

# VIRTUOSITY DRUMS

PRODUCT MANUAL

K V R D C ' 2 1



#### INTRODUCTION

azz drumming is as diverse and intricate as any other aspect of the Jazz tradition, yet we have found it to be rather under-represented in the world of free sample libraries. Working with drummer Austin McMahon, we recorded all essential stick articulations on the "house kit", which is featured in weekly live-streams and sessions at Virtuosity Musical Instruments in Boston, MA.

Austin performs regularly with Jerry Bergonzi's Quartet and has recently performed and/or recorded with Sean Jones, George Garzone, Joe Lovano, Lionel Loueke, Ben Monder, Lage Lund, Kate McGarry, Noah Preminger, Jason Palmer and Grace Kelly. Austin currently teaches in the Jazz Department at New England Conservatory Preparatory and Continuing Education Division, Boston, MA.

Learn more about the performer: <u>http://www.austinmcmahon.com/</u>

Located just steps from Symphony Hall, Virtuosity was founded in Fall of 2015 after a need was recognized for a communal meeting place for musicians to exchange ideas, network, and learn about instruments new and old.



For more info on the venue: <u>https://www.virtuosityboston.com/</u>

### DEVELOPMENT

ecording took place at Virtuosity Musical Instruments, located in the Symphony area of Boston, MA. Virtuosity is a hotspot for the local Jazz community and home to a weekly session and other performance settings.

The snare, toms, and kick were recorded with a special 'wave' technique, where rather than attempting to record discrete dynamic levels, the drummer freely played louder and softer notes. The result is up to 36 dynamic levels with no round robins, which makes these instruments very suitable to live playing on keyboard or virtual drums as they will benefit enormously from the natural variation in velocity. The cymbals on the other hand use a smaller number of discrete velocity layers at 4 round robins, to help in situations of high repetitions.

For overheads, we used Blue Hummingbirds, which are deliciously articulate on toms and cymbals as well as being extremely low noise.

A Samar VL-373A stereo ribbon mic serves as Mid, providing a rich, full sound with gently rolled-off highs.

A pair of sE RN17's serve as room/main mics in NOS configuration, providing a natural audience sound with clear articulation.

The snare is handled by a Shure 545SD, grandfather of the SM57, with another Hummingbird on the kick. As a treat, an ancient Shure Hercules from the 1950's is provided as a 'vintage'/lo-fi sound.



#### INSTALLATION

egin installation by downloading the library from the Versilian Studios, Karoryfer website, or direct from KVR. Extract the contents of the .zip file, which will generate a folder titled 'Virtuosity Drums' which contains the entirety of the library, including samples, programs (patches), and the GUI files.

Place this folder wherever you would like the library to be accessed from in the future – this could be on an external hard drive, an internal SSD, or your main hard drive.

To use the library, you must also install Sforzando or ARIA player by Plogue. Sforzando is available <u>for free from the Plogue website</u>, while you may own the ARIA player already if you have used any Garritan products.

Once installed, open Sforzando or ARIA and open the Virtuosity Drums folder. Locate "Virtuosity Drums.bank.xml" and drag and drop it into the open Sforzando window.



## LOADING PATCHES

Once you have installed the library, you can load patches by clicking the 'Instrument' dropdown in Sforzando or ARIA, and selecting a program under 'Virtuosity Drums':



There are 8 programs available:

- O1-Basic Kit: A GM-compatible kit with only basic articulations and mic positions available.
- 02-Full Kit: Everything sampled, including extended techniques.
- O3-Kick Mic through O8-Vintage Mic: Individual mic position patches. Use this if you wish to process individual mic stems separately in your DAW.

If using Sforzando, you will need to open a separate instance for each patch you wish to use. ARIA loads up to 16 total.



BY KARORYFER SAMPLES & VERSILIAN STUDIOS KVRDC'21

### **OPERATION**

nce loaded in Sforzando or ARIA, the GUI will become available to you. This window will provide nearly everything you need to control and shape the sound of the instrument from tuning drums to controlling the stereo image to help it fit in your mix. In this section of the manual, I'll walk you through each part of the GUI and typical settings.

INSTRUMENT: 02-Full kit K-SWITCH : INFO CONTROLS	VOL.(CC7) -4 dB EFFECTS SETTINGS	PAN (CC10) SEND (CC91) TUNE 0 C 0% SNAPSHOT	ojorzanao
	VII	TUOSITY DRUMS	S VERSILIAN STUDIOS VIRTUAL INSTRUMENTS
SNARE ROLL DYN	KICK FILLE	OVERHEADS 	TUNE MASTER
2 0-	BLEED BLEED ALL ALL DAMPEN SNARES	EPIC	KICK LOW TOM



The top portion of the GUI is standard for all Sforzando libraries. Note that if you are using ARIA player, your GUI will look quite different here, as ARIA is designed to accomodate multiple patches at once.

Here you can select the Instrument loaded from among all libraries installed on your system. Also accessible are Volume (CC7), Pan (CC10), and [Reverb] Send (CC91) controls. The four tabs below; Info, Controls, Effects, and Settings change the active screen on the GUI.

To the right, Tune provides adjustment in cents of the pitch of the library. This is not needed with the library, as there are individual tune controls for each drum provided separately (see later). Trans[pose] allows the incoming MIDI data to be transposed by halfsteps, which is generally not useful with drums.

Poly[phony] is the total number of voices available to the engine. Note that this number may be exceeded quite quickly if you are using all of the mic positions and playing intense patterns, so be sure to increase the value as needed. Decreasing the value will provide a very small benefit to older systems at the cost of some notes being cut off prematurely.

PB Range controls the range that pitch bend will function.

Snapshot provides you a way to save your favorite mixes/settings locally for recal later. This is useful if you have a particular mix you like to use regularly across multiple songs or projects.



Select the 'Controls' tab and the above screen will appear.

In the center of the screen are the **microphone level** faders, which allow you to mix the various microphones together to achieve the desired sound. If you have the Full Kit loaded up, you will see all six microphone positions and all of the controls shown. If you have the Basic Kit, only Kick, Snare, and Overhead will be available. For the individual mic position programs/patches, only that named mic position will be available.

Beneath each of the stereo mic positions (Overhead, Mid, and Room), there are Width controls which allow you to collapse these positions to mono or simply narrow them down if they are too wide for your mix or to assist with placement.

For Kick and Snare mics, there is instead a **Bleed** setting which you can use to control whether or not these microphone positions pick up the sounds of other drums. In a real recording, even the most optimally placed kick or snare mic will pick up other pieces of nearby kit such as toms or cymbals. However, this can sometimes be the root cause of unwanted issues like comb filtering resulting from phasing, so disabling bleed can provide a cleaner sound in some cases.

Beneath the Kick bleed control is **Dampen**, which reduces the resonance of the kick drum. This is very useful for using the kit in other genres in particular.



Beneath the bleed control for the Snare mic is the **Snares on/off** button, which allows you to engage (default) or disengage the snares on the snare drum. This button does not appear on *Basic Kit*. The snares are responsible for the buzzy sound of the snare drum and turning them off will swap to a parallel set of snare-off samples which are the natural sound of the drum.

A brief technical note: in real life, the snares also resonate with many other pieces of the kit, in particular the kick drum. When you disengage the snares, the kick drum samples will also swap to reflect this change. If for any reason you wish to use the opposite kick drum sample, it is available on the B note right below the "active" kick sample, and will always be the opposite of whatever the snare setting is.

Beneath the four mic positions to the right (Overheads, Middle, Room, and Vintage), there is a single **Epic** knob. This knob layers in a copy of the samples, in particular the drums, pitched down an octave (i.e. playing at half speed). The result is not suitable or designed for Jazz, but we found the sound to be very interesting and enjoyable in other cases.

TUNE MASTER

LOW TOM

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On the right-hand side of the interface are the Tuning controls. **Tune Master** will adjust the entire kit's tuning at once, to emulate a sped up/ slowed down drum break, while **Snare**, **Kick**, **High Tom**, and **Low Tom** allow you to adjust each piece individually. Retuning drums is a matter of taste and may be useful to help the kit blend with your piece.



To the left is the **Snare Roll Dyn**[amic] slider. This mirrors your Modwheel, which controls the dynamics of the continuous snare roll. Dynamics for <u>all other sounds</u> (i.e. basically everything) are controlled by key velocity (i.e. how hard you press keys on your keyboard, provided your keyboard measures velocity). You generally should **NOT** move this slider with your mouse, instead draw a continuous controller curve on CC1 in your DAW or use your modwheel to record activity on this; the slider is really only intended for visual feedback or live playing situations.

INFO CONTROLS EFFECTS SETTI	NGS	SNAPSHOT -	
SETTINGS (for advanced users)	PERFORMANCE MONITORING	CURRENT HOST RENDERING SETTINGS	
Max Engine RAM Allocation : 512 MB	RAM DIRECT : 59.47 MB RAM LOOP : 1.41 MB RAM STRM : 144.16 MB	SampleRate : 48000 BSize(cur) : 2048	
Inst. Disk Pre-Caching : 32 kB	RAM STRMX:49.44 MB RAM TOTAL :254.47 MB	BSize(max) : 2048	
	Disk : 0 % Cued 0	TUNING	
User files path:	Disk Loss : 0		
SET	Note Ons : 0	Scala File : 01 - equal.scl SET	
	Used Layers : 0 Used Filters : 0	Scala Center : C5	
Converted files path: SET	Used EGs : 0 Used LFOs : 0	Tuning : International 440	
sforzando v1.969 PLAYER UPD/	ARIA Standalone v2.078 (c)2005-2020 Ploque Art	ONU INF SUPPORT	
ARIA Engine v1.969 (Win x64) ENGINE UPD/			

The Effects tab (not pictured) provides a generic algorithmic reverb.

In the Settings tab are some generic metrics about the instrument's behavior and some settings to tweak performance. Of most importance perhaps here is Max Engine RAM Allocation. On a modern system with at least 4 GB of RAM, I would suggest setting this to 2 GB to ensure the engine can load all the samples it needs to into RAM.

In the center column you can see the current RAM, disk, and engine usage. Over time, as notes are played, the total RAM usage will increase to a maximum of approximately 1.3 GB. The other settings in this panel fall outside the scope of this manual.

### **KEYMAPS & E-DRUM HI-HAT CONTROL**

A powerful feature of this library is the swappable keymap system. Keymaps are files which define where all of the instruments appear on the keyboard. For example, it is a keymap which determines the kick drum appears on Note 36. Keymaps can be opened and edited in any text editor.

The library uses two keymaps: keymap.sfz and keymap\_basic.sfz, the former is used by 'full kit' and the latter by 'basic kit'. You can view the keymap files within the directory as shown below:

#### Virtuosity Drums/Programs/keymaps/

There are several 'presets' available in addition to the keymap\_basic.sfz default keymap pair, located in the folders 'hihat\_on\_pedal' and 'perc\_down'.

To activate these keymaps, copy the contents of these folders (the keymap. sfz + keymap\_basic.sfz) out of the folder and REPLACE the keymap.sfz + keymap\_basic.sfz located in the keymaps folder. If you wish to restore the default behavior (in case of unwanted behavior), use the files in the default folder to replace the keymap.sfz and keymap\_basic.sfz in the keymaps folder.

A user of electronic drums can convert the hi-hat to use MIDI CC4 to select how open it is by copying over the 'hihat\_on\_pedal' files, then also going into the 'GUI' folder and copying the files from 'GUI\_hihat\_pedal' out so they overwrite the .xml files in the GUI folder. This will add an extra slider which shows the status of CC4 and will set it up so you can use a physical pedal, knob, or slider tied to CC4 to control the open/closed state of the hihat instead of having to trigger a different key to change state.





#### **PATCHES & ARTICULATIONS**

n the following page is a diagram of the default keymap used in the library. As discussed on the prior page, keymap files are fully editable and customizeable, so can be tweaked if desired.

Note that not all instruments cover all mic positions. Percussion instruments, such as Tambourine and Triangle (most things located between 54-84) do not use Vintage or Kick mic positions, and use Snare as a mono close mic position. Cuica, Woodblock, and Timbale only have a single position, Overhead, and won't appear while using other mics.

	MASTER CC LIST - VIRTUOSITY DRUMS
	CC1 (mod wheel): Snare Roll Dynamics
Mic Set	
	CC101: Kick Mic Volume
	CC102: Kick Mic Bleed Toggle (None/Snare/All)
	CC103: Snare Mic Volume
	CC104: Snare Mic Bleed Toggle (None/Kick/All)
	CC105: Overhead Mics Volume
	CC106: Overhead Mic Width
	CC107: Mid Mics Volume
	CC108: Mid Mic Width
	CC109: Room Mics Volume
	CC110: Room Mic Width
	CC111: Vintage Mic Volume
Tune	
	CC90: Master Tune (for slow/fast drumbreak effect)
	CC76: Snare Tune
	CC72: Kick Tune
	CC86: High Tom Tune
<b>-</b> .	CC81: Low Tom Tune
Extra	
	CC71: Kick Dampen Amount
	CC21: Snares On/Off Toggle
	CC113: "Epic" Effect Amount
	CC4: Hi-hat Pedal Position (*Requires custom reconfiguration, see pg. 11)

### DEFAULT KEYMAP

Kick Alternate     35     81     Opposite of same status (off/on)       Sinare Center Hit     33     Cft/2     Matches same status (on/off)       Sinare Center Hit     33     Eb2     Rin of drum and head struck simultaneously       Low Tom Center Hit     41     F2     Struck while fully closed       Low Tom Center Hit     42     F2     Pedal pushed down rapidly       With Tom Off-center Hit     44     B52     Struck while fully closed       Low Tom Cinstatic 47     B52     Struck while fully open     Rin of struk hit while stick held across head       High Tom Off-center Hit     48     C3     Struck while fully closed       Crash Normal Hit     45     C43     F1 ride scrash f1       High Tom Off-center Hit     50     D3     F1 ride scrash f1       Ride Ball Hit     51     E53     -     F1 ride scrash f1       Tombourine Shoke     54     F43     From VSCO 2     F1 ride scrash f1       Kirk Ball     53     F3     F1 ride scrash f1     F3     F5       Kirk Ball     53     F3     F1 ride scrash f1     F3     F5       Kirk Ball     54     F43     F6 </th <th>Kick Primary</th> <th></th> <th></th> <th></th> <th></th>	Kick Primary				
Kick Primary     36     C2     Markhes some status (on/off)       Snore Sickball     37     C42     One sick stress other while it is touching drum head       Snore Sickball     40     E2     Rim of drum and head struck simultaneously       Snore Sickball     42     FF2     Struck while fully closed       Low Ton Center H1     44     G42     FF2       Hishar Closed H1     44     G42     FF2       Mithan Fadd     44     G42     FF2       Mithan Fadd     G42     FF2     Struck while fully closed       Mithan Fadd     G42     FF2     Struck while fully closed       Mithan Fadd     G42     FF2     Struck while fully closed       Mithan Fadd     G52     E3     Struck while fully closed       Mithan Gore Title     42     FF2     Struck while fully closed       Bide Normal Hit     49     C43     Struck while fully closed       Bide Normal Hit     40     C43     Fm3     Fm3       Field Robe Rormal Hit     54     FF3     Fm3     Fm3       Gara Normal Hit     54     FF3     Fm3     Fm3     Fm3	· · · · · · · · · · · · · · · · · · ·	36	C2		
Sonce Stickkof   37   C42   One stick strikes other while it is touching drum head     Sonce Contry Hit   38   D2     Sonce Contry Hit   38   D2     Low Tom Conter Hit   41   F2     Hithard Closed Hit   22   File     Hithard Closed Hit   24   File     Low Tom Off-center Hit   43   G2     Hithard Closed Hit   44   F2     Hithard Closed Hit   45   A2     Hithard Closed Hit   45   A2     Hithard Closed Hit   46   B2     Kim of stick strikes other while stick held across head   Kim of stick hit while stick held across head     Crass Text   47   B2     Ride Bell   53   F3     Float Ride Scroot S5   G3   F1 tride cymbol frack as crash (in lieu of splash cymbol)     Float Ride Scroot S5   G3   F1 tride cymbol frack as crash (in lieu of splash cymbol)     Float Ride Normal Hit   53   F3     Tombourine Shoke   54   F83     Float Ride Normal Hit   59   F3     All Ride Normal Hit   50   G3     Float Ride Normal Hit   50   G3     Float Ride Normal Hit   50   G4     Filat Ride Normal Hit   50 <t< td=""><td>· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td><td></td><td></td></t<>	· · · · · · · · · · · · · · · · · · ·				
Snore Okteenter     38     D2       Snore Rimshof     40     E2       Rim of drum and head struck simultaneously     File       Low Tom Chert Hi     41     F2       Hikhat Closed Hi     42     F42       Low Tom Off-center Hi     43     G2       Hikhat Dean Hi     44     G42       Low Tom Construct     47     B2       Rim of stok hit while stok held down rapidly     Face       Low Tom Construct     47     B2       Rind Ball     64     B22       High Tom Construct     48     C3       Ride Ball Hi     53     E3       Ride Ball Hi     53     E3       Ride Ball Hi     53     E3       High Tom Off-center Hi     50     D3       Bit Hide Orapid     56     G83       Flor Hide Norapid     59     B3       Ride Norand Hit     59     B3       Garga Outed Hit     52     Chain pleced on crach to create ex	Snare Stickshot	37			
Snore Rimshof     40     E2     Rim of drum and head struck simultaneously       Hihat Closed Hit     42     F#2     Struck while fully closed       Hihat Closed Hit     43     G2       Hihat Closed Hit     43     G42       Low Ton Mission 45     54     42       Hihat Clopen Hit     46     Bb2     Struck while fully open       Low Ton Crosstrick     47     Bb2     Struck while fully open       Carah Normal Hit     46     C3     Flat Hit     C3       Crank Normal Hit     50     D3     Struck while fully open       Ride Bolf Hit     50     D3     Struck Carab     Struck Carab       Ride Bolf Hit     50     D3     Struck Carab     Struck Carab     Struck Carab       Ride Normal Lift     51     E53     G3     Flat Hit At Carab     Struck Ca		38	D2	Ŭ	
Lew Tom Center Hil 41 F2 Hikhat Closed Hil 42 F2 Lew Tom Off-center Hil 43 G2 Hikhat Closed Hi 44 G2 Hikhat Closed Hi 45 A2 Hikhat Closed Hi 46 B2 Kirel Normal Hil 46 B2 Grash Normal Hil 47 CH3 Kirel Normal Hil 49 CH3 Grash Normal Hil 49 CH3 Kirel Normal Hil 51 E53 Kirel Normal Hil 51 E53 Kirel Normal Hil 53 F3 F3 F3 F60 YSCO 2 F101 Kirel Normal Hil 53 F3 Kirel Normal Hil 54 E4 Kirel Kirel Normal Hil 55 Kirel Normal Hil 52 E3 Kirel Normal Hil 52 E4 Kirel Kirel Normal Hil 52 Kirel Kirel Normal Hil 53 Kirel Kirel Sirel Kirel Si Kirel	Snare Off-center Hit	39	Eb2		
Lew Tom Center Hil 41 F2 Hikhat Closed Hil 42 F2 Lew Tom Off-center Hil 43 G2 Hikhat Closed Hi 44 G2 Hikhat Closed Hi 45 A2 Hikhat Closed Hi 46 B2 Kirel Normal Hil 46 B2 Grash Normal Hil 47 CH3 Kirel Normal Hil 49 CH3 Grash Normal Hil 49 CH3 Kirel Normal Hil 51 E53 Kirel Normal Hil 51 E53 Kirel Normal Hil 53 F3 F3 F3 F60 YSCO 2 F101 Kirel Normal Hil 53 F3 Kirel Normal Hil 54 E4 Kirel Kirel Normal Hil 55 Kirel Normal Hil 52 E3 Kirel Normal Hil 52 E4 Kirel Kirel Normal Hil 52 Kirel Kirel Normal Hil 53 Kirel Kirel Sirel Kirel Si Kirel	Snare Rimshot			Rim of drum and head struck simultaneously	
Lew Tom Off-center Hit 43 G2 Hithot Yeen Hit 44 G4 44 Low Tom Rimahot 45 A2 Hithot Qeen Hit 46 Bb2 Struck while fully open Rim of stick hit while stick held across head Crash Normal Hit 49 C(H3 High Tom Off-center Hit 50 D3 Ride Normal Hit 51 Eb3 Ride Rormal Hit 51 Eb3 Ride Rormal Hit 53 F3 Ride ac Crash 55 G3 Flot Ride ac Crash 56 G43 form VSCO 2 Flot Ride ac Crash 57 A3 Consol B56 Cowbell 56 C43 Flot Ride ac Crash 58 B3 Flot Ride Normal Hit 59 B3 A flot ride ormbal track 57 C2 Flot Ride Normal Hit 59 B3 A flot ride ormbal track 57 C2 Flot Ride Normal Hit 59 B3 A flot ride ormbal (no 'bell') High Borgo 61 C44 "" Conge Open Hit 63 Eb4 "" Conge Open Hit 63 Eb4 "" Conge Open Hit 64 E4 "" Conge Open Hit 64 E64 "" Conge Open Hit 64 E65 FH4 Conge Open Hit 64 E65 FH4 Congen Congen Hit 64 E65 FH4 Congen Open Hit 64 E65 FH4 Hithot Hithe Long 72 C55 "" Mute Cicce 78 FH5 Only uses OH micl Congen Congen Hithot 65 FF5 "" Hithot Hither Congen Hithot 65 FH4 Shore B2 Bb5 "" Hithot Hither Flot B2 Bb5 "" Hithot Hither Flot B2 Bb5 "" Congen Tom Stock 73 FH5 Only uses OH micl Shore Flot B2 Bb5 "" Hithot Hither Flot B3 Bb4 Bb5 "" Hithot Hither Flot B2 Bb5 "" Hithot Hither Flot B4 C64 FH4 Ff6 Dom Hit while enter hand fully mutes head Hithot Hither Splash Hit 92 GH4 Hithot Hithot Splash Hit 92 GH4 Hithot Hither	Low Tom Center Hit	41	F2		
Lew Tom Off-center Hit 43 G2 Hithot Yeah 44 45 A2 Struck while fully open Rim of stick hit while stick held across head Rim of Stick Rim State Rim State Crosh Stizte Crosh Stizte Crosh Stizte Crosh Stizte Crosh Stizte Crosh Stizte Crosh Rim State Rim State Ri		42	F#2	Struck while fully closed	
Low Tom Rimkhof 45 A2 Hithot Qen Hit 46 Bb2 Struck while fully open Rim of stick hit while stick held across head Crash Normal Hit 49 C(H3 Grash Normal Hit 49 C(H3 High Tom Offscenter Hit 50 D3 Ride Normal Hit 51 Eb3 Ride Normal Hit 51 Eb3 Ride as Crash 55 G3 Flat Ride as Crash 57 A3 Chain placed on crash (in lieu of splash cymbol) Gowball 56 GH3 Flat Ride Normal Hit 59 B3 After ide cymbol (no 'bell') figh Bago 60 Combol Hit 62 D4 "" Cange Quent Hit 62 D4 "" Cange Quent Hit 63 Eb4 "" Cange Quent Hit 63 Eb4 "" Cange Quent Hit 64 E4 "" Cange Quent Hit 65 F4 for Karoryfer High Timbole 65 F4 for Karoryfer High Aggo Bell 65 G44 for WSCO 2 Winsite, Short 71 B4 High Timbole 65 F4 for Karoryfer High Aggo Bell 65 G44 for WSCO 2 Winsite, Short 71 B4 from VSCO 2 Winsite, Short 78 Frite Belleree 84 C6 GH4 from VSCO 2 Winsite, Short 78 Frite Belleree 84 C6 GH4 from VSCO 2 Winsite, Short 78 Frite Belleree 78 Frite B5 from VSCO 2 Winsite, Short 78 Frite Belleree 78 Frite B4 Cfd4 OF AF Frite Affer Affer Affer Affer A	Low Tom Off-center Hit	43	G2	,	
Low Tom Rimshof 45 A2 Hithot Qpen H4 46 Bb2 Struck while fully open Rim of stick hit while stick held across head Rim of Stick hit while head head Rim of Stick hit while head head Rim of Stick hit held across head Rim of Stick hald Across head Rim half half half half half half half half	Hi-hat Pedal	44	G#2	Pedal pushed down rapidly	
Low Tom Cross stick   47   B2   Rim of stick hit while stick held across head     High Tom Crister Hit   49   C (H3)     Crush Normal Hit   49   C (H3)     Ride Normal Hit   51   Eb3     Ride Normal Hit   51   Eb3     Ride Ball Hi   53   F3     Tambourine Shake   54   F43     Form VSCO 2   Flat ride cymbol struck as crash (in lieu of splash cymbol)     Covbell   56   G43     Flat Ride as Crash 55   53     Sizzle Crash 57   A3     Chain placed on crash to create extra sizzle     Vibrashop   58     Ba3   Flat Ride Normal Hit     Congo Open Hit   63     Eb4   ""     Congo Open Hit   64     Cabaso   64     Cabaso   64     Cabaso   64     Cabaso   64     High Rongo Bell   67     Low Rogogo Bell   67     Guiro, Slaw   73     Cabaso   64     Fa   from VSCO 2     Low Rogogo Bell   67     High Agogo Bell   67     Guiro, Slaw   73     Cabaso   64     Fa   from VSCO 2 <td>Low Tom Rimshot</td> <td>45</td> <td></td> <td></td> <td></td>	Low Tom Rimshot	45			
Low Ton Cross stick   47   B2   Rim of stick hit while stick held across head     High Ton Crister Hit   49   C(H3)     Ride Normal Hit   49   C(H3)     Ride Normal Hit   51   Eb3     Ride Normal Hit   51   Eb3     Ride Ball Hi   53   F3     Tambourine State   54   F43     For MYSCO 2   Flat ride cymbol struck as crash (in lieu of splash cymbol)     Covbell   56   G44     Sizzle Crash   58   S3     Flat Ride Normal Hit   59   B3     Flat Ride Normal Hit   52   B3     Flat Ride Normal Hit   52   B4     Gongo Open Hit   63   Eb4     """   Tom VSCO 2     Flat Ride Normal Hit   52     B3   A flat ride cymbol (no 'bell')     High Bongo   60     Congo Open Hit   63     Eb4   ""     Congo Open Hit   64     Flat Ride Normal Hit   52     Cohao   64     High Agogo Bell   67     Guito, Slaw   73     Chapogo Bell   67     Guito, Slaw   73     Chapogo Bell   67     Guito, Slaw   73 <td></td> <td></td> <td></td> <td>Struck while fully open</td> <td></td>				Struck while fully open	
High Tom Off-center Hit     48     C. 23       Orash Narmal Hit     49     C. 433       Ride Normal Hit     51     Eb3       Ride Bell Hit     53     F83       Tambourine Stoke     54     F43       Tambourine Stoke     54     F43       Tambourine Stoke     54     F443       Flot Ride as Crash     55     G.3       Tambourine Stoke     54     F443       Combolit     56     G493       Flot Ride Normal Hit     59     B3       All Baride cymbol (no "bell")     Form VSCO 2       High Bongo     60     C.4       Congo Muel Hit     62     D.4       Congo Open Hit     63     Eb.4       Congo Open Hit     64     F4       Tumba Hit     64     F4 <td></td> <td></td> <td></td> <td></td> <td></td>					
Črash Normal Hii     49     C (H3)       High Tom Off-cent Hii     50     D3       Ride Normal Hii     51     Eb3       Ride Bell Hi     53     F3       Tambourne Shale     54     F43       Flat Tide or crash     55     G3       Flat Tide or crash     56     G44       Flat Tide or crash     56     G47       Sizzle Crash     57     A3     Chein placed on crash to create extra sizzle       Vibraslap     58     B3     A far ride cymbol (no 'bell')       High Bongo     60     C44     ""       Conga Open Hii     63     Eb4     ""       Conga Open Hii     64     E4     ""       Conga Open Hii     64     F4     ""       Conga Open Hii     64     F4     ""       Guiro, Slow     73     Chein Scooryfer     ""       Low Bogo Bell     67     F4     from VSCO 2     ""       Low Agego Bell     66     F44     ""     ""       Guiro, Slow     73     C44     from VSCO 2     ""       Whisle, Short     71 </td <td></td> <td></td> <td></td> <td></td> <td></td>					
High Tom Off-center Hit     50     D.3       Ride Normal Hit     51     Eb3       -     52     E3       Tambourine Shoke     54     F93       Flar Kide os Crash     55     G3       Flar Kide os Crash     55     G3       Cowbell     56     G44       From VSCO 2     rom VSCO 2       Sizzle Crash     57     A3       Chain placed on crash to create extra sizzle       Wibralap     58     B53       Flar Kide Normal Hit     59     B3       A flar ride cymbol (no "bell")     from VSCO 2       High Bongo     61     CF4       Conga Open Hit     63     Eb4     ""       Conga Open Hit     63     Eb4     ""       Conga Open Hit     63     Eb4     ""       Tumbol Hit     64     EH4     ""     "       Conga Open Hit     63     Eb4     ""     "       Conga Open Hit     63     Eb4     ""     "       Guiro, Fast     70     Bb4     from VSCO 2     "       Whitele, Long     72	•				
Ride Normal Hit     51     Eb3       Ride Bell Hit     53     F3       Tambourine Shake     54     F43       Flat Ride os Cresh     55     G3       Flat Ride os Cresh     55     G3       Flat Ride Scresh     57     A3       Cowbell     58     Bb3       Flat Ride Normal Hit     59     B3       A Bat Ride Normal Hit     62     D4       Congo Open Hit     63     Eb4       Congo Open Hit     63     Eb4       Congo Open Hit     64     Eb4       Congo Open Hit     63     Eb4       Timbale     65     Ff4       Fild Ride Normal Hit     62     D4       Congo Open Hit     63     Eb4       Congo Open Hit     64     Eb4       Cobaso     69     A4       Whitels, Short     71     B4       Guiro, Fast     74     D5       Guiro, Fast     74     D5       Guiro, Fast     74     D5       Mute Cuica     78     Ff5       Guiro, Fast     74     D5					
Ride Bill Hit     53     F3     -       Tambourine Shoke     54     F#3     from VSCO 2       Flat Kide as Crash     55     G3     Flat Kide cymbal struck as crash (in lieu of splash cymbal)       Cowbell     56     G#3     from VSCO 2       Sizzle Crash     57     A3     Chain placed on crash to create extra sizzle       Flat Kide Normal Hit     59     B3     A flat ride cymbal (no 'bell')       High Bongo     60     C4     ""       Congo Open Hit     63     Eb4     ""       Congo Open Hit     63     Eb4     ""       Tumba Hit     64     E4     ""       Tumba Hit     64     Ef4     ""       Congo Open Hit     63     Eb4     ""       Cabaso     64     F#4     ""       Cabaso     64     F#4     ""       Cabaso     69     A4     ""     "       Guiro, Slow     73     C45     ""     "       Guiro, Slow     73     C45     ""     "       Guiro, Slow     73     C45     ""     "					
Ride bell Hiti     53     F3       Tembourine Shake     54     F43       Flot Ride as Crash     55     G3       Hat ride cymbal struck as crash (in lieu of splash cymbal)     Cowball       Cowball     56     G43       Vibraslop     58     Bb3       Flot Ride Scrash     57     A3       Chain placed on crash to create extra sizzle     Chain placed on crash to create extra sizzle       Vibraslop     58     Bb3       Flot Ride Normal Hit     52     D4       Conga Muted Hit     62     D4       Conga Muted Hit     62     D4       Tumba Hit     64     E4       Conga Open Hit     63     E64       Tumba Hit     64     E4       High Timbale     66     F44       High Agogo Bell     66     F44       Cobasa     69     A4     ""       Cabasa     64     fini lev of marca()       Whitels, Short     71     B44     from VSCO 2       Whitels, Short     73     C55     ""       Guiro, Slow     73     C45     ""					
Tambourine Shake54FH3From VSCO 2Flat Ride as Crash55G3Hat ride cymbal struck as crash (in lieu of splash cymbal) from VSCO 2Sizzle Crash57A3Chain placed on crash to create extra sizzleVibraslap58B3A flat ride cymbal (Ino 'bell') from VSCO 2Flat Ride Normal Hit59B3A flat ride cymbal (Ino 'bell') from VSCO 2Low Bongo61C44""Conga Muted Hit62D4""Conga Muted Hit63Eb4""Tumba Hit64EF4""Tumba Hit64F44""High Agopo Bell65F44""Cabas69A4""Cabas69A4""Cabas69A4""Cabas64Ef55""Guiro, Slaw73C45""Guiro, Slaw73C45""High Modolock76E55""Guiro, Slaw73C45""Mute Cuica78F5From Kacryfer; only uses OH miclCopen Cuica78E55""Mute Cuica78F5From KSCO 2Shaker82Bb5""Guiro, Slaw74C55Kath645F44Guiro, Slaw75E55Guiro, Slaw75C45Mute Cuica78F5Mute Cuica78F5Mute Cuica78C64<	Ride Bell Hit			-	
Flat Ride as Crash     55     G3     Flat ride cymbol struck as crash (in lieu of splash cymbol)       Cowbell     56     G#3     from VSCO 2       Sizzle Crash     57     A3     Chain placed on crash to create extra sizzle       Vibraslop     58     Bb3     From VSCO 2       Flat Rice Normal Hit     59     B3     A flat ride cymbol (no 'bell')       High Bongo     60     C.4     from VSCO 2       Low Bongo     61     C#4     ""       Conga Muted Hit     62     D.4     ""       Conga Qpen Hit     63     Eb4     ""       Tumbole     65     F4     from VSCO 2       Low Timbole     65     F4     from VSCO 2       Low Timbole     65     F4     from VSCO 2       Low Ragog Bell     67     G4     from VSCO 2       Low Ragog Bell     68     GH4     ""       Cabaso     69     A4     ""       Cabaso     69     A4     ""       Guiro, Fast     74     D5     ""       Guiro, Fast     74     D5     ""       Guiro, Fast				from VSCO 2	
Cowbell5667#3From VSCO 2Sizzle Crash57A3Chain placed on crash to create extra sizzle from VSCO 2Flat Ride Normal Hit59B3A flat ride cymbal (Ina 'bell') from VSCO 2Low Bongo61C#4Congo Open Hit63Eb4Tumba Hit64E44Congo Open Hit63Eb4Tumba Hit64F44High Jimbale65F4High Agogo Bell67G4Golgo Open Hit63F44High Agogo Bell66G#4""Congo Open Hit63F#4""High Agogo Bell68G#4""Cobasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa69A4""Cabasa67Guiro, Slow73C#7C#5Guiro, Slow73C#7Eb5FirCabasaGuiro, Fast74D5""High Woodblock77F5""Mute Ciuca78F#5Op					
Sizzle Crash57A3Choin placed on crash to create extra sizzle from VSCO 2Flat Ride Normal Hi59B3A flat ride cymbal (no 'bell') from VSCO 2High Bongo60C4from VSCO 2Low Bongo61Cff4 4" ""Congo Qoen Hit62D4""Gongo Qoen Hit64E4""Tumba Hit63Eb4""Congo Qoen Hit64E4""High Agogo Bell66Ff4 4Migh Agogo Bell66Ff4 4Cabcad69A4Cabcad69A4Cabcad69A4Cabcad69A4Cabcad69A4Cabcad70Bb4Bb4from VSCO 2Whistle, Short71B4Guiro, Fast74D5Guiro, Fast74D5Guiro, Fast74D5Guiro, Fast74D5Guiro, Fast75Eb5Mute Crica77E5Mute Crica78Ff5Mute Crica79G5Moute Crica79G5Move Crica79G5Move Crica79G5Mote Crica79G5Mote Crica79Giro Share 82Bb5Bb1Bb1Grift One stick strikes other while it is in cross-stick position TransleShaker82Bb5Share 82Bb5""Share 82C6					
Vibraslap58Bb3from VSCO 2Flat Ride Normal Hit59B3A flat ride cymbal (no 'bell')High Bongo60C4from VSCO 2Low Bongo61C#4" "Conga Open Hit63Eb4" "Tumba Hit64E4" "Conga Open Hit63Eb4" "Tumba Hit64E4" "High Agogo Bell66F#4" "High Agogo Bell66G#4" "Cabasa69A4" "Cabasa69A4" "Carage Shaker70Bb4(in lieu of maraco)Whistle, Iong72C5" "Guiro, Fast74D5" "Guiro, Fast74D5" "Guiro, Slow73CH5" "Guiro, Fast74D5" "Mute Cuica78FH5Only uses OH miclClaves75Eb5" "Mute Triangle80G#5from VSCO 2Open Triangle81A5" "Shaker82Bb5" "Shaker83B6" "Shaker84B6B0Shaker16CH6Claves76C5Guiro, FastC4ChaseG5Moo," "ChaseG45Cf#6ChaseG45ChaseC6ChaseG45ChaseC6Cha					
Flat Ride Normal Hit59B3A flat ride cymbal (no 'bell') from VSCO 2 " ""Low Bongo60C4" ""Conga Muted Hit62D4" "Conga Open Hit63Eb4" "Tumba Hit64E4" "High Timbale65F4from Karoryfer from VSCO 2Low Agago Bell67G4from VSCO 2Low Agago Bell68G#4" "Cobasa69A4" "Cabasa69A4" "Cabasa69A4" "Guiro, Slow73Cf5" "Guiro, Fast70Bb4(in lieu of maraca) " "Guiro, Slow73Cf5" "Guiro, Fast74D5" "Guiro, Fast75Eb5" "High Woodblock77F5" "Mute Triangle80G#5from VSCO 2Open Cuica78F#5Only uses OH micl " "Mute Triangle80G#5from VSCO 2Mute Triangle80G#5from VSCO 2Shaker82Bb5" "Shaker82Bb5" "Shaker8385<" "					
High Bongo60C4From VSCO 2Low Bongo61C#4" "Conga Muted Hit62D4" "Conga Muted Hit63Eb4" "Tumba Hit64E4" "Tumba Hit65F4from KaroryferLow Timbale66F#4" "High Agogo Bell68G#4" "Cabasa69A4" "Cabasa73C#5" "Guiro, Slaw73C#5" "Guiro, Slaw73C#5" "Guiro, Slaw73C#5" "Mute Cabasa76 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Low Bongo     61     C#4     " "       Conga Muted Hit     62     D4     " "       Conga Open Hit     63     Eb4     " "       Tumba Hit     63     Eb4     " "       High Timbale     65     F4     " "       Low Timbale     66     F#4     " "       Low Timbale     66     F#4     " "       Cabasa     69     A4     " "       Gabasa     69     A4     " "       Guiro, Slow     73     Cf5     " "       Guiro, Slow     73     Cf5     Trom Karoryfer; only uses OH micl       Mute Cuica     78     F#5     Only uses OH micl       Open Triangle     81     A5     " "					
Low Buildy B     01     Cm4     " "       Conga Open Hit     62     D4     " "       Tumba Hit     63     Eb4     " "       Tumba Hit     64     E4     " "       High Timbale     65     F4     from Karoryfer       High Agogo Bell     68     G#4     " "       Cabasa     69     A4     " "       Guiro, Slow     70     Bb4     (in lieu of maraca)       Whistle, long     72     C5     " "       Guiro, Slow     73     C#5     " "       Guiro, Stat     74     D5     " "       Guiro, Slow     75     Eb5     " "       Mute Cuica     78     E5     from Karoryfer; only uses OH mic!       Mute Cuica     79     G5     Moo, " "       Shaker     82     Bb5     " "       Share, Hadi-Hand Muted     87	• •				
Congo Woled Ini     02     D4     " "       Congo Open Hit     63     Eb4     " "       Tumba Hit     64     E4     " "       High Timbale     65     F#4     " "       Low Timbale     66     F#4     " "       Low Agogo Bell     67     G4     from VSCO 2       Low Agogo Bell     68     G4/// " "     " "       Cabasa     69     A4     " "       Gairo, Slow     73     C#5     " "       Guiro, Fast     74     D5     " "       Guiro, Fast     74     D5     " "       Guiro, Fast     74     D5     " "       Claves     75     Eb5     " "       Mute Cuica     78     F#5     Only uses OH micl       Open Cuica     79     G5     Moo, " "       Mute Triangle     80     G#55     " "       Shoker     82     Bb5     " "			-		
Tumba Hit     64     # "       High Timbale     65     F4     from Karoryfer       Low Timbale     66     F#4     " "       High Agogo Bell     67     64     from VSCO 2       Low Agogo Bell     68     G#4     " "       Cabasa     69     A4     " "       Large Shaker     70     Bb4     (in lieu of maraca)       Whistle, Short     71     B4     from VSCO 2       Whistle, Short     71     B4     from VSCO 2       Guiro, Slow     73     C#5     " "       Guiro, Stast     74     D5     " "       Claves     75     Eb5     " "       Claves     75     Eb5     " "       Mute Cuica     78     F#5     Moo, " "       Mute Triangle     80     G#5     from VSCO 2       Open Cuica     78     F#5     Moo, " "       Shaker     82     Bb5     " "       Shaker     82     Bb5     " "       Share, Hand-Muted     87     C#6     Drum hit while other hand fully mutes head <td< td=""><td></td><td></td><td></td><td></td><td></td></td<>					
High Timbale     65     F4     from Karoryfer       Low Timbale     66     F#4     " "       High Agogo Bell     67     G4     from VSCO 2       Low Agogo Bell     68     G#4     " "       Cabasa     69     A4     " "       Large Shaker     70     Bb4     (in lieu of maraca)       Whistle, Short     71     B4     from VSCO 2       Whistle, Short     71     B4     from VSCO 2       Whistle, Short     71     B4     " "       Guiro, Fast     74     D5     " "       Guiro, Fast     74     D5     " "       Claves     75     Eb5     " "       Claves     75     Eb5     " "       Mute Cuica     78     F#5     Only uses OH micl       Low Woodblock     77     F5     " "       Mute Cuica     78     F#5     Only uses OH micl       Den Cuica     79     G5     Moo, " "       Shaker     82     Bb5     " "       Shaker     82     Bb5     " "       Belltree <td>•</td> <td></td> <td></td> <td></td> <td></td>	•				
Low Timbale     66     F#4     " "       High Agogo Bell     67     G4     from VSCO 2       Low Agogo Bell     68     G#4     " "       Cabasa     69     A4     " "       Large Shaker     70     Bb4     [in lieu of maraca]       Whistle, Short     71     B4     [mon VSCO 2       Whistle, Long     72     C5     " "       Guiro, Fast     74     D5     " "       Guiro, Fast     74     D5     " "       Claves     75     Eb5     " "       Claves     75     Eb5     " "       Mute Cuica     78     F#5     Only uses OH micl       Mute Triangle     80     G#5     from VSCO 2       Open Triangle     81     A5     " "       Shaker     82     Bb5     " "       Belltree     84     C6     C6     Orum hit while other hand fully mutes head					
High Agogo Bell67G4from VSCO 2Low Agogo Bell68G#4" "Cabasa69A4" "Large Shaker70Bb4(in lieu of maraca)Whistle, Long72C5" "Guiro, Slow73C#55" "Guiro, Fast74D5" "Guiro, Fast74D5" "Guiro, Slow73C#55" "Guiro, Fast74D5" "Guiro, Fast74D5" "Mute Cuica78F#5Only uses OH mic!Low Woodblock77F5" "Mute Triangle80G#55from VSCO 2Open Cuica79G5Moo, " "Mute Triangle81A5" "Shaker82Bb5" "Shaker82Bb5" "Shaker84C6C6Shaker84C6C6Shaker82Bb5" "Shaker84C6C6Shaker84C6C6Shaker84C6C6Shaker84C6C6Shaker84C6C6Shaker84C6C6Shaker84C6C6Chaves Allelhopen84C6Shaker84C6C6Shaker84C6C6Shaker84C6C6Shaker84C6 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
Low Agago Bell68G#4" "Cabasa69A4" "Large Shaker70Bb4[in lieu of maraca)Whistle, Short71B4from VSCO 2Whistle, Long72C5" "Guiro, Fast74D5" "Claves75Eb5" "Claves75Eb5" "Mute Cuica78F#5Only uses OH mic!Low Woodblock76E5from VSCO 2Wute Cuica78F#5Only uses OH mic!Mute Cuica78F#5Only uses OH mic!Open Cuica79G5Moo, " "Mute Triangle80G#5from VSCO 2Open Triangle81A5" "Shaker82Bb5" "Shaker82Bb5" "Shaker82Bb5" "Share, Hand-Muted86D6Drum hit while other hand fully mutes headShare, Hand-Muted87Eb6Drum hit while other hand partially mutes headShare, Cross-stick88E6Stick is held carcos drum and rim is struckLow Tom, Muted89F6Drum hit while other hand partially mutes headHi-hat Splash Hit92G#6Hi-hat struck while half-openLow Tom, Muted91G6Drum hit while other hand partially mutes headHi-hat Splash Hit92G#6Hi-hat struck while half-openLow Tom, Muted91G6Drum hit while other hand parti					
Low Agogo bellooOrf 4Cabasa69A4Large Shaker70Bb4(in lieu of maraca)Whistle, Short71B4from VSCO 2Whistle, Short71B4Guiro, Slow73C#5""Guiro, Fast74D5""Guiro, Fast74D5""B5Guiro, Fast74D5""Guiro, Fast74D5""High Woodblock76E5From Karoryfer; only uses OH mic!Low Woodblock77F5""Mute Cuica78F#5Open Cuica79G5Moo,""Mute Triangle80G#5from VSCO 2Open Triangle81A5""Shaker82Bb5""Shaker84C6""Shaker88B65""Shaker84C6C#6Drum hit while other hand fully mutes headSnare, Half-Hand Muted87Eb6Drum hit while other hand partially mutes headSnare, Half-Hand Muted89F6Drum hit while other hand fully mutes headSnare, Half-Huted91G4Drum hit while other hand fully mutes headHihat Splash Hit92G46Hihat struck while half-openLow Tom, Muted91G4G4 <tr< td=""><td></td><td></td><td>-</td><td></td><td></td></tr<>			-		
CabasaorA4Large Shaker70Bb4Whistle, Short71B4from VSCO 2Whistle, Long72C5" "Guiro, Fast74D5Claves75Eb5Eb5" "Claves75Eb5Low Woodblock76E5From Karoryfer; only uses OH mic!Nute Cuica78F#5Open Cuica79G5Mute Triangle80G#5from VSCO 2Copen Triangle81A5" "Shaker82Bb5" "Shaker82Bb5" "Shaker82Bb5" "Shaker82Bb5" "Shaker84C6" "Shaker85C#6One stick strikes other while it is in cross-stick positionSnare, Hand-Muted86D6Drum hit while other hand fully mutes headSnare, Cross-stick88E6Stick is held across drum and rim is struckLow Tom, Muted89F6Drum hit while other hand partially mutes headHi-hat Splash Hit92G#6Hi-hat struck while half-openLow Tom, Muted91F6Drum hit while other hand partially mutes headHi-hat Splash Hit92G#6Hi-hat pedal closed but immediately let upHi-hat 3/4ths Open Hit94Bb6Hi-hat hit t					
Whistle, Short71B4from VSCO 2Whistle, Long72C5" "Guiro, Slow73C455" "Guiro, Fast74D5" "Claves75Eb5" "Claves75Eb5" "High Woodblock76E5from Karoryfer; only uses OH miclLow Woodblock77F5" "Mute Cuica78F#5Only uses OH miclOpen Cuica79G5Moo, " "Mute Triangle80G#5from VSCO 2Open Triangle81A5" "Shaker82Bb5" "Shaker82Bb5" "Shaker82Bb5" "Belltree84C6" "Snare, Hand-Muted87Eb6Snare, Cross-stick88E6Snare, Cross-stick88E6Sick is held across drum and rim is struckDrum hit while other hand fully mutes headSnare, Cross-stick88E6Sick is held across drum and rim is struckDrum hit while other hand partially mutes headHi-hat Half-Open Hit90F#6Hi-hat Splash Hit92G#6Hi-hat Splash Hit92G#6Hi-hat 3/4ths Open Hit94Bb6Hi-hat 3/4ths Open Hit95B6Hi-hat 3/4ths Open Hit95B6Hi-hat 3/4ths Open Hit94Bb6Hi-hat 3/4ths Open Hit95B6Hi-hat 3/4ths Ope					
Whistle, Long72C5" "Guiro, Slow73C#5" "Guiro, Fast74D5" "Claves75Eb5" "Claves76E5from Karoryfer; only uses OH mic!Low Woodblock77F5" "Mute Cuica78F#5Only uses OH mic!Open Cuica79G5Moo, " "Mute Triangle80G#5from VSCO 2Open Triangle81A5" "Shaker82Bb5" "Sleigh Bell83B5" "Belltree84C6" "Snare Stickshot, Alternate85C#6Snare, Cross-stick88E6Snare, Cross-stick88E6Snare, Cross-stick88E6Stick is held across drum and rim is struckDrum hit while other hand fully mutes headSnare, Cross-stick88E6Stick is held across drum and rim is struckDrum hit while other hand pully mutes headHi-hat Half-Open Hit90F#6Hi-hat Splash Hit92G#6Hi-hat Sylash Hit92G#6Hi-hat Sylash Hit94Bb6Hi-hat Sylash Hit95B6Rudimentary flamRudimentary flam					
Willishe, Long72CL3" "Guiro, Slow73C#5" "Guiro, Fast74D5" "Claves75Eb5" "High Woodblock76E5from Karoryfer; only uses OH mic!Low Woodblock77F5" "Mute Cuica78F#5Only uses OH mic!Open Cuica79G5Moo, " "Open Triangle80G#5from VSCO 2Open Triangle81A5" "Shaker82Bb5" "Sleigh Bell83B5" "Belltree84C6" "Snare Stickshot, Alternate85C#6Snare, Hand-Muted87Eb6Snare, Half-Hand Muted87Eb6Snare, Half-Hand Muted87Eb6Drum hit while other hand fully mutes headSnare, Cross-stick88E6Stick is held across drum and rim is struckLow Tom, Muted89F6Drum hit while other hand fully mutes headHi-hat Splash Hit92G#6Hi-hat struck while half-openHi-hat Splash Hit92G#6Hi-hat hit then slowly closedHi-hat 3/4ths Open Hit94Bb6Rudimentary flawHi-hat 3/4ths Open Hit95B6Rudimentary flaw					
Guiro, Tast74D5" "Guiro, Fast74D5" "Claves75Eb5" "High Woodblock76E5from Karoryfer; only uses OH miclLow Woodblock77F5" "Mute Cuica78F#5Only uses OH miclOpen Cuica79G5Moo, " "Mute Triangle80G#5from VSCO 2Open Triangle81A5" "Shaker82Bb5" "Sleigh Bell83B5" "Belltree84C6" "Snare, Hand-Muted86D6Snare, Hand-Muted87Eb6Snare, Cross-stick88E6Snare, Cross-stick88E6Snare, Cross-stick88E6Drum hit while other hand fully mutes headSnare, Cross-stick88E6Drum hit while other hand fully mutes headSnare, Cross-stick88E6Drum hit while other hand fully mutes headHi-hat Half-Open Hit90F#6Hi-hat Splash Hit92G#6Hi-hat 3/4ths Open Hit92G#6Hi-hat 3/4ths Open Hit94Bb6Hi-hat hit then slowly closedHi-hat hit then slowly closedHi-hat 3/4ths Open Hit94Bb6Hi-hat hit then slowly closedHi-hat hit then slowly closed					
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Flam 95 B6 Rudimentary flam	Hi-hat 3/4ths Open Hit	94	Bb6		
		95	B6	Rudimentary flam	
	Snare Roll	96	C7		
		Snare Off-center Hit Snare Rimshot Low Tom Center Hit Hi-hat Closed Hit Low Tom Off-center Hit Low Tom Off-center Hit Low Tom Cross-stick High Tom Center Hit Crash Normal Hit Grash Normal Hit Ride Normal Hit Ride Bell Hit Tambourine Shake Flat Ride as Crash Cowbell Sizzle Crash Vibraslap Flat Ride Normal Hit High Bongo Low Bongo Conga Muted Hit Conga Open Hit Tumba Hit High Agogo Bell Low Agogo Bell Low Timbale High Agogo Bell Low Agogo Bell Cabasa Large Shaker Whistle, Short Whistle, Short Whistle, Long Guiro, Slow Guiro, Fast Claves High Woodblock Low Woodblock Hi-hat Half-Open Hit Low Tom, Muted Hi-hat Half-Open Hit Low Tom, Half-Muted Hi-hat Splash Hit Snare Buzz Hi-hat 3/4ths Open Hit Flam	Snare Off-center Hit39Snare Rimshot40Low Tom Center Hit41Hi-hat Closed Hit42Low Tom Off-center Hit43Hi-hat Pedal44Low Tom Cross-stick47High Tom Center Hit48Crash Normal Hit49High Tom Off-center Hit50Ride Normal Hit51-52Ride Bell Hit53Tambourine Shake54Flat Ride as Crash55Cowbell56Sizzle Crash57Vibraslap58Flat Ride Normal Hit59High Bongo60Low Bongo61Conga Muted Hit62Conga Open Hit63Tumba Hit64High Timbale65Low Timbale66High Agogo Bell67Low Agogo Bell68Cabasa69Large Shaker70Whistle, Short71Whistle, Short71Whistle, Short71Whistle, Short71Whistle, Short73Guiro, Fast74Claves75High Woodblock76Low Woodblock77Mute Triangle80Open Cuica78Belltree84Snare, Hand-Muted87Snare, Cross-stick88Low Tom, Half-Muted91Hi-hat Half-Open Hit90Low Tom, Half-Muted91Hi-hat Splas	Snare Off-center Hit39Eb2Snare Rimshot40E2Low Tom Center Hit41F2Hi-hat Closed Hit42F#2Low Tom Off-center Hit43G2Hi-hat Pedal44G#2Low Tom Rimshot45A2Hi-hat Open Hit46Bb2Low Tom Cross-stick47B2High Tom Center Hit49C#3Grash Normal Hit51Eb3Crash Normal Hit51Eb3Ride Bell Hit53F3Tambourine Shake54F#3Flat Ride as Crash55G3Cowbell56G#3Sizzle Crash57A3Vibraslap58Bb3Flat Ride Normal Hit59B3High Bongo60C4Low Bongo61C#44Conga Que Hit63Eb4Tumba Hit64E4High Timbale65F4Low Timbale66F#4High Agogo Bell67G4Low Agogo Bell68G#44Cabasa69A4Large Shaker70Bb4Whistle, Long72C5Guiro, Slow73C#55Guiro, Slow73C#55Mute Cuica77F5Mute Cuica78F55Guiro, Slow73C#55Guiro, Slow73C#55Open Cuica79G55Mute Triangle80 <td>Snare Conter Hit     38     D2       Sare Chicenter Hit     39     Eb2       Sorre Chicenter Hit     11     F2       Hithat Closed Hit     42     F#2       Low Tom Off-center Hit     43     G2       Hithat Pedal     44     G#2       Pedal pushed down rapidly     5       Low Tom Off-center Hit     43       Carsan Namatot     44       G#2     Pedal pushed down rapidly       Low Tom Cresstrick     47       B2     Struck while fully closed       Low Tom Cresstrick     47       B2     Struck while fully closed       Low Tom Cresstrick     47       B2     Struck while fully open       Ride Normal Hit     50       Struck Tom VSCO 2     Filat Ride as Cresh       Flat Ride as Cresh     55       Garge Muted Hit     59       B3     A flat ride cymbal struck as creah (in lieu of splash cymbal)       Flat Ride Normal Hit     59       B3     A flat ride cymbal (no 'bell')       High TomoLie     55       Flat Ride Normal Hit     59       B3     A flat ride cymbal</td>	Snare Conter Hit     38     D2       Sare Chicenter Hit     39     Eb2       Sorre Chicenter Hit     11     F2       Hithat Closed Hit     42     F#2       Low Tom Off-center Hit     43     G2       Hithat Pedal     44     G#2       Pedal pushed down rapidly     5       Low Tom Off-center Hit     43       Carsan Namatot     44       G#2     Pedal pushed down rapidly       Low Tom Cresstrick     47       B2     Struck while fully closed       Low Tom Cresstrick     47       B2     Struck while fully closed       Low Tom Cresstrick     47       B2     Struck while fully open       Ride Normal Hit     50       Struck Tom VSCO 2     Filat Ride as Cresh       Flat Ride as Cresh     55       Garge Muted Hit     59       B3     A flat ride cymbal struck as creah (in lieu of splash cymbal)       Flat Ride Normal Hit     59       B3     A flat ride cymbal (no 'bell')       High TomoLie     55       Flat Ride Normal Hit     59       B3     A flat ride cymbal

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**BASIC KIT** 



#### TROUBLESHOOTING

f you are experiencing issues with the library, there are a few steps you can try to resolve the issues before contacting us. Below is a list of common possible problems and 'home remedies' that will work to fix them.

1. Samples could not be found warning.

Generally the best solution is to re-extract the files from the .zip archive, or re-download the archive. Never move any of the folders or files in the 'Virtuosity Drums' folder to another location as this will break the program. If you wish to move the library, move the Virtuosity Drums folder itself with everything left inside as-is.

2. Instrument uses up too much memory or CPU.

Use the 'Basic Kit' version instead, or one of the individual mic position patches for the most space savings and CPU usage reduction. Increase your DAW's audio driver buffer size and ensure your computer is in 'Performance' mode.

3. Library fails to register in Sforzando/ARIA.

Make sure you update Sforzando/ARIA to the latest version. You can do this by

going to the settings tab and selecting 'Player Update', then 'Engine Update' as well after that.

4. Instrument takes a long time to load.

On Windows 10 devices or devices with 'realtime protection' anti-malware systems, such systems will attempt to scan the literally thousands of samples that Sforzando/ARIA needs to load before letting Sforzando/ARIA load them. It is strongly advised that you at least temporarily disable such 'realtime protection' systems while loading libraries, or set up an exemption for your folder or drive of sample libraries.

It is always recommended to use a solid state drive (SSD) from which to stream samples. A 256 GB external drive can be had for the price of a decent dinner with a drink and can hold this very library nearly 200 times over, while also speeding up load times significantly vs. a mechanical hard drive.

5. Instrument won't respond to MIDI input.

Make sure your DAW or standalone Sforzando/ARIA is receiving MIDI from your device, then ensure that the MIDI channel is set to match.

If you have any other issues, drop us a line at contact@versilstudios.net.

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#### **CREDITS**

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> And our fantastic testers: Jose F. Hernandez