Bassline Generator Player

Operation Manual

Reason Studios

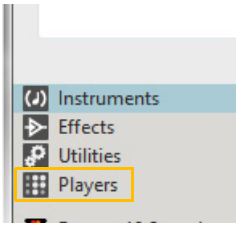
reasonstudios.com

Bassline Generator 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 Bassline Generator Player device, described in this manual, can generate monophonic note lines.

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

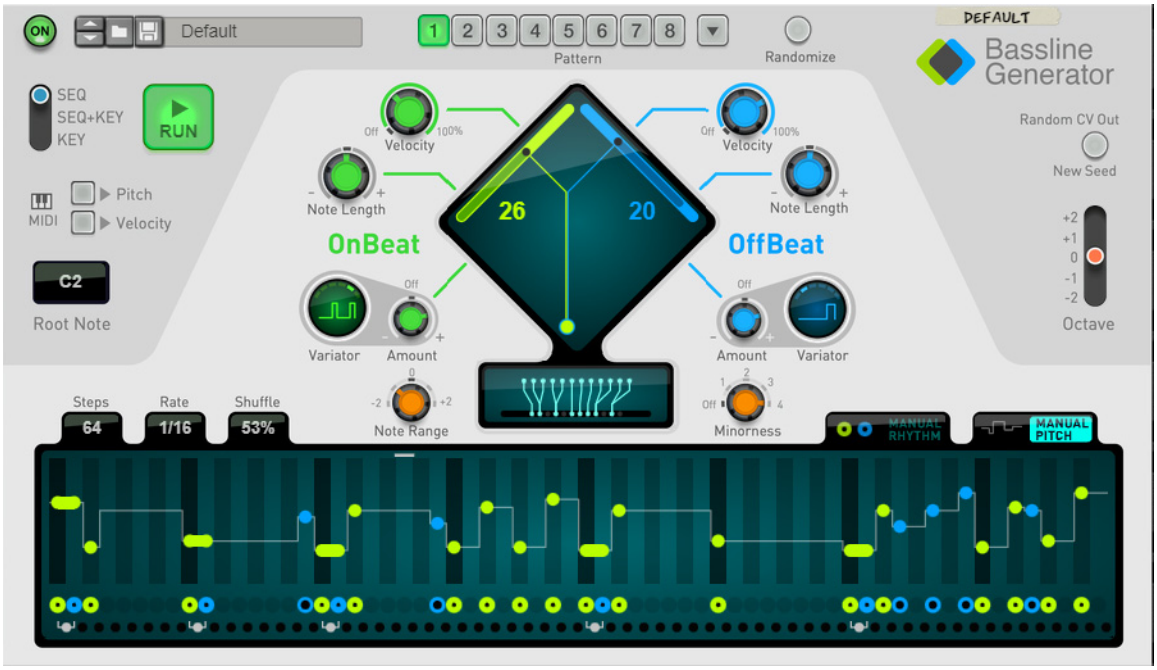


The Players palette in the Browser.

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 Run - 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 Operation Manual/Help, which can be accessed from the Help menu in Reason.

Overview



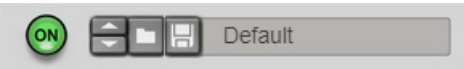
The Bassline Generator Player device is a monophonic note line generator, ideal for controlling any type of instrument device. You could use it for monophonic bass lines, or for generating and playing back nice monophonic melody lines. You can then transform and edit your note lines - to create anything from subtle variations to totally new and unexpected lines. You could also store your note lines in any of the eight Pattern slots.

The Bassline Generator Player has the following basic features:

- **Create monophonic basslines by mixing, matching, and modulating built-in patterns**
- **Edit and tweak the results in the note display**
- **Randomize function for fresh, unexpected results**
- **Trigger and transpose basslines from your MIDI keyboard**
- **Eight Patterns, which can be automated in the main sequencer using Pattern Automation**
- **CV inputs and outputs connect to other devices in the Reason rack**
- **120+ patches included**

Playing and using Bassline Generator

Loading and saving patches



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

A Bassline Generator patch contains all the settings for all eight Pattern slots.

Playing back patterns

Selecting Pattern

→ **Click the desired Pattern button to select which pattern you want to play back or work with:**

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 Pitch and Velocity Scaling

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

→ **Click the Pitch button to enable transposition of the pattern notes from a MIDI keyboard/On-Screen Piano Keys.**
The figure in the Root Note display (see below) shows the current base note. If the figure is orange it means it has been transposed via MIDI.

→ **Click the Velocity 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 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.**

Setting the Root Note

→ **Click and drag up/down in the Root Note display to set the desired root note in the Pattern.**
The root note can be temporarily changed using the Pitch function described above.

► **The eight Patterns can have their own individual Root Note values.**

Octave shifting the notes

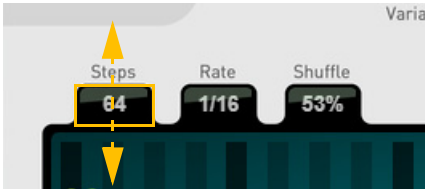
→ **Octave shift all the notes in Bassline Generator with the Octave selector:**

! **The Octave Shift is global and affects all Patterns.**

Basic preparations for pattern generation

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

Setting the number of Steps

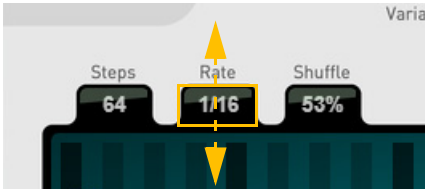


→ **Click and drag up/down in the Steps display to set the number of steps in the pattern.**
Range: 16-64 steps.

The Note Display automatically adjusts horizontally to fit in the set number of steps.

► **The eight Patterns can have their own individual Steps values.**

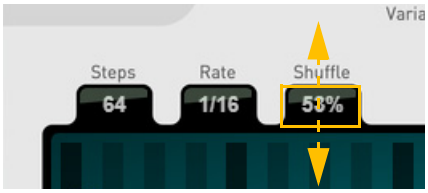
Setting the Rate



→ **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 own individual Rate values.**

Shuffle



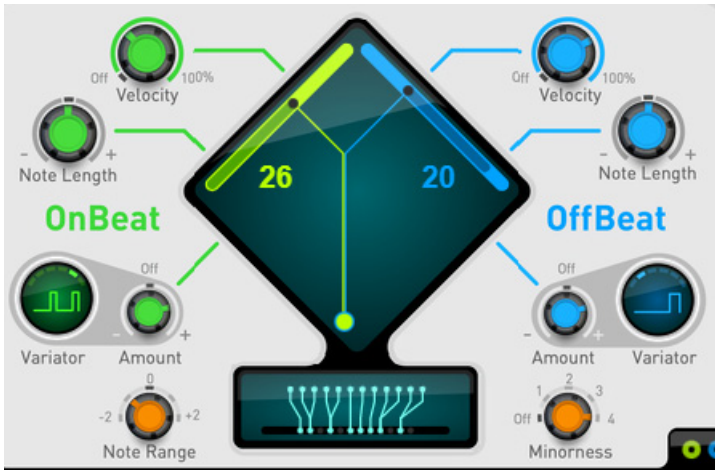
A Shuffle value can be set to introduce a “swing” in the playback.

→ **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/Help.

← **The eight Patterns can have their own individual Shuffle values.**

Generating patterns

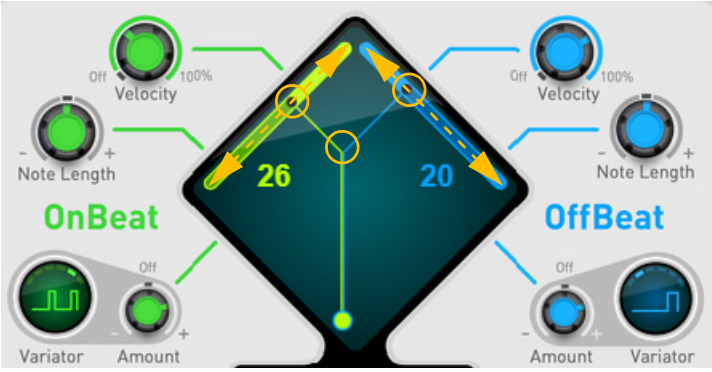


The center part of the panel - the Generator section - contains the controls for generating the bassline. This is done by combining built-in Onbeat and Offbeat note patterns. In this case, "Onbeat" means "straight" lines with notes on step 1, 3, 5, 7 and so on. "Offbeat" means lines with notes on the steps in-between, or syncopes.

With the Rate set to the default 1/16, Onbeat notes (green) are on exact 1/8 note positions. Offbeat notes (blue) are on the 1/16 note positions in-between, as illustrated in the picture below:

Illustration of OnBeat notes (green) and OffBeat notes (blue).

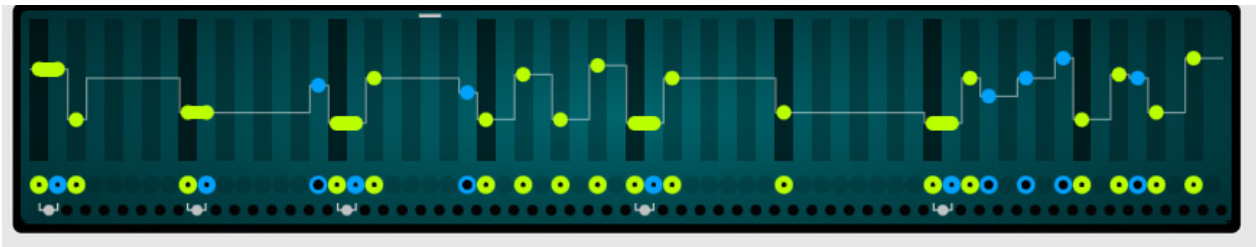
Selecting Onbeat and Offbeat patterns



The Bassline Generator Player features 64 OnBeat and 64 OffBeat source patterns.

→ **Select OnBeat patterns by clicking/dragging the green slider and OffBeat patterns by clicking/dragging the blue slider.**
You can also click/drag in the "diamond" display to select combinations of OnBeat and OffBeat patterns.

The currently selected OnBeat and OffBeat patterns are indicated by numbers in the "diamond" display. Low values will create sparse patterns with few notes. Higher values will create more busy and complex lines. The Note Display below shows the currently selected OnBeat and OffBeat notes in the note line:



Green dots represent OnBeat notes and blue dots indicate OffBeat notes.

It's also possible to edit notes and modify the note line in the note display, see "Editing Patterns manually".

Velocity

→ **Turn the respective Velocity knobs to set the overall velocity of the OnBeat and OffBeat notes lines.**
Turning Velocity all the way down for Onbeat or Offbeat will turn off the respective note generation.

► **Turn the OffBeat Velocity to "Off" to only hear the OnBeat notes, to make the pattern less "busy".**

Note Length

→ **Turn the respective Note Length knobs to set the overall length of the OnBeat and OffBeat notes.**
The Bassline Generator is monophonic, i.e. it outputs one note at a time. Overlapping Onbeat and Offbeat notes (or high Note Length settings) can result in tied notes (no space between the notes).

► **To create classic bass synth slides when notes are tied, choose a monophonic sound set to Legato and Auto Portamento.**

Variators

The Variators introduce repeating variations in the note line pattern. Basically they make the OnBeat and OffBeat patterns change at certain positions, briefly selecting other Generator source patterns. The waveform control sets both the "shape" and the rate of change:

Square:

Toggle at half cycle, one cycle over the whole pattern

Square x2:

Toggle at half cycle, two cycles over the whole pattern

Pulse:

Toggle at last quarter of cycle, one cycle over the whole pattern

Pulse x2:

Toggle at last quarter of cycle, two cycles over the whole pattern

Ramp:

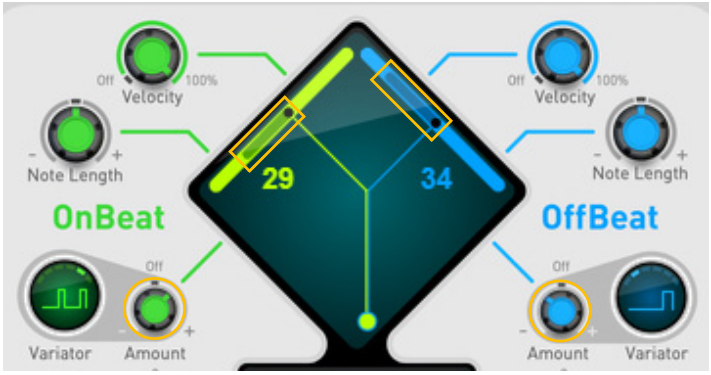
Gradual ramp from half cycle, one cycle over the whole pattern

Ramp x2:

Gradual ramp from half cycle, two cycles over the whole pattern

This means the Variator rate will be relative to the current pattern length (the Steps parameter - see "Setting the number of Steps"). It will run once or twice over the whole pattern.

The Variator Amount knobs determine how much the OnBeat and OffBeat patterns will move from the current patterns, and in which direction. Positive Amount values will make the pattern more complex and negative Amount values will make the pattern less complex. The Amount settings are indicated by darker areas on the Generator Pattern sliders:

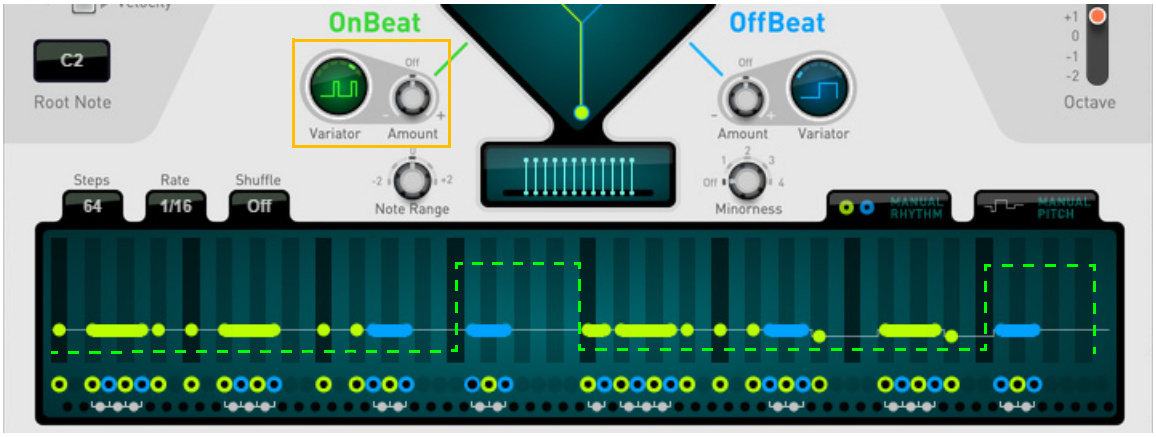


Positive OnBeat Variator Amount and negative OffBeat Variator Amount

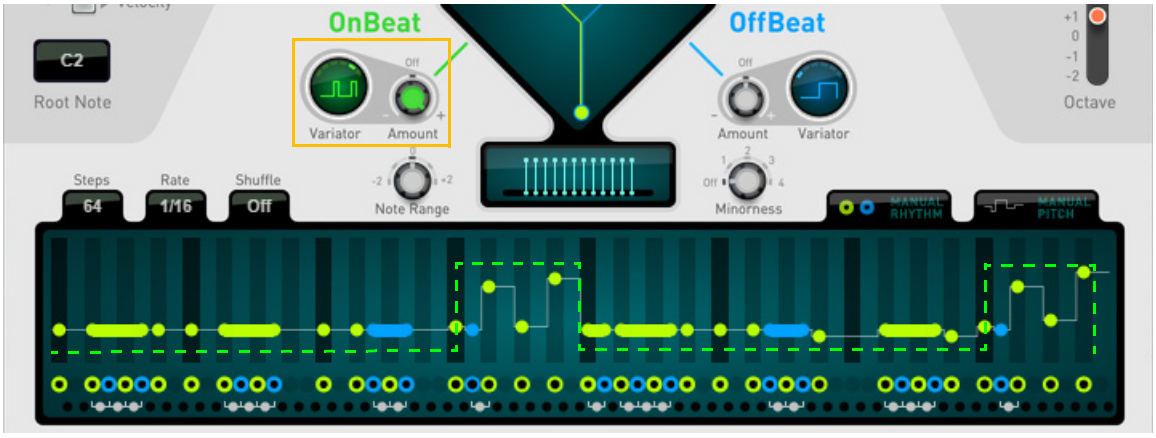
In the picture above the OnBeat pattern will change towards a more complex pattern and the OffBeat pattern will change towards a less complex pattern during the Variator cycles.

You can also see the pattern variations directly in the Note Display, as described in the example below.

In this example we have selected the “Pulse x2” Variator Shape for the OnBeat notes in a “root note” pattern (all notes have the same pitch). In the first picture the Amount is set to “0%” (Off) and in the second picture the Amount is set to “100%”. The green dashed lines indicate the "Pulse x2” shape throughout the pattern length:



“Pulse x2” at 0% Amount = no pattern variations.



“Pulse x2” at 100% Amount = more complex pattern during the Variation cycles.

When the Amount knob is adjusted above, the OnBeat note pattern variation is toggled twice in the pattern cycle. The principle is the same for the other Variator Shapes.

There is also a Variator for the OffBeat notes, which works in the same way but for the offbeat notes.

Note Range and Minorness

The whole bassline can be transposed by changing the Root Note or by using MIDI transpose (see “Enabling Pitch and Velocity Scaling”), but the individual note pitches come from the Onbeat/Offbeat pattern selection. Some lines stay close to the root note, while others have more varying pitches. You can adjust this with the Note Range and Minorness controls.

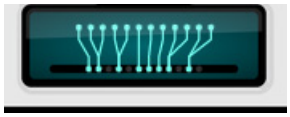
- **Raising the Note Range setting will "stretch" the pitch intervals so that notes play further away from the root note.**
  What was originally an octave becomes an octave+a third, or an octave+fifth when the Note Range knob is raised. Similarly, lowering the Note Range setting will shrink the pitch span.

! **The root note will not be affected, so if the bassline plays root notes only, the Note Range setting won't do anything.**

As described above, changing the Note Range will affect the intervals. However, if that should make the bassline sound too "happy", you can turn up the Minorness control. It forces some intervals to their minor versions (relative to the root note):

Minorness value	Result
1	Major sevenths forced to minor sevenths.
2	Also, major thirds forced to minor thirds.
3	Also, major sixths forced to minor sixths.
4	Also, major seconds forced to minor seconds.

The display between the controls illustrates what the Minorness parameter does (sort of). Mainly it just looks cool:



Randomizing Patterns

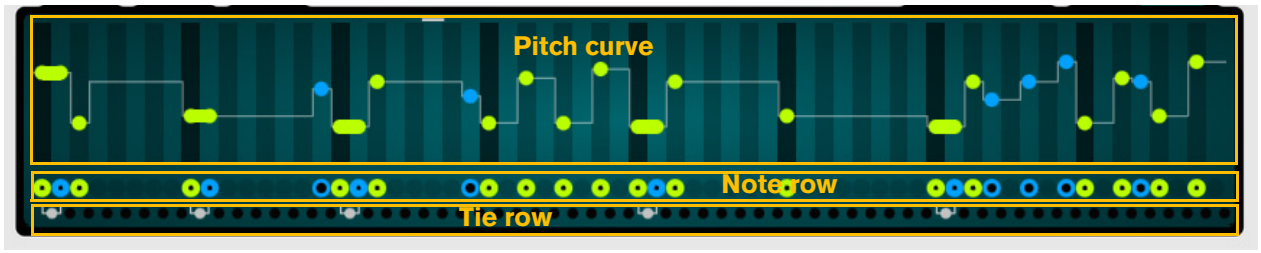
A very nice feature is the Randomize function, which randomizes all parameters in the Generator section. Perfect for unexpected results!

→ **Click the Randomize button to randomize all the Generator parameters:**

Editing Patterns manually

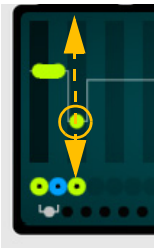
The Note Display

The Note Display at the bottom of the panel shows the current bassline and allows you to do manual adjustments if desired. The Note Display has three sections:



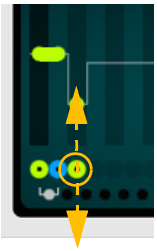
- **Pitch curve**
  The pitch curve reflects the pitch for each step, relative to the Root Note (see "Setting the Root Note"). Green dots represent OnBeat notes and blue represent OffBeat notes.
- **Note row**
  The note row shows for each step if there is a note there (indicated by a green OnBeat or blue OffBeat circle).
- **Tie row**
  The tie row indicates which steps are tied. If two notes of the same pitch are tied together, the result is one longer note. If the tied notes have different pitches, they will be played legato so that one note slides into the next (if the instrument is set to Legato mode or Auto Portamento).

Editing note pitches



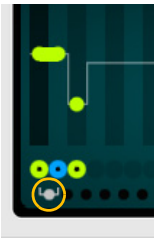
- **Click and drag up or down to change the pitch for a step.**
  The resulting note pitch - and interval from the Root Note - are shown in text while you drag.
- **Hold [Shift] while dragging up/down for a higher sensitivity.**
  This makes it easier if you want to set multiple steps to the same pitch.
- **Hold [Command](Mac) or [Ctrl](Win) and click to reset the pitch to the root note.**
  You could also drag sideways in the display to reset the pitches of multiple adjacent notes to the root note.

Editing note steps and velocity



- **Click on the Note row to turn the note on or off for the step.**
- **Click a note circle and drag up or down to change the velocity of the note.**
  The velocity value is indicated by the size of the dark dot inside the circle - the bigger the dark dot, the higher the velocity value.

Tying notes



- **Click the small button between two notes on the Tie row to turn the tie on or off.**
  If two notes of the same pitch are tied together, the result is one longer note. If the tied notes have different pitches, they will be played legato so that one note slides into the next (if the instrument attached to the Bassline Generator Player is set to Legato mode or Auto Portamento).
- **Click and drag sideways on the Tie row to tie several notes in one go.**
  You can also click and drag sideways to un-tie several tied notes in one go.

About the Manual Rhythm and Manual Pitch buttons

When you make a manual change to the pitch (curve) or the rhythm (note and tie rows), the corresponding MANUAL button will light up. This means that Rhythm and/or Pitch is now manually controlled from the note display - changes you make to the Generator settings will not affect the bassline. Please note the following, though:

- **If only one of Rhythm or Pitch is in Manual mode, the other property (pitch curve or note+tie rows, respectively) will continue to be generated by the Generator settings.**
- **You can click the buttons to turn Manual mode on or off at any time.**

! **Turning off Manual mode means all manual edits you've made in the Note Display will be removed.**

A note about Variators, Steps and Manual Rhythm/Pitch mode

The Variator rate is based on the current pattern length (changing once or twice over the whole pattern). Thus, if you change the Steps setting, you will change which steps are affected by the Variators.

However, this is not the case if both Manual Rhythm and Pitch are on. Then the Generator settings (including the Variators) won't affect the bassline so the Variator change will stay frozen at its original step positions.

! **Changing the number of Steps may cause different results depending on if you're in Manual mode or not.**

Deleting (clearing) patterns

The Clear Pattern function resets all parameters to their default values.

1. **Click the desired Pattern button to select which pattern to clear:**

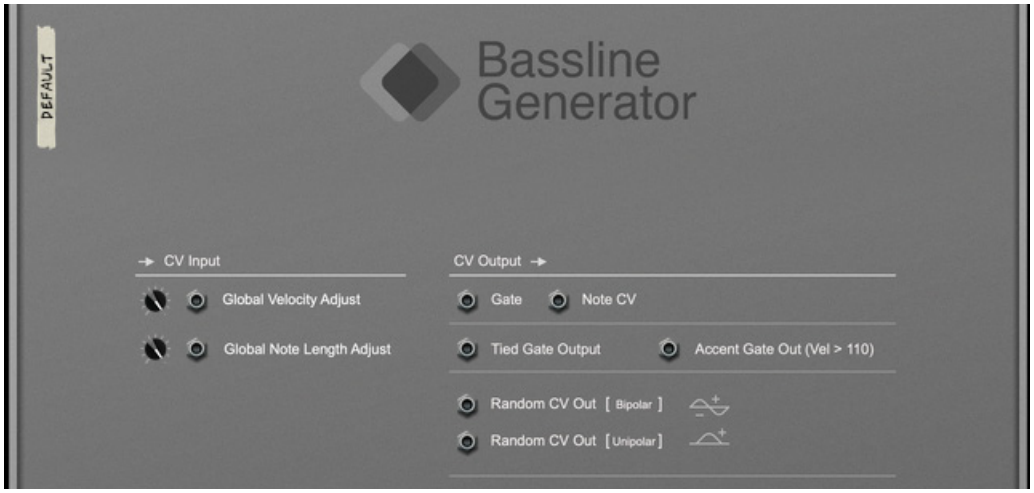
2. **Click the arrow button and select “Clear Pattern n” to delete all the notes in the selected pattern:**

Copying patterns

1. **Click the desired Pattern button to select which pattern to copy:**

2. **Click the arrow button and select “Copy Pattern n >” and then select the desired destination Pattern slot from the sub-menu:**

Rear panel connections



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

CV Input

Global Velocity Adjust

The Global Velocity Adjust CV input accepts a bipolar CV signal, which affects the velocity of all notes.

! **The result of this modifier isn't shown in the note display.**

Global Note Length Adjust

The Global Note Length Adjust input accepts a bipolar CV signal, which affects the lengths of all notes.

! **The result of this modifier isn't shown in the note display.**

CV Output

Gate and Note CV

The Gate and Note CV outputs let you use Bassline Generator as a CV sequencer, for controlling an additional instrument device.

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.

Tied Gate Output

Tied Gate Out will send out a high gate for all steps that are tied. This is useful for triggering an additional envelope or raising the filter cutoff for tied notes, creating an extra squelchy slide.

Accent Gate Out (Vel > 110)

Accent Gate Out will send out a high gate for all notes that have a velocity higher than 110.

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!**

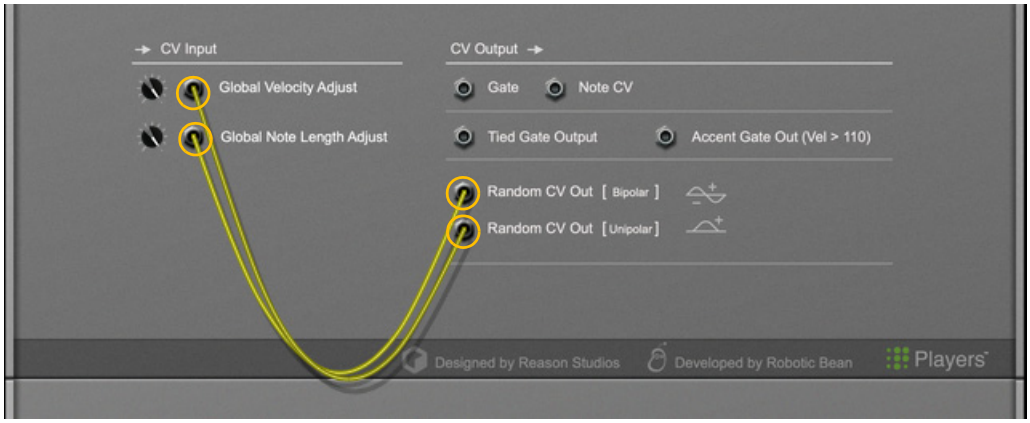
Random CV Outs

The Random CV Out Bipolar and Unipolar outputs provide an additional, random CV sequence of the same length as the current pattern. You can generate a new random sequence by clicking the "New Seed" button on the front panel:

- **New Random CV values are sent out for every new Note in the pattern. Where there are no notes, the previous CV value is maintained.**
- **The Random CV sequence is stored per Pattern.**

Tips & Tricks

Randomizing Velocity and/or Note Length



- **Connect a Random CV Out output to the Global Velocity Adjust or Global Note Length input to modulate the Velocity/Note Length from the Bassline Generator Player itself.**
  See "Random CV Outs" above for more info.

Transposing and scaling basslines

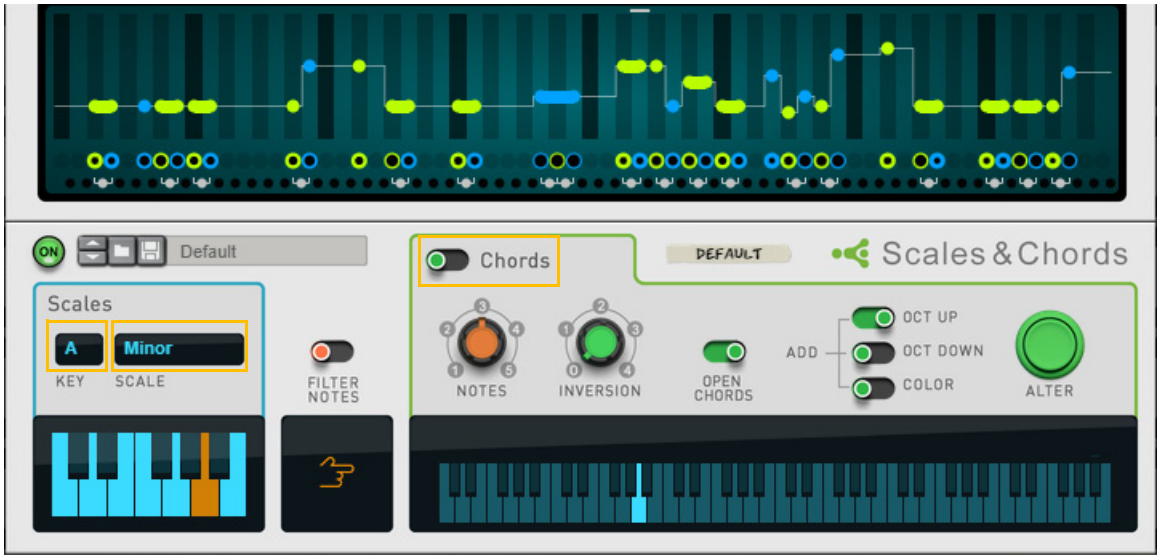
An interesting, busy bassline can be excellent for repetitive, groove-based genres like tech house, techno or various types of hip-hop. Other genres require that you transpose the bassline, following the chords. This can be easily done with the Pitch function (see "Enabling Pitch and Velocity Scaling").

However, if a bassline contains notes other than the root note and octaves, these may sound weird when you transpose it. For example, if your song is in the key of A minor, and the bassline contains a minor 3rd, this sounds perfect when the root note is A. But if you transpose it to C, the minor 3rd will become an Eb (or D#) which isn't part of the A minor scale. This may not sound the way you want.

There are two easy solutions:

Transposing basslines using the Scales & Chords Player

1. **Add a Scales & Chords Player directly after the Bassline Generator.**
2. **Set it to the desired scale (A minor in our example) but turn off the Chords function.**
   Now all notes will fit in the scale:



Using the “Root Note Only” patch

There are several patches in the Bassline Generator factory sound library that only use the root note. If you load one of them, you can transpose it freely without having any notes going outside the scale (unless you choose to play such a note!).

In fact, we've added a patch called Root Note Only, just for this. In this patch, the pitch curve is set to root notes only, but you can still use the Generator “diamond” display, the Variators and other parameters to change the rhythm of the bassline. The pitch will not be affected since Manual Pitch is on. This can be an easy way to go for many types of house music, where the bass follows the changes closely but doesn't stray from the root notes of these chords:

Generating chord progressions

In the example below we have added a Scales & Chords Player after Bassline Generator. We have generated a baseline pattern in Bassline Generator, and send this via the Scales & Chords Player to a Processed Piano, to generate a polyphonic chord progression in a desired scale:

Generating a chord progression out of a monophonic bassline

1. **Generate a monophonic note line in Bassline Generator.**
2. **Select the desired Key and Scale in the Scales & Chords Player.**
3. **Start playback in Bassline Generator or in the main sequencer in Reason.**

Spicing up the bassline with a Note Echo Player

A fun way of spicing up your basslines is to add a Note Echo Player after the Bassline Generator, to add tempo-synced octave repeats, for example:

Generating a chord progression out of a monophonic bassline

1. **Generate a sparse bassline in Bassline Generator.**
2. **Add a Note Echo Player after Bassline Generator.**
3. **In Note Echo set the Step Length to 3/16, Tempo Sync to On, 1 Repeat and Pitch to +12.**
4. **Start playback in Bassline Generator or in the main sequencer in Reason.**