OWNHAMMER

Impulse Response Libraries

AMPG BASS

Information Manual

TABLE OF CONTENTS

ABOUT THIS LIBRARY

THE CABINETS

The 210 AMPG is based on an Ampeg SVT-210AV 2x10 cabinet.

The 410 AMPG is based on an Ampeg SVT-410HLF 4x10 cabinet.

THE SINGLE SPEAKERS AND MULTI-SPEAKER COMBINATIONS

AVT-10

The AVT-10 is based on a 2014 Eminence 0810041 for Ampeg, the stock speaker in the SVT-210AV.

BL-10X

The BL-10X is based on a 2010 Celestion BL10-200X.

BN-10S

The BN-10S is based on a 2009 Celestion BN10-200S.

J10-CQ

The J10-CQ is based on a 1968 Jensen C10Q.

J10-PR

The J10-PR is based on a 1968 Jensen P10R.

OH-UK

The OH-UK is based on a multi-speaker collage consisting of the BL-10X and BN-10S.

OH-US

The OH-US is based on a multi-speaker collage consisting of the J10-CQ and J10-PR.

OH-XVT

The OH-XVT is based on a multi-speaker collage consisting of the AVT-10 and SVT-10.

SVT-10

The SVT-10 is based on a 2000 Eminence 10401A for Ampeg, the stock speaker in the SVT-410HLF.

THE POWER AMPS

This library's captures were driven by the highest quality solid state reference level power amplifier for the FAT voicing captures, and mostly neutral tube power amplifier for the CUT voicing captures. These amps provide superior detail, intimacy, and nuance for live and recording situations with signal chains that provide both tube preamp and tube power amp signal alteration. As such these files 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 tube amp driven files, this is quickly and easily accomplished by implementing the following simple post processing adjustment:

SOUNDING LIKE A 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 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.

VOICING AND EQ

Multiple voicing and equalization options are provided to better suit different tonal aesthetics, applications, equipment pairings, and signal chains.

CUT

The CUT voicing uses the neutral tube amp, and employs mic choice, mic placement, and equalization curves that may be best suited to humbucker equipped basses, pick use, and heavier music styles. Your experience may vary.

FAT

The FAT voicing uses the reference solid state amp, and employs mic choice, mic placement, and equalization curves that may be best suited to single coil equipped basses, finger use, and lighter to middle of the road music styles. Your experience may vary.

EQ

IR's noted with EQ in the file name have passed through a vintage API 550b set in a way to remove much of the frequency response that clutters and 'muddies' a mix. Files with the EQ badge will allow other instruments to breathe more in a full mix, and the mix to have the appropriate weight for the bass instrument in the right places. The boosts and cuts differ in frequency and amount between the CUT and FAT voicings.

IR's without EQ in the file name are without any additional equalization, and would be considered the "natural" capture should you wish to employ your own post processing, if any.

THE MICS - CUT VOICING

In this library, the speaker cabinets were sampled with the following microphones for captures noting CUT:

CND

Based on a Mojave Audio MA-200 tube condenser microphone.

DYN

Based on a vintage Telefunken MD421 dynamic microphone.

RBN

Based on a Beyerdynamic M160 ribbon microphone.

THE MICS - FAT VOICING

In this library, the speaker cabinets were sampled with the following microphones for captures noting FAT:

CND

Based on a Microtech Gefell UMT70S condenser microphone.

DYN

Based on a vintage Beyerdynamic M88 dynamic microphone.

RBN

Based on a Royer R121 ribbon microphone.

THE MICS - AUXILIARY

PORT

Based on a vintage Neumann KM84 condenser microphone (available for 410 captures only) placed on the bass port of the SVT-410HLF cabinet.

ROOM

Based on a vintage Neumann KM84 condenser microphone placed ambiently in the room.

SUB

Based on a Yamaha SubKick dynamic microphone.

ADDITIONAL CAPTURES

410 AMPG TWEETER

Based on a vintage Neumann KM84 condenser microphone on the tweeter/horn of the SVT-410HLF.

NULL

This is a colorless bypass/shunt file. By itself (and 100% wet), it will sound the same as if there were no IR in the signal chain as it is comprised of an offset stimulus as the response file for the deconvolution process. As the time of flight offset is identical to that of the other "normal" IR's, the NULL file serves the following possible purposes:

I) As a "dry signal" blend in for IR mixing applications/plugins. Creating an IR mix where the dry signal is combined with the wet signal in a single file allows for less routing and CPU utilization for processors or sessions, simplifying the signal path to a single linear chain. Blending this file will primarily see an increase in the high and subsonic low frequency response and intelligibility.

II) As a substitute for needing to discover the time of flight offset for time and phase alignment in a parallel dry/DI signal chain. As opposed to being required to use a time/phase alignment plugin and discover the values at which the signal will be in time and phase with the parallel wet chain, one can just load the NULL IR in the clean path. If there is a large amount of potentially time offset inducing processing in the wet chain, additional adjustment of time and phase on the dry path may be necessary, but use of the NULL IR will get the signal most of the way to the target offset.

THE MIX FILES

The MIX files combine the CND, DYN, and RBN captures to form a full spectrum blend for general purpose use.

TIME AND PHASE RELATIONSHIPS – MPT AND RAW FILES

All OwnHammer Multi-Speaker Collection libraries have files that are universally time aligned to two standards – Minimum Phase Transformed and Raw.

Minimum phase transform processing takes a raw impulse response file with its natural time of flight and full phase information, through a mathematical process destroys and discards all phase information, then recompiles the file to an absolute minimum, and universal time of flight delay. This alters the sonics of the file to a small degree, but provisions the ability to mix them with any other minimum phase transformed file of any source without having to adjust time and phase alignment.

Raw files are the natural state of the capture, and in the case of the Multi-Speaker Collection IR's are universally time aligned to a time of flight of 160 samples at 96 kHz, or 1.67 ms. When mixing these files in relevant programs and plugins, they can be done so without needing to adjust time or phase with other IR's from OwnHammer Multi-Speaker Collection libraries, and likely provide the 'best' sound quality over minimum phase transformed files.

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 the 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 involved math, and is not a quality factor, just output level. This phenomenon is dependent upon the data inside each unique IR, and is not consistent.

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. In these cases and in these subdirectories, additional text files are included for extended information.