



Impulse Response Libraries

V3 MIX LIBRARIES
112-GTR THIELE EV-L

Information Manual

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INTRODUCTION TO V3 MIX LIBRARIES

The OwnHammer V3 Mix Libraries provide a flexible, simple, and unique set of tone sculpting options useful for both novice and expert users alike. The best power amp, DA/AD converter, cables, and microphone preamp for recording electric guitar are in the chain, and microphone selection and placement can cover all manner of source tones. The inherent techniques and overall sampling methodology allows for much diversity in this regard, and the choice of speaker and cabinet will most dictate what compliments and achieves the desired tone.

ABOUT THIS LIBRARY

THE CABINET

The 112-THIELE is based on a Boogafunk Thiele 1x12 cabinet.

THE SPEAKER

The EV-L is based on a 2010 16-ohm Electro Voice EVM-12L Classic.

THE POWER AMP

This library's captures were driven by the highest quality solid state reference level power amplifier. This configuration provides superior detail and intimacy for styles and tones other than extreme gain. As such they are ideal for use with accurate modeling platforms and tube amps sent to dummy load + line out devices. For platforms that need the little extra scoop of modestly configured guitar tube amp driven files, this is quickly and easily accomplished by implementing the following simple post processing adjustment:

SOUNDING LIKE A GUITAR TUBE AMP

With the files contained in this library there is a very quick, simple step that can be taken to simulate the sound of a guitar tube power amp with the Presence and Depth set to 0, similar what is offered in legacy OwnHammer speaker cabinet impulse response libraries.

To replicate this sound, following the cabinet IR loader add an EQ with a parametric bell curve set to -3 dB at 400 Hz. Adjust the Q/bandwidth to roughly where the edges of the curve start to make the initial cut around 100 Hz on the low side and 2 kHz on the high side. If necessary, adjust the Q/bandwidth to taste from here to best suit your sound source and tonal preference.

THE MICS

In this library, the speaker cabinet was sampled with the following four microphones:

57

Based on a Shure SM57 dynamic microphone.

This microphone was given multiple placement positions across the face of the speaker from brighter and closer to the center (00) to darker and further out on the cone (10). These numbers do not represent any unit of measure.

70

Based on a Microtech Gefell UMT70S large diaphragm condenser microphone.

This microphone was given multiple placement positions across the face of the speaker from brighter and closer to the center (00) to darker and further out on the cone (10). These numbers do not represent any unit of measure.

121

Based on a Royer R121 ribbon microphone.

414

Based on an AKG C414B-ULS condenser microphone.

AMBIENT

Based on a vintage Neumann KM84 small diaphragm condenser microphone placed straight out from the cabinet, and furthest away of all captures.

FLOOR

Based on an AEA R92 ribbon microphone placed along the floor plane straight out from the cabinet.

PORT

Based on a vintage Neumann KM84 small diaphragm condenser microphone placed on the port of the cabinet.

REAR

Based on a Shure SM57 dynamic microphone placed on the rear of the speaker.

ROOM LEFT

Based on a vintage Neumann KM84 small diaphragm condenser microphone placed on the left side of the room.

ROOM RIGHT

Based on a vintage Neumann KM84 small diaphragm condenser microphone placed on the right side of the room.

THE MIXES

The V3-Mix folder contains several variations of files which significantly alter the accomplished sound, increasing versatility and tonal variety. These factors and unique features are outlined below.

MIX

The singular "Mix" file is the configuration for which the V3 Mix methodology is based around, deviated from, and further compartmentalized. If you want to get a base panoramic view of the sonic landscape of this library, start here before venturing into other mix configurations or single microphone positions to mix on your own.

PRECISE & RAW

Time and phase alignment can be powerful tools, both for and against you.

- Precise –

Traditional thinking is that microphones should be perfectly time and phase aligned to achieve the best results. The PRECISE mix files do exactly that, mixing files that are one hundred percent time and phase coherent. This yields a sound that is crisp and detailed, with no phase smear.

- Raw –

In the real world, often times a multi-microphone configuration into a console is going to have time and phase alignment imperfections. Either the engineer just "eyeballed" the microphones - not compensating for variations in the placement of the transducer element inside the microphone housing and any further time of flight delay incurred by internal microphone components or downstream outboard - or the microphones were purposefully offset ever so slightly to achieve an effect. The RAW files include slight imperfections in the time and phase alignment of the inherent captures so as to induce these anomalies, which can result in a tamed high end, and add girth and character to the midrange. This can greatly increase touch and feel, as well as give the sound a crunch not possible by perfectly aligned captures.

MODERN & VINTAGE

Modern mix files are comprised of the 57, 121, Ambient, and Port microphone options.

Mix ##'s 00 through 10 are a reference to the 57 IR ##'s used in that combination, and not different microphone balance levels or any other variable change. For example:

...-Modern 00 = 57 00 + 121 + Ambient + Port

...-Modern 01 = 57 01 + 121 + Ambient + Port

...-Modern 02 = 57 02 + 121 + Ambient + Port

And so on, and so forth.

Vintage mix files are comprised of the 57, 70, 121, 414, and Port microphone options.

Mix ##'s 00 through 10 are a reference to the 57 and 70 IR ##'s used in that combination, and not different microphone balance levels or any other variable change. For example:

...-Vintage 00 = 57 00 + 70 00 + 121 + 414 + Port

...-Vintage 01 = 57 01 + 70 01 + 121 + 414 + Port

...-Vintage 02 = 57 02 + 70 02 + 121 + 414 + Port

And so on, and so forth.

WAVE AUDIO FORMAT FILES

The Wav folder contains files in .wav format for use in any convolution reverb loader, be it DAW hosts or external hardware devices. These files are formatted in 44.1 kHz, 48 kHz, 88.2 kHz, and 96 kHz sample rates in mono and stereo (dual mono) channel options for greater compatibility potential.

For information concerning loading of these files into the host of your choice beyond what is included in this user manual and additional text files in the directory structure, please refer to their website or documentation.

FILE DECAY TAIL AND MINIMUM PHASE TRANSFORMATION

This library contains various configurations of decay (reverb) tail truncation level and minimum phase transformation. These elements can change the sound as well as the compatibility with various platforms or ease of use when mixing IR files.

WAV-200MS

Files in the Wav-200ms folder have had the decay tail truncated to 200 milliseconds. This shorter truncation level may assist in loading platforms that are bound by sample length ceilings. If you use the full 500 millisecond files and your IR loader throws an error stating that you are attempting to use files that exceed the sample length (note, not sample rate) limitations, use these files. In addition to this scenario, and the 200 millisecond files could potentially help with CPU usage on less powerful systems or where track and instance counts are high.

WAV-500MS

Files in the Wav-500ms folder exhibit the full, uninhibited decay tail. These files will contain all of the reflective information of sound moving around inside the cabinet, and inside the room. In some instances, minimum phase transformed files in this folder may be slightly more quiet in volume level than those in the 200ms directory, however this is just a side effect of the math involved, and is not a quality factor, just output level. This phenomenon is dependent upon the data inside each unique IR, and is not consistent.

MPT MICS AND MIXES

At the very end of the Wav directory is an option for “Mpt” or “Raw” files.

Mpt = Minimum Phase Transformed Files

Files in a directory labeled with Mpt will have been minimum phase transformed. What does this mean? The need-to-know is that these files have been compiled in such a way that they are universally time and phase aligned with any other file, OwnHammer or otherwise, that have been minimum phase transformed. It is a mathematical process of discarding phase information, and recompiling the file in such a way that it is time aligned to a specific, minimum value. In some cases, the loss of phase information can be noticeable, to the asset or detriment of the sonic result. There is no better or worse, per say, just different. Try for yourself and see!

Raw = Non-Minimum Phase Transformed Files

Files in a directory labeled with Raw will have not undergone minimum phase transformation. These files are untouched in their time and phase response. This leaves all phase information intact, but also leaves the files in a state where they may or may not be perfectly time and phase aligned with other files. Not better or worse, but

again different, the result of mixing “raw” files will yield a different sound than mixing those that have been mpt’d, even if the files are perfectly time aligned. Due to the nature of these files, the “Precise” mixes and singular “Mix” file cannot be included in the V3-Mixes-Raw subdirectory. Files in this section may not be time and phase aligned with those in other libraries. Using a time and phase tool and performing polarity inverse null tests will be the best way to determine this.

ADDITIONAL PLATFORMS

For additional convenience files with the appropriate sample rate, channel count, and time alignment standard are included for popular external hardware systems. These files are no different from those in the Wav directory structure, save for changing the naming convention to better accommodate front panel displays with limited character lengths. In these cases and in these subdirectories, additional text files are included for extended information.