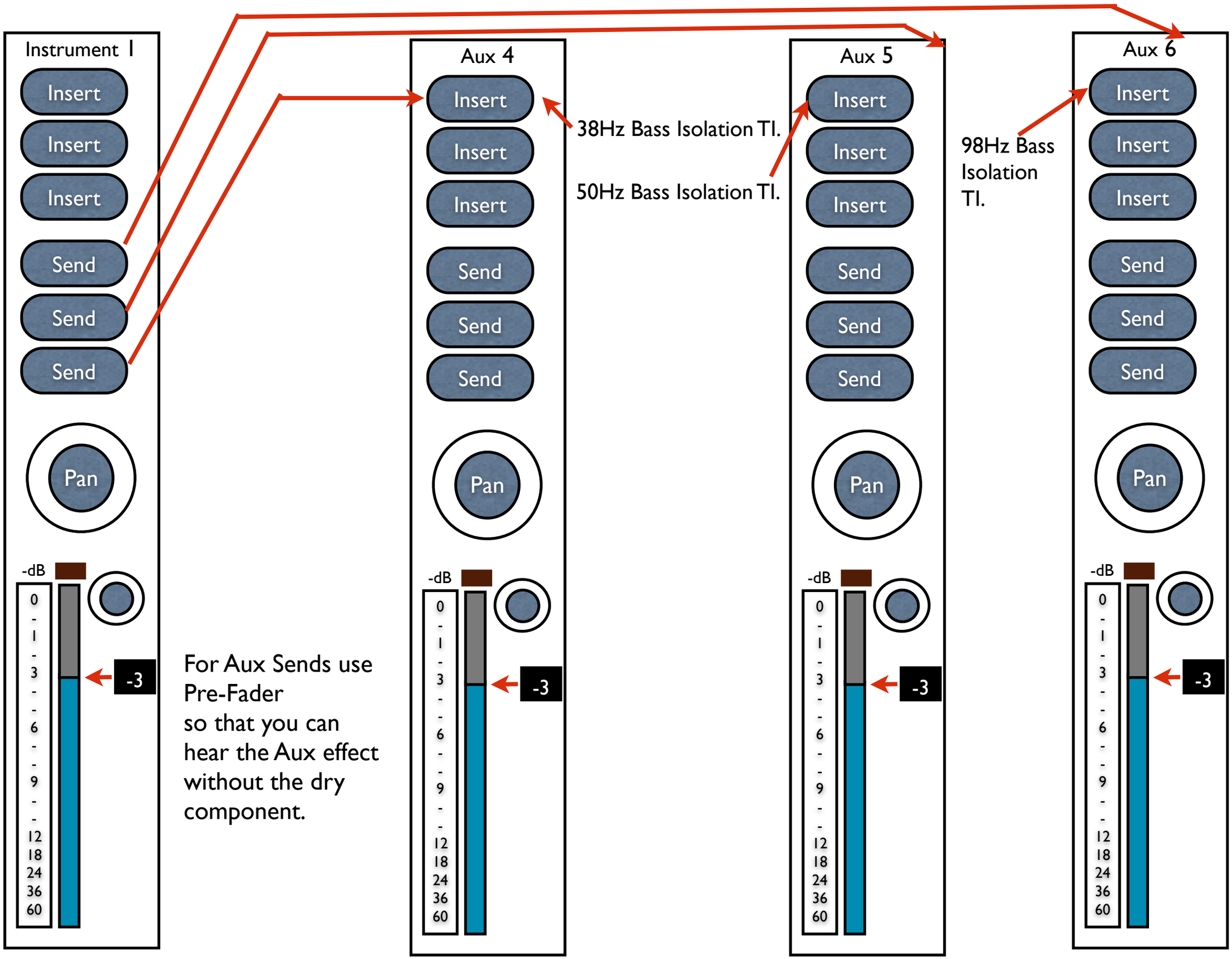
DECORR should be 0.0% for Early Reflections.

DECORR should be 100% for Reverb Tail.



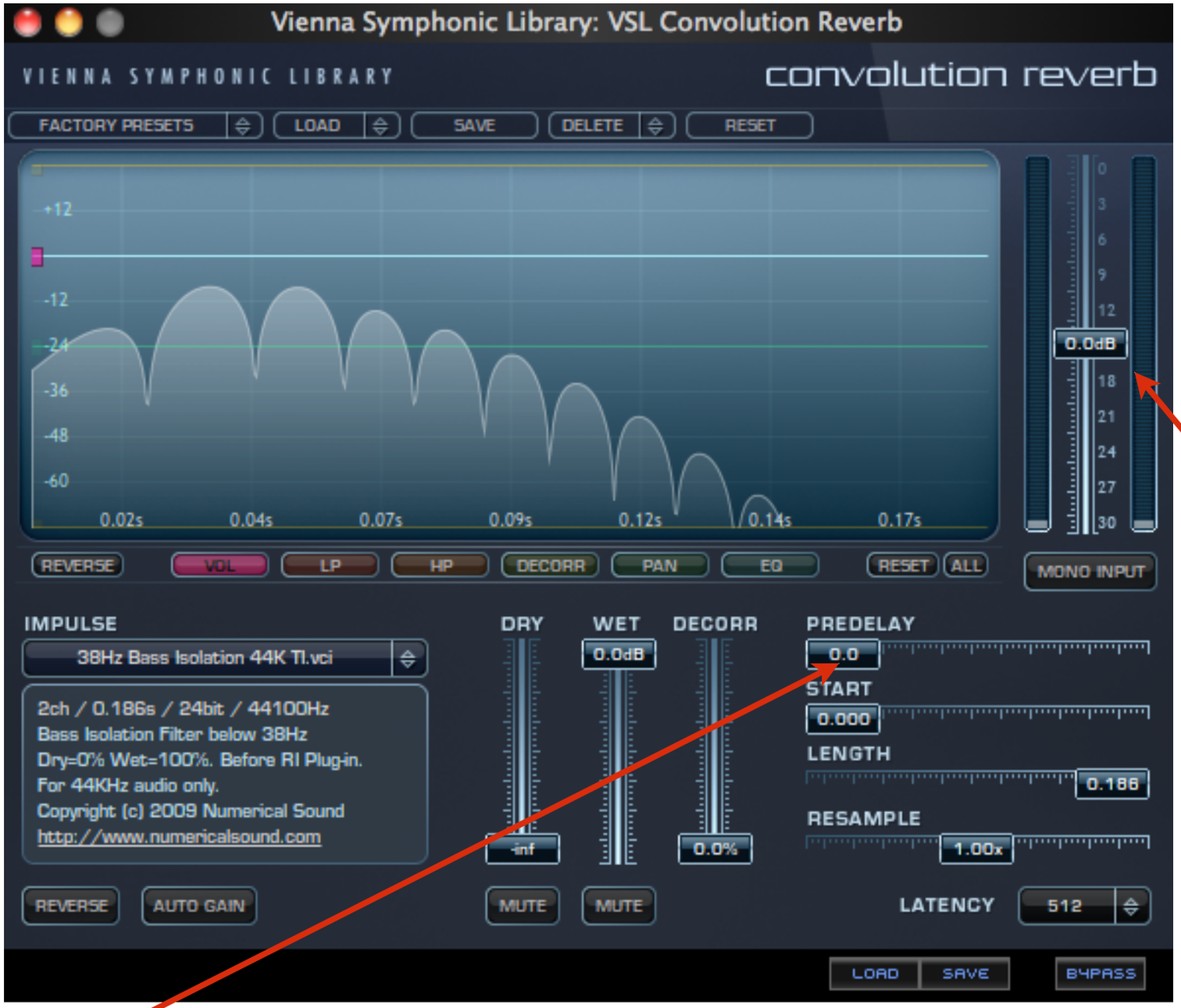
Adding a Pre-Delay to the Tail so that it starts after the Early Reflection are heard.

Mixer Routing of Bass Enhancement Timbral Impulses (SERTI only)



For Aux Sends use Pre-Fader so that you can hear the Aux effect without the dry component.

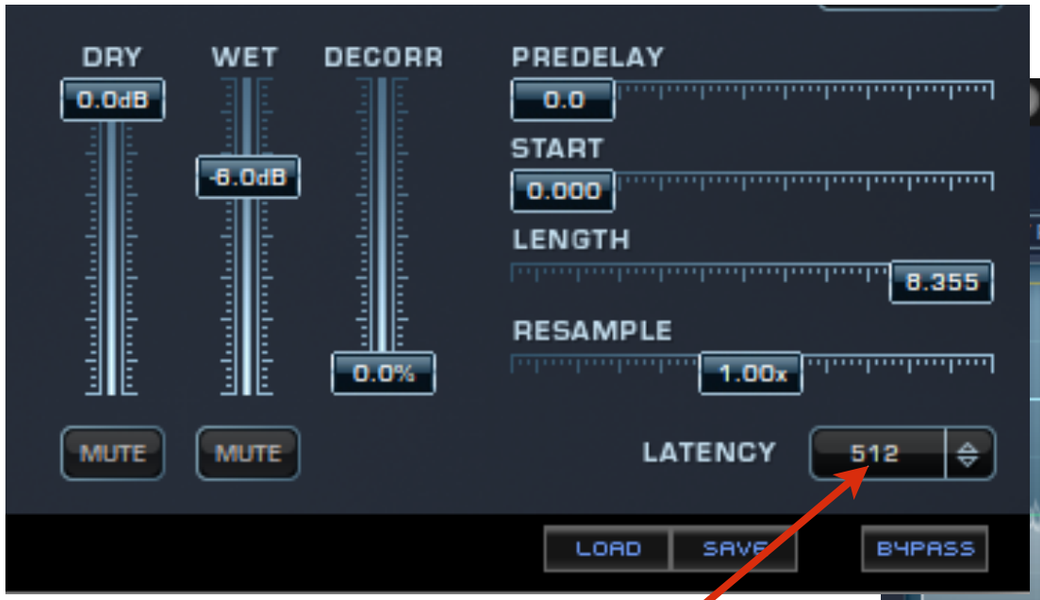
Settings for the Bass Enhancement TI's



Watch the Level - check loudest passages in the track and adjust this level accordingly.

For Aux 4 & 5 which have 38Hz and 50Hz Bass Isolation a PREDELAY of 5-50 milliseconds can enhance the bass resonance in a mix. PreDelays for 65Hz-195Hz Bass Isolation Timbral Impulses will be heard as a discrete delay.

Selecting Latency Values



Click then select the latency

To minimize the CPU usage of the convolution plugin select a low latency value like 256-512 when adding tracks to a sequence. When you are finished editing a track you can switch to latency of 16384. This will significantly reduct the CPU usage of each VSL Convolution Plugin. For example the difference in CPU usage on a MacBook Pro from 128 samples to 16384 is 5.5X less !