

# Grid64 Player

Model P0: Grid Keys

Rack Extension for Reason



## USER MANUAL

version 1.0.1

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# 1. Introduction

The grid64 Player series of rack extensions takes inspiration from the tools developed over the years by the user community of grid MIDI controllers, and wants to bring some of those workflows to the Reason environment.

The model P0 is the first player in the series and its goal is to provide a flexible and programmable keyboard interface to use with grid MIDI controllers. It is best suited for controllers with an 8x8 pad layout and the models supported are the Novation Launchpads, NI Maschine Jam, Ableton Push and the Akai APC Mini. For those, you can download custom Remote files which enable two-way communication with Reason\*.

After setting up your controller, you can use grid64IP0 to play any rack instrument using a variety of isomorphic note layouts. Additionally, you can create custom layouts to suit your own needs and thanks to savable patches, layouts can be recalled quickly avoiding the need to make time consuming MIDI assignments.

The device has two Engine types. Engine 1 is fully programmable by the user, whilst Engine 2 is specifically hard coded for devices like Kong and Dr.Octorex and it allows to play Kong drums, trigger slices or entire Rex loops with ease from your controller.

If you have ever dreamed of integrating a grid controller into your Reason workflow, the grid64 Player offers an easy and painless way to do that.

If you don't have a grid controller, you can still use a midi keyboard to trigger the grid64 Player. It works just as well with all functionality preserved.

\* Reason standalone mode only, the Reason Rack plugin does not support Remote.

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## 1.1 Product Details

- Keyboard interface for 8x8 grid MIDI controllers featuring two-way communication with Reason (in standalone mode, after setting up the control surfaces for the supported models, Remote files are provided)
- Two Engine types with a variety of note layouts catering to different use cases

### Engine 1 features:

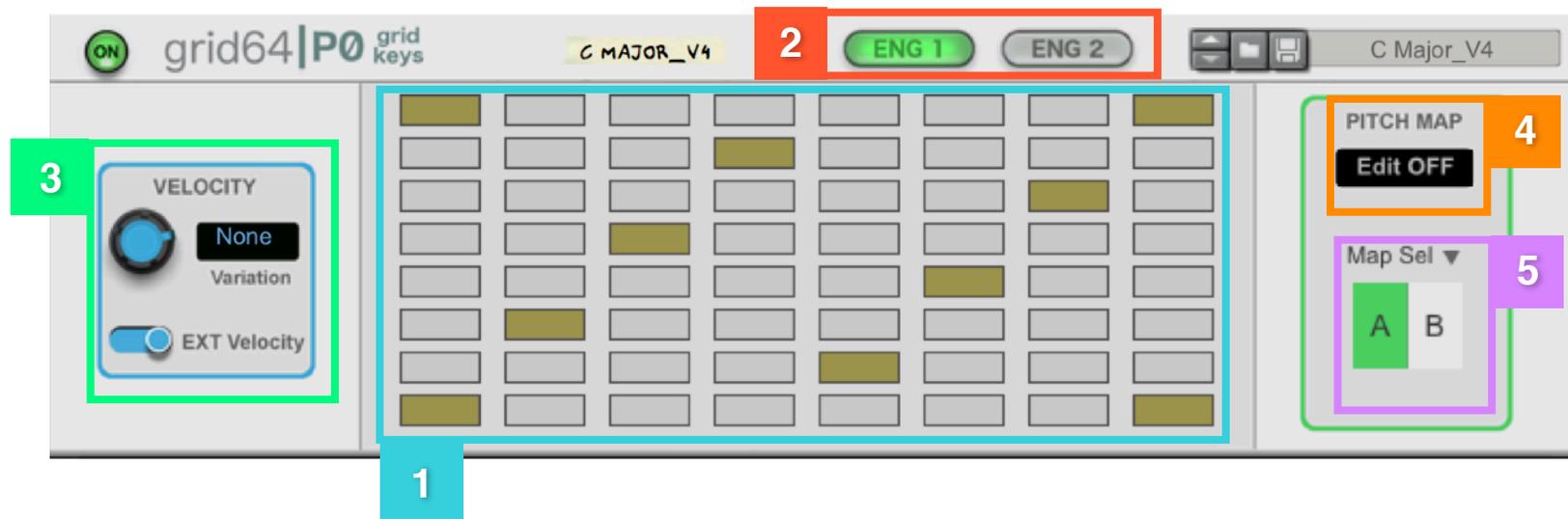
- fully programmable pitch layout where the user can assign a specific pitch and color to each pad
- row or column edit menus with the ability to copy/paste, transpose, rotate, shuffle and randomize all the pitches in a given row or column
- map edit menu with the ability to copy/paste, transpose, rotate, shuffle, randomize and assign presets to all the pitches in the selected map
- two configurable map variations A and B per patch which can be switched during play

### Engine 2 features:

- two hardcoded layout types (variations A and B) designed for Kong or similar, and Dr.Octorex
- Map A is best suited to play Kong drums with the lower 16 pads on the left side triggering pads 1-16 in Kong, and the lower 16 pads on the right side playing the selected pad at 16 velocity levels
- Map B is best suited to play Dr.Octorex, with the orange pads triggering single rex slices (slice 1 thru 46) while the yellow pads trigger playback of loops in slot 1 thru 8
- EXT Velocity switch allows to bypass the MIDI velocity from a controller and uses instead the velocity set by the Velocity knob with 4 amounts of velocity variation - None, Low, Medium, High.
- The device can also be triggered with the mouse or with a regular midi keyboard using notes C0 to D#5

## 2. Overview

Here is a quick overview of the main interface elements. For more details on each section, refer to later parts of this manual.

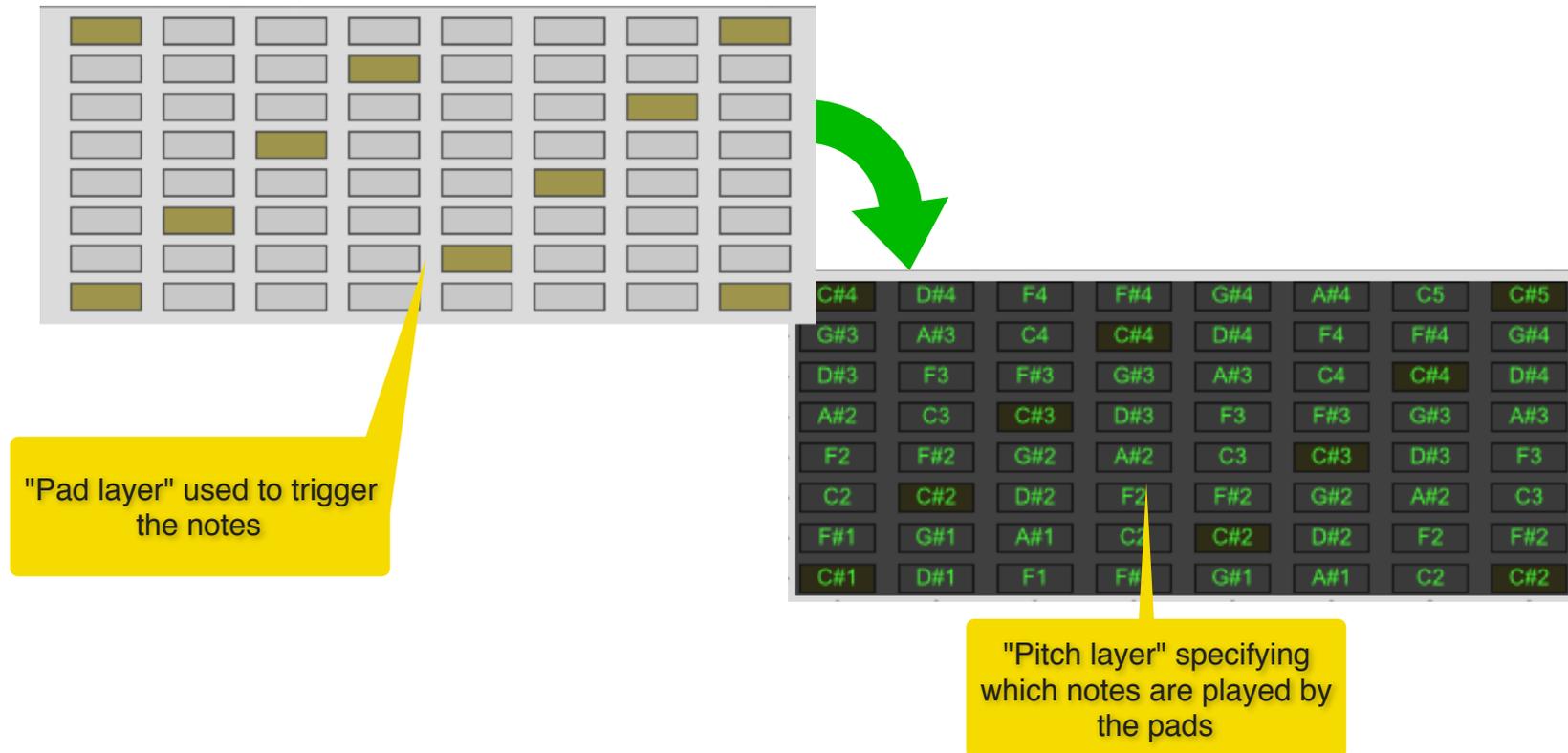


1. Main interface which shows which pad is triggered from a connected controller. You can also use the mouse to trigger a pad. When edit mode is "ON", the interface allows you to choose a note for each pad and also assign a color (see section 3.2.2 for more details).
2. Engine select buttons. Engine 1 is fully configurable by the user. Engine 2 provides two hard coded layouts specifically for Kong or similar drum device, and Dr.Octorex (see sections 3.2 and 3.3).
3. If your device is not capable of sending MIDI velocity, here you can select the desired velocity level and the amount of random variation. If your device can send MIDI velocity, you might still desire to use this to achieve "Fixed" velocity. In either case, the EXT velocity slide needs to be in the OFF position to bypass the velocity from the controller.
4. Click in the display to enable "Edit" mode. Once "ON", you will be able to configure the pitch map to suit your needs. Please note, Edit mode is available for Engine 1 only.
5. Each engine as 2 pitch map variations which can be freely switched to access more notes. There are several editing functions which make it possible to quickly duplicate maps and alter maps in various ways for more advanced uses.

### 3. Usage

grid64IP0 is a player device and hence it needs to be instantiated on top of an instrument. This can be a synth, a sampler, a drum machine or anything which receives notes and is able to make noise!

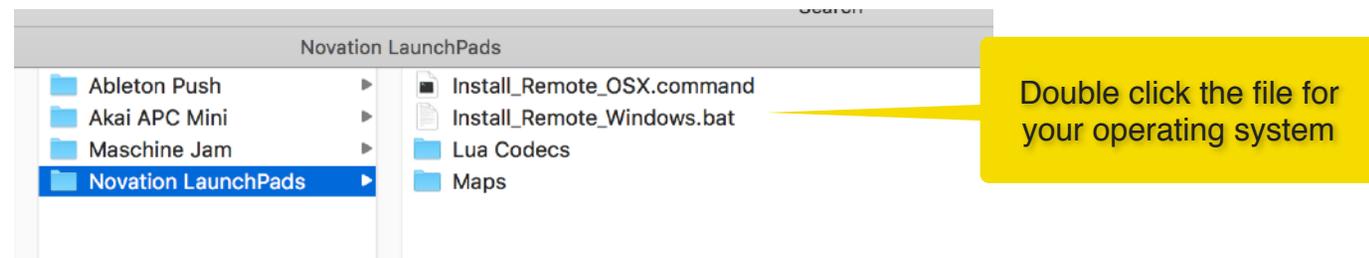
Before going into the details of programming the device, let's get some basics out of the way. The pads grid layout is basically an interface layer sitting on top of the underlying "pitch map" layer. A pad press triggers whichever note is programmed in the underlying "pitch map" layer. In Engine 1, this "pitch map" layer is fully programmable and it can be edited and altered in many different ways. Furthermore, you can switch between two different "pitch maps" while playing the device by using the Map select buttons.



## 3.1 Setting up your grid controller in Reason (standalone)

### 3.1.1 Install the Remote files

You can download the remote files from the grid64P0 product page in the Reason Studios Shop. Once you have downloaded and unzipped the files, navigate to the folder for your midi controller. In there, you will find two installer files, one for Mac and one for Windows. Double click the installer for your operating system. On Mac OS X, you will see the terminal window open when the process is completed. On Windows, you will see the console flash quickly and then closing.



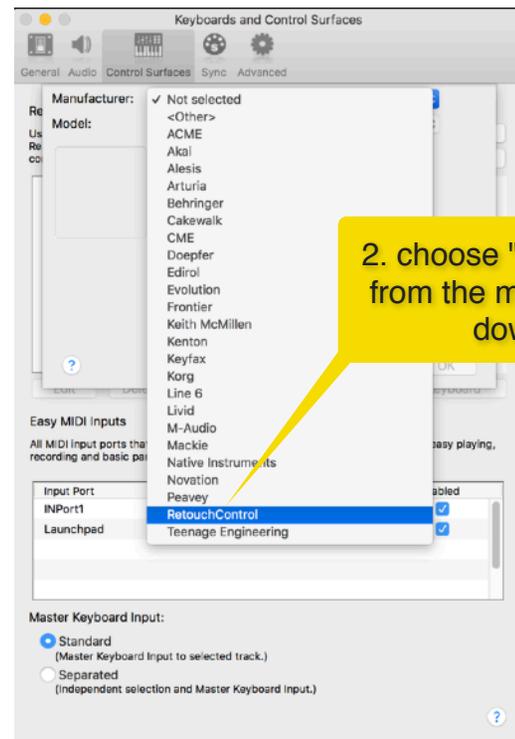
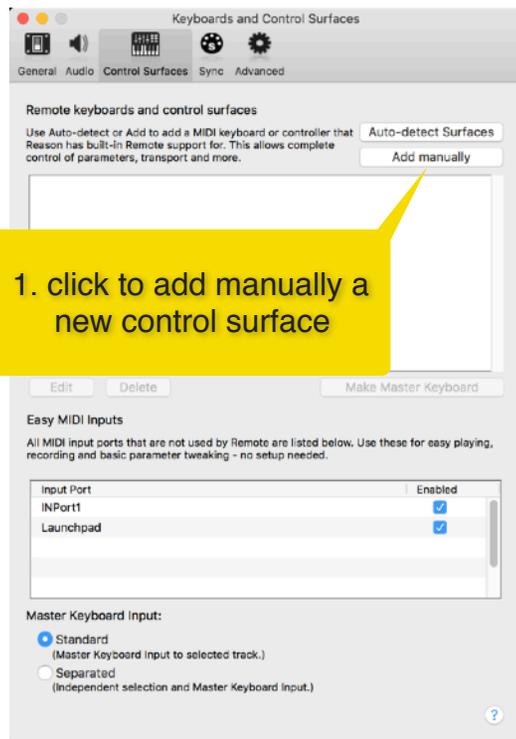
Alternatively, you can copy and paste the remote files manually. This is what you do:

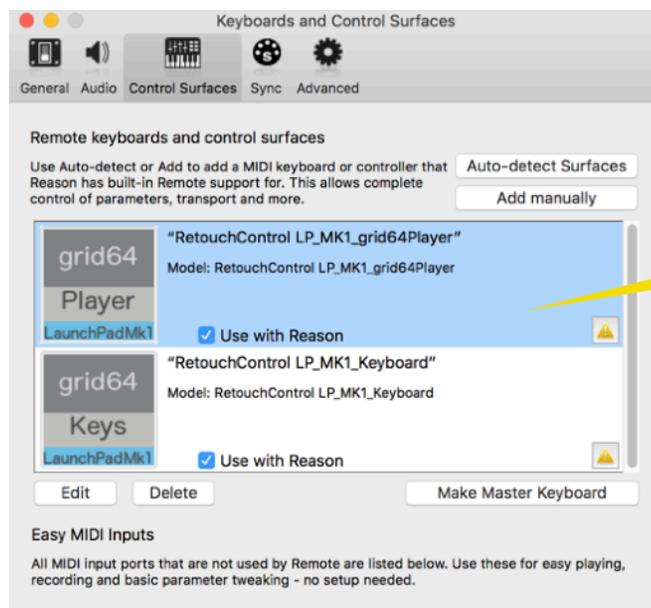
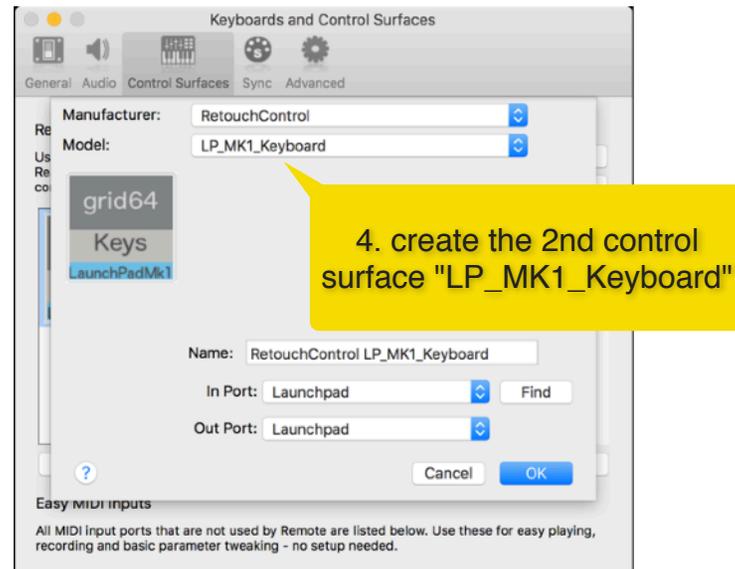
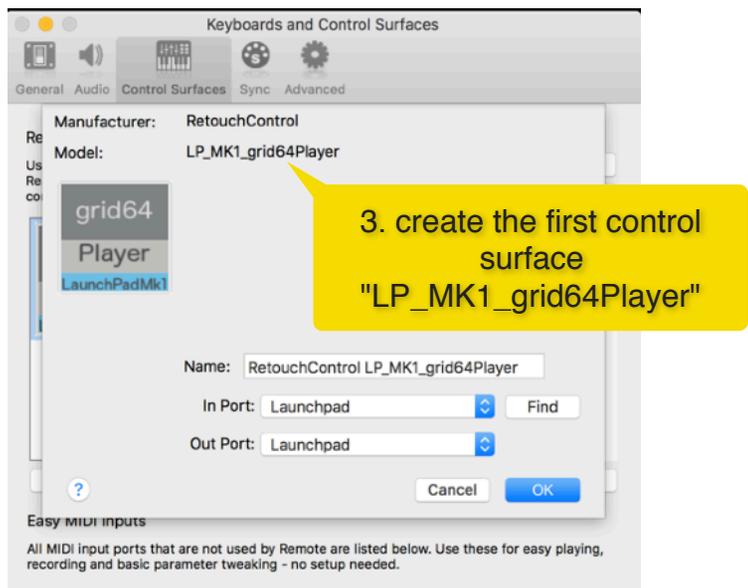
1. Go to the download, open the folder for your controller, then open "Lua Codecs", copy the entire folder in there and paste it at this location:  
Mac -> Macintosh HD/Library/Application Support/Propellerhead Software/Remote/Codecs/Lua Codecs  
Windows -> C:/ProgramData/Propellerhead Software/Remote/Codecs/Lua Codecs
2. Go back to the download, open the folder for your controller, then open "Maps" copy the entire folder in there and paste it at this location:  
Mac -> Macintosh HD/Library/Application Support/Propellerhead Software/Remote/Maps  
Windows -> C:/ProgramData/Propellerhead Software/Remote/Maps

Please note, on Windows the directory "ProgramData" is hidden by default. You need to enable "Show hidden files". See how to do it here: <https://support.microsoft.com/en-us/help/14201/windows-show-hidden-files>

### 3.1.2 Creating Control Surfaces in Reason (standalone)

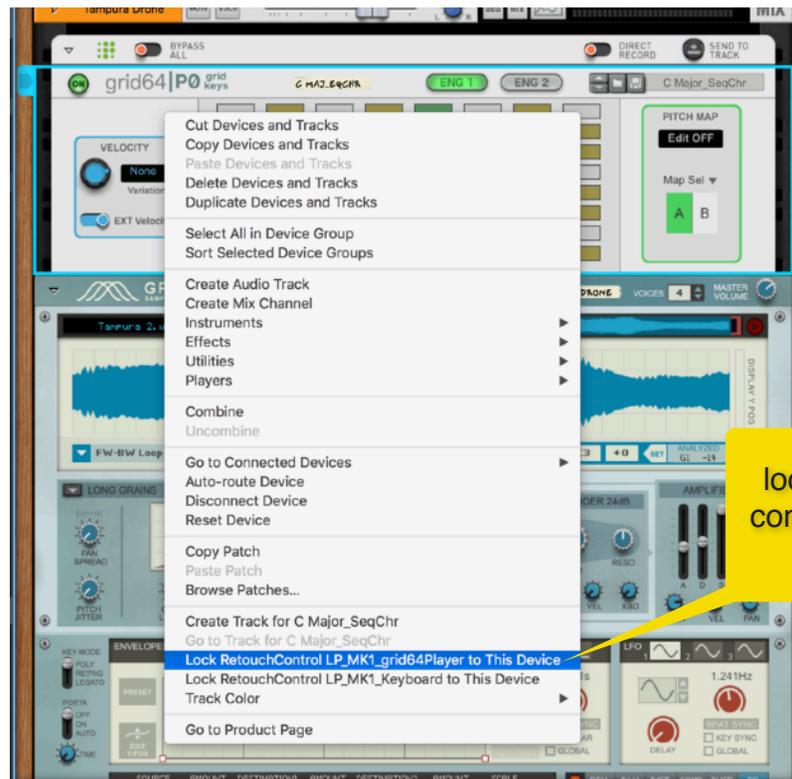
Once the remote files have been installed, start Reason. Go to "Preferences" -> "Control Surfaces" and click on "Add Manually" to create a new control surface. In the example below, we are showing how to configure a Launchpad MK1 as a controller. You will need to create two control surfaces. For each, you use as In and Out ports the midi ports of the Launchpad.





### 3.1.3 Using the Control Surfaces in Reason (standalone)

Now that the control surfaces have been created, you will be able to play the grid64 Player directly from your controller, but first, you need to lock the "LP\_MK1\_grid64Player" control surface to the player instance that you want to control, as shown below.



### 3.1.4 "What if I don't have a grid controller?"

If you don't have one of the supported grid controllers, you can use your MIDI keyboard to trigger the pads. See the following drawing for the details of the midi notes triggering each pad. The notes names shown below are based on the standard note assignment in Reason where C3 corresponds to midi note number 60.

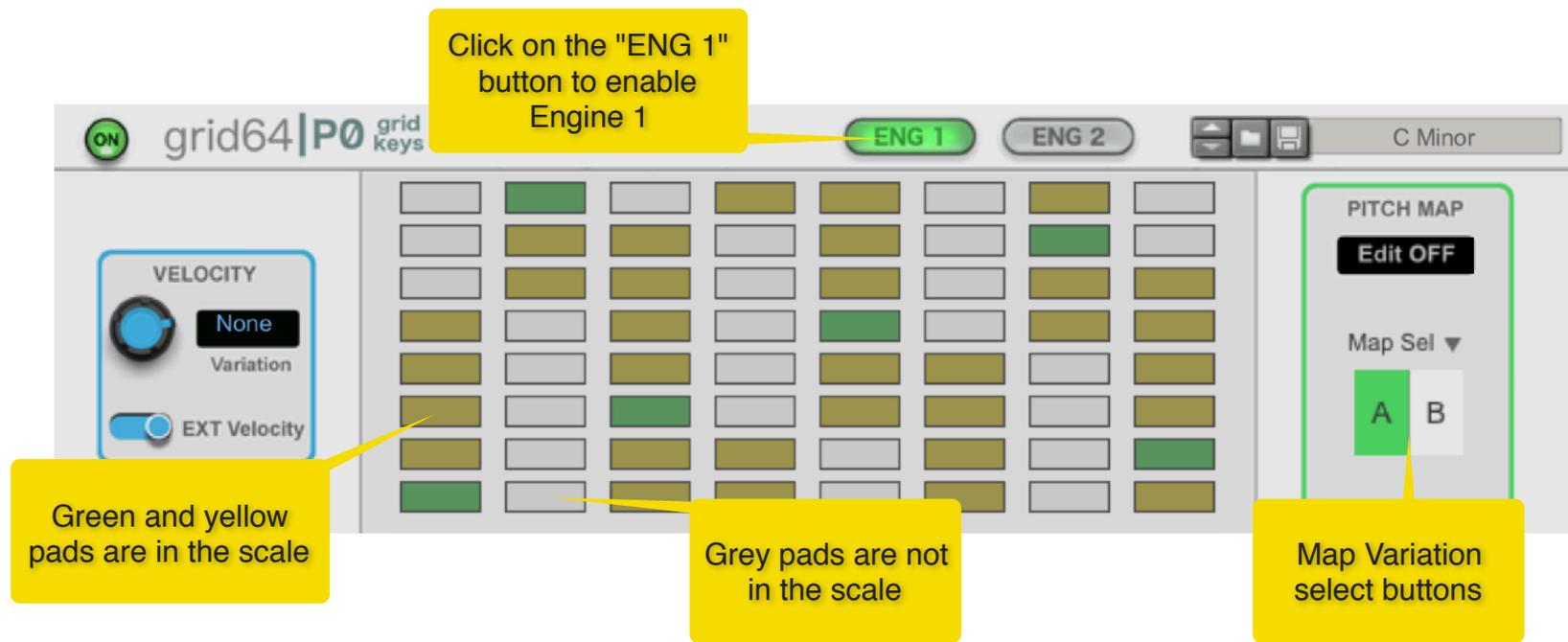
<b>G#4</b>	<b>A4</b>	<b>A#4</b>	<b>B4</b>	<b>C5</b>	<b>C#5</b>	<b>D5</b>	<b>D#5</b>
<b>C4</b>	<b>C#4</b>	<b>D4</b>	<b>D#4</b>	<b>E4</b>	<b>F4</b>	<b>F#4</b>	<b>G4</b>
<b>E3</b>	<b>F3</b>	<b>F#3</b>	<b>G3</b>	<b>G#3</b>	<b>A3</b>	<b>A#3</b>	<b>B3</b>
<b>G#2</b>	<b>A2</b>	<b>A#2</b>	<b>B2</b>	<b>C3</b>	<b>C#3</b>	<b>D3</b>	<b>D#3</b>
<b>C2</b>	<b>C#2</b>	<b>D2</b>	<b>D#2</b>	<b>E2</b>	<b>F2</b>	<b>F#2</b>	<b>G2</b>
<b>E1</b>	<b>F1</b>	<b>F#1</b>	<b>G1</b>	<b>G#1</b>	<b>A1</b>	<b>A#1</b>	<b>B1</b>
<b>G#0</b>	<b>A0</b>	<b>A#0</b>	<b>B0</b>	<b>C1</b>	<b>C#1</b>	<b>D1</b>	<b>D#1</b>
<b>C0</b>	<b>C#0</b>	<b>D0</b>	<b>D#0</b>	<b>E0</b>	<b>F0</b>	<b>F#0</b>	<b>G0</b>

## 3.2 Engine 1

The first thing you would want to do after your controller is ready to go, is to decide which Engine to use. For most devices, Engine 1 is probably the most appropriate choice as it offers the max flexibility and it's ideal for playing melodies and harmonies. If you want to play a drum machine like Kong, or trigger Dr.Octorex slices and loops, then Engine 2 is best suited for that.

### 3.2.1 "Engine 1" Overview

You enable Engine 1 by pressing the "ENG 1" button. The image below shows an example of a patch for a Chromatic layout where the pads representing the notes in the C minor scale have a different color. Specifically, the C root note is in green, while the other notes of the scale are in dark yellow. The other pads in grey are notes NOT in the scale. These colors are mirrored on your grid controller to the closest colors available depending on the hardware type. Engine 1 has two Map variations which can be switched using the "Map Sel" buttons.



### 3.2.2 "Engine 1" Edit mode - Single Pads

To create your custom mappings, enable the pitch map edit mode by pressing in the display area as shown below. Once edit mode is active, just click on a pad with a note name to change its value by choosing a different note from the context menu. To change the color of the pad, press "Alt" on the keyboard, then click with the mouse on the pad and select a color from the context menu.





Press the **Alt** key and click on a pad to change its color

- Grey
- Yellow
- Green
- Orange

White color when active, grey (off) when inactive

Bright yellow color when active, dark yellow when inactive

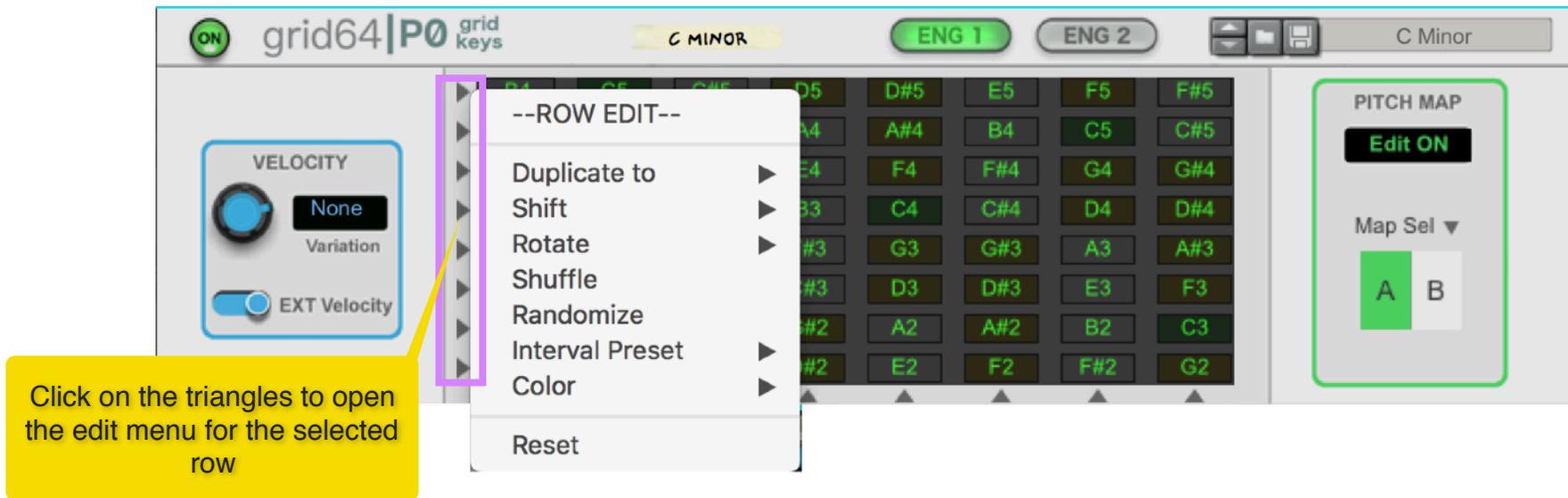
Bright green color when active, dark green when inactive

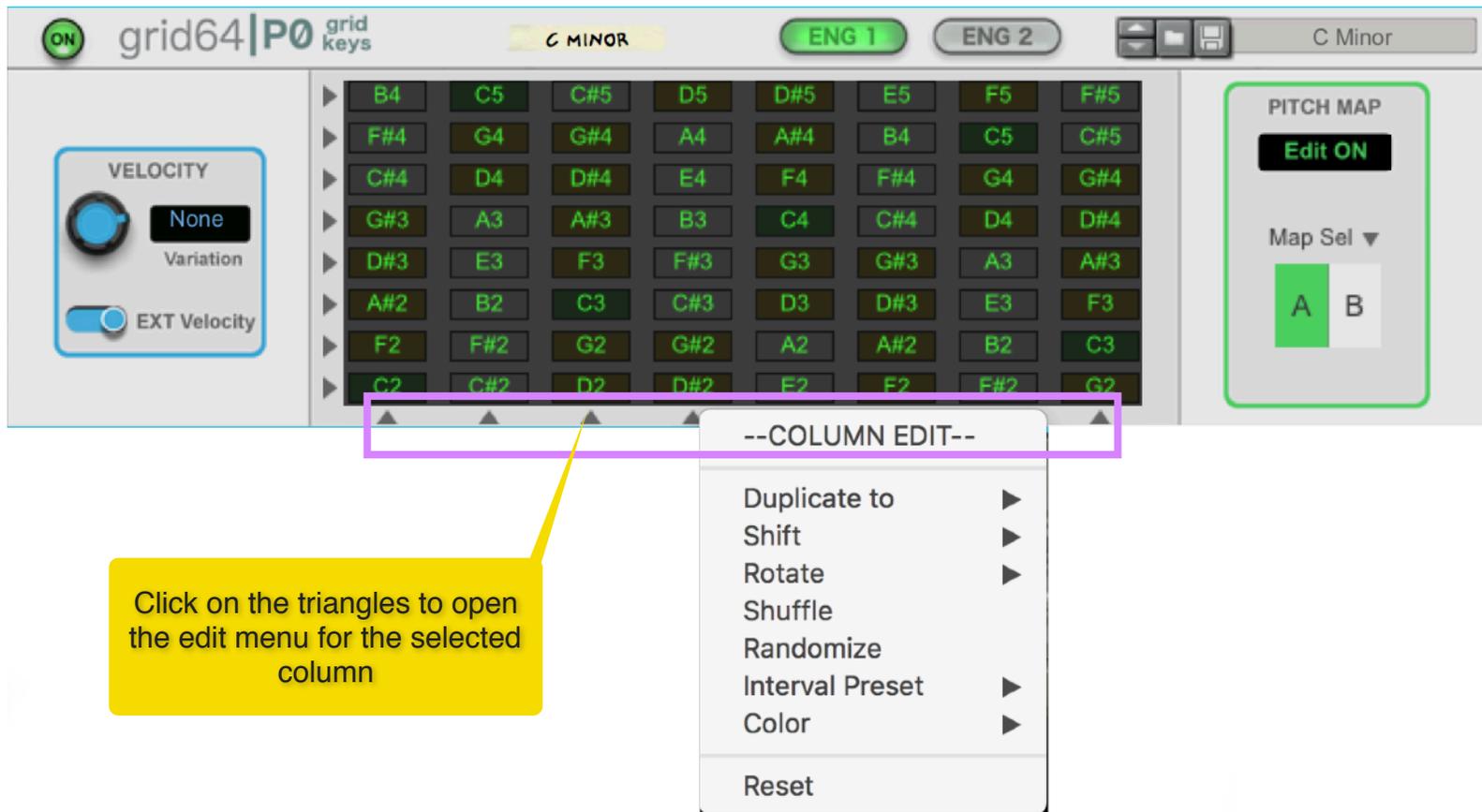
Bright orange color when active, dark orange when inactive

So far, we have discussed editing of single pads. What if we want to edit multiple pads at once? This is possible, and there are 3 ways to do that. You can edit at once single columns, single rows, or the entire map. These options are illustrated below.

### 3.2.3 "Engine 1" Row and Column Edit

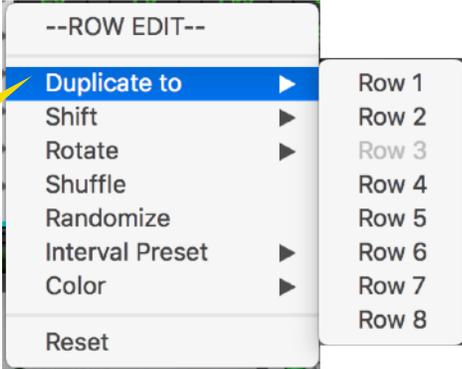
To edit an entire row or column of pads, click on the corresponding triangle to open the Edit context menu.





Both the Row and Column edit menus offer several editing options and these are explained below:

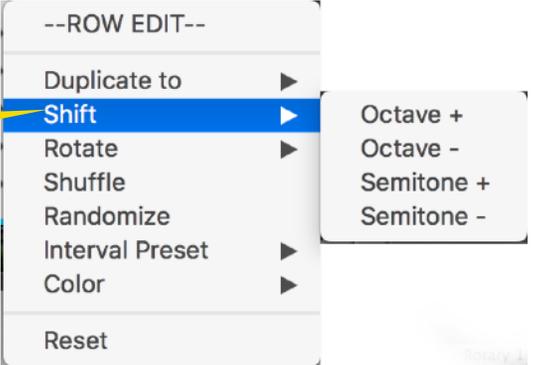
Duplicate the selected Row/Column to another Row/Column



--ROW EDIT--

- Duplicate to ▶ Row 1
- Shift ▶ Row 2
- Rotate ▶ Row 3
- Shuffle Row 4
- Randomize Row 5
- Interval Preset ▶ Row 6
- Color ▶ Row 7
- Reset Row 8

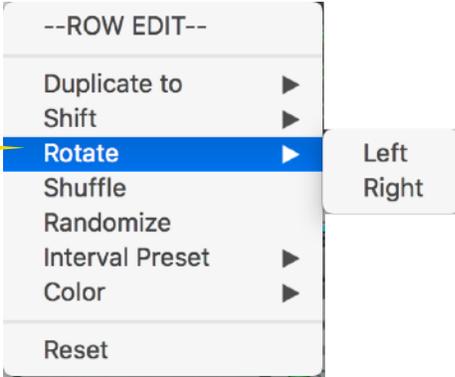
Shifts the notes in the selected Row/Column by octave or semitone



--ROW EDIT--

- Duplicate to ▶
- Shift ▶ Octave +
- Rotate ▶ Octave -
- Shuffle ▶ Semitone +
- Randomize ▶ Semitone -
- Interval Preset ▶
- Color ▶
- Reset

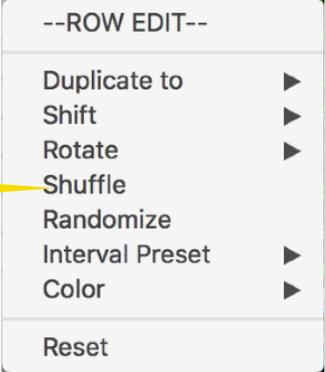
Move the notes by one position left or right for Rows, and up or down for Columns



--ROW EDIT--

- Duplicate to ▶
- Shift ▶
- Rotate ▶ Left
- Shuffle ▶ Right
- Randomize
- Interval Preset ▶
- Color ▶
- Reset

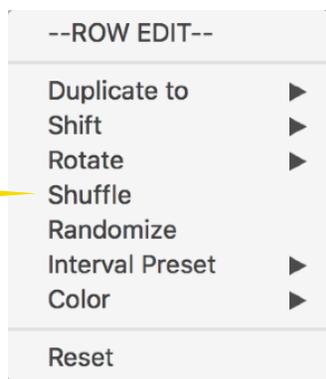
Shuffle around the positions of the notes



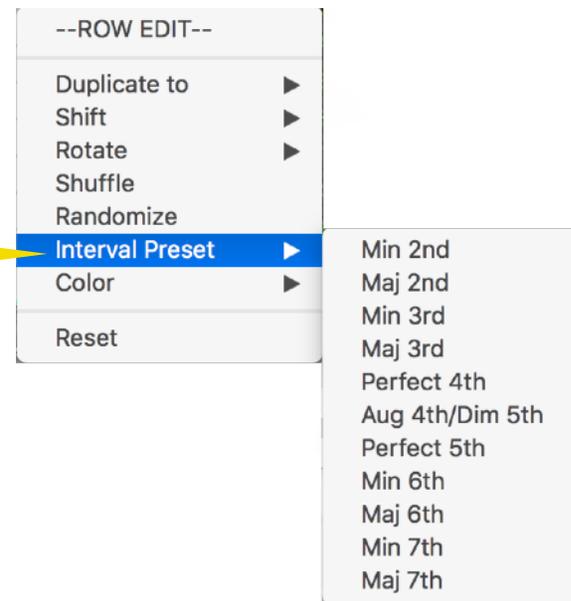
--ROW EDIT--

- Duplicate to ▶
- Shift ▶
- Rotate ▶
- Shuffle
- Randomize
- Interval Preset ▶
- Color ▶
- Reset

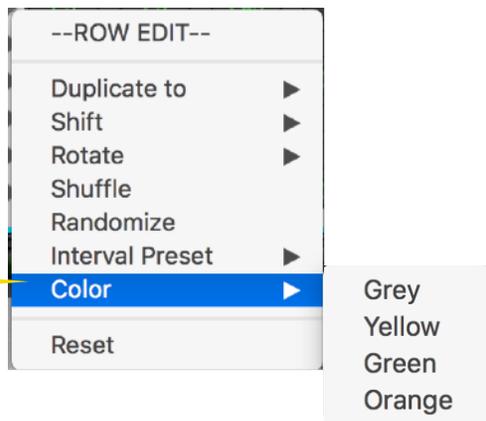
Randomize the values of the notes in the Row/Column



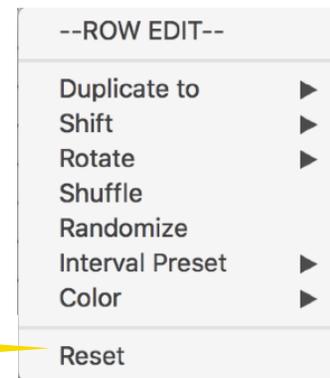
Assign notes with each successive pad being the selected interval apart from its predecessor. The first note in the Row/Column is the starting note in the sequence



Assign the same color to all the pads in the Row/Column



Resets all pads in the Row/Column to default values



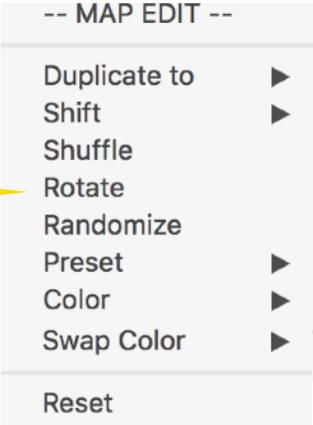
### 3.2.4 "Engine 1" Map Edit

In addition to the Row/Column edit menus, you can also perform editing functions which affect all the pads for the selected Map. You access these functions by clicking on the down triangle in the "Map Sel" area, as shown below.

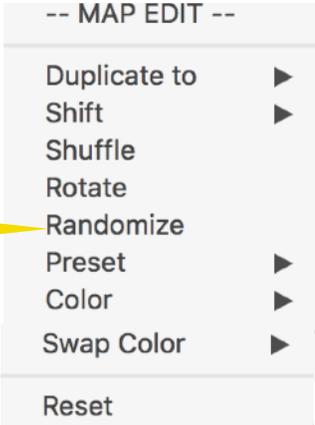
The image contains four screenshots of the 'MAP EDIT' menu, each with a yellow callout box explaining a function:

- Top Left:** A callout points to the down triangle in the 'Map Sel' area of the 'PITCH MAP' interface. The callout text is: "Click on the down triangle to open the Map Edit menu".
- Top Right:** A callout points to the 'Duplicate to' option in the 'MAP EDIT' menu. The callout text is: "Duplicate the current map to the other map variation".
- Bottom Left:** A callout points to the 'Shift' option in the 'MAP EDIT' menu. The callout text is: "Shift all the notes in the selected Map by octave or semitone".
- Bottom Right:** A callout points to the 'Shuffle' option in the 'MAP EDIT' menu. The callout text is: "Shuffle around the notes in the selected map".

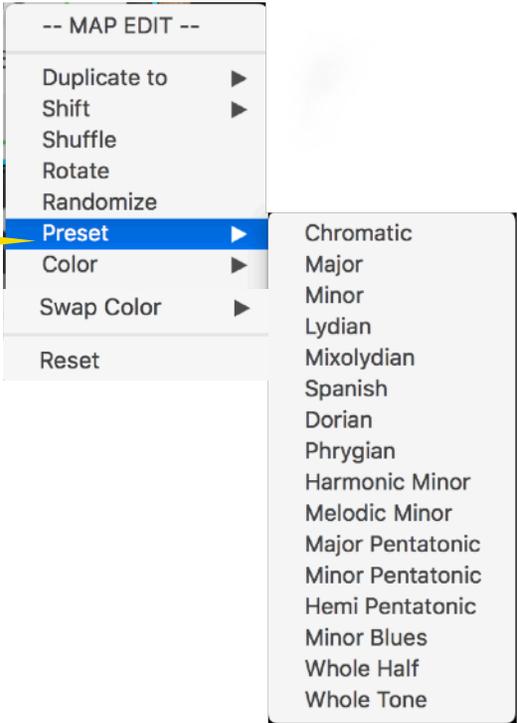
Perform a 90 deg clockwise rotation of the selected map



Randomize all the notes in the selected map



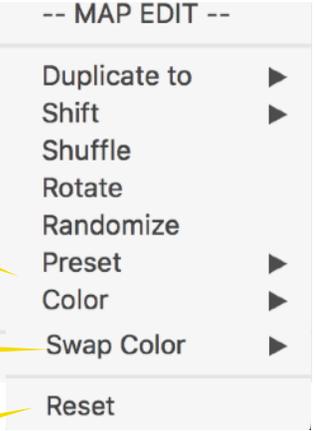
Create a mapping of the notes according to the selected scale, starting from the leftmost bottom pad as the root note



Assign the selected color to all notes in the map

Swap one color with another

Reset all pads to default values

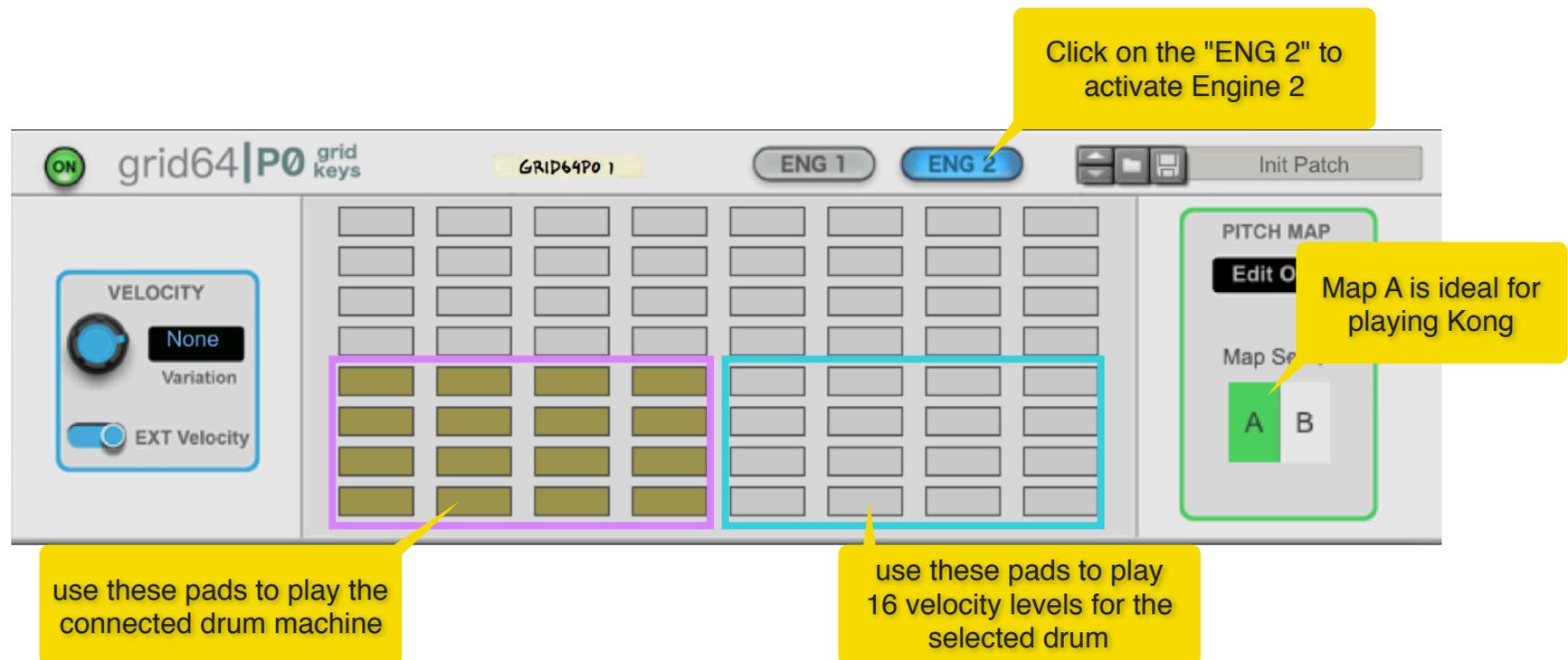


## 3.3 Engine 2

As discussed previously, Engine 2 is best suited to play the Kong drum machine (or similar) and the Dr.Octorex device. There are two map variations which are dedicated to each device type, as explained below.

### 3.3.1 "Engine 2" Map A

In Map A, you will find the perfect set up to play drums on Kong, Redrum or similar drum instrument. For example, the first 16 pads on the left side in dark yellow can be used to trigger pads 1 thru 16 in Kong. On the right side, the next 16 pads can be used to play the selected drum at 16 velocity levels. To select a drum, simply hit the corresponding pad on the left side .



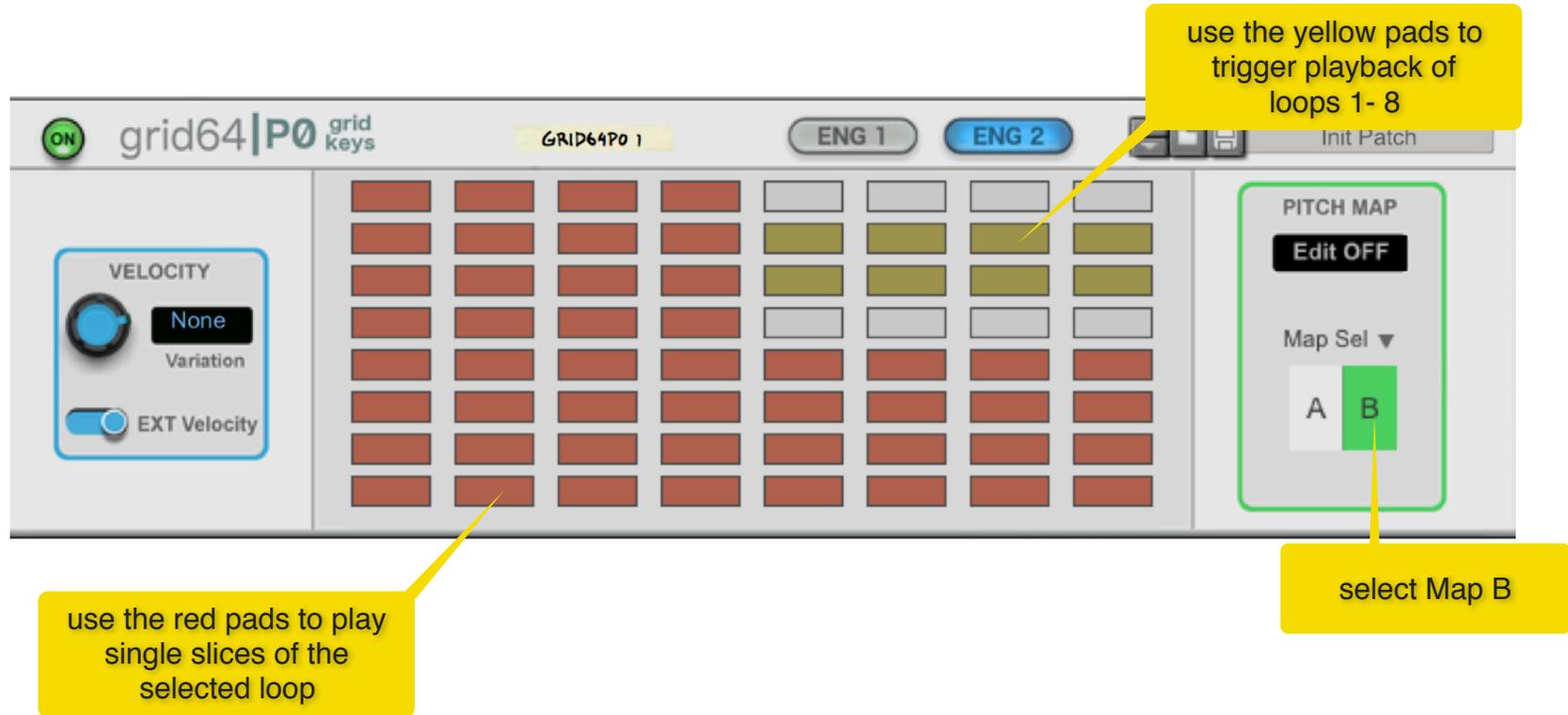


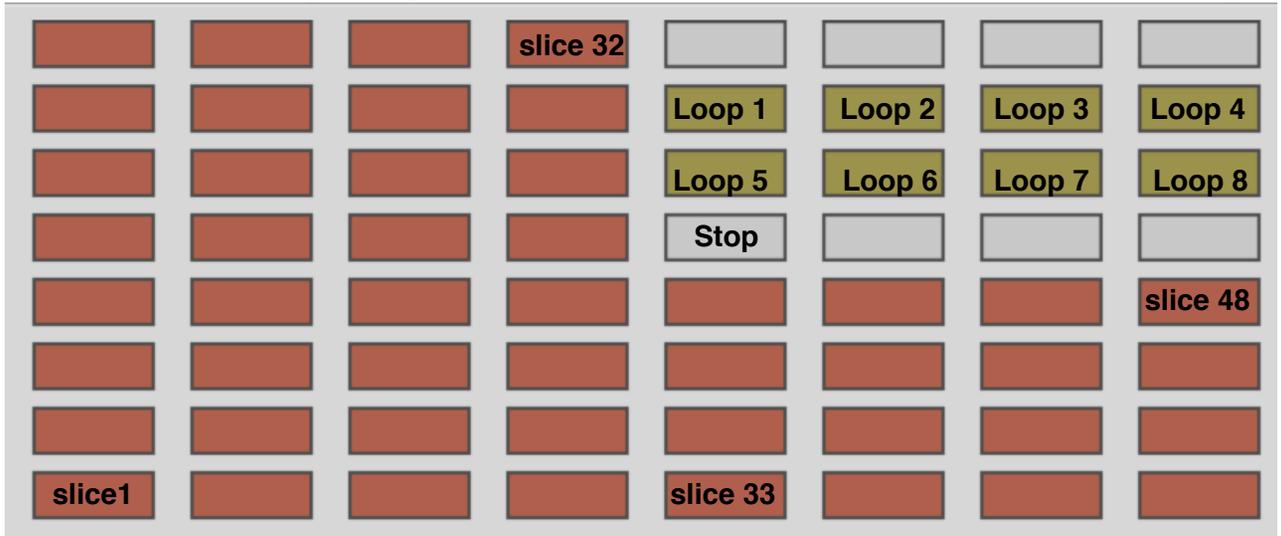
1. select a drum here by hitting a pad

2. play that drum here at 16 velocity levels

### 3.3.2 "Engine 2" Map B

Map B is specifically designed to be used with Dr.Octorex. The pads in orange are used to trigger single slices of the selected rex loop, while the yellow pads trigger playback of the loops loaded in slots 1 through 8. *Please be aware, if you are using a grid controller, you should put the Dr.Octorex device in a combinator so that it can be triggered properly!*

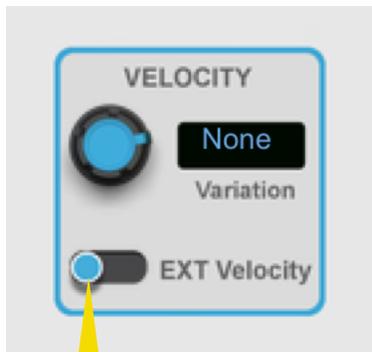




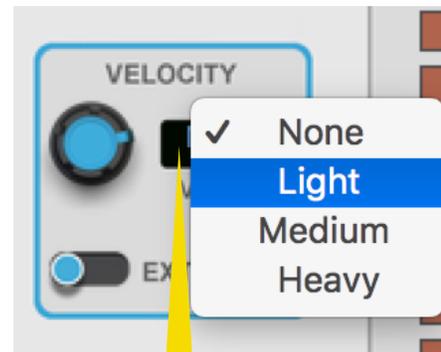


### 3.3 Velocity

If your grid controller is only sending a fixed midi velocity (usually 127), you can disable the "EXT" velocity switch and use the velocity knob to assign a custom velocity to the incoming notes. Furthermore, you can select one of the velocity variation modes to add a varying degree of offset from the base velocity set by the velocity knob.



switch off the EXT velocity to use the internal velocity instead of the velocity from your midi controller



click in the display to set a variation amount to the internal velocity

## 4. MIDI Implementation

### MIDI CC - Parameter

- [12] = Engine,
- [13] = Map Variation
- [14] = Velocity

## 5. Remote Implementation

To obtain the complete list of all the available parameters which are controllable via Remote, use the "Extract Device Remote Info" from the File menu in Reason.

<b>Manufacturer</b>	<b>Model</b>			
Retouch Control	com.retouchcontrol.grid64P0			
Remotable	Min	Max	Input type	Output type
Grid 1	0	127	Value	ValueOutput
Grid 2	0	127	Value	ValueOutput
Grid 3	0	127	Value	ValueOutput
Grid 4	0	127	Value	ValueOutput
Grid 5	0	127	Value	ValueOutput
Grid 6	0	127	Value	ValueOutput
Grid 7	0	127	Value	ValueOutput
Grid 8	0	127	Value	ValueOutput
Grid 9	0	127	Value	ValueOutput
Grid 10	0	127	Value	ValueOutput
Grid 11	0	127	Value	ValueOutput
Grid 12	0	127	Value	ValueOutput
Grid 13	0	127	Value	ValueOutput
Grid 14	0	127	Value	ValueOutput
Grid 15	0	127	Value	ValueOutput
Grid 16	0	127	Value	ValueOutput
Grid 17	0	127	Value	ValueOutput
Grid 18	0	127	Value	ValueOutput
Grid 19	0	127	Value	ValueOutput
Grid 20	0	127	Value	ValueOutput
Grid 21	0	127	Value	ValueOutput
Grid 22	0	127	Value	ValueOutput
Grid 23	0	127	Value	ValueOutput
Grid 24	0	127	Value	ValueOutput
Grid 25	0	127	Value	ValueOutput

Grid 26	0	127	Value	ValueOutput
Grid 27	0	127	Value	ValueOutput
Grid 28	0	127	Value	ValueOutput
Grid 29	0	127	Value	ValueOutput
Grid 30	0	127	Value	ValueOutput
Grid 31	0	127	Value	ValueOutput
Grid 32	0	127	Value	ValueOutput
Grid 33	0	127	Value	ValueOutput
Grid 34	0	127	Value	ValueOutput
Grid 35	0	127	Value	ValueOutput
Grid 36	0	127	Value	ValueOutput
Grid 37	0	127	Value	ValueOutput
Grid 38	0	127	Value	ValueOutput
Grid 39	0	127	Value	ValueOutput
Grid 40	0	127	Value	ValueOutput
Grid 41	0	127	Value	ValueOutput
Grid 42	0	127	Value	ValueOutput
Grid 43	0	127	Value	ValueOutput
Grid 44	0	127	Value	ValueOutput
Grid 45	0	127	Value	ValueOutput
Grid 46	0	127	Value	ValueOutput
Grid 47	0	127	Value	ValueOutput
Grid 48	0	127	Value	ValueOutput
Grid 49	0	127	Value	ValueOutput
Grid 50	0	127	Value	ValueOutput
Grid 51	0	127	Value	ValueOutput
Grid 52	0	127	Value	ValueOutput
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Grid 54	0	127	Value	ValueOutput
Grid 55	0	127	Value	ValueOutput
Grid 56	0	127	Value	ValueOutput
Grid 57	0	127	Value	ValueOutput
Grid 58	0	127	Value	ValueOutput
Grid 59	0	127	Value	ValueOutput
Grid 60	0	127	Value	ValueOutput
Grid 61	0	127	Value	ValueOutput

Grid 62	0	127	Value	ValueOutput
Grid 63	0	127	Value	ValueOutput
Grid 64	0	127	Value	ValueOutput
Map	0	1	Toggle	ValueOutput
Engine	0	1	Toggle	ValueOutput
Velocity	0	127	Value	ValueOutput
Grid LED 1	0	7	-	ValueOutput
Grid LED 2	0	7	-	ValueOutput
Grid LED 3	0	7	-	ValueOutput
Grid LED 4	0	7	-	ValueOutput
Grid LED 5	0	7	-	ValueOutput
Grid LED 6	0	7	-	ValueOutput
Grid LED 7	0	7	-	ValueOutput
Grid LED 8	0	7	-	ValueOutput
Grid LED 9	0	7	-	ValueOutput
Grid LED 10	0	7	-	ValueOutput
Grid LED 11	0	7	-	ValueOutput
Grid LED 12	0	7	-	ValueOutput
Grid LED 13	0	7	-	ValueOutput
Grid LED 14	0	7	-	ValueOutput
Grid LED 15	0	7	-	ValueOutput
Grid LED 16	0	7	-	ValueOutput
Grid LED 17	0	7	-	ValueOutput
Grid LED 18	0	7	-	ValueOutput
Grid LED 19	0	7	-	ValueOutput
Grid LED 20	0	7	-	ValueOutput
Grid LED 21	0	7	-	ValueOutput
Grid LED 22	0	7	-	ValueOutput
Grid LED 23	0	7	-	ValueOutput
Grid LED 24	0	7	-	ValueOutput
Grid LED 25	0	7	-	ValueOutput
Grid LED 26	0	7	-	ValueOutput
Grid LED 27	0	7	-	ValueOutput
Grid LED 28	0	7	-	ValueOutput
Grid LED 29	0	7	-	ValueOutput
Grid LED 30	0	7	-	ValueOutput

Grid LED 31	0	7	-	ValueOutput
Grid LED 32	0	7	-	ValueOutput
Grid LED 33	0	7	-	ValueOutput
Grid LED 34	0	7	-	ValueOutput
Grid LED 35	0	7	-	ValueOutput
Grid LED 36	0	7	-	ValueOutput
Grid LED 37	0	7	-	ValueOutput
Grid LED 38	0	7	-	ValueOutput
Grid LED 39	0	7	-	ValueOutput
Grid LED 40	0	7	-	ValueOutput
Grid LED 41	0	7	-	ValueOutput
Grid LED 42	0	7	-	ValueOutput
Grid LED 43	0	7	-	ValueOutput
Grid LED 44	0	7	-	ValueOutput
Grid LED 45	0	7	-	ValueOutput
Grid LED 46	0	7	-	ValueOutput
Grid LED 47	0	7	-	ValueOutput
Grid LED 48	0	7	-	ValueOutput
Grid LED 49	0	7	-	ValueOutput
Grid LED 50	0	7	-	ValueOutput
Grid LED 51	0	7	-	ValueOutput
Grid LED 52	0	7	-	ValueOutput
Grid LED 53	0	7	-	ValueOutput
Grid LED 54	0	7	-	ValueOutput
Grid LED 55	0	7	-	ValueOutput
Grid LED 56	0	7	-	ValueOutput
Grid LED 57	0	7	-	ValueOutput
Grid LED 58	0	7	-	ValueOutput
Grid LED 59	0	7	-	ValueOutput
Grid LED 60	0	7	-	ValueOutput
Grid LED 61	0	7	-	ValueOutput
Grid LED 62	0	7	-	ValueOutput
Grid LED 63	0	7	-	ValueOutput
Grid LED 64	0	7	-	ValueOutput
Device Name	0	0	-	TextOutput
Patch Name	0	0	-	TextOutput

Select Patch Delta	0	0	Delta	TextOutput
Select Previous Patch0	0	0	Trig	TextOutput
Select Next Patch	0	0	Trig	TextOutput

## 6. Version History

**Version 1.0.0:** initial release

**Version 1.0.1:** minor fixes to the factory patches