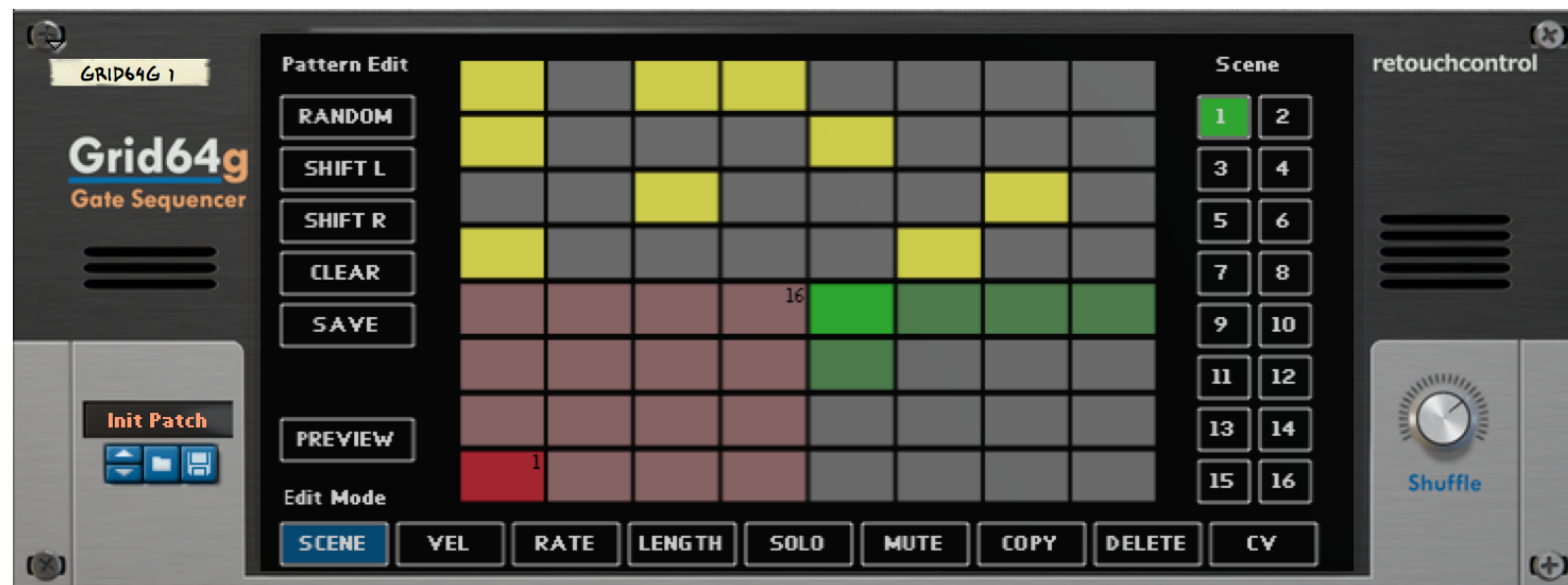


Grid64g Gate Sequencer

Rack Extension for Propellerhead Reason



USER MANUAL version 1.1.1

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Introduction

The **Grid64g** is a Rack Extension grid step sequencer device for Propellerhead's Reason. Its gate and CV step sequencing capabilities make it ideal for triggering drum instruments like Kong, Redrum, but also sampler instruments like the NN-19 or NN-XT. Its main features are:

- 16 independent channels capable of outputting gate with velocity and quantized bipolar CV values
- 32 steps matrix with independent control over the rate and the length of the pattern for each channel
- various pattern edit functions, including randomize steps and velocities, shift left and right, and clear
- 16 scenes with the ability to copy, paste and delete scenes. Also scenes can be saved in a patch for later recall
- scene in and out CV connections which allow to chain several devices together for more complex sequencing arrangements
- global shuffle
- solo and mute of channels
- recording of solo, mute and scene changes in the Reason sequencer
- native Remote support for several third party 8x8 grid midi controllers, including the Novation LaunchPad series, Ableton Push, Maschine Jam and more.

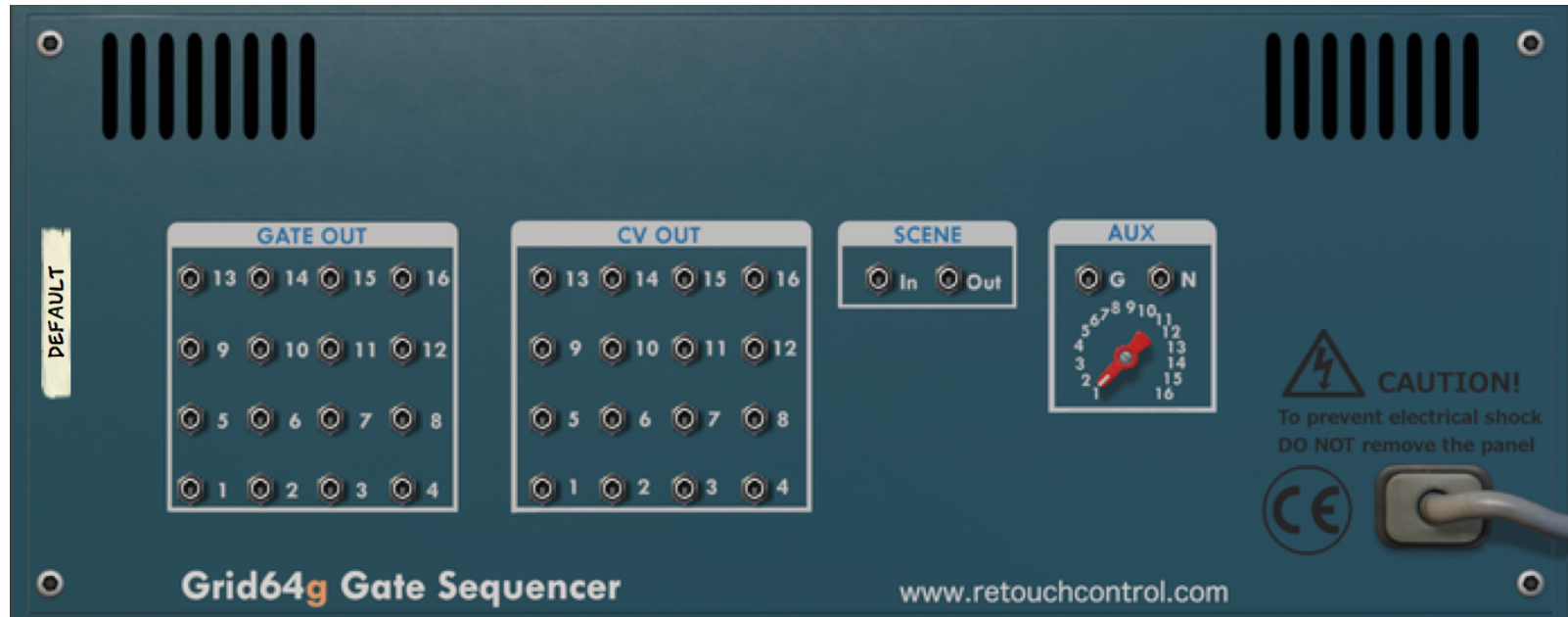
This last feature is noteworthy as the goal was to create a device which could be programmed "hands on" in a fast, intuitive and fun way from a 8x8 grid MIDI controller.

Main Areas - Front



1. The 8x8 grid is divided in 3 areas:
 - the top half is for programming patterns of up to 32 steps for the selected channel [32 steps programming]
 - the lower left quadrant is for selecting one of 16 channels [channel select]
 - the lower right quadrant is for scene operations, and editing various parameters like step velocity, pattern rate and length [edit area]
2. The “Pattern Edit” buttons on the left side allow to randomize, shift, clear and save the pattern for the selected channel
3. The “Edit Mode” buttons select which function is enabled in the edit area
4. The “Scene” buttons on the right side select one of 16 available scenes. Scene switching is immediate, it can be recorded and edited in the Reason sequencer.

Main Areas - Back

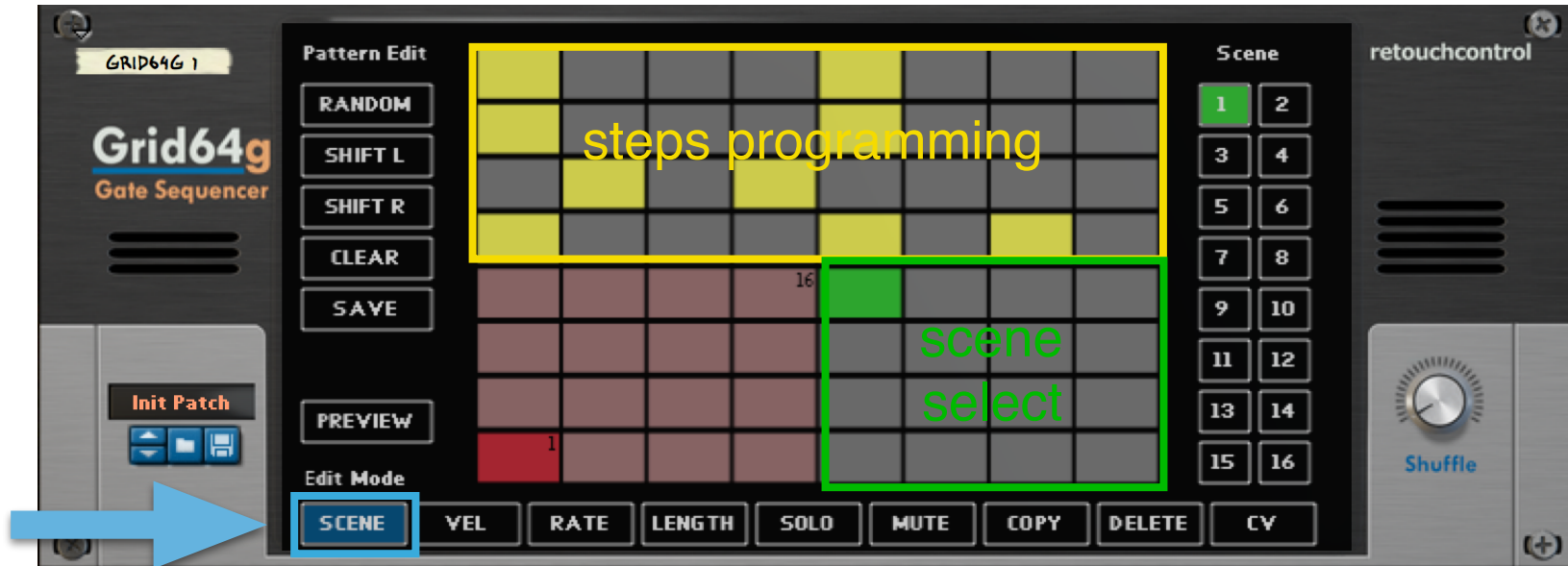


There are 4 main areas in the back of the device:

1. Gate Out - each of the outlets will send a gate “high” value if there is a step programmed in the pattern. Along with the gate high, it will also output a velocity value which is quantized between 0 and 127 in 16 divisions with minimum value of 8 and maximum value of 127.
2. CV Out - each of the outlets will send a bipolar value if there is a step programmed in the pattern. The CV value is between -1 and 1 and it is divided in 64 discrete values.
3. Scene In and Out - each device is capable of sending its scene out CV and receiving a scene in CV from other devices (not both at the same time). It is thus possible to chain multiple devices together so that their scenes change at the same time. Furthermore, if a device is sending a channel CV output greater than 0, this could also be used to change the scene on another connected device. Please be aware, if the device scene selection is controlled by another device, the GUI is no longer available for programming.

4. Aux Out - these are convenience Gate and CV outlets for users of Reason 9 and above which will allow to transfer the programmed patterns to track. For more info, please refer to the section “Transfer Patterns to Track”

Edit Mode - Scene



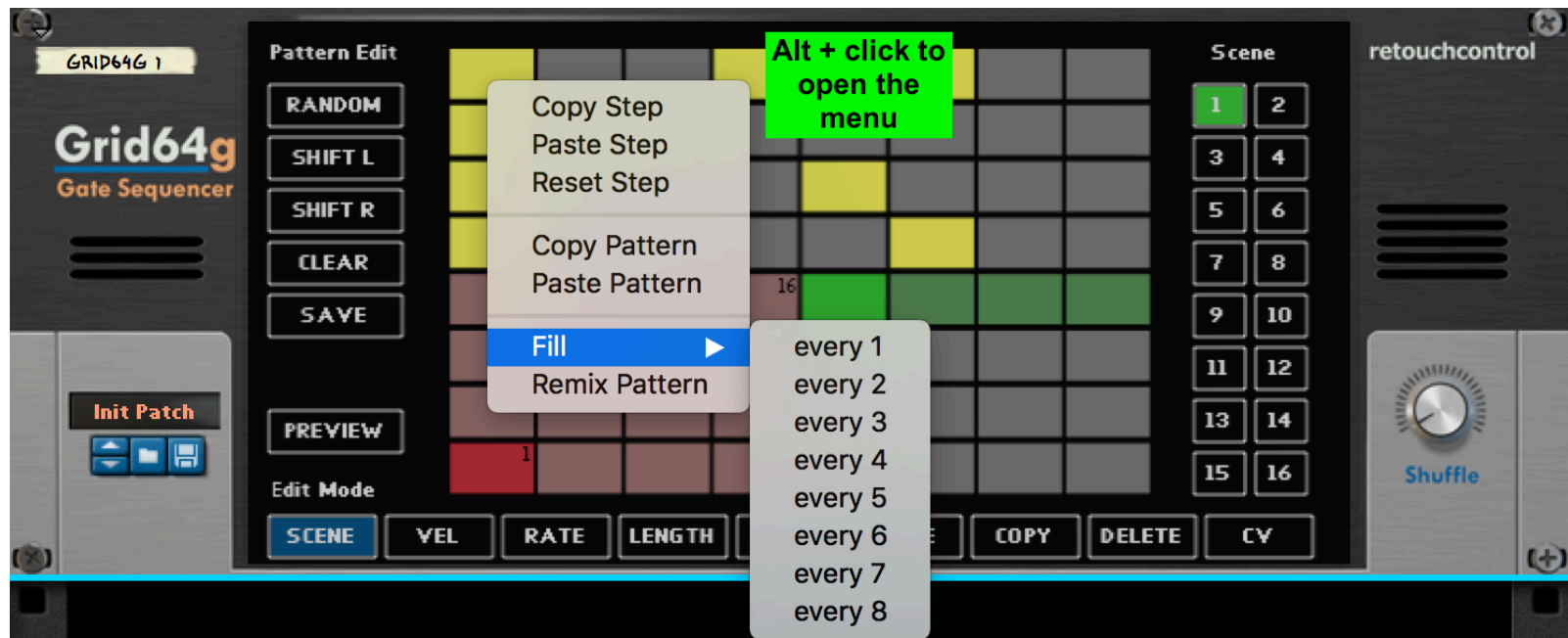
When the “Edit Mode” is set to “Scene”, the top half of the grid can be used to program up to 32 steps for the selected channel. The pattern can then be altered with the “Pattern Edit” buttons on the left side.

The lower right quadrant is used to select one of the available 16 channels, with the bottom left button representing channel 1. If the “Preview” button is lit, then clicking on a channel select button will send out a gate trigger event to the connected device. This is useful when wanting to preview the sound which is going to be triggered by the channel.

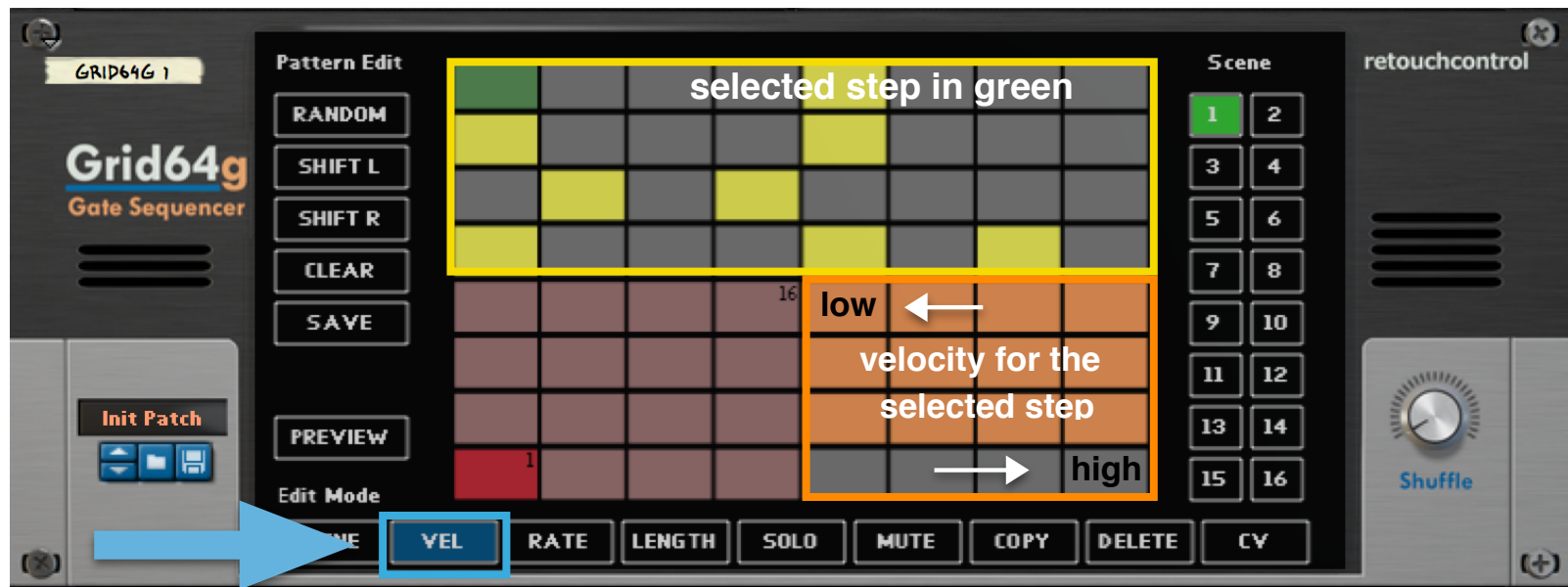
The lower right quadrant can be used to switch between one of 16 available scenes.

New in 1.1.1: If “Alt” is pressed while clicking in the display, a menu opens with various editing options:

- copy/paste/reset step-> you can copy a step and paste it to another location within the same drum pattern or scene into another drum pattern or scene. Both the velocity and CV values are copied.
- copy and paste pattern -> you can copy and paste a pattern from one drum to another, within the same or to another scene.
- Fill -> several options for filling the steps according to specific patterns
- Remix Pattern -> creates a variation of the existing pattern



Edit Mode - Velocity



When the edit mode is set to “Vel”, it is possible to adjust the velocity for the selected step. You select a step by clicking on it in the top half of the grid. When a step is selected, it is shown in green.

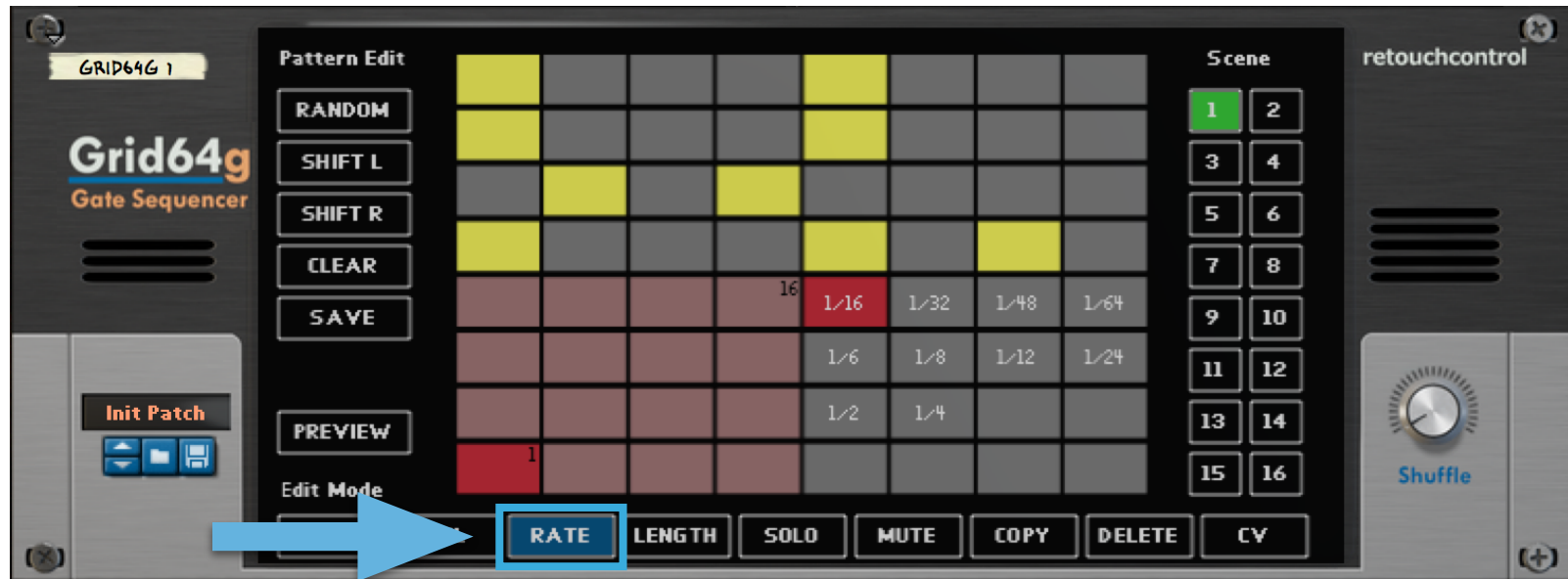
The velocity is adjusted in the bottom right quadrant. There are 16 velocity values to choose from, with increasing values from top to bottom. The minimum value is 8 while the maximum value is 127.

If you select a step where there is no step already programmed, a new step will be created when you enter a velocity value. This is an alternative way to add steps to the pattern.

New in 1.1.1:

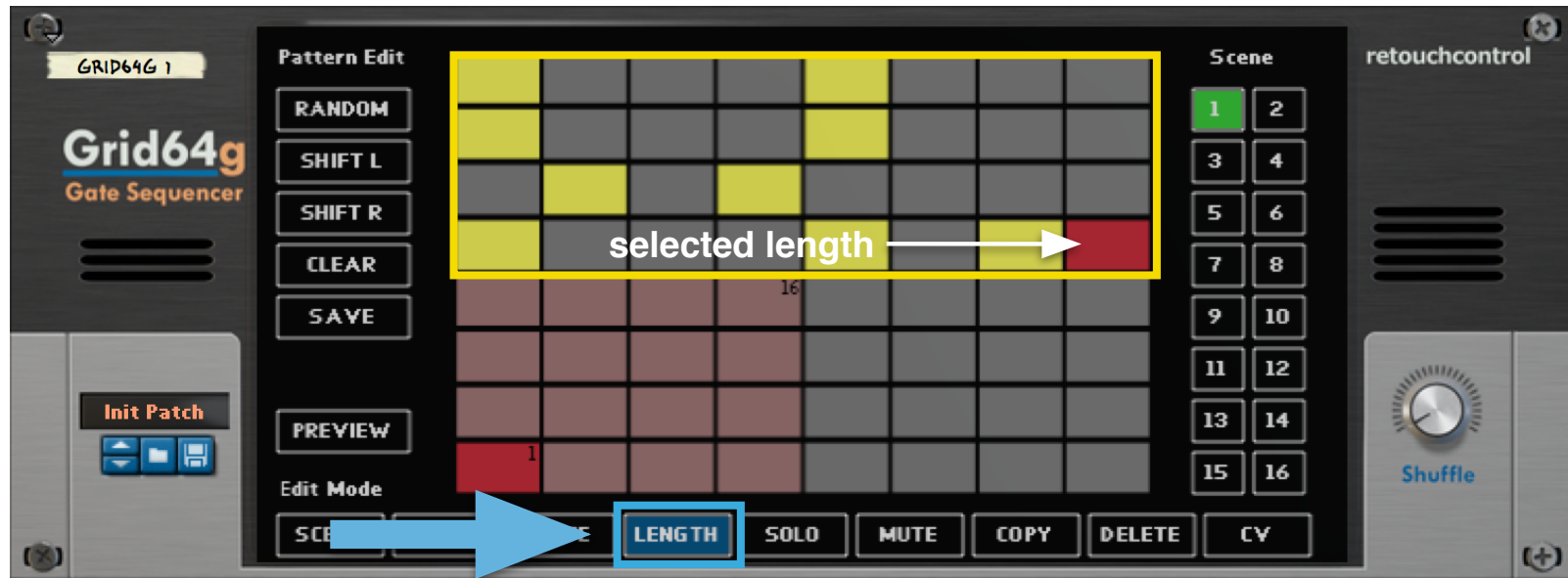
If **Shift** is pressed on the keyboard while clicking on a velocity value for a given step, that value is going to be assigned to all the other active steps in the pattern.

Edit Mode - Rate



When the edit mode is set to “Rate”, then it is possible to modify in the bottom right quadrant, the rate for the selected channel. There are several values to choose from, including triplet and dotted values. Every channel can have its own independent rate value.

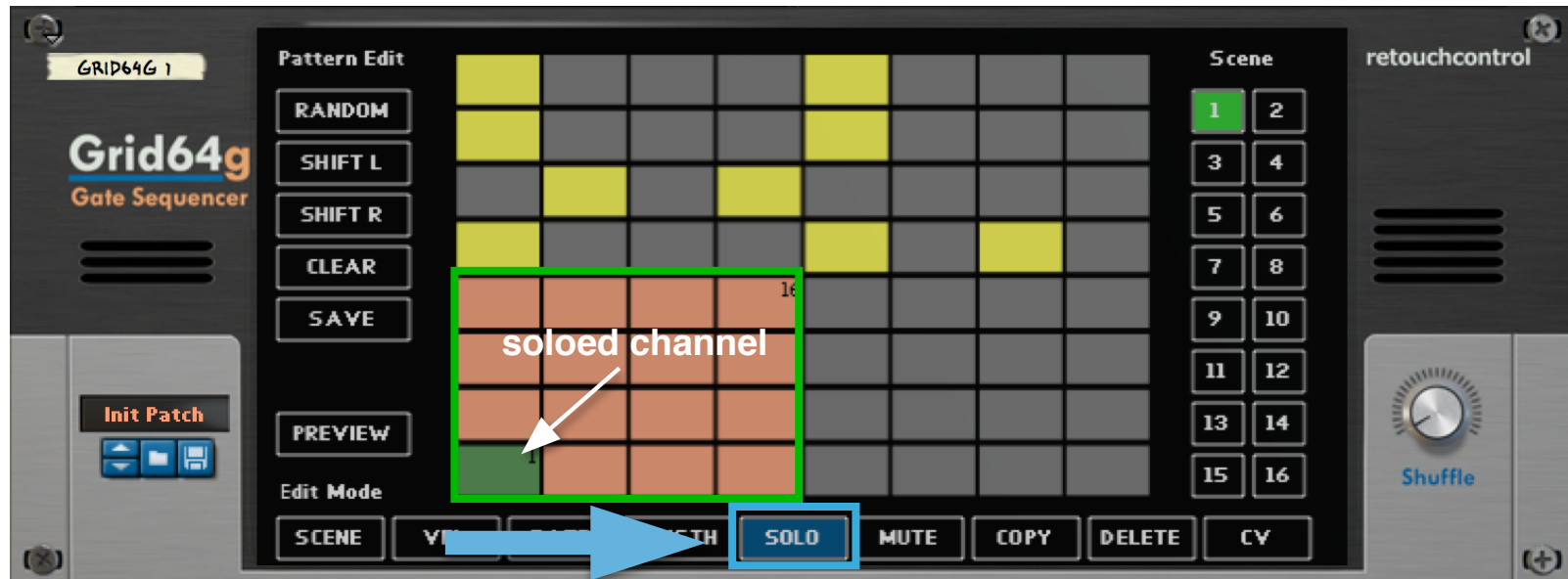
Edit Mode - Length



When the edit mode is set to “Length”, then it is possible to change the pattern length for the selected channel. This is done in the upper part of the grid. The end step for the chosen length is shown in red. By default, the length for all patterns is set to 32 steps.

Each channel can have its independent length, making it possible to create intricate rhythm (i.e. polyrhythms).

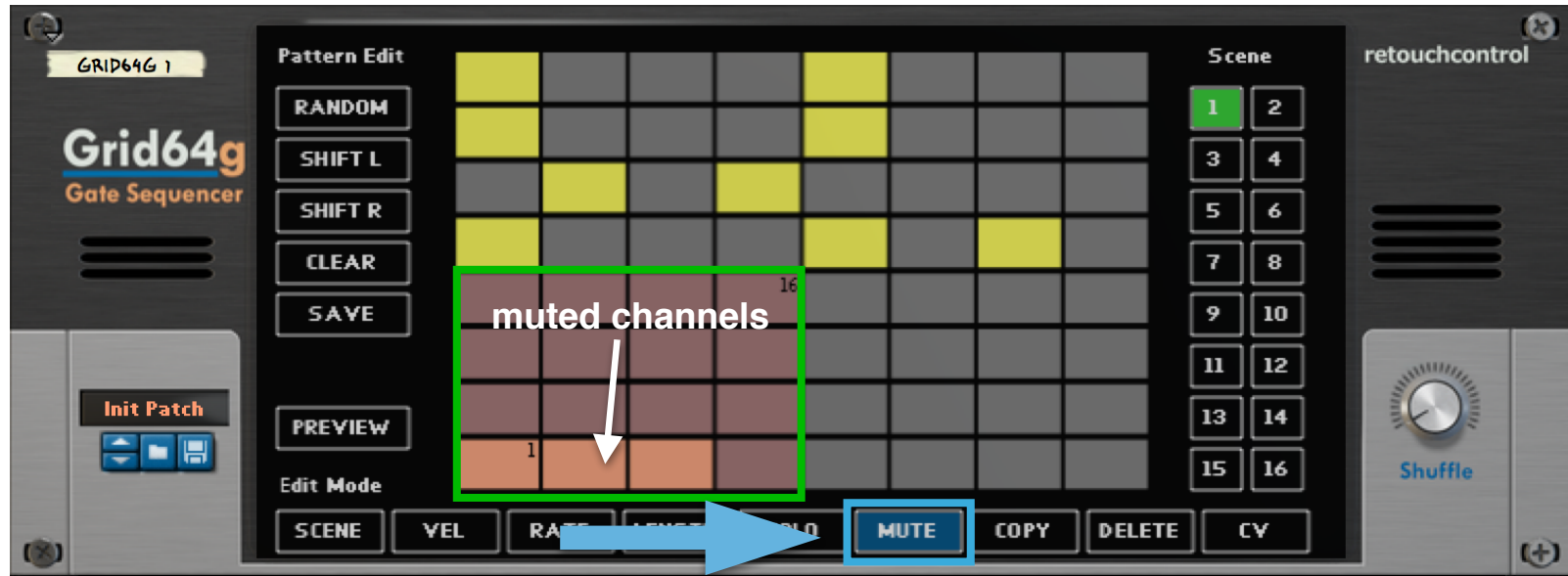
Edit Mode - Solo



When the edit mode is set to “Solo”, it is possible to solo one or more channels. The soloed channels are shown in green. All other channels are muted and shown in light orange.

Solos can be recorded and edited in the Reason sequencer.

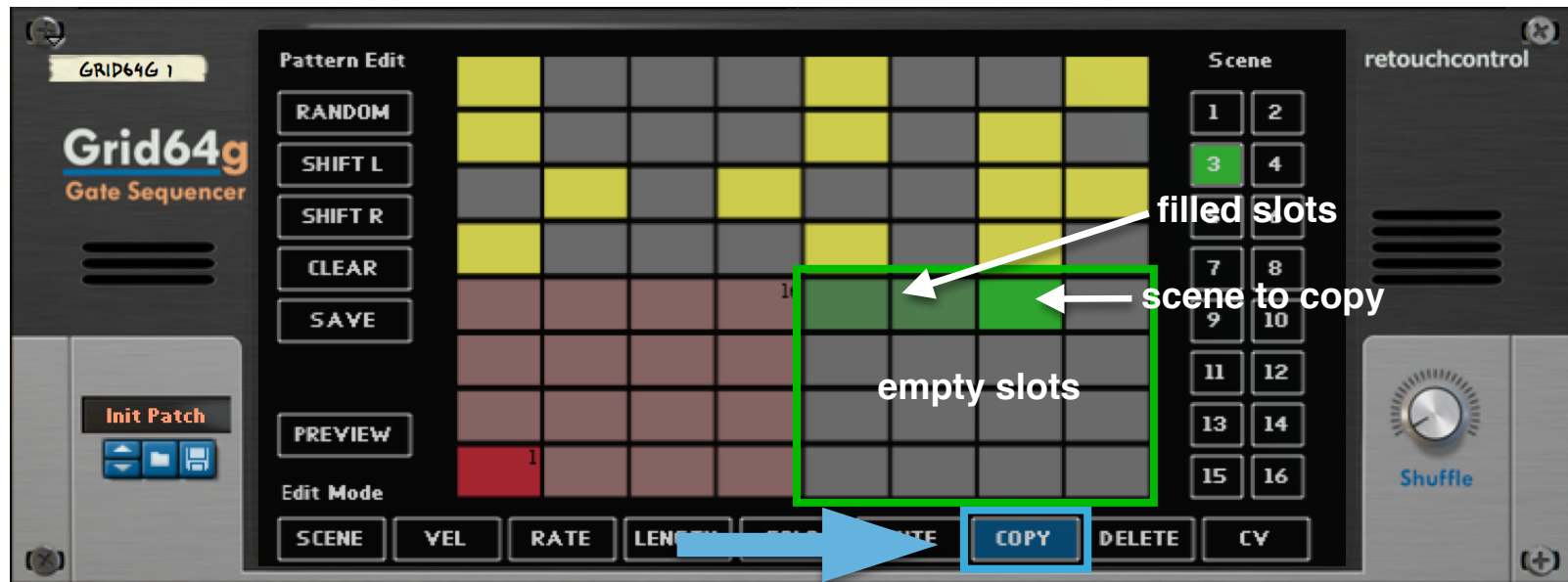
Edit Mode - Mute



When the edit mode is set to “Mute”, it is possible to mute one or more channels. The muted channels are shown in light orange.

Mutes can be recorded and edited in the Reason sequencer.

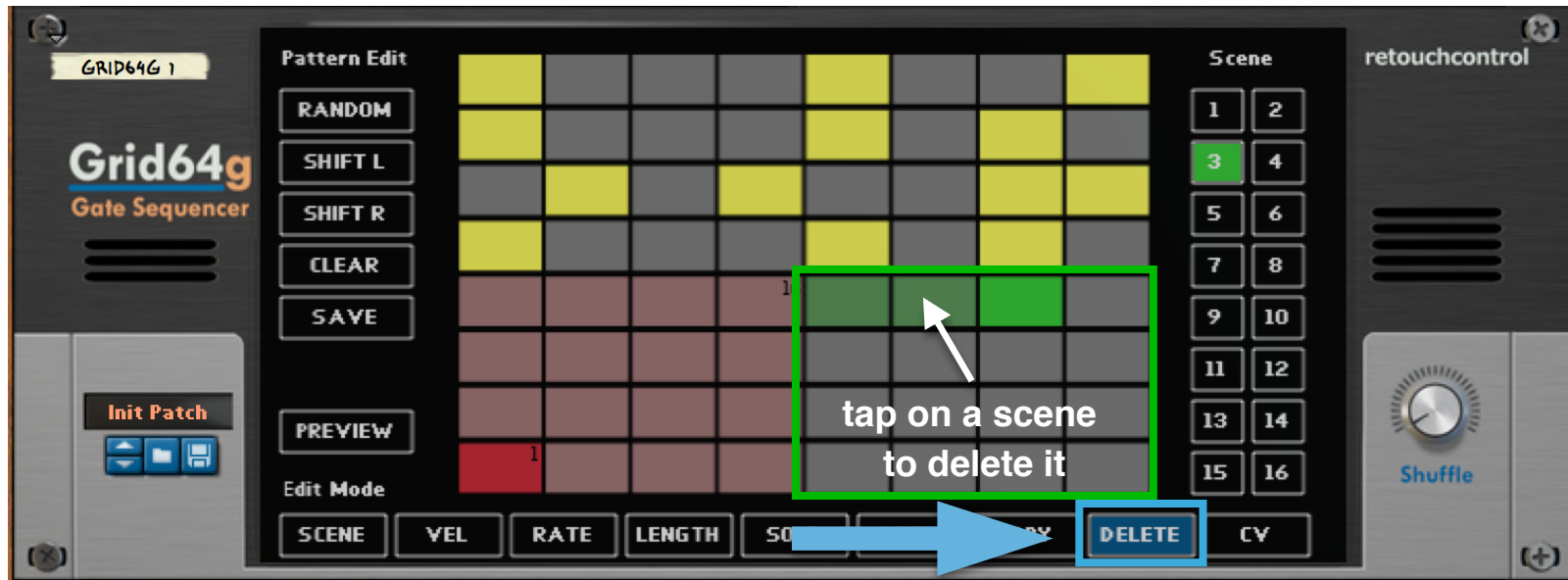
Edit Mode - Copy



When the edit mode is set to “Copy”, it is possible to duplicate the currently selected scene to other empty slots. To copy a scene do the following:

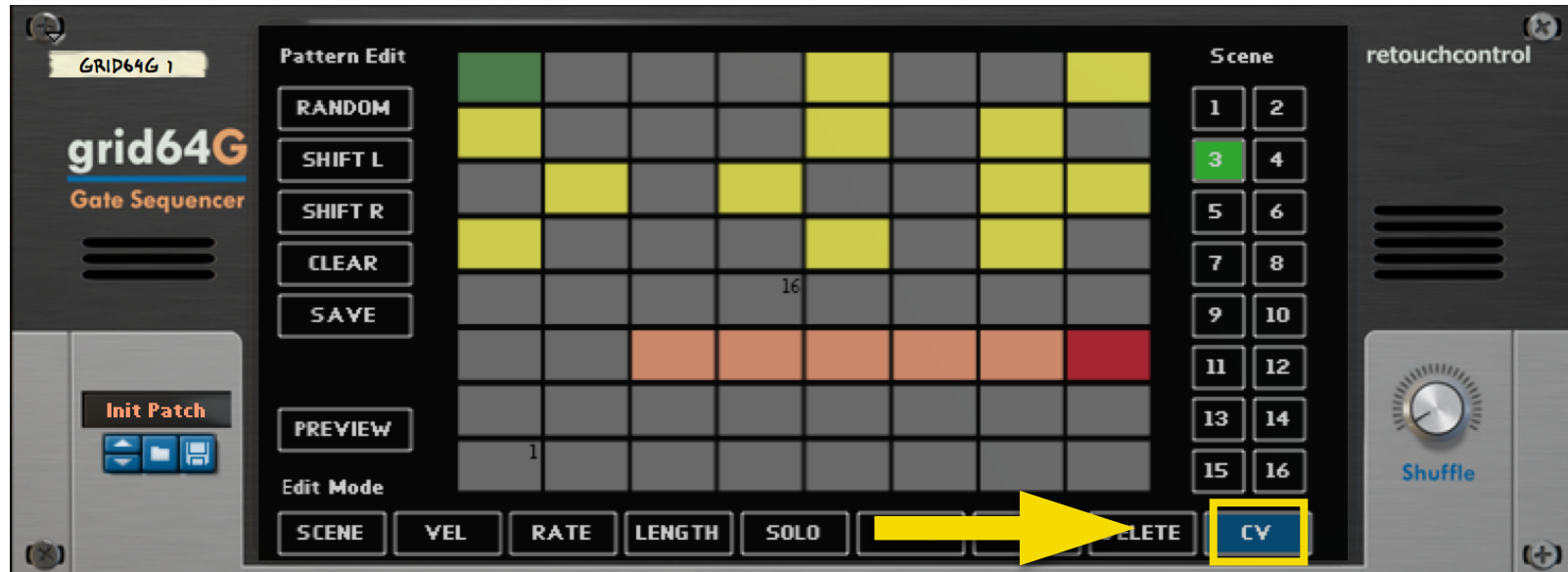
1. Choose a scene whilst in “Scene” mode
2. Enter “Copy” edit mode
3. Tap on an empty scene slot. The scene is now copied. Please note, the scene can also be copied unto a slot with existing pattern data. In this case, the previous data will be overwritten.

Edit Mode - Delete



When the edit mode is set to “Delete”, it is possible to delete scenes. Just click on the scene you want to delete and all its data is erased. Please be aware that if the scene was programmed via a remote surface and the pattern data was not saved in memory, then the operation cannot be undone in Reason’s undo history. For more info on saving patterns programmed from a remote surface, please read the section “Remote Control”.

Edit Mode - CV



When the edit mode is set to “CV”, it is possible to program a CV output value for the selected step. As usual, a step is selected by clicking on it in the top half part of the grid. A selected step is shown in green.

The bottom part of the grid is used to program the CV value. The CV output is bipolar with a total of 64 discrete values. The red step is the 0 CV value. Please note, a CV value will be outputted only if there is a gate event programmed for the selected step.

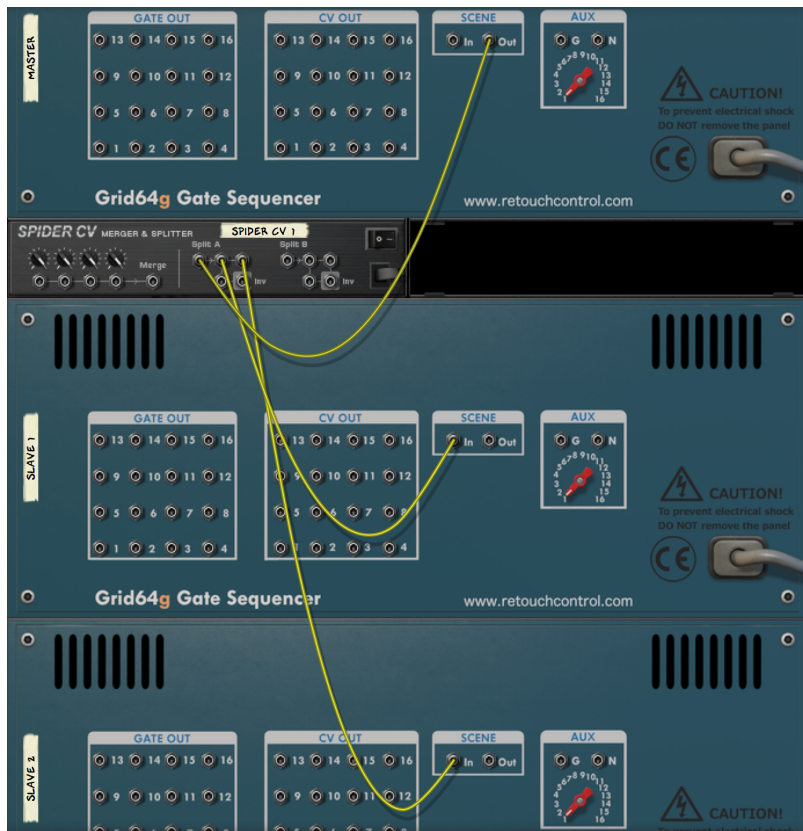
New in 1.1.1:

If **Shift** is pressed on the keyboard while clicking on a CV value for a given step, that value is going to be assigned to all the other steps in the pattern.

Chaining devices

It is possible to chain devices together such that the scenes change in unison. The device sending the scene gate out is the master, while the other devices are slaves. Please note, when a device is in slave mode, its GUI is no longer available for programming. This is indicated by a red “EXT” mode sign on the device LCD.

New in 1.1.1: you can bypass external scene control by clicking on the “EXT” text.



Master and 2 slaves



“EXT” mode sign

The text will change to “!EXT” to indicate that external control is deactivated and you can change and make edits to scenes without having to disconnect the cable in the back of the device. To resume external control of scenes, just click on the “!EXT” text to reactivate it.



Recording and Automation

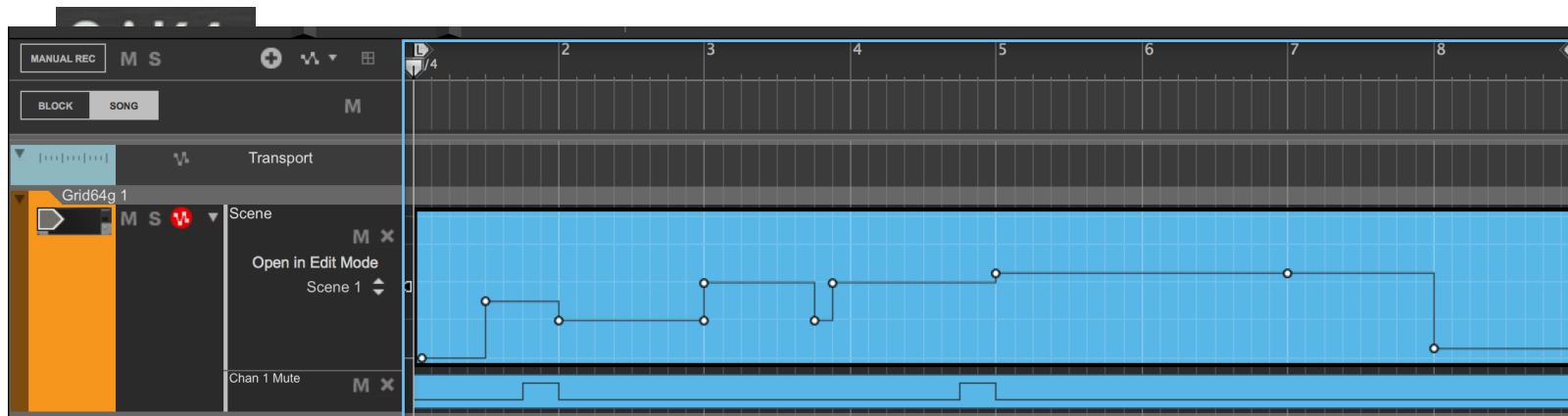
One of the exciting features of the **Grid64g** device is the ability to record and automate some performance-related features like:

- scene selection
- channel solo and mute
- shuffle

With the first, you will be able to record your performance by switching from one scene to another, and since scene switching is immediate, you can later edit the automation in the sequencer to set precise transitions, if so desired.

With the second, it will be possible to create different variations on the fly for the scenes, by taking out and then reintroducing certain musical elements. This is a classic technique used with great effect in genres like hip hop.

With the third, you can change the “feel” of certain section of the performance by adjusting the amount of shuffle applied.



Scene and Mute Automation

Transferring Patterns to Track (Reason 9 and above)

Transferring patterns to track is accomplished via the “Players” devices. Below, the connections are shown when using the “Scale&Chords” Player device. Here are the steps to transfer the selected channel pattern to its own note lane in the sequencer:

- (a) combine the Grid64g and the target device into a combinator and connect the Aux outs to the combinator Gate and CV inputs as shown below in the image on the left.
- (b) add a “Scale&Chord” Player above the target device, turn “Chords” off and use a C Chromatic scale
- (c) select the channel to transfer with the red knob in the back of the Grid64g device
- (d) now tab to the front of the rack and press “Send to Track” on the Player device
- (e) mute the note clip which was just created in order to prevent the data to be written again
- (e) repeat steps (c) thru (e) for another channel, however remember to turn the “ByPass All” switch to OFF first on the “Scale&Chords” player!



Connect the AUX Gate and Note to the inputs of a combinator



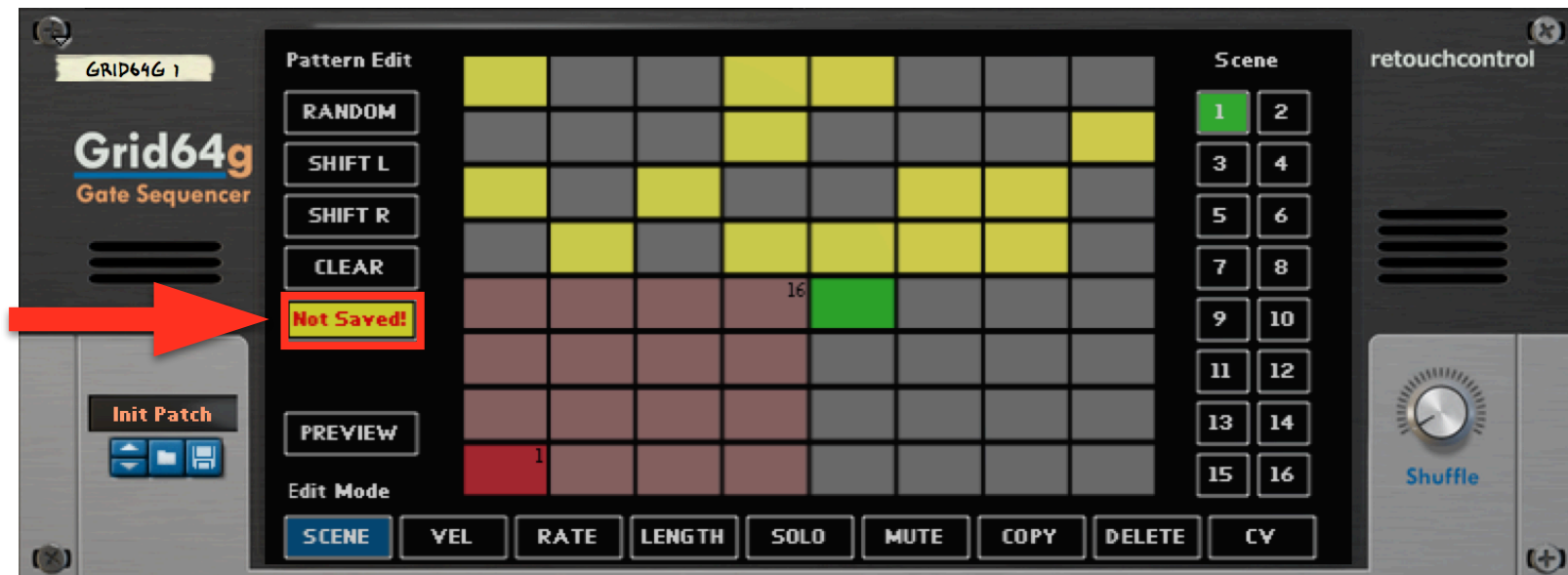
Press the “Send to Track” on the Player device to copy the pattern to track

Remote Control

The **Grid64g** was designed to support natively various grid MIDI controllers, including Ableton Push, the Novation Launchpad series, Maschine Jam and more.

Please note, when programming the device via a supported remote interface, the patterns are not automatically saved by the device. As such, they need to be saved by hand with the mouse from the device GUI. Once saved in memory, the patterns will be recalled correctly the next time the song is opened and they can also be saved in a patch.

If some of the pattern data has not been saved, a “Not Saved” message will appear right under the Save button. Press the “Save” button in order to save all the unsaved pattern data. **Important:** please keep the mouse clicked until the “Not Saved” message disappears. Only then, you’ll know that the patterns have been properly saved in memory.



Ableton Push remote control

For the best integration of Ableton Push with Grid64g, the “Pusher” application is highly recommended. For more info on Pusher, please visit www.retouchcontrol.com/pusher. In order to use Grid64g with Push or Push2, you will need to create a control surface in Reason. But first, you will need to download and install the proper Remote Files. These can be obtained from www.retouchcontrol.com/grid64g. In the download you will also find instructions on how to install the files and create the control surface.



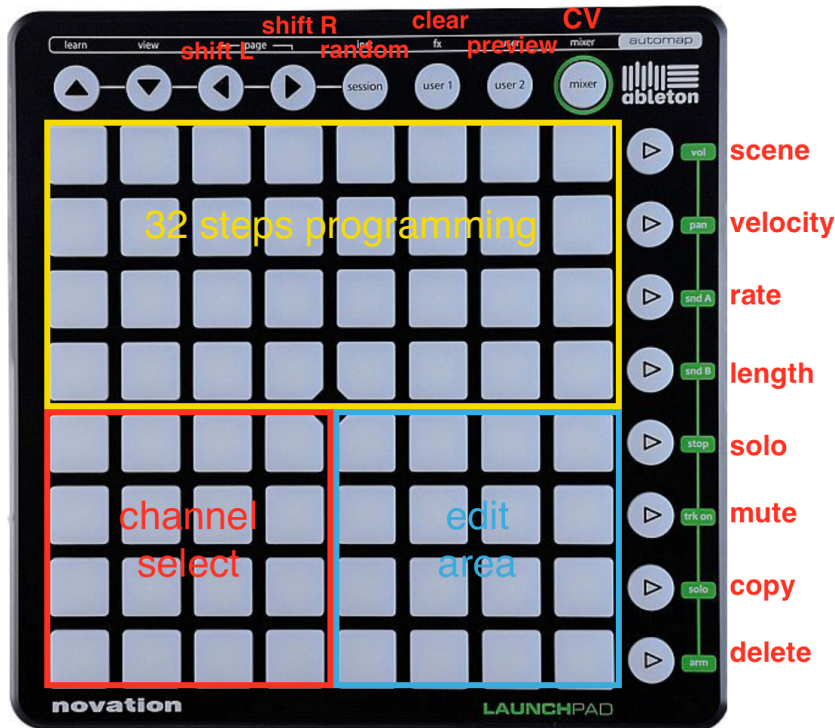
Remote control with Pusher



Remote control without Pusher

Novation Launchpad remote control

In order to use Grid64g with the Launchpad, you need to create a control surface in Reason. But first, you will need to download and install the proper Remote Files. These can be obtained from www.retouchcontrol.com/grid64g. In the download you will also find instructions on how to install the files and create the control surface.



LP Mk1, Mk2, Mini



LP Pro

NI Maschine Jam remote control

In order to use Grid64g with the Maschine Jam, you will need to create a control surface in Reason. But first, you will need to download and install the proper Remote Files. These can be obtained from www.retouchcontrol.com/rackextensions/Grid64g. In the download you will also find instructions on how to install the files and create the control surface.



MIDI Implementation Chart

- [12] = scene
- [13] = mute chan 1
- [14] = mute chan 2
- [15] = mute chan 3
- [16] = mute chan 4
- [17] = mute chan 5
- [18] = mute chan 6
- [19] = mute chan 7
- [20] = mute chan 8
- [21] = mute chan 9
- [22] = mute chan 10
- [23] = mute chan 11
- [24] = mute chan 12
- [25] = mute chan 13
- [26] = mute chan 14
- [27] = mute chan 15
- [28] = mute chan 16
- [29] = shuffle
- [30] = solo chan 1
- [31] = solo chan 2
- [33] = solo chan 3
- [34] = solo chan 4
- [35] = solo chan 5
- [36] = solo chan 6
- [37] = solo chan 7
- [39] = solo chan 8
- [40] = solo chan 9
- [41] = solo chan 10
- [42] = solo chan 11
- [43] = solo chan 12
- [44] = solo chan 13
- [45] = solo chan 14
- [46] = solo chan 15
- [47] = solo chan 16

Remotable Items

Retouch Control com.retouchcontrol.grid64G

Remotable Item	Min Value	Max Value	Input	Output
Grid LED <1-64>	0	7	--	Value
Edit Mode	0	8	Value	Value
Scene Selector	0	16	Value	Value
Chan <1-16> Mute	0	1	Value	Value
Grid Button	0	64	Value	Value
Shift Left	0	1	Value	Value
Shift Right	0	1	Value	Value
Randomize	0	1	Value	Value
Preview	0	1	Value	Value
Clear Pattern	0	1	Value	Value
Selected Channel	0	16	Value	Value
Chan <1-16> Solo	0	1	Value	Value