# trapKAT VERSION 4.0 SOFTWARE GUIDE

#### ATTENTION Upgrader's

Please make sure that you reinitialize your trapKAT after installing the new software chip. Your original User Kits will be lost.

After reinitializing, the trapKAT defaults to MEMORY PROTECT ON. This means that you can NOT go into Global or User Kits until you shut off Memory Protect. Simply Press the Global Edit Footswitch and tap on pad THREE to toggle between Memory Protect On or Off.

If you want to use your old USER kits with the new software, you MUST FIRST save your old USER Kits with our special conversion software (pc only). This software can be downloaded for FREE on our website. You must have a MIDI interface for your computer to use this software. The software will convert the kits and create a SYSEX dump that will work with the trapKAT 4.0. Please go to our download page for details.

## NEW FEATURES

## LINKS

It is now possible to link any pad to any pad. This means that when a pad is linked, striking that one pad will play the notes from two pads.

To turn on the LINK pad function:

Step on the NOTE EDIT FOOTSWITCH and tap on the pad that you want to set up the LINK. Now with the NOTE EDIT FOOTSWITCH still held down, tap on the GLOBAL EDIT FOOTSWITCH. Each time you tap on the Global pedal, the LINK advances to the next pad. The choices go from pad 1 to pad 24 and NO.

When you assign a pad to Link, which means that this pad will play itself AND the sound assigned to the Linked pad.

If you want to cancel this function, set the LINK to OFF (continuing taping the footswitch past pad 24). The Link Screen will say NO. Quick Step (release and step again) on the Note Edit Footswitch to change direction of the pad link numbers.

## ALTERNATE 16

The trapKAT can now play up to 16 notes on any pad in an alternating fashion. It is also possible to use "silence" as a note value so that rhythms can sound by simply playing even 16ths on that pad.

To turn on this function, select the CURVE called "ALTERNATING" for that particular pad. (Remember-functions are created on the pads by using different Curves. The "Alternating" Curve is curve number 22 See the trapKAT manual for details regarding the trapKAT's curves.

To select the notes for each of the 16 slots, STEP on the KIT EDIT footswitch and the NOTE EDIT footswitch at the same time. Each time both pedals are pressed at the same time, the MIDI note Slot is advanced by one.

On the display, the top line will read PADxx NOTExxx-01. The -01 is the first MIDI note slot. The slots go from 01-16.

This feature allows the pad to be set to any alternating pattern from 2 notes to 16 notes.

If "Alternate Reset" is assigned to a slot, then the alternating pattern will start from the beginning.

If "Alternate Reset" is assigned to slot 01, then the Alternate Resets

affect ALL Alternating pads in the USER KIT.

If "NO" is assigned to a slot, then a silent note will take the place of a MIDI note number.

The alternating pattern will continue to advance.

#### SPECIAL FUNCTION NOTE NUMBERS (ALTERNATE PAD FUNCTIONS)

The trapKAT uses a unique way of adding power to the pads by using special note numbers.

MIDI note numbers go from 00-127. On the trapKAT, after MIDI note 127, the following "notes" can be called up:

NO

Sequence Start

Sequence Stop

Sequence Continue

Alternate Reset

Alternate Freeze

Kit Advance

Kit Backup

Pitchwheel

## NO

This function plays silence when the pad is struck. If you are using one of the alternate mode curves, this function allows you to have the desired number of alternating notes, but can have the option of having a silent location within the pattern. This can help create rhythmic patterns on a pad.

## SEQUENCE START, STOP, CONTINUE

When a pad is set to any of these functions (by its note number

name), a sequence command is sent to the external sound module. If the module is capable of playing sequences, then any trapKAT pad can be set to control the starting and stopping of sequences.

#### ALTERNATE RESET

The Alternate Reset function resets the alternating pattern to start from the beginning. If the Alternate Reset is placed in the first position in ALTERNATING MODE, then ALL Alternate Notes in the kit will be reset. If the Alternate Reset Function is placed in any of the other remaining 15 MIDI note number slots, then that pad will reset back to the beginning.

## ALTERNATE FREEZE

The Alternate Freeze function stops the alternating pattern from advancing to the next note slot. If the Alternate Freeze is placed in the first position in ALTERNATING MODE, then ALL Alternate Notes in the kit will be frozen. If the Alternate Freeze Function is placed in any of the other remaining 15 MIDI note number slots, then that pad will stop advancing until the pad is struck again.

#### KIT ADVANCE, KIT BACKWARDS.

If a note number is assigned to Kit Advance or Kit Backwards, striking this pad will advance or step backwards the User Kit by One. Note that every kit must be assigned its own Kit Advance/Backward Function.

#### PITCH WHEEL

If a pad note number is assigned to PITCH wheel, then pressing on this pad will send out pitch wheel data. **PROGRAM CHANGE COMMANDS (Bank, PC and Volume)** The trapKAT 4.0 now sends out 4 MSB/LSB Bank Change Commands, 4 Program Change Commands and 4 Volume Change Commands. With the KIT Edit Footswitch held down, tap on pad 19 (left of the display) this is a TUNNEL Screen, meaning that each time you tap pad 19 a new screen pops up. These are the Screens in the Tunnel

Volume 1 = xxx

Program Change 1 = xxx

Program Change Channel = xxx

Bank (MSB1) = xxx

Bank (LSB1)= xxx

Volume 2 =xxx

Program Change 2 = xxx

Program Change Channel = xxx

Bank (MSB2) = xxx

Bank (LSB2)= xxx

This screen continues the tunnel until ALL four -Volume Change, Program Change, and Bank Change along with its MIDI Channel, are displayed. To Change the VALUE on any of these Screens, tap on pad 20 (right of the display) with the Edit Footswitch Held Down. Each tap on pad 20 increments the value of the number displayed. If you quickly release the Edit footswitch and press down on it again, each tap on pad 20 now decrements the value of the number displayed. You can change the value back to the other direction by repeating the quick release and re press of the Edit Pedal.

#### CONTINUOUS DATA

Any pad can be assigned to send out continuous control data on a pad. The MIDI note number assignment becomes the CC# number and the velocity of the hit becomes the CC value. Minimum and Maximum CC ranges are assigned by velocity minimum and maximum settings of that pad.

The same pad can also simultaneously send out up to 3 MIDI notes per pad. These are assigned in slots 2, 3 and 4. Any MIDI note assignments in the other slots (5-16) have no effect.

When the pad is played, the velocity information (how hard you hit) is converted to the Controller value. It is possible to go from softest 00 to loudest 127. The outer boundaries are controlled by the minimum and maximum velocity settings that you set for the pad.

The gate time for the pad serves as a SLEW. This means how long it takes to go from value to value. It is like a portamento for controller values.

To turn on this function, set the Curve to "Ctrl + 3 Notes" (Control Mode plus 3 notes)

The MIDI Note assignment for SLOT ONE is the Controller Number How hard you hit is the Control Data number (00-1127) How fast the value goes from number to number is determined by the GATE Time. Slots 2, 3, and 4, can be assigned to MIDI Notes. These notes will be played simultaneously, that is layered along with the control data.

## DIAGNOSTIC SCREENs

The Diagnostic Screen Tunnel has been moved to PAD 23 in the KIT EDIT FUNCTIONS.

Step on the Kit Edit Function and Hit Pad 23 TWICE. On the first hit, the pad will say "NO FUNCTION". Hit the pad again

This screen is the Hi HAT OPEN/CLOSED RESULTS This screen shows the results of your hi hat training. The trapKAT stores five values to represent the closed to open positions. You can change these values and tweak to your hearts content. Tap on Pad One to change the values of the first position Tap on Pad Two to change the values of the second position Tap on Pad Three to change the values of the third position. Tap on Pad 10 to change the values of the fourth position.

If you retrain the hi hat, new values will be posted and stored in these slots.

PAD THRESHOLD And DYNAMIC THRESHOLD SCREEN. Step on the Kit Edit Footswitch and tap on pad 23 THREE TIMES. You will see the PAD Threshold for pad one. If you tap on pad 20 again, you will see the threshold for pad 2. Each tap on pad 23 shows the idle threshold value that the trapKAT Sets for all of the pads. When you release the footswitch, you enter the DYNAMIC THRESHOLD SCREEN.

The trapKAT is constantly scanning all of the pads. Each single digit represents one of the pads. The top row represents the RIMS, the

bottom row represents the 10 pads. The digit values go from 0 to 9. When you press on a pad, you will see its value rise.

If you see values above 4, then there is undue pressure on the sensor. This could mean a simple pad adjustment or replacement. It could also signal that there is something wrong with the FSR sensor. We use this to diagnose the pads.

Tap on the footswitch again to EXIT this mode.

## BEEPER and DISPLAY TUNNEL

Turning on the Beeper and changing the angle of the display is now on pad 19 in the GLOBAL Edit Screens. Tap on pad 19 to toggle these functions and use pad 20 to change the value.

#### HEAR SOUND

It is now possible to turn on or off the <u>Hear Sound</u> function. <u>Hear</u> <u>Sound</u> is the ability to preview (hear) the sounds when scrolling through the MIDI note numbers in Note Edit.

To toggle this function on or off:

Step on the Global Footswitch and while held down step on the hi hat pedal (controller pedal).

The screen will either read, "Hear Sound is On" or "Hear Sound is Off". When you go back to Note Edit, the result of this toggle will determine if you can hear the sounds while you are editing.

#### USER BANK 2

The trapKAT has THREE banks. The Factory Bank (GM) 24 kits, the USER Bank (GM default) 24 kits and the USER BANK 2 (6 kits)

User Bank Two contains presets for Toontracks Superior 2 Addictive Drums Ocean Way Yamaha DTX III

New presets will be available as software updates. Free SYS EX files on the web will also be available

#### IMPROVED HI HAT Playability and Compatibility

The trapKAT XL now is compatible with the Roland F-8, the Hart E Pedal, the Yamaha HH65, the drumTech HATpedal, and the Pintech Hi Hat Controller.

#### trapKAT EDITOR FOR PC

The editor will be able to read the following data as a standard midi file stored on the hard drive or a System Exclusive data dump directly from the trapKAT

ALL MEMORY INDIVIDUAL KIT GLOBAL MEMORY

Once the data has been read into the editor, the user will be able to modify any of the kit or global parameters using a user-friendly interface.

The user can also "read" an older trapKAT SYS EX files and convert it to the new format.

Please go to the download section of our website to get trapKAT Editor.

## TrapKAT Upgrade Chip Guide

#### Current Version 4.0i 10/15/09