

# **Pattern Mutator Player**

**Operation Manual**

# Reason Studios

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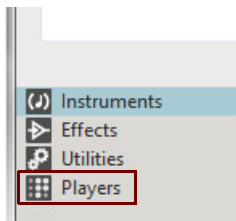
# **Pattern Mutator Player**



# Introduction to Players

A Player is a special type of device that automatically processes, filters and generates MIDI Notes, based on input MIDI Notes, to an Instrument device in the rack. Players can also play back MIDI on their own, without any MIDI input. The Pattern Mutator Player device, described in this manual, can record MIDI notes into patterns and then generate variations of the patterns.

The Player devices can be found in the Players palette below Utilities in the Reason Browser:



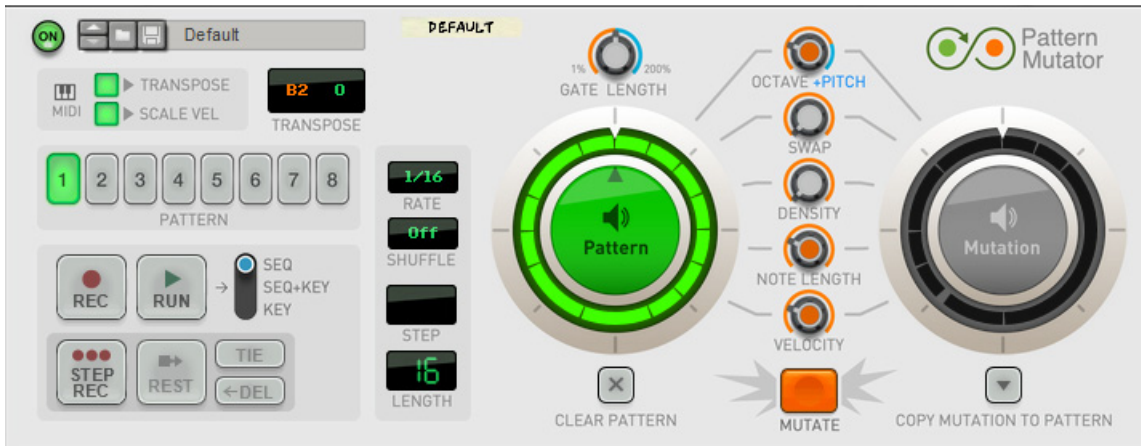
*The Players palette in the Browser.*

The basic idea behind Players is that you first create an Instrument device (or instrument track), then hook up one or more Player devices to the Instrument device. If the Player device is a pattern sequencer, like the one described in this manual, you can have it play back patterns automatically by just clicking Play - or by playing single notes on your MIDI Control Keyboard.

For more general information about Player devices, see the “Working with Players” chapter in the Reason/Reason Intro/Reason Lite Operation Manuals, which can be accessed from the Help menu in the respective programs.



# Overview



The Pattern Mutator Player device is basically a polyphonic step sequencer, ideal for controlling any type of instrument device. You could use it for monophonic bass lines, or for generating and playing back nice arpeggio-style monophonic or polyphonic melody lines. You can then mutate/transform your patterns with just a click of a button - to create anything from subtle variations to totally new and unexpected patterns. You could then store your mutated patterns in any of the eight Pattern slots.

The Pattern Mutator Player has the following features:

- **Polyphonic step sequencer with real-time recording - or step recording.**
- **Mutation/transformation of five separate properties.**
- **Transposition of sequences/patterns from a MIDI keyboard.**
- **Eight Patterns, which can be automated in the main sequencer using Pattern Automation.**
- **CV signal outputs and input on the rear panel.**



# Playing and using Pattern Mutator

## Loading and saving patches



Loading and saving patches is done in the same way as with any other internal Reason/Reason Intro/Reason Lite device. See the “Sounds and Patches” chapter in the Reason/Reason Intro/Reason Lite Operation Manual pdf for details.

## Basic settings

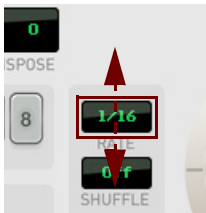
First there are a couple of basic parameters that should be set up:

### Selecting Pattern

→ Click the desired Pattern button to select which pattern you want to work with:



### Setting the Rate

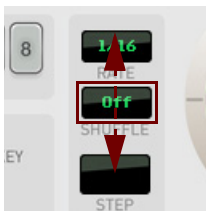


→ Click and drag up/down in the Rate display to select the desired rate.

Values: 1/1, 1/2, 1/4, 3/16, 1/4T, 1/8, 1/8T, 1/16, 1/16T, 1/32, 1/64

The eight Patterns can have their individual Rate values.

### Shuffle



A Shuffle value can be set to introduce a “swing” in the playback.

→ Click and drag up/down in the Shuffle display to set the desired Shuffle amount.

Values: Off, 50-75%, Global.

“Global” locks to the Global Shuffle value in the ReGroove Mixer, see the “Global Shuffle” function in the ReGroove chapter in the Operation Manual.

The eight Patterns can have their individual Shuffle values.



## Step



The Step display shows the current step in the pattern and is active only when you are recording using Step Recording, see [“Step recording”](#).

## Length



The Length display shows the total number of steps in the selected pattern.

- **Click and drag up/down in the Steps display to select the total number of steps in the pattern.**  
Range: 0-99 steps of the selected note Rate (see [“Setting the Rate”](#)).

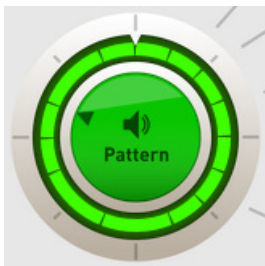
The eight Patterns can have their individual Lengths.

## Recording patterns

There are two ways of recording patterns from a MIDI keyboard/On-screen Piano Keys:

- **Real-time recording**  
This means that you record in real-time, just like you would in the main sequencer in Reason.
- **Step recording**  
Here you can play the notes/chords step by step, without having to care about the timing.

Regardless of recording method, the Pattern display shows the rhythmical pattern as it is being recorded:



## Recording preparations

1. Click the desired **Pattern** button to select which pattern you want to work with:



2. To start with a blank pattern, click the **Clear Pattern** button:



## Real-time recording

1. Set the desired number of steps in your pattern by dragging up/down in the **Length** display:



2. Click the **Rec** button on **Pattern Mutator**.

Pattern Mutator is now enabled for recording.

3. Click the **Play** button on **Pattern Mutator** - or the **Play** button on the main sequencer transport panel.



4. **Record the notes and/or chords in real-time.**

Note that Velocity is also recorded for every note.

- You can continue to add/overdub more notes for as long as the sequencer is running.
- To record longer notes/chords just hold the key(s) depressed during several steps.

5. When you are done recording, click the **Rec** button on **Pattern Mutator**.

Recording is now disabled.

## Step recording

1. Click the **Step Rec** button on **Pattern Mutator**.

Pattern Mutator is now enabled for step recording.





## 2. Record the notes and/or chords step by step.

The step length depends on the Rate value (see “Setting the Rate”).

As soon as you release the (last) held note(s) for a step, Pattern Mutator will advance one step. If you want to record a chord, you could add more notes to the chord as long as at least one key is still held down.

- **The Step and Length values automatically increment for each step you record.**

When step recording into an empty pattern, the pattern Length will automatically adjust according to how many steps you enter. You can adjust the length later if needed.

If you step record into a non-empty pattern, notes will be appended, making the pattern longer.

The maximum number of steps in a Pattern is 99. When you have reached step 99 the step recording is automatically disabled.



- **To enter rests (non-recorded/empty steps), click the Rest button without holding any keys.**

The rest length depends on the on the Rate setting (see “Setting the Rate”).

- **To tie a note/chord to the next note/chord, click the Tie button and play the next note/chord.**

Alternatively, if you want to create a long legato passage, you can hold Tie and play a number of notes.

If it's the same note(s), this creates longer note(s); if it's another note this will create a legato passage (set your instrument to mono/legato mode for this to be heard).

- **To delete the previously recorded step, click the Del button.**

## 3. When you are done recording, click the Step Rec button on Pattern Mutator.

Recording is now disabled.

## Playing back patterns

### Selecting Playback mode

This switch determines how the Run button is activated.



- **SEQ**

Activating Play in the main sequencer turns on the Run button.

- **SEQ+KEY**

Activating Play in the main sequencer turns on the Run button, but no notes are sent out until you play MIDI notes too.

- **KEY**

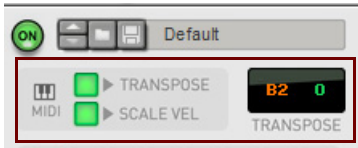
Playing a MIDI note triggers the Run button (starting the pattern from the beginning).

- **In addition, you can always click Run manually to audition the pattern, regardless of mode.**



## Enabling Transposition and Velocity Scaling

You can control transposition as well as scale the velocity of your pattern notes by MIDI notes during playback.



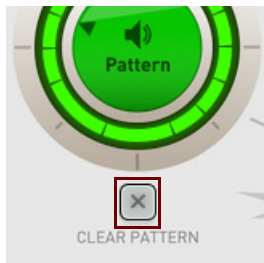
- **Click the TRANSPOSE button to enable transposition of the pattern notes from a MIDI keyboard/On-Screen Piano Keys.**  
The orange figure in the Transpose display is the current base note (the first note in the pattern) and the green figure is the transposition amount.
- **Click the SCALE VEL button to scale the velocities of the pattern notes based on the keyboard velocity played from your MIDI keyboard/On-Screen Piano Keys.**  
The velocity of each individual note will then be scaled up/down according to how hard you play your MIDI keyboard.
- **If neither option is activated, and the Playback mode switch is in SEQ mode, any MIDI notes you play are passed on to the instrument device. This way you can play along with a pattern.**

## Deleting patterns

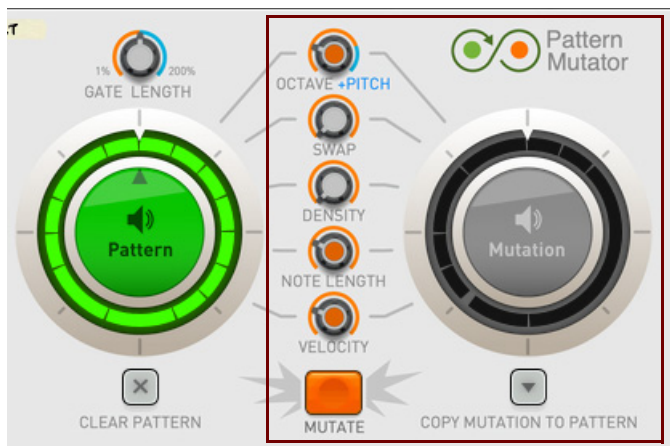
1. Click the desired Pattern button to select which pattern you want to delete:



2. Click the Clear Pattern button to delete all the notes in the pattern:



# Mutating patterns



This is the section where the magic happens, i.e. where you mutate your patterns. There are five controls that decide what should be mutated - and how much. First, you set these five parameters to your liking, and then you perform the actual mutation.

## Octave+Pitch

This mutation changes the pitch of notes. The Octave+Pitch control determines the probability of steps being mutated (at high values, more steps will be transposed).

The setting also affects how much the pitch is changed: Low values (in the "orange range") ensure that notes will only be transposed in octave steps (and fifths, in the upper orange range), while higher values (in the "blue range") can transpose with weirder intervals.

## Swap

This mutation makes pairs of notes change places in the pattern. Higher values will swap more steps.

## Density

This mutation changes the amount of notes in the pattern. If you start with a full pattern, Density will create "holes" in it; if the pattern is sparse, notes may be added instead.

The Density setting determines how many steps will be changed (by their turning notes off or on).

## Note Length

This mutation changes the length of notes. The setting determines how many notes will be affected, and also affects the amount of length change.

**! Notes that overlap due to this will be treated as tied notes.**

If it's the same note(s) that overlap, this creates longer note(s); if it's another note this will create a legato passage (set your instrument to mono/legato mode for this to be heard).

## Velocity (Accent)

This mutation will set some notes to high velocity and the other notes to a low velocity, creating accent-like rhythms. Higher values give more and heavier accents.

**! The receiving instrument must respond to velocity changes for this mutation to have any effect.**



## Mutate

→ Click the Mutate button to create a mutation.



- If playback is running it automatically switches to play the mutation.
- You can switch between listening to the original pattern (left) or the mutation (right) by clicking the corresponding display.
- If you don't like the result, click the Mutate button again.  
Mutations are always based on the original pattern - not the previous mutation.

## Saving your mutation to a pattern memory

- If you like your mutation, click the Copy Mutation to Pattern button and select a pattern memory.  
A dot next to a pattern on the menu means that it already contains notes.



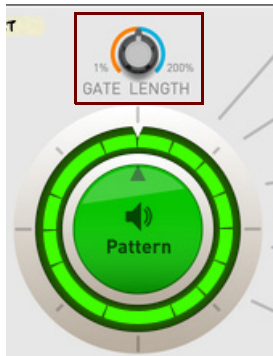
Now you can continue mutating this pattern, maybe with other settings. Or go back to your original pattern and create other variations.



# Editing patterns and mutations

## Changing the pattern gate lengths

→ Change the gate lengths of the pattern steps with the Gate Length knob:



Gate Lengths over 100% result in overlapping/tied/legato notes.

! **Note that the Gate Length can only be edited for the Pattern - not for the Mutation.**

However, when you mutate a pattern, it will inherit the current Gate Length setting and it will be included when you use the Copy Mutation to Pattern function (see ["Saving your mutation to a pattern memory"](#)).

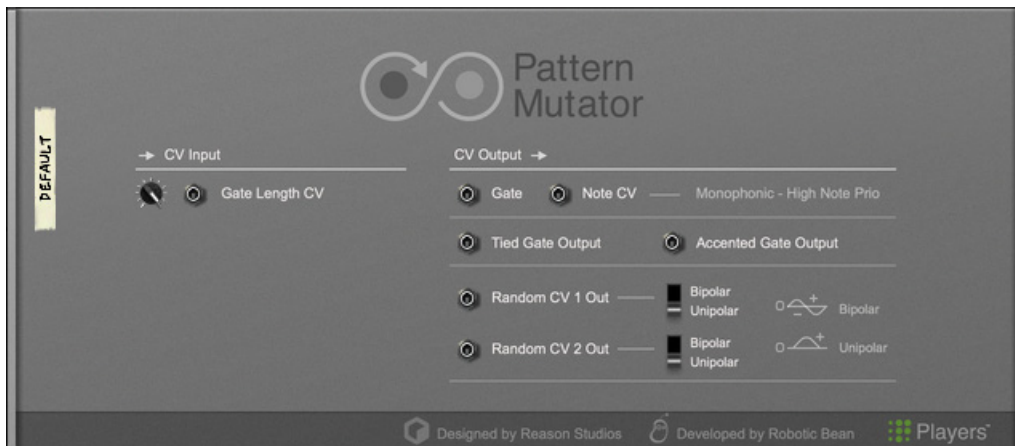
## Shifting the pattern/mutation offset

→ **Shift a pattern or mutation in time by clicking in the note circle and dragging.**

This is especially useful when a mutation sounds great but has "the wrong downbeat":



# Rear panel connections



! Remember that CV connections are NOT stored in the Pattern Mutator patches! If you want to store CV connections between devices, put them in a Combinator device and save the Combi patch.

## CV Input

### Gate Length CV

The Gate Length CV input lets you alter the pattern Gate Length (see [“Changing the pattern gate lengths”](#)) from a CV signal patched here. The input CV signal can be attenuated with the knob.

## CV Output

The Gate/Note CV outputs are monophonic. If the pattern is polyphonic, the highest notes will be sent out.

### Gate and Note CV

The Gate Out will send out gate signals (including velocity) for all steps that have notes. The Note CV will send out CV values that correspond to the current note in the pattern/mutation. If the pattern is polyphonic, the CV for the highest notes will be sent out.

### Tied Gate Output

Tied Gate Out will send out a high gate for all steps that are tied - either explicitly (you've added a Tie during step recording) or implicitly (they're overlapping due to their length).

### Accented Gate Output

Accented Gate Out will send out a high gate for all notes that have an accent created with the Velocity mutation (see [“Velocity \(Accent\)”](#)).

! Un-mutated patterns will not send out any gates here.

## Tips regarding Tied and Accented Gate Outputs

- The Tied and Accented Gate Outputs can be used to trigger additional synth envelopes, change the sound or add effects to certain notes in the pattern. For example, you could make Tied Gate Out control the resonance of a filter for more pronounced squeals on legato/portamento notes, or make Accented Gate Out trigger a noise source for more pronounced accents!



## Random CV Outs

Random CV 1 and 2 will send out random values for each note in the pattern. These values are created when you record the notes and are changed each time you mutate (see "Mutate"). Choose Unipolar or Bipolar output with the corresponding switches.

## Tips & Tricks

### Copying patterns to multiple Pattern locations

Sometimes you might want to have different Rate, Length or Shuffle settings for the same basic pattern, or to overdub different notes in an existing pattern to create different variations.

To be able to do this you would want to copy the original pattern to multiple pattern memories:

**1. Select the desired Pattern:**



**2. Set all the Mutation knobs to zero and click the Mutate button:**



**3. Click the Copy Mutation to Pattern button and select the desired location:**



→ Repeat steps 2-3 to save your pattern to other Pattern locations as well.





# Combining Pattern Mutator with other Players

One of the really cool things about Players is that you can chain several Players together, to create really interesting and inspiring combinations. Here are a few suggestions on how you could combine Pattern Mutator with other Players:

## Generating chord patterns

In the example below we have added a Scales & Chords Player after Pattern Mutator. We have created a monophonic pattern in Pattern Mutator, and send this via the Scales & Chords Player to a Subtractor, to generate a polyphonic chord pattern in a desired scale:



Generating a chord pattern out of a monophonic pattern





**1. Record a monophonic pattern in Pattern Mutator.**

Use the recorded pattern - or click Mutate to mutate the pattern.

**2. Select the desired Key and Scale in the Scales & Chords Player.**

**3. Start playback in Pattern Mutator or in the main sequencer in Reason.**

## Recording the output of Pattern Mutator into PolyStep Sequencer

The example below shows how you could record the note output from Pattern Mutator into a PolyStep Sequencer Player:



Recording the Pattern Mutator output into PolyStep Sequencer



**1. Record a pattern in Pattern Mutator.**

Use the recorded pattern - or click Mutate to mutate the pattern.

**2. Set the Play mode in Pattern Mutator to “SEQ” and then click the Rec button on PolyStep Sequencer.**

**3. Start recording in PolyStep Sequencer by clicking Play in the main sequencer in Reason.**

**4. When you are done recording, click Stop in the main sequencer in Reason.**

Now you can edit the recorded notes in PolyStep Sequencer further, if you like.

