

SCARBEE  
*Rickenbacker® Boss*



Manual



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Special thanks to the Beta Test Team, who were invaluable not just in tracking down bugs, but in making this a better product.

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# **1 Welcome to RICKENBACKER® BASS**

When Native Instruments and I discussed the next project after FUNK GUITARIST, we decided that it was time to do a picked bass, as we had never done such an instrument before. And of course the first choice of bass was the legendary Rickenbacker® 4003!

Numerous bass players in classic 1970s hard rock groups, as well as some of the most influential progressive musicians, have used this bass. Punk bands loved it in the 1980s, and many modern bands, from pop to alternative rock, are using it today.

I have been admiring the sound, but also the design of Rickenbacker® Guitars and basses for decades now, and finally was fortunate to find a particularly nice Rickenbacker® 4003 bass some years ago. I fell in love with this instrument when I played it for the first time, and I still love to look at it and play it as much as I can — which has made recording it a pleasure. I hope you will enjoy using RICKENBACKER® BASS as much as I enjoyed creating it!

Yours truly,

Thomas Hansen Skarbye

## **1.1 About the Rickenbacker® 4003**

The sound of the Rickenbacker® 4003 bass is big, with a long sustain. Its rich overtones perfectly complement the tight, yet deep low end. Three different pickup settings allow for very different timbres. The bass was recorded using the famous 'Rick-O-Sound' stereo outputs.

The palm-muted Rickenbacker® sound also present in RICKENBACKER® BASS was very difficult to capture and required some extra care, as the palm pressure changes the pitch and also affects the overall muting level. The result is an amazingly fat sound that, when using the neck pickup setting, resembles a synthesizer bass.

The pickups and electronics of the Rickenbacker® 4003 bass are very powerful and sensitive — almost like microphones! Therefore the recording location had to be chosen wisely, with any possible source of electromagnetic interference excluded; special monitor speakers with ultra-low electromagnetic interference were purchased for this project. Funnily, the pickups even

captured conversations held in the studio, so recording had to take place in complete silence. Finally, the studio furniture was optimized in order to create a completely noiseless environment.

The Rickenbacker® 4003 was stringed with Rotosound® Swing Bass 66 (stainless steel) round-wound strings to get the classic sound heard on numerous rock albums. The full length of each string was sampled in order to reproduce the timbre changes that occur when the player's fingers move between low and high frets, and to capture all the natural overtones. Instead of recording the bass through an amplifier and loudspeaker cabinet, a DI input was used to retain maximum flexibility for subsequent sound shaping.

## **1.2 About RICKENBACKER® BASS**

RICKENBACKER® BASS features an extensive selection of playing techniques, for example:

- Picked style
- Open and palm-muted playing
- Sustains — up-strokes and down-strokes
- Normal mutes and harmonic mutes
- Harmonics
- Hammer-on & pull-off
- Fast grace notes
- Slides
- Trills — whole-note/half-note
- Buzz trills — whole-note/half-note
- Cross-hammering
- Chords
- Chord slides
- Percussive slides
- Releases

You can conveniently use all these techniques while playing RICKENBACKER® BASS live: Except for the trills and cross-hammering, you can trigger all of the articulations and techniques above without the need for any key switches.

RICKENBACKER® BASS offers numerous advanced features to support your playing:

- String selection
- A fretboard display that is updated as you play
- Automatic stroke detection
- Chord recognition that ensures correct string selection even if the chord notes don't arrive at exactly the same time
- Trills/buzz trills with automated re-triggering of pull-offs/slide downs
- String scrape simulation, using about 1000 different samples in an advanced round-robin system

Furthermore, the script enables you to configure the KONTAKT Instrument: You can adjust instrument and effects settings, load and store presets, and access key switch mapping information within the Instrument's Performance View.



## 2 The RICKENBACKER® BASS Interface

### 2.1 Info Pane (Tooltips)

Reference information describing controls and other user interface elements of RICKENBACKER® BASS is available in KONTAKT's Info Pane. To access this information:

1. Click the [Info](#) icon in KONTAKT's Toolbar to enable display of Info Pane content.
  2. Hover your mouse over an element in the user interface.
- The description of the element will be displayed in the Info Pane at the bottom of the KONTAKT window.

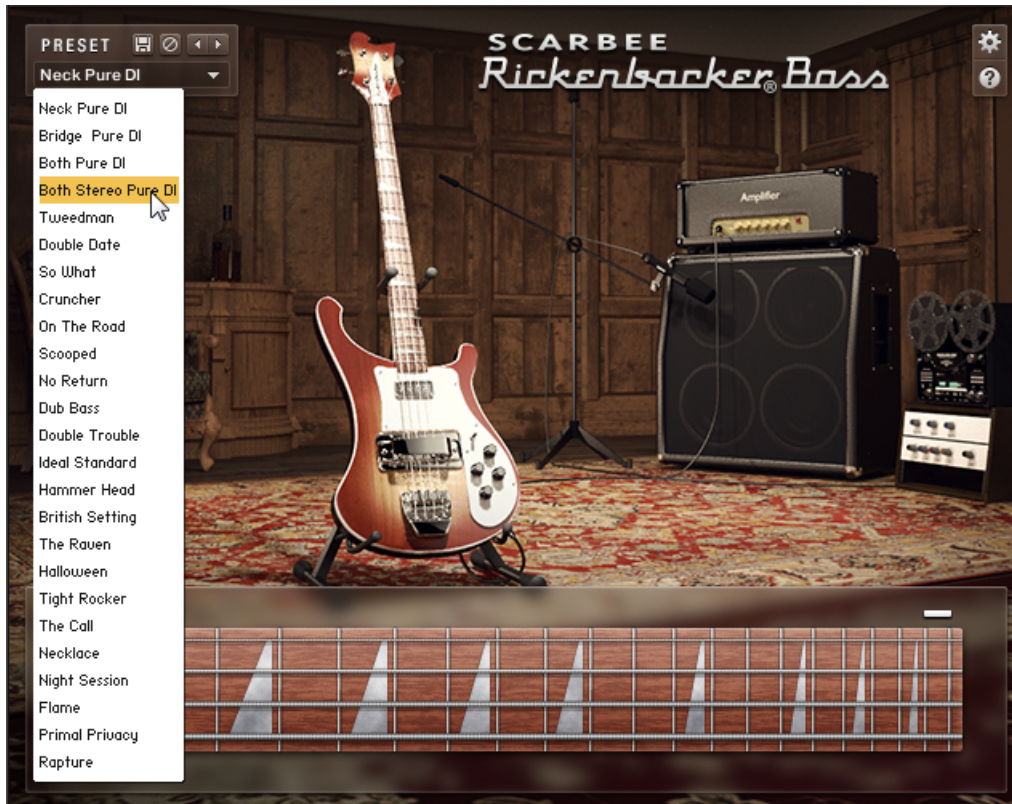


The Info Pane at the bottom of the KONTAKT window

## 2.2 Presets

Presets contain all of the instrument's settings, such as the selected pickup, the bass's volume and tone settings, as well as all the effects settings from Amplifier, Cabinet, Compressor, Tape and EQ.

## Loading a Preset



The Preset menu

- To load a preset, click on the drop-down menu in the **PRESET** area in the top-left corner of the RICKENBACKER® BASS Performance View, then select a preset from the list.

## Saving a Preset



The Save button

To save a preset:

1. Click in the preset name display and enter a name for the preset.
2. Click the diskette symbol next to the **PRESET** label.

This will save all of the instrument's settings, such as the selected pickup, the bass's volume and tone settings, as well as all the effects settings from Amplifier, Cabinet, Compressor, Tape and EQ as a new preset with the given name.

- ▶ To **export** a preset, press [CTRL] + click (Windows), or [CMD] + click (Mac OS X).
- ▶ To **import** a preset, press [ALT] + click.



When importing a preset, you need to copy the name from the original file and paste it into the text field. Then click to save the preset.

- ▶ To **move a preset upwards** in the preset list, press [SHIFT] + click.
- ▶ To **move a preset downwards** in the preset list, press [SHIFT] + [ALT] + click.

## Deleting a Preset



The Delete button

- ▶ To delete a preset, click the round icon next to the diskette symbol.



Note that Undo is not available for this function, i.e. you cannot restore presets after you have deleted them.

## Navigating the Preset List with the Arrow Buttons



The Arrow buttons

You can navigate the presets step-wise by clicking the Arrow buttons:

- ▶ To select the **previous preset** in the preset list, click the arrow pointing to the left.
- ▶ To select the **next preset** in the preset list, click the arrow pointing to the right.

## 2.3 Bass Settings

- ▶ To show or hide the Bass settings, click on the body of the bass.



The Bass settings

This will provide access to the settings below:

- **Neck Pickup Volume:** Use the [VOLUME](#) control to set the output level of the Neck pickup.
- **Neck Pickup Tone:** Use the [TONE](#) control to set the tone of the Neck pickup. When turned all the way clockwise, it is fully open, thus creating a brighter sound with more overtones present.
- **Pickup Selector:** Selects Neck pickup ([NECK](#) position), Neck and Bridge pickups ([BOTH](#) position), or Bridge pickup ([BRIDGE](#) position).
- **Rick-O-Sound Switch:** The Rick-O-Sound feature allows for stereo panning of the Neck and Bridge pickups. This creates a very fat sound. In this mode the Amplifier (see section [↑2.4, The Amplifier](#) for details) works in stereo. To enable the Rick-O-Sound feature, set the switch labeled [RICK-O-SOUND](#) to the [ON](#) position.
- **Bridge Pickup Volume:** Use the [VOLUME](#) control to set the output level of the Bridge pickup.
- **Bridge Pickup Tone:** Use the [TONE](#) control to set the tone of the Neck pickup. When turned all the way clockwise, it is fully open, thus creating a brighter sound with more overtones present.

## 2.4 The Amplifier

- ▶ To show or hide the Amplifier settings, click on the amplifier head.





The Amplifier settings

This will provide access to the settings below:

- **Amplifier On/Off:** Use the on/off switch in the top-left corner of the Amplifier panel to switch the Amplifier effect on and off.
- **Gain Switch:** Use the switch labeled GAIN to switch the Amplifier's input stage between low-gain (**LOW**) and hi-gain (**HI**) mode. Hi-gain mode significantly increases the pre-amp's gain potential.
- **Master:** Use the **MASTER** control to set the Amplifier's master volume.
- **Preamp:** Use the **PREAMP** control to set the preamp's gain. Turning the control clockwise adds drive, distortion and edge to the sound.

- **Bass:** Use the [BASS](#) control to set the low-frequency response.
- **Mid:** Use the [MID](#) control to set the midrange frequency response.
- **Treble:** Use the [TREBLE](#) control to set the high frequency response.
- **Presence:** Use the [PRESENCE](#) control to boost the frequency response in the upper mid-range.

## 2.5 The Cabinets

- ▶ To show or hide the Cabinet settings, click on the loudspeaker cabinet.





The Cabinet settings

This will provide access to a selection of cabinet and microphone setups

- ▶ **Cabinets On/Off:** Use the on/off switch in the top-left corner of the Cabinets panel to switch the Cabinets effect on and off.
- ▶ To **select a cabinet setup**, click on one of the pictures in the Cabinets settings. These setups are available:
  - **4x12 UK 70s / 8x10 Bass Pro:** Dual-cabinet setup featuring a British vintage 4 x 12" cabinet and the classic "roadie's nightmare" 8 x 10" cabinet.
  - **4x10 Tweed:** American vintage 4 x 10" cabinet.

- [4x10 Bass Alu](#): Modern 4 x 10" bass cabinet equipped with speakers using aluminum cones.
- [4x12 UK 80s](#): Black British 4 x 12" cabinet made in the 1980s.
- [8x10 Bass Pro Con 30 mic](#): Classic 8 x 10" cabinet, recorded using a condenser microphone.
- [8x10 Bass Pro Dyn 6 mic](#): Classic 8 x 10" cabinet, recorded using a dynamic microphone.
- [1x12 Tweed / 8x10 Bass Pro](#): Dual-cabinet setup featuring an American vintage 1 x 12" cabinet and the classic 8 x 10" cabinet.

## 2.6 The Tape Effect

- To show or hide the Tape effect settings, click on the tape recorder.



The Tape effect settings

This will provide access to the settings below:

- **Tape On/Off:** Use the on/off switch in the top-left corner of the Tape panel to switch the Tape effect on and off.
- **Gain:** Use the **GAIN** control to set the input gain of the effect. Turning the control clockwise will increase the amount of tape distortion and compression.
- **Warmth:** Use the **WARMTH** control to set the low-frequency boost (or cut, respectively) created by the Tape effect.
- **Tone:** Use the **TONE** control to set the high-frequency roll-off corner frequency. Frequencies above this point will be attenuated.

- **Output:** Use the [OUTPUT](#) control to set the output level of the effect.

## 2.7 The Compressor

- ▶ To show or hide the Compressor settings, click on the Compressor module in the rack to the right side of the Performance View:



The Compressor settings

This will provide access to the settings below:

- **Compressor On/Off:** Use the on/off switch in the top-left corner of the Compressor panel to switch the Compressor on and off.
- **Threshold:** Use the **THRESHOLD** control to set a threshold level above which the Compressor will start working. Compression (i.e. level reduction) will be applied whenever the level of the input signal exceeds this threshold. If the input signal stays below the set threshold value, no compression will be applied.
- **Attack:** Use the **ATTACK** control to set the time the Compressor will take to reach the full Ratio value after an input signal has exceeded the threshold level (as defined by the **THRESHOLD** control).
- **Makeup:** Use the **MAKEUP** control to set the output gain of the compressed signal. Use this control to compensate for the gain reduction caused by the Compressor effect.

## 2.8 The Equalizer (EQ)

- To show or hide the Equalizer settings, click on the Equalizer module in the rack to the right side of the Performance View:





The Equalizer settings

This will provide access to the settings below:

- **Equalizer On/Off:** Use the on/off switch in the top-left corner of the Equalizer panel to switch the Equalizer on and off.
- **Low Band Level:** Use the **BASS** control to set the level of the low EQ band.
- **Low-Mid Band Level:** Use the **LOW-MID** control to set the level of the low-mid EQ band.
- **High-Mid Band Level:** Use the **HI-MID** control to set the level of the high-mid EQ band.
- **High Band Level:** Use the **TREBLE** control to set the level of the high EQ band.
- **Output:** Use the **OUTPUT** control to set the output level of the effect.

## 3 Using RICKENBACKER® BASS

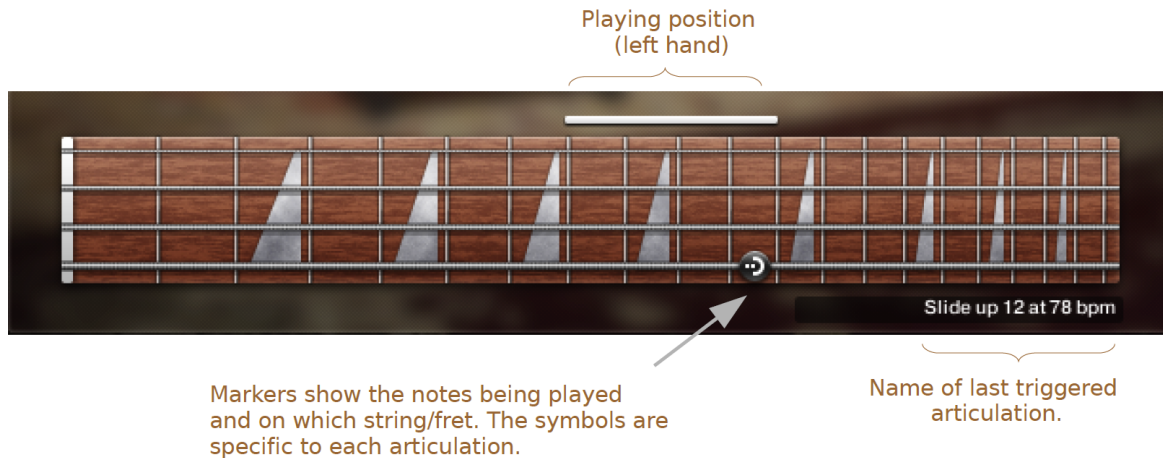
### 3.1 Playing Bass Notes on a Keyboard

With stringed instruments, a particular note can often be played on multiple strings. For example, G2 can be played on all four strings of the bass. When a real bass player is about to play this note, he (or she) typically chooses the string on which the note can be played with minimum effort — that is, without moving the left hand too much. On a keyboard, manual string selection is difficult to perform in real-time, and it is quite laborious to apply after recording. Therefore, RICKENBACKER® BASS automatically selects the correct strings while you play.

Because string selection also affects the way the note will sound, RICKENBACKER® BASS includes samples of all the different strings each note can be played on, thus capturing the sound of the whole instrument. The samples of notes played at higher frets are an integral part of the instrument and add spice and variation to the sound.

#### 3.1.1 Automatic String Selection

The figure below shows the main view of the instrument's user interface. The white dotted line above the fretboard represents the position of the left hand on the bass neck — the playing position. When you play a note on the keyboard, RICKENBACKER® BASS automatically chooses a string that minimizes the need to move the playing position (i.e. the position of the left hand), similar to a real bass player. This way you can play authentic bass lines with minimum effort. E.g. if you play an octave interval, the correct strings will automatically be used.



Information displayed in Fretboard view

Automatic string selection also takes many other things into account, such as when to use open strings, and what special rules to use for each articulation.

Articulation-specific symbols are displayed on the fretboard on the selected string/fret as shown above, and the text label below the fretboard shows the name of the last used articulation. Each string is monophonic, so playing a new note will interrupt any earlier one on the same string — just like on a real bass. Simply trying out RICKENBACKER® BASS yourself is perhaps the best way to understand how it works.

### 3.1.2 Manual String Selection

It is also possible to control the string selection manually. Each string has an associated key switch: EO, AO, DO, GO — picked to be easy to remember. In RICKENBACKER® BASS, a key switch affects the following note or remains active for as long as you press the key. To return to the normal mode of operation just release the key switch.



It is possible to use more than one string selection key switch at a time. For example you can hold AO and DO pressed simultaneously to make A and D the preferred strings.

Another way of controlling the string choice is by using key switches F5-B6 to specify which frets you prefer. The F5 key corresponds to the first fret, F#5 to the second fret and so on. To make it easier to learn, we made the fret key switches match the corresponding note on the E-



string of a bass (F is the first fret on this string, F# the second and so on). By pressing and releasing one of these key switches you move the playing position, and at the same time trigger a fret noise sample (different noises are used, depending on how far you move). To lock the playing position, hold one of these key switches pressed while playing.

## 3.2 Key Layout

Here is a schematic of the keys in RICKENBACKER® BASS. The red keys are key switches (see screenshot below for full layout) and the blue ones mapped to normal samples. This is just an overview. Instructions on how to use each key switch and what it does is given in the following sections.



The bass has no B string, but for flexibility the notes B0 to D#1 have been mapped to a virtual B string. These notes use stretched E string samples. Only basic articulations like sustain, mutes, Hammer On and Pull Off are available on the virtual B string.

### 3.2.1 Key Switches

- To display the key switches available in RICKENBACKER® BASS, click the question mark icon in the top-right corner of the RICKENBACKER® BASS Performance View.



The key switches mapping overview

These key switches are available:

- **A-1 - Sustain:** The A-1 key works like a sustain pedal. When it is pressed, any released notes are sustained. This mode is monophonic, so only one string at a time will sound.

- **A#-1 - Mutes:** Activates mutes for all velocities. If the key switch is pressed with a velocity of 65-127, you will get a tight dampened mute. If velocity is 0-64, you will get a mute that is only dampened lightly with more overtones remaining. At lowest velocity you get pure harmonics where they are on real bass (e.g. on fret 5).
- **B-1 - Reset Instrument:** Resets the instrument state: playing position, alternation and random number sequence. Inserting a B-1 note in the beginning of a song will always give you exactly the same “random” behavior. Behavior changes according to incoming velocity values.
- **CO - Down Stroke:** When this key switch is activated, only down-stroke samples are used. This is particularly handy for rock styles where even fast 1/16 notes sometimes are one pick direction only!
- **C#0 - Up Stroke:** When this key switch is activated, only up-stroke samples are used.
- **DO - Use D String:** When this key switch is activated, the D string will be selected whenever possible. Please note that multiple string key switches can be pressed at the same time to specify a subset of strings to use.
- **D#0 - Chord Mode:** When this key switch is activated, any notes which arrive earlier than the others in a chord are not played back immediately. Instead, the instrument waits for all notes, then determines the optimal string selection. Tolerance can be fine tuned in the Sound and Performance Settings; for details see section [↑3.6, Sound and Performance Settings](#).
- **EO - Use E String:** When this key switch is activated, the E string will be selected whenever possible. Please note that multiple string key switches can be pressed at the same time to specify a subset of strings to use.
- **F#0 - Force Hammer On/Pull Off:** When this key switch is activated, hammer-on and pull-off samples will be triggered also when larger intervals are played legato. It also affects the automatic string selection so staying on the same string will be preferred.
- **GO - Use G String:** When this key switch is activated, the G string will be selected whenever possible. Please note that multiple string key switches can be pressed at the same time to specify a subset of strings to use.

- **G#0 - Buzz Trill/Trill:** Activates trill mode — in default mode you can play half or whole note Trills by holding first key and then adding the next key. The Pull Off/Slide Down will automatically be re-triggered. In Slide Mode, you get Buzz Trills — the sound of fingers sliding back and forth over the fret.
- **A0 - Use A String:** When this key switch is activated, the A string will be selected whenever possible. Please note that multiple string key switches can be pressed at the same time to specify a subset of strings to use.
- **A#0 - Pickup/String Clap:** Plays the sound of muted strings being hit by the player's hand just over the pickup. This key behaves more like a normal note than a key switch.

### 3.2.2 Hand Playing Position Key Switch

It can be very practical to be able to set the left hand playing position — an example could be that you want to create a slide from A1 on E-string upwards. Imagine your hand position is at fret 1 — so slide will start from A0 on the A-string instead.

Now you can use position key switch A5 to move the “player's hand” to fret 5. The resulting slide will be as you wanted it to be.



When playing position is controlled using key switches F5-B6, you even hear the fret noises — and they will sound differently, depending on the number of frets that you move “hand”.



The full volume of the fret noises will be reached from velocity 64-127. If you play softer — from velocity 63 to 1 — they will gradually become more quiet.

## 3.3 Articulations

### 3.3.1 Sustains

Sustain is the default articulation. 20 down-stroke and 12 up-stroke layers were recorded to achieve natural transition from soft to hard playing, including eight additional down-stroke layers. Some rock styles use down-stroke picking almost exclusively; this is catered for by eight specific sample sets. Advanced round-robin system ensures that RICKENBACKER® BASS never sounds artificial, even if you play identical velocity values many times in a row.



Down- and up-strokes can also be activated with C0/D#0 key switch — this is practical as you can use the auto-stroke detection in your sequencer while “forcing” specific notes to be either down- or up-strokes.

### 3.3.2 Scrapes

Scraping the strings is crucial to many bass lines played on a picked bass — if this signature sound is missing you sometimes don't get that “groove sauce” between the notes, and the bass line sounds artificial. RICKENBACKER® BASS contains 1000 different scrapes, and a smart round-robin system makes sure the right scrapes are used for down- and up-strokes, and for playing styles from soft to hard.

### 3.3.3 Mutes and Harmonics

RICKENBACKER® BASS contains 2 x 9 velocities (down/up) of **standard mutes** (muted with minimum 3 fingers) and 2 x 6 velocities (down/up) of **harmonic mutes** (muted lightly with 1 finger). The harmonic mutes are often used, as in many situations the player's fingers are already on the move to a new string or to another position — so the muting is simply more loose, and you get some harmonic ringing.

For velocity values below 15 you get true harmonics where available; otherwise you get standard mutes.

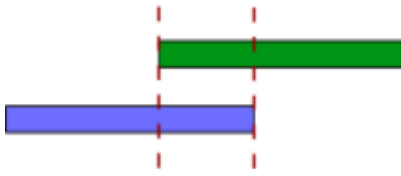


Please note that harmonics are mapped to the string and fret where they are played on a real bass, and not to the pitch of the sound.

Normal mutes are activated by key switch A#-1. This key switch is the only one that is velocity sensitive: velocity values 0-64 will trigger harmonic mutes, while values 65-127 will trigger standard mutes.

### 3.3.4 Hammer-On and Pull-Off

- To trigger a hammer-on or pull-off, play a half- or whole note either down or up legato (overlapping the earlier note).



Overlapping notes (legato)

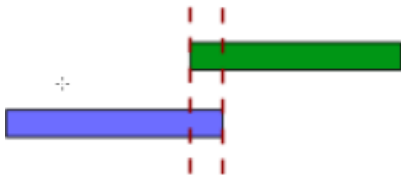
If a hammer-on or pull-off is not available (e.g. when playing a note legato downwards from fret 1) you will get a sustain instead.



Hammer-on and pull-off for intervals greater than 1-2 semitones may be played by activating the F#0 key switch. See more about this further down.

### 3.3.5 Fast Grace Note Up

A fast grace note is triggered in the same way as a hammer-on, by playing the legato note very quickly after the previous note. E.g. play a C2, hold it pressed and press a D2 quickly after (between 20 and 60 milliseconds).



Grace note

The velocity value of the lower note — the note played first — is used as the velocity for playing the fast grace note sample. This allows you to play the second note at any velocity, thus avoiding it to be recorded at a too high velocity (which, without assistance, would be quite likely because the second note has to be triggered so fast).

### 3.3.6 Slides

Slides intervals above three frets are available in speeds 60 to 480 bpm, while half-note and whole note slides have just one speed; in the latter case the length of the attack note — prior to the slide — decides the perception of speed.

- ▶ To trigger a slide, play a note legato while holding the sustain pedal pressed.

If it is not possible to slide the played interval without going outside of the available frets, a sustain will be used instead. The velocity of the target note determines the speed of the slide. There are three recorded slide tempi:

- **Velocities 1-30** trigger the slowest slide sample (60 to 89 bpm)
- **Velocities 31-60** trigger the middle slide sample (90 to 119 bpm)
- **Velocities 61-127** trigger the fastest slide sample (120 to 480 bpm)

The beats per minute (bpm) tempo numbers above refer to the duration of a 1/4 note in that tempo. E.g. to play a 1/8 note slide at a 120 bpm tempo you need to use a slide note velocity which corresponds to 240 bpm, and to play a 1/16 note slide (very fast) at a 120 bpm tempo you will need a velocity which corresponds to 480 bpm.

### 3.3.7 Buzz Trills & Trills

A buzz trill is the sound of a bass player quickly moving his (or her) finger back and forth over a fret. A trill on the other hand is a sequence of repeated hammer-on and pull-offs. Both Buzz Trills and Trills are available on all strings of RICKENBACKER® BASS — whole notes and half-notes and a special round-robin system makes sure it alternates naturally.

- ▶ To activate Buzz Trills, press the G#0 key switch while in Slide Mode (sustain pedal down).



Buzz trills can sound really cool when played slow too — especially whole notes.

- ▶ To activate Trills in normal mode, press G#0.

### 3.3.8 Pickup/String Clap

A real bass player typically hits the pick-up with his (or her) right hand on snare drum hits (2/4) to keep the beat — or as some advanced players do: hit the pickup like a flamenco guitarist in between notes for a funky, unique bass groove.

- ▶ To get the sound of a Pickup/String Clap, play A#0.



A#0 behaves more like a normal note than a key switch — the A#0 itself triggers the sound, and it does not affect other notes. As many as 25 different pickup clap samples are included.



The lowest velocity values will trigger samples of fret noises.

## 3.4 Automatically Triggered Samples

Included in RICKENBACKER® BASS are a number of samples which are automatically played back at certain times. In the Sound and Performance Settings you can configure what types of samples you want to use, and how often you want them to be played. For details about how to set up playback of automatically triggered samples see section [↑3.6, Sound and Performance Settings](#).

### Release Samples

A release sample is played whenever a note is released. There is one exception, though: when a note is played legato (overlapping the earlier note), no release sample is played for the earlier note. You can set the release level and release decay of these samples in the Sound and Performance Settings.

## 3.5 Playing Techniques

### 3.5.1 Auto Stroke Detection

Auto Stroke Detection determines the intervals between up- and down-strokes.

- ▶ When using RICKENBACKER® BASS in a **sequencer**, you can select *16 straight*, *8 straight*, *24 triplet*, *12 triplet*, or *One second*.
- ▶ When using RICKENBACKER® BASS in a **stand-alone version of KONTAKT**, use the setting: *One second*: the second note will alternate between up- and down-strokes only if played within one second after the first note.



- To control alternation manually, press key switch **C0 to activate down-stroke picking**, and **C#0 to activate up-stroke picking** samples.



Like the other key switches, these affect the following note, or remain active for as long as they are held pressed. Pressing any of these key switches will inhibit the automatic alternation.

### 3.5.2 Force Hammer On / Pull Off

Normally, hammer-ons and pull-offs are triggered by playing an interval of one or two notes up or down legato with the previously held note. However, it is possible to use the same articulations for larger intervals.

- To use hammer-on and pull-off articulations for larger intervals, activate **Force Hammer On / Pull Off** mode by pressing the F#0 key switch.

For example, if you play and hold A1, and then play E2 while holding the F#0 key switch pressed, the E2 will be played as a whole-note hammer-on on the same string as the A1 even though the interval is a fifth.



Please note that the extended mode affects the automatic string selection — RICKENBACKER® BASS will try to stay on the same string even if the target note is not near the current playing position.

### 3.5.3 Cross Hammering

You can get cross hammering by combining a string selection key switch with the **Force Hammer On / Pull Off** mode described above. When this key switch combination is activated, you no longer have to play legato to trigger a hammer-on. Instead, any note will trigger a whole-note hammer-on. Here is an example:

- Let's say you want to cross hammer E2 on the A string. In order to do this, hold the E0 and F#0 key switches pressed (E-string and extended mode), then play E2 on the keyboard.

### 3.5.4 Chord Slides

Playing a whole chord legato with an earlier chord would be difficult on a keyboard. RICKENBACKER® BASS offers a single-finger technique that will allow you to perform chord slides with ease.

In order to play a chord slide:

1. Play the chord.
  2. Press the sustain pedal and play the target note to which you want to slide; the velocity of this note determines the slide speed.
- RICKENBACKER® BASS will determine the interval between the target note and the note in your chord that is closest to the target note. This interval is then used as the slide interval.

For example, let's say you play the chord G1-D2-G2. To slide up a whole note, press A2 while holding the sustain pedal pressed. The chord note nearest A2 is G2, and the interval is a whole note up. This major second is then used as the slide interval.



As an alternative to A2 it would also be possible to use A1 (a whole note up from the chord's base note) or E2 (a whole note up from the middle note of the chord). To slide up one octave you would play G3 (one octave up from the nearest note, G2).



Note that a chord slide will only be performed when it is possible to slide the interval for all notes in the chord.

### Percussive Slides

- To perform percussive slides, play some extra notes on the same string a note is being slid on while the slide is being performed.

### 3.5.5 Sustaining Notes

Since the sustain pedal is already used to trigger slides, another way of sustaining notes is needed. This is what the Sustain key switch assigned to the A-1 note is used for: while this key is pressed, any released note will be prolonged until the A-1 note is released. So this key works just like the pedal does for other instruments.



This mode is monophonic, so only one string at a time will sound.



It is sometimes useful to be able to sustain repeated notes in order to get rid of the disconnected feeling that gaps between the notes can give. Try for example to play E1, E1, E1, ... without holding A-1 pressed and then with A-1 pressed.



Note that sustaining notes will not allow RICKENBACKER® BASS enough time to play the release sample of one note before the next note starts. Without the release samples you will lose some of the important variation that increases realism. Therefore it is recommended not to overuse this feature. In many cases you may get better results if you adjust note lengths in your sequencer (making one note end just slightly before the next one starts) instead of using the Sustain key switch.

### 3.5.6 Vibrato

The vibrato characteristics of a real bass was analyzed, and the results were incorporated into RICKENBACKER® BASS. Furthermore, RICKENBACKER® BASS is capable of mimicking the slight fret noise generated by the player's finger moving on the fretboard while creating the vibrato.

- Use the modulation wheel (CC#1) to control Vibrato intensity.

In the Sound area of the Sound and Performance Settings view you can configure the vibrato speed and specify whether you want to use CC#1 or Aftertouch to control the Vibrato intensity. For details see section [↑3.6.1, Sound Settings](#).

### 3.5.7 Instrument Reset

Some types of samples within RICKENBACKER® BASS are randomly chosen, based on an advanced round-robin algorithm: sustains, scrapes, mutes, releases, and fret noises. This randomness gives more variation and helps create a more realistic sound. However, it can be helpful to be able to predict the behavior — i.e. to know that your song will sound exactly the same each time you play it. This is possible by using the B-1 key switch to reset the instrument. The velocity value of this key switch determines the random sequence of values which controls all the round-robin samples.

- In order to get the same result each time you play back your song, insert a B-1 key switch note in the beginning of the song.



Note that if you change the velocity of this initial B-1 key switch note you will get a completely different sequence.

## 3.6 Sound and Performance Settings

To display the Sound and Performance Settings, click the cog icon in the top-right corner of the RICKENBACKER® BASS Performance View.



The Sound and Performance settings

The settings are detailed below.

### 3.6.1 Sound Settings

**Vibrato Speed (Hz):** Sets the Vibrato Speed in Hertz (Hz).

**Vibrato Control:** Assign the Vibrato intensity parameter to either the modulation wheel (*CC#1*) or monophonic Aftertouch (*Mono aftertouch*) here.

**Scrape Offset (ms):** Use this control to set the offset for the triggering of Scrape samples. Scrapes are the sound of the pick moving over the string prior to the attack. The higher the offset, the shorter is the scraping sound.

**Scrape Mix (Long vs Short):** RICKENBACKER® BASS contains samples of string scrapes in two lengths: short and long. When this parameter is set to a lower value, longer scrapes will be preferred. Higher values will make shorter scrapes the preferred choice. The default value of 50 means that both lengths are used equally.

**Release Level (dB):** Use this control to set the playback volume of release samples.

**Release Decay (dB/s):** Use this control to define the decay curve of released notes, i.e. by how many dB per second the sound will die away.

**Instrument Noise (dB):** Use this control to set the level of original hum and hiss from the original instrument's pickups and electronics that is added to the sound.

### 3.6.2 Performance Settings

- **Player Profile:** Here you can specify what type of playing style you want to use. This affects the automatic string selection, and whether high or low frets are preferred. For example, when playing rock a bass player would typically not use the lowest fret numbers. These options are available:
  - *Pop & Country* - no specific preference for low/high frets
  - *Soul & Funk* - frets above fret 4 are preferred
  - *Rock & Retro* - frets above fret 6 are preferred



Even with the latter settings it is still possible to use lower frets if you tell the instrument to do so by activating string or playing position key switches.

- **Auto Stroke Detection:** Use this control to determine at what time interval to alter between up- and down-strokes.
- **Chord Mode Tolerance:** Use this control to define how many milliseconds apart notes can be played while still being recognized as a chord. When the notes are tighter than the sloppiness, they are treated as one unit when determining the most suitable strings. Playing chords even without chord mode will work well in most cases. Notes of a chord never arrive at exactly the same time — there is always a period of time between the first and

last note. As long as this period of time is shorter in milliseconds than the default Chord Mode Tolerance value of 10 ms, the chord will be properly recognized, and automatic string selection will work correctly. If on the other hand the period of time between notes gets longer than the default Chord Mode Tolerance value of 10 ms, the automatic string selection is performed note by note, which in some cases can yield suboptimal results for chords. By increasing the value the tolerance for sloppily played chords increases, but at the same time the latency is increased by the same amount leading to a less responsive instrument. For this reason it is preferable to use a high Chord Mode Tolerance value only when you are about to play chords. When chord mode has been activated by the D#0 key switch, the setting is used, and the D#0 temporarily activates a higher latency which makes the string selection for chords more reliant. As soon as the key switch is released, the low latency is restored again.

- **Hand Playing Position Controller:** Use this menu to select the MIDI CC# to control left-hand playing position with. It will affect the next note, but not lock the position like holding a key switch pressed does. Playing position can also be controlled using key switches F5-B6, but the CC control is provided for extra convenience and flexibility.
- **Slide Mode Control:** Use this menu to select the MIDI CC# used to activate Slide mode. The default value is *CC#64* (pedal).

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## 4 Credits

**Bass Performance, Editing & Programming:** Thomas Hansen Skarbye

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**Preset and FX Design:** Sebastian Müller

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