OwnHammer

Impulse Response Libraries

Multi-Speaker Collections

212-GTR MAR-66

Information Manual

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INTRODUCTION TO MULTI-SPEAKER COLLECTION LIBRARIES

The OwnHammer Multi-Speaker Collection libraries provide an unprecedented compilation of guitar loudspeakers from the 20th and 21st centuries. In the world of commercial music, many high profile mixing engineers request three things from a recorded cab in the tracking sessions – an optimally placed ribbon, condenser, and dynamic microphone. These libraries provide not only that, but also a distance mic in the room and one on the back side of the speaker/cabinet, give you the ultimate 3D image of the source for every one of the dozens upon dozens of speakers provided.

One can only do so much in extracting sounds with mic choice and placement alone – a speaker is going to sound like itself not matter what. Providing countless amounts of these natural, complex, and beautiful filters using ideal mic placements for each provides infinitely more tonal possibilities than mics and mic positions alone. Welcome to the OwnHammer Multi-Speaker Collection libraries, the ultimate tools in discovering and creating the YOUR tone!

ABOUT THIS LIBRARY

THE CABINET

The 212-GTR MAR-66 is based on a Marshall 1966B 2x12 cabinet.

THE SINGLE SPEAKERS AND MULTI-SPEAKER COMBINATIONS

417-H

The 417-H is based on a 1977 8-ohm Altec 417-8H.

ALN-BLU

The ALN-BLU is based on a 2009 15-ohm Celestion T4436B G12 Alnico Blue.

ALN-SLV

The ALN-SLV is based on a 1969 8-ohm Celestion T1656 "pre-Rola" Alnico Silver.

ALP-12

The ALP-12 is based on a 1994 8-ohm Eminence 12ALP. This speaker is similar in sound to Jensen P12 types.

BS-90

The BS-90 is based on a 2014 8-ohm Celestion T3989 Celestion "Black Shadow", made in England for Mesa Boogie. This speaker is essentially a re-labeled Celestion G12-80 Classic Lead.

CL-80-OR

The CL-80-OR is based on a 1979 15-ohm Celestion T3103 G12-80.

CL-80-RI

The CL-80-RI is based on a 2010 16-ohm Celestion T3878A Classic Lead.

D-120

The D-120 is based on a 1970's 8-ohm JBL D120F.

EDVH

The EDVH is based on a 2013 15-ohm Celestion T5670B G12-EVH, made in England.

ER-24

The ER-24 is based on a 1971 Cerwin Vega ER-124.

EV-L

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

EV-S

The EV-S is based on a 1980's 8-ohm Electro Voice EVM-12S.

EV-SRO

The EV-SRO is based on a vintage 8-ohm Electro Voice SRO-12.

FN-42

The FN-42 is based on a 1977 15-ohm Fane 122142 "Hiwatt purple back".

G65-OR

The G65-OR is based on a 1982 8-ohm Celestion T3053 G12-65.

G65-RI

The G65-RI is based on a 2010 15-ohm Celestion T3054B G12-65, made in England.

GC-12

The GC-12 is based on a 2006 16-ohm Celestion T5475A G12C.

GOV

The GOV is based on a 2014 8-ohm Eminence Governor.

H-BB-55

The H-BB-55 is based on a 1977 15-ohm Celestion T1281 55-Hz cone "black back" G12H.

H-BB-75

The H-BB-75 is based on a 1978 15-ohm Celestion T1217 75-Hz cone "black back" G12H.

H-CB-75

The H-CB-75 is based on a 2013 8-ohm Celestion T5890B 75-Hz cone "Creamback" G12H-75, made in England.

H-PR-55

The H-PR-55 is based on a 1969 15-ohm Celestion T1281 55-Hz cone "pre-Rola" G12H.

H-RI-55

The H-RI-55 is based on a 2010 15-ohm Celestion T1281B 55-Hz cone "Heritage" G12H, made in England.

H-RI-75

The H-RI-75 is based on a 2014 8-ohm Celestion T1364B 75-Hz cone "Heritage" G12H, made in England.

H-SB-75

The H-SB-75 is based on a 2010 16-ohm 75-Hz cone Scumback H75.

J-SB-75

The J-SB-75 is based on a 2010 8-ohm 75-Hz cone Scumback J75.

J12-BB

The J12-BB is based on a 2008 16-ohm Jensen Jet Alnico Blackbird.

J12-CN-OR

The J12-CN-OR is based on a 1964 8-ohm Jensen C12N.

J12-CN-RI

The J12-CN-RI is based on a 2003 8-ohm Jensen C12N.

J12-CR-OR

The J12-CR-OR is based on a 1966 8-ohm Jensen C12R.

J12-PN-RI

The J12-PN-RI is based on a 2009 16-ohm Jensen P12N.

J12-PQ-OR

The J12-PQ-OR is based on a 1959 8-ohm Jensen P12Q.

J12-PR-OR

The J12-PR-OR is based on a 1961 8-ohm Jensen P12R.

J12-PR-RI

The J12-PR-RI is based on a 2003 8-ohm Jensen P12R.

K-100

The K-100 is based on a 2009 8-ohm Celestion T3585A G12K-100.

L-BB

The L-BB is based on a 1978 8-ohm Celestion T1632 "black back" G12L-35.

LYN-BK

The LYN-BK is based on a 2013 8-ohm Celestion T5797A G12-50GL “Lynchback”.

M-BB-55

The M-BB-55 is based on a 1977 16-ohm Celestion T2633 55-Hz cone "black back" G12M.

M-BB-75

The M-BB-75 is based on a 1975 15-ohm Celestion T1221 75-Hz cone "black back" G12M.

M-CB-75

The M-CB-75 is based on a 2013 8-ohm Celestion T5864B 75-Hz cone "Creamback" G12M-65, made in England.

M-HW20-75

The M-HW20-75 is based on a 2013 15-ohm Celestion T1221B 75-Hz cone "aged" 20-watt G12M for the Marshall "handwired" series.

M-PR-55

The M-PR-55 is based on a 1971 15-ohm Celestion T1511 55-Hz cone "pre-Rola" G12M.

M-PR20-75

The M-PR20-75 is based on a 1966 15-ohm Celestion T1221 75-Hz cone "pre-Rola" 20-watt G12M.

M-PR25-75

The M-PR25-75 is based on a 1971 16-ohm Celestion T1221 75-Hz cone "pre-Rola" 25-watt G12M.

M-RI20-75

The M-RI20-75 is based on a 2010 15-ohm Celestion T1221B 75-Hz cone "Heritage" 20-watt G12M, made in England.

M-RI25-75

The M-RI25-75 is based on a 2014 16-ohm Celestion T1221 75-Hz cone 25-watt G12M, made in England.

M-SB-75

The M-SB-75 is based on a 2010 16-ohm 75-Hz cone Scumback M75.

OH-ALN-UK

OH-ALN-UK is a multi-speaker collage consisting of the ALN-BLU and ALN-SLV.

OH-ALN-US

OH-ALN-US is a multi-speaker collage conisisting of the ALP-12, J12-CN-RI, J12-PN-RI, and J12-PR-OR.

OH-CHUNK

OH-CHUNK is a multi-speaker collage consisting of the GOV and V30-EN-08, with a second dynamic mic (906) in place of the condenser.

OH-DJENT

OH-DJENT is a multi-speaker collage employing a unique mic configuration used by the music group that coined the phrase for this genre.

OH-G12H

OH-G12H is a multi-speaker collage consisting of the H-BB-55, H-BB-75, H-PR-55, and H-SB-75.

OH-G12M

OH-G12M is a multi-speaker collage consisting of the M-BB-55, M-PR20-75, M-PR25-75, and M-PR-55.

OH-GREEN

OH-GREEN is a multi-speaker collage consisting of the H-BB-55, H-PR-55, M-BB-55, M-PR20-75 and M-PR25-75.

OH-METAL

OH-METAL is a multi-speaker collage consisting of the T75-RI-16 and V30-EN-16.

OH-PROG

OH-PROG is a multi-speaker collage consisting of the V30-EN-08 and V30-MB-08, with a second dynamic mic (906) in place of the condenser.

OH-MDRN

OH-MDRN is a multi-speaker collage consisting of the LYN-BK, V30-EN-08, and V30-EN-16.

SUN-TRN

The SUN-TRN is based on a 1970's 16-ohm Sunn Transducer.

T75-OR

The T75-OR is based on a 1985 16-ohm Celestion T3760 G12T-75.

T75-RI-08

The T75-RI-08 is based on a 2013 8-ohm Celestion T3781A G12T-75.

T75-RI-16

The T75-RI-16 is based on a 2010 16-ohm Celestion T3760A G12T-75.

T75-SS

The T75-SS is based on a 1991 16-ohm Celestion T3760 "skunk stripe" label G12T-75.

TEX

The TEX is based on a 2005 16-ohm Eminence Texas Heat.

V-TP

The V-TP is based on a 2013 8-ohm Celestion T5901A G12V-70 "V-Type".

V30-CH-08

The V30-CH-08 is based on a 2008 8-ohm Celestion T3903A Vintage 30, made in China.

V30-CH-16

The V30-CH-16 is based on a 2005 16-ohm Celestion T3904 Vintage 30, made in China.

V30-EN-08

The V30-EN-08 is based on a 2001 8-ohm Celestion T4335 Vintage 30, made in England.

V30-EN-16

The V30-EN-16 is based on a 1999 16-ohm Celestion T3904 Vintage 30, made in England.

V30-EWH

The V30-EWH uses the same speaker as the V30-EN-08, with a second dynamic mic (441) in place of the condenser. This mic configuration is based off of one recommended by engineer and mixer Eric Hill at The Blue Room Recording Studio.

V30-MB-08

The V30-MB-08 is based on a 2012 8-ohm Celestion T4335B Vintage 30, made in England for Mesa Boogie.

V30-MB-16

The V30-MB-16 is based on a 2014 16-ohm Celestion T4416B Vintage 30, made in England for Mesa Boogie.

V30-MV-08

The V30-MV-08 is based on a 1988 8-ohm Celestion T3896 G12V "Marshall Vintage", made in England.

V30-MV-16

The V30-MV-16 is based on a 2001 16-ohm Celestion T3897 G12V "Marshall Vintage", made in England.

V30-ORNG

The V30-ORNG is based on a 2010 16-ohm Celestion T3904B Vintage 30, made in England for Orange Amps.

THE POWER AMP

This library's captures were driven by the highest quality solid state reference level power amplifier. This configuration provides 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 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 microphones:

CND

Based on a Microtech Gefell UMT70S condenser microphone with the exception of OH-DJENT, where CND consists of a vintage Neumann KM84.

DYN/DYN 1

Based on a modern production Shure SM57 dynamic microphone.

DYN 2

For OH-CHUNK and OH-PROG this is based on a Sennheiser e906 dynamic microphone.

For OH-DJENT this is based on a Heil PR30 dynamic microphone.

For V30-EWH this is based on a vintage Sennheiser MD441 dynamic microphone.

RBN

Based on a Royer R121 ribbon microphone.

REAR

Based on a vintage Neumann KM84 condenser microphone.

ROOM

Based on a vintage Neumann KM84 condenser microphone.

THE MIXES

The MIX file variations combine various single mics to form unique blends and purpose specific sounds. The mixes named after gain structures are merely suggestions, and one should experiment with all the available options to

see what fits a given sound source or mix the best. An LG mix could be perfect for high gain, or an HG mix for a clean passage depending on the tonal requirement; try them all to see what works best!

HG

The High Gain mix is the most forward, focused, and direct sounding of the three OwnHammer pre-made mixes. For most speaker types this combines DYN + RBN or DYN 1 + DYN 2 depending on the available options, with some exceptions.

This mix pairs excellently with high output humbuckers and high gain amps.

MG

The Mid Gain mix is slightly more open, softer, and midrange dominant than the HG mix, but more direct sounding than the LG mix. For most speaker types this combines DYN + RBN + CND + ROOM or DYN 1 + DYN 2 + RBN + ROOM depending on the available options, with some exceptions.

This Mix pairs excellently with medium output humbuckers/P90's and mid gain amps.

LG

The Low Gain mix is the softest, darkest, and most intimate of the three OwnHammer pre-made mixes. For most speaker types this combines DYN + RBN + REAR + ROOM or DYN 1 + DYN 2 + REAR + ROOM depending on the available options, with some exceptions.

This Mix pairs excellently with low output P90's/single coils and low gain amps.

SP1

The Scott Peterson mix - version 1 - was originally conceived for the OwnHammer Studio Mix Libraries and very well received among users of many platforms. The same mic type and level recipe makes its return here.

SP2

The Scott Peterson mix - version 2 - has been voiced from and formulated specifically for the OwnHammer Multi-Speaker Collection libraries. This mix excels in providing general purpose mix fantastic for both studio and live use.

For more information on Scott, please visit his website at spetersonmusic.com

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.