

User Guide



by Peter Gorges

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Welcome to Virtual Bassist ROYAL

We hope you will enjoy this powerful addition to your musical palette, and we thank you for being a part of the UJAM community of music creators!



About the Virtual Bassist Series

The original Virtual Bassist, successor of the Virtual Guitarist series, was a best-selling virtual instrument developed by Wizoo and distributed by Steinberg. It was discontinued in 2007.

Since then, people have been asking for a Virtual Bassist 2.

In 2013, the core team behind the original Virtual Guitarist and Virtual Bassist gathered again and launched *Virtual Guitarist IRON* – specialized in Power Chords – in December 2015, and consequently *AMBER*, *SPARKLE*, and *SILK* – a whole new generation of Virtual Guitarists.

With an all-new concept and technology Virtual Guitarists offered vastly expanded realism, musical and sonic capabilities with the same ease and speed of use the legacy instruments were so famous for.

No wonder our Virtual Guitarist users have been asking for a matching Virtual Bassist ever since, and even more so since we launched the Virtual Drummer series in 2017. The Virtual Bassist series – ROYAL, ROWDY, and MELLOW –

complements the drummers and guitarists and – if you own a bundle – will allow you to build a complete rhythm section.

Like the Guitarists, the Bassists are a whole new development with state-of-the-art technology. They are designed to offer lots of improvements over the original while even easier to use and sounding even better.

We'd be delighted to see you experience and enjoy these qualities in your music!

You and Us

Virtual Bassist ROYAL was built *by* musicians *for* musicians. We at UJAM are a pretty diverse bunch – from DJ to guitarist to weekend producer to Oscar-awarded Hollywood composer. We build every product for ourselves, and, like you, we're all users of *Virtual Bassist* too.

That means that before we even start developing, a lot of thought and discussion goes into finding out what you, the user, will expect from the product, what problem it solves, which controls we can remove to make the product more inviting and simpler, which hurdles we can move out of the way between you and a perfect track.

Every *Virtual Bassist* is optimized for one clear, powerful purpose: To produce great-sounding bass tracks without distracting you from the complex endeavor that producing a song is.

We hope that *Virtual Bassist* transpires that philosophy in everything you do with it.

Naturally, we're always open to new ideas and critique, and you are always encouraged and welcome to talk to us:

- Send us an email: support@ujam.com
- Visit our Facebook page: facebook.com/ujaminstruments
- Catch us on Twitter: twitter.com/ujaminstruments
- Follow us on Instagram: instagram.com/ujaminstruments

Looking for Quick Help?

If you're just looking to figure out something quick, there are three ways to get there:

- The *Quick Reference* has super-short explanations for every control.
- The *Walkthrough* is a guided tour where you'll try every control on the *Virtual Bassist ROYAL* screen once – the quickest hands-on experience possible.
- If you're looking for in-depth explanations of all functions and controls, head straight for the *Reference Guide* further down.

Quick Reference

Area	Parameter	Explanation
Menu Bar	Preset	Click on arrows to choose previous/next <i>Virtual Bassist ROYAL</i> preset
	Save	When editing a user preset, click on the Data icon to save your preset, replacing the previous version.
Mode Selector	Player/Instrument	Selects whether ROYAL performs like a professional session player or a bass instrument that you can record note by note.
Player Mode	Key	This parameter is important in Melodic Mode to ensure that <i>Virtual Bassist ROYAL</i> always plays musically correct note passages and melodies.
	Timing Parameter Menu	Only in Player mode, this menu opens a selection of parameters adjusting the timing of the bass player.
	Latch	When active, <i>Virtual Bassist ROYAL</i> will keep playing independently of keys held, until you deactivate Latch or press the Stop Key.
	Style	Loads a Style (collection of 11 phrases, accessible via the style phrases section of the keyboard).
	Melodic	When on, the player will play melodic figures (depending on the style). When off, the player only provides the rhythm, and will play the notes you hold on the keyboard. Melodic Mode works closely together with the KEY parameter – make sure to set the right key for always musically correct phrases.

Virtual Bassist ROYAL

Instrument Mode	Key Switches	Let you switch on Legato behavior and play a few essential noises for a more lively performance. Slides are used for “pre-intros”, dead notes are “noteless attacks”.
Interactive Keyboard	Common Phrases	Keys in this area select “always useful” phrases that can be combined with style phrases. Several black keys labelled “intros” and “fills” trigger one-shot special phrases.
	Style Phrases	Keys in this area select phrases of the currently selected Style. Black keys trigger one-shot intros or fills, white keys play repetitive phrases.
	Chords	Keys in this area will tell <i>Virtual Bassist ROYAL</i> what to play – featuring built-in chord detection. The detected chord will be displayed above the interactive keyboard.
Timing Parameters	Speed	Let's you switch the player's relative tempo to half, normal or double time.
	Feel	Set to left of center for a “push” feel, to the right for a laid-back (“dragging”) feel.
	Swing	Continuously adjusts syncopation - often also called Shuffle. Move to the right to syncopate off-beats.
	Timing	In center position, the player will provide a natural playing feel, like a professional human bassist. To the left, the timing becomes gradually tighter (more quantized), whereas to the right the “inaccuracies” get more pronounced for a loose, rather slack playing feel.
Bass	Pickup	Blends between the Bridge and the Neck pickup of the bass guitar.
	Character	Selects one of four basic characters, affecting the dynamic range as well as the sound character of the bass instrument.
	Drop D	Tunes the lowest E string down by two semitones, extending the low range of the bass guitar from E to D.
Amp	Amp	Selects one of three bass amplifier setups or a direct output option.
	Drive	Controls the level of overdrive in the preamp of the bass amplifiers
Mixer Channel	Compressor	Dials in the bass-optimized compressor. At maximum value, a transient shaper is added.
	Equalizer	A three-band parametric equalizer offering continuous morphing between various bass-optimized EQ characteristics.
	Octaver	Adds a bass-optimized octaver effect.
	Volume	Controls the master output volume.

Virtual Bassist ROYAL

Wheels	Pitchbend Wheel	Force (Player Mode): Realtime-controls the dynamic level of the Player's performance. Bend (Instrument Mode): Bends the overall pitch by ± 2 semitones.
	Modulation Wheel	Gradually morphs towards palm-muting as you turn up the wheel.

What is Virtual Bassist ROYAL?

Virtual Bassist ROYAL is a software instrument doubling as a professional session bass player or bass instrument, a “Fingered Electric Bass”. It is based on a classic hand-picked top-notch electric bass, and we’ve hooked it up to hand-selected vintage amps and cabinets. The bassist performs exactly as you wish, while giving you full control over musical performance and mix.

If you’ve ever used one of our Virtual Guitarists, there is almost no learning curve – you’ll feel right at home.

There are two novelties

though:

- We have significantly upgraded the musical intelligence because unlike the Virtual Guitarists, the Bassists play melodic figures and passages, and these are often not only dependent on the current chord, but also on the underlying key. Therefore, the Key parameter works differently here.
- There is a new *Instrument* Mode that sends the player home and lets you play the bass guitar yourself, note by note. We put a lot of effort into making this mode feel not like you’re playing a sample library, but a living and breathing instrument. Ideally, you should feel like your MIDI keyboard is hooked up to a mechanism controlling a real electric bass. It intelligently chooses the playing technique, slides, hammer-ons and other typical things.

You can forget about all that – it’s done for you the way a real bass would work – and concentrate on your music.

Virtual Bassist vs. A Real Bass Player

If we denied the huge differences between a software and a real musician, you shouldn’t trust us.

If you have all the money, time and patience in the world plus a recording studio and a professional bass player available, by all means go for it!

But for most people, most of the time, that’s not the case:

- Maybe you have no access to a (professional) session player.
- Maybe you are traveling and need to work on a song only with a laptop and maybe a mini keyboard.
- Maybe you like to work out ideas totally by yourself, taking the time, playing with ideas.
- Maybe you’re a bass player but you want to quickly lay down a track without the hassle of tuning your bass and setting up a recording session.
- Maybe you want to use MIDI-controlled bass tracks as source material for electronic manipulation.

In these and many other scenarios, *Virtual Bassist ROYAL* is a great alternative to the real thing.

How Does Virtual Bassist Make You Sound Real?

You may wonder whether and how Virtual Bassist creates bass tracks that even a bass player can't distinguish from the real thing, while you have no idea of how a bass guitar or the musical techniques behind good basslines work – from playing figures and riffs to shifting, positions and fingering techniques typical for a real bass, plus all those characteristic noises – slides, stops, dead notes, hammer-ons, pull-offs.

The answer is: In every Virtual Bassist there are mechanisms that we didn't give fancy names like "AI Real Bass Engine" or "AI Musical Bass Intelligence" because that's exactly what the name Virtual Bassist already stands for. These mechanisms automatically translate simple note or chord input into the correct response on a real bass and "play the bass" accordingly.

In *Player Mode*, these mechanisms consider your song's key and chord input to always stay in scale, knows when to go from one string to another, when to slide between two notes or when to play a stop noise.

This is why when you play Virtual Bassist on a MIDI Keyboard in *Instrument Mode*, it doesn't feel like you're triggering samples, but like your keyboard were hooked up to a fancy mechanism pulling the strings and pressing the frets of a real bass. And in *Player Mode*, chances are it teaches you a lick or two.

What is Virtual Bassist *ROYAL* About?

Within the series, *Virtual Bassist ROYAL* is the premium session professional. In real life, this would be your go-to A-List session musician for almost any session from pop to rock to songwriter or indie music. Where ROWDY shines with its rough edge and lots of overdrive, where MELLOW exudes retro-noisy, super-organic acoustic character, ROYAL sits above all and works almost everywhere.

Like any virtual musician by UJAM, *Virtual Bassist ROYAL* lets you produce professional tracks in no time, with minimal effort. It combines the virtues of a musically highly trained professional bass player with a custom premium-quality electric bass, perfectly tuned, with fresh strings, selected vintage amp/cabinet combinations, and the most important sound shaping tools as used in recording studios, to design the bass performance and sound exactly as you need it.

Why so few Controls?

We are all musicians and we know that the time for learning a user interface is better spent making music.

Therefore, the user interface of *Virtual Bassist ROYAL* is designed for maximum ease of use and minimum distraction.

It is also fail-proof in that no matter how you set up the controls of *Virtual Bassist ROYAL*, the result will never be musically or technically wrong – without sacrificing your creative freedom.

You can trust in the fact that tracks produced with *Virtual Bassist ROYAL* are realistic, professionally produced bass tracks.

Controller Hardware for Virtual Bassist ROYAL

Virtual Bassist ROYAL requires MIDI note input for playing and recording musical performances, and optionally Pitchbend, Modulation and Sustain Pedal data for added real-time variation.

If you have a MIDI controller (keyboard), this will be the easiest and most straightforward MIDI input method and it's most fun as this way you control your bass player in real-time.

Of course, you can also control *Virtual Bassist ROYAL* by using MIDI step sequencers or by entering MIDI notes manually into MIDI tracks.

For getting to know Virtual Bassist ROYAL and for testing purposes, you can also use the interactive keyboard in the top half of the Virtual Bassist ROYAL window. This works best with the Latch function enabled.

Please note that whatever you play on this keyboard won't leave Virtual Bassist and therefore won't be recorded in your DAW.

Start Playing!

Before we look at things in more depth, let's first explore how to play *Virtual Bassist ROYAL*, as that may be all you need for now.

The top half of the *Virtual Bassist ROYAL* window is dedicated to the musical performance – in other words: *what* is played.

By default, Virtual Bassist is set to *Player Mode* and the interactive keyboard reflects that.

The basic principle is simple:

- When you press keys from C3 upwards, *Virtual Bassist ROYAL* will start playing a phrase with the chord determined by the notes you play. When you release the key(s), playback will stop.
- MIDI notes below C3 don't represent musical keys but select the phrases of your player in real-time. This is a powerful way of making your performance interesting and dynamic.
- By turning the Pitchwheel, you can gradually adjust the force your player exerts on the string, in other words: play softer or harder.
- By switching to *Instrument* mode using the top-center switch on the user interface, you turn Virtual Bassist into a Virtual Bass, i.e. you can play it like an instrument, note for note. The interactive keyboard will adjust accordingly. Try it!

If you know these things and can switch presets, you know all you need to start producing with *Virtual Bassist ROYAL*.

Walkthrough

Note: Keywords printed italic refer to parameter or section names you will also find elsewhere in this manual.

If you're pressed for time or if you already know the basic concepts behind Virtual Guitarists, then this Walkthrough may be all you need for now, and you can come back later to look up deeper explanations as you need them.

We will take a quick tour across all controls of *Virtual Bassist ROYAL*. After this you will have a good basic understanding of the instrument and how to use it.

We assume you have Virtual Bassist ROYAL opened in Reason. Ideally you have a MIDI controller connected, otherwise use the interactive keyboard.

Make a Sound and Learn About Chords

- Play C3 or a higher note. Your bassist will start playing. It will display the current chord above the *interactive keyboard* in the right half of the *Virtual Bassist ROYAL* window.

The interactive keyboard also doubles as a display for the MIDI notes Virtual Bassist ROYAL is receiving. The keyboard is divided and properly labeled with the functions of the corresponding note ranges.

- By playing more than one note, you activate *Virtual Bassist ROYALs* chord recognition. Depending on the selected style and phrase, melodic figures will match the current chord. Play C-G-B for example to play a Cmaj7 chord, or C-F for a Csus4. The current chord is always visible in the *CHORD* display above the keyboard.
- If you just want the rhythmic phrasing of a real player but play the actual notes yourself, switch off *Melodic* mode using the selector in the top right area.
- Click the menu icon in the top right corner to open a menu that lets you adjust various timing aspects of the player's performance!

Try the Presets

- At the very top of the *Virtual Bassist ROYAL* window you can load presets. A preset is always a complete setting of *Virtual Bassist ROYAL*, i.e. it will change the performance as well as the sound.

The Preset will not change between Player mode and Instrument mode, simply because that's really not what you'd want. Also, Latch is not saved or changed with Presets.

- At this point, just go through different presets to get an impression of the musical and sonic palette of *Virtual Bassist ROYAL*.
- Optionally, while in *Player Mode*, try different *style phrases* by additionally selecting keys in the C2– B ♭ 2 range.

Tell Your Player What You Want

- In *Player* mode, activate the *Latch* button on the far left above the interactive keyboard. Now *Virtual Bassist ROYAL* will keep playing even if you don't hold a note. Let it keep playing.
- Now play a note in the correspondingly labeled *Style Phrases* range of the keyboard, C2 – B ♭ 2. Go from C2 upwards and notice how the phrasing gets more intense. These are the phrases you can exchange by loading different *Styles*. Let's do just that now:
- Load different styles by clicking a *Style* name or the arrows above the interactive keyboard. You will notice that your bass player masters a vast range of playing techniques and musical genres.
- Now try keys in the C♯0 – B1 range, labeled *Common Phrases*. These phrases will always be there, no matter which *Style* you've loaded, and can be freely combined with the *style phrases*.
- Interrupt your player temporarily by holding the *silence key* (C0). Playing will continue when you play another note. Now stop your player by pressing or clicking the *Stop key* (B2).

You can use the silence key in latch off mode too to mute your phrase but keep it running. This is different from lifting the key and playing it again as that will restart the phrase.

Staying in Key

Let's try out the musical intelligence in *Virtual Bassist ROYAL*.

- Play a simple C chord by holding the note C (optionally E and G). Choose the style *80s Soul Ballad* and select the style phrase on the key A2. You'll hear a melodic figure involving several passage notes that are part of the C scale.
- Open the KEY menu by clicking the Clef icon in the top left corner. Go through the choices there and notice how the melodic figure changes depending on the KEY you've selected.

When relying on Melodic Mode and encountering a clash between the bass and your other tracks, always make sure to use the KEY parameter to even things out. If the key of your song changes underway, you can automate the KEY parameter to follow suit!

More Performance Tweaking Fun

- Have *Virtual Bassist ROYAL* keep playing. Open the timing menu by clicking the menu icon in the top right corner.
- The *Speed* switch lets you set *Virtual Bassist ROYAL* to half time or double time – this comes in extremely handy when you like a particular style that plays half- or double-time relative to your existing arrangement.
- Now experiment with the *Feel* slider right next to the *Swing* control. It makes subtle changes to the timing, creating a rushed or relaxed feel. Maybe play a drum loop along for better comparison.
- Slowly turn up the *swing* control right next to the *interactive keyboard*. As you will notice, this will delay the off-beats until the phrasing resembles a ternary feel that is common in Swing music (hence the name), often also called Shuffle or Groove depending on your DAW.
- Activate the *Drop D* button in the lower left. It tunes the low E string of the bass (not your actual notes played) down by two semitones, making notes on that string sound slightly different and extending the note range of the bass to D1.

Play the Bass Yourself – Switch to Instrument Mode

If you're a prolific keyboard player, you might as well play the entire bass yourself:

- Switch Virtual Bassist to *Instrument* mode – close the timing menu first if still open – using the top center switch.
- Note how the interactive keyboard reflects the new mode – here, all keys from C1 upwards play notes, while the octave below lets you play dead notes, full stops and slides (hold a slide key and play notes) and switch legato mode on and off.

Find Your Bass Sound

Let's look at the bottom half of the *Virtual Bassist ROYAL* window. Here you set up the bass and the amp, and you can shape the sound character using controls you'd typically find in a mixer channel.

- Activate *Player* mode and *Latch* and keep playing while you tweak controls.
- First, play with the *PICKUP* knob. Notice how it changes the character of the bass sound by changing the mix of the two pickups.
- Now experiment with the *CHARACTER* rotary switch. It does exactly what the name says: Changing the overall character of the bass sound and response.
- The *AMP* knob lets you choose three different combinations of bass amps and speakers, each with its distinct sound character, plus a *direct* setting if you want to use external amplification gear or plug-ins.
- The *DRIVE* knob finally lets you overdrive the amps for a crunchier sound – therefore it only works for the three AMP settings.
- Play with different combinations of the *PICKUP*, *CHARACTER*, *AMP* and *DRIVE* controls. This way you get a good impression of the sonic range of *Virtual Bassist ROYAL* before we even look at the mixer channel options.

Mixing Fun

- *Virtual Bassist ROYAL* comes with a built-in mixer channel, so while you're certainly free to use them, you won't require any external plugins or gear to create a mix-ready bass sound. Let's try a few controls:
- Turn up the *Compressor* knob and notice how the sound becomes punchier, and more attack-y towards the maximum position.
- The Equalizer offers a range of EQ curves optimized for bass. In the leftmost position, the EQ adds a lot of low-end and attenuates the treble range, in the rightmost position it's exactly the opposite.
- The Octaver is an effect adding an audio signal one octave above the bass. It can create some really powerful sounds, particularly in combination with amp drive, and when used with care, you can use it to bring out the melodic aspect of higher bass notes without turning up the volume.

Reference Guide

In the following part of this user guide, every feature of *Virtual Bassist ROYAL* will be explained in depth.

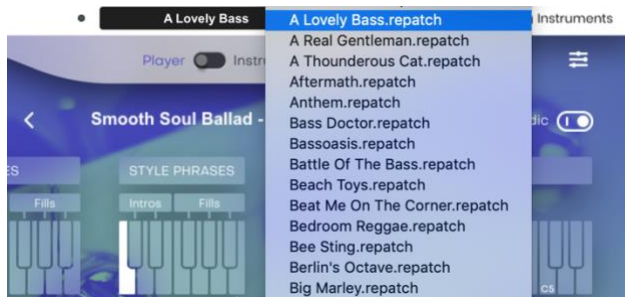
Menu Bar

The top bar of the *Virtual Bassist ROYAL* interface lets you load and save presets. It also displays the selected preset.



Menu Bar

Loading Presets



Preset Browser

A preset in *Virtual Bassist ROYAL* is a complete setting of the entire plug-in including *Style* selection and all control values. Here's how you can switch presets:

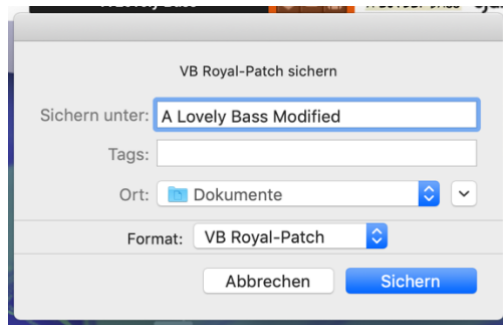
- Advance to the next preset by clicking one of the arrows right of the *PRESET* name.
- Click on the name of the current preset in the *PRESET* menu to open the *Preset Browser* (see image above).

As you can see, the *Preset Browser* is a clean, organized list of presets, categorized by simple musical terms.

Virtual Bassist ROYAL ships with 40 Factory Presets. Take your time exploring them, as this is the quickest way of getting an overview of what *Virtual Bassist ROYAL* can do!

Saving Presets

You can of course save your own *Virtual Bassist ROYAL* presets.



Saving presets

Player and Instrument Mode



Player/Instrument Switch

Virtual Bassist ROYAL can perform either as a bass **player** or as a bass **instrument**, and you can switch between those two at any time.

- In *Player Mode*, you can play chords or notes and select phrases and this way control the performance of the built-in bass player. In *Player Mode*, you also have the option to play the notes yourself and have just the groove and phrasing provided by the player, or to play chords and let the player perform melodic riffs and figures matching that chord (Melodic Mode).
- In *Instrument Mode*, *Virtual Bassist ROYAL* emulates a super-realistic electric bass guitar that you can play on your MIDI keyboard.

Note that the Interactive Keyboard and its MIDI note assignments are very different in Instrument and Player mode. Also, certain parameters such as Latch, Key, Timing Parameters and Melodic Mode are only needed in Player Mode and therefore hidden in Instrument mode to avoid clutter and confusion.

Which mode for what?

- *Player Mode, Melodic On*: Use this mode when you want to enjoy the super-realistic performance of a real bass player with very simple input from yourself. Here, you control *Virtual Bassist ROYAL* using chords – e.g. from a piano track or by just holding chords, and you create a vivid, real performance switching phrases in the Common or Style areas of the Interactive Keyboard. *Virtual Bassist ROYAL* will create a bass performance with melodic riffs and hits (depending on style) always matching the input chord.
- *Player Mode, Melodic Off*: Use this mode if you want to enjoy the super-realistic phrasing of *Virtual Bassist ROYAL* but control the notes yourself, e.g. because you have particular melodic lines in mind.
- *Instrument Mode*: This mode is perfect if you are a prolific keyboard player and want to play the bass live, or if you just want to throw in a riff or note here and there.

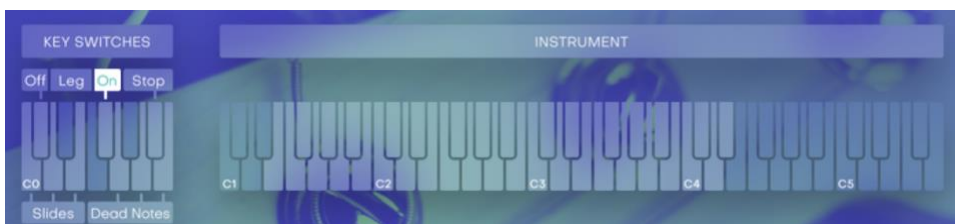
Interactive Keyboard

The Interactive Keyboard is both a display of received MIDI notes and an actually functional on-screen keyboard – with the only exception that notes you play on the Interactive Keyboard are not recorded into your DAW.

The layout and functionality of the Interactive Keyboard changes between *Player* and *Instrument* modes as shown below.



Interactive Keyboard in PLAYER Mode



Interactive Keyboard in INSTRUMENT Mode

Player Mode

Timing Parameters



This icon opens the Timing Menu



Timing Menu

Only in Player Mode, you will find a menu icon in the top right corner of the user interface. Click it to open a selection of Timing parameters that you can use to adjust your *Virtual Bassist ROYALs* performance to your song.

Speed

The *Speed* switch lets you halve (0.5x) or double (2x) *Virtual Bassist ROYAL's* tempo relative to the song tempo.

Swing

This function, often also called “Shuffle”, delays the off-beats. *Virtual Bassist ROYAL* will automatically switch the *Swing* resolution to 8th or 16th note depending on the selected *Style*.

At maximum position, the off-beat will have the same timing as the last note of a triplet.

Use this control to match the timing of *Virtual Bassist ROYAL* to a shuffled or triplet-based song.

Not all phrases contain 8th or 16th note off-beats. In these cases, the Swing control has no effect.

Feel

You can tweak the feel of your bass player's performance either towards relaxed or rushed using this control:

- As you move the slider to the left, the player will play off-beats slightly earlier, leading to a rushed or driving feel.
- In the opposite direction, off-beats will be slightly delayed, creating a laid-back or relaxed feel.

Feel has a stronger effect when listened to against other tracks. If you're not sure what it does, try playing a drum loop along with Virtual Bassist ROYAL and tweak the control. You will notice that the off-beats will play earlier or later than the off-beat drums (usually hi-hats or snares) as you move the control.

Timing

Like a real human, your session player in *Virtual Bassist ROYAL* plays ever so slightly around the quantized note grid. You can vary how “human” you want those phrases to be played:

- In the center position of the Timing slider, phrases are played with their original timing. If you're unsure, leave the slider there.
- Towards the left or “tight” position, the phrases will get more and more quantized, until they match the quantize grid exactly. Use this setting for example when using *Virtual Bassist ROYAL* along with drum machines or generally in sequenced, electronic music.
- Moving the slider towards the right or “Loose” position intensifies the timing variations – the bass performance sounds intentionally human.

Latch



Latch

When *Latch* is activated, once you press a key in the Chord range, *Virtual Bassist ROYAL* will keep playing until you press the *Stop* key.

When *Latch* is off, *Virtual Bassist ROYAL* only plays as long as you hold at least one key in the Chord range. *Latch* is convenient when testing or setting up sounds and is more practical if you build a track by manually entering notes into your MIDI track.

You can use an optional Sustain Pedal as a temporary Latch. Lifting the sustain pedal unlatches any notes that are no longer held, even if the Latch switch is still on.

Style

Here you choose a *STYLE*– the selection of phrases accessible via the Style Phrases range on the keyboard.

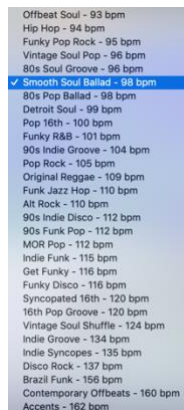


Style Selector

Virtual Bassist ROYAL

A *STYLE* in *Virtual Bassist ROYAL* is like a collection of particular phrases that you ask your bass player to play. Styles are the “rhythmic vocabulary” of *Virtual Bassist ROYAL*, which is why we have included 41 sets.

You can select styles by either clicking the arrows of the Style Selector to skip to the previous/next style, or by clicking the name of the current *Style* to bring up the full list.

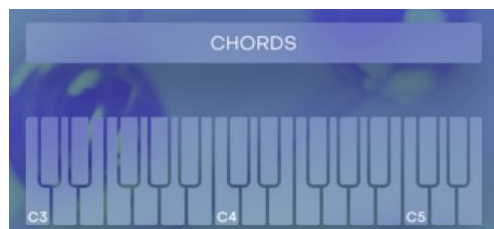


Style List

Every *Style* is a set of seven looping phrases, two intros and three fills. You can trigger them from the *Style Phrases* area of the Interactive or MIDI keyboard.

In most Styles, Phrases are ordered by intensity/density from left to right.

Chord Range



Chord Range on the Interactive Keyboard

The right section of the keyboard is the one that actually starts and stops the bass performance and determines the notes or melodies your bass player will play.

Instead of playing actual notes, you just select the root note or chord the bass player will perform as a phrase.

Virtual Bassist ROYAL features a built-in chord recognition. The following paragraph will tell you exactly which chords are supported and how to play them.

Naturally, Virtual Bassist ROYAL does not play any chords of course. The chord recognition is only relevant in Melodic mode (see below), where it considers the chord you press for matching melodic figures, licks and riffs to the current chord.

This is also useful when you use the MIDI track of a Virtual Guitarist to control your Virtual Bassist.

Melodic Mode



Melodic Mode Switch

Melodic Mode, which you select using the switch above the right edge of the Interactive Keyboard, is only available in *Player* mode. The switch defines whether *Virtual Bassist ROYAL* will play melodic figures or just follow the notes you play on the keyboard:

- If you're a good keyboard player and/or know exactly which notes you want *Virtual Bassist ROYAL* to play, switch melodic mode off and play those notes yourself, while the *Player* provides the phrasing.
- Turn Melodic Mode on and just hold chords or root notes to enjoy the built-in melodic functionality – individually for every phrase. Make sure to read about the *KEY* functionality in context with chords!

Insight: Key and Chord Recognition

The Player mode in Virtual Bassist is designed to play realistic, musical bass lines matching the current chords and key of the song, including typical diatonic and pentatonic riffs and figures resulting from the playing technique. There is a lot of intelligence behind this that you are not required to understand in order to make full use of it. If you're interested, this paragraph provides a little basic insight into the harmonic and melodic workings of *Virtual Bassist ROYAL*.

If you have used one of our Virtual Guitarists, you will notice differences in Virtual Bassist:

- Virtual Guitarists play *only* notes that are part of the current chord
- Virtual Bassists may play notes that are not part of the current chord, maybe not even of the current scale. These can be melody or passage notes that are essential for musically interesting bass performances.

- Therefore, the Key selector has a different logic than you will be used to from the Virtual Guitarists: While it is a “chord selection filter” in the Virtual Guitarists, it can even extend the range of chords and notes, and help improving melodic figures and passage notes in Virtual Bassist. It can even be automated.

True to our ease-of-use and failure-free paradigms, usually you won't have to think about the inner workings of how a UJAM Virtual Musician does their job.

If you're not inclined to bother about music theory (or if you feel like you don't understand it enough), a simple approach can be:

- Play Virtual Bassist just like you would play your Virtual Guitarist, even in *Melodic Mode*.
- In case the style you've chosen plays melodic figures and you experience a harmonic clash, additionally set the *KEY* parameter to your song's key and the problem should be gone!

Key



Key Icon with current key displayed



Key Menu

This parameter is only relevant in *Melodic* mode. It is essential in ensuring that melodic passages played *by* Virtual Bassist ROYAL always work well with the rest of your musical context.

Even without the *Key* being set, Virtual Bassist will automatically match melodic figures to the current root note or chord you're playing.

However, unlike in the Virtual Guitarists, melodic figures played by Virtual Bassist ROYAL may use notes outside the actual chord, and these can clash with the musical context if not played in the right *Key*. This is what this parameter is meant for.

- Click the clef icon to open the *KEY* menu. When closed, the currently selected key is always displayed next to the clef.
- Open the *KEY* menu and set your song's key. Virtual Bassist ROYAL's player will choose melodic and passage notes correctly from the combination of the recognized chord and the set key.

If your song modulates or changes to a different key, you can automate the key parameter to follow, or use MIDI Learn to assign it to a MIDI Controller and control it in real-time!

Chord Recognition

The chord recognition scheme of Virtual Bassist ROYAL is pretty straightforward and intuitive – it basically plays the chord you play (even if you're just holding one note) or the next possible chord if that's not available.

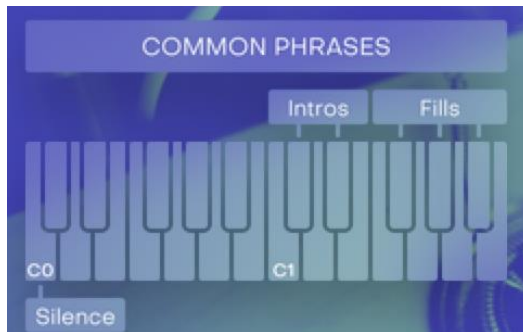
The following chords are recognized:

Chord displayed (based on C)	Notes
C (5th)	C, G
Cmaj	C, E, G
C6th	C, E, G, A
C7th	C, E, G, Bb
Cmaj7	C, E, G, B
Cb5	C, E, F#
Caug	C, E, G#
Cmin	C, Eb, G
Cmin6	C, Eb, G, A
Cmin7	C, Eb, G, Bb
CmMaj7	C, Eb, G, B
Cm7b5	C, Eb, F#, Bb
Cdim	C, Eb, F#
Csus2	C, D, G
Csus4	C, F, G

As described above, the chord recognition also considers the *KEY* if you have set one.

Chord recognition and KEY are only relevant in Melodic mode!

Common Phrases



Common Phrases

The lower left of the MIDI keyboard (C#0 – B1) is reserved for a collection of so-called *Common Phrases*. These phrases are “hard-wired” and won’t change with the *STYLE* selection. *Common Phrases* complement the *Style Phrases* by patterns that are more generic and applicable to multiple contexts.

Notes that “black” keys trigger a phrase only once and revert to the previously selected phrase.

Common Phrase are even identical for all Virtual Bassists, so you can record performances with ROYAL for example and later switch to ROWDY or MELLOW.

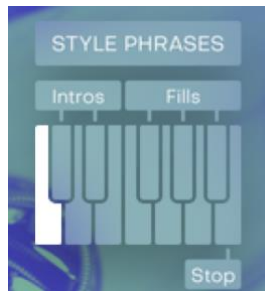
Phrases are what you make of them. Virtual Bassist ROYAL lets you switch phrases in real-time without interrupting the performance. That’s a great way to create dynamic and interesting phrasings of your own.

The lowest key of the Common Phrase range (C0) is the Silent key – it will keep playback running, just with an empty phrase. Use it create temporary gaps without restarting phrases.

Reference of Common Phrases

#	Group	MIDI Note	Description	Bars
1	Long & Short Notes	C # 0	Long 1/2 Notes	2
2		D0	Long 1/4 Notes	2
3		D # 0	Short 1/4 Notes	2
4		E0	Long 1/8 Notes	2
5		F0	Short 1/8 Notes	2
6		F # 0	Short 1/8+1/16 Notes	2
7	Basic Rhythms	G0	Basic 1/8 Note 1	2
8		G # 0	Basic 1/8 Note 2	2
9		A0	Basic Syncopated 1	2
10		A # 0	Basic Syncopated 2	2
11		B0	Basic 1/16 Note 1	2
12		C1	Basic 1/16 Note 2	2
13		C # 1	Fill 1/8 Note	1
14		D1	Basic 1/16 Note Short	2
15		D # 1	Fill 1/16 Note 1	1
16	Latin & Disco	E1	Samba	2
17		F1	Samba 1+5	2
18		F # 1	Fill 1/16 Note 2	1
19		G1	Disco 1/8 Notes	2
20		G # 1	Fill 1/16 Note 3	1
21		A1	Disco Samba	2
22		A # 1	Fill 1/16 Note 4	1
23		B1	Salsa	2

Style Phrases



Style Phrases

Keys in the C2-Bb2 range play phrases of the currently selected *Style*.

White keys play regular cyclic phrases, while black keys trigger Intros (C# and D#) as well as Fills (F#, G#, A#).

- Press black keys once to trigger the respective Intro or Fill.
- Sometimes, these will start a little later in the bar. They will play once and then automatically fall back to the previous cyclic phrase.

Style phrases start with the lowest density/intensity on C2 and get more agitated as you move towards B ♭ 3.

Know you always have these *Style Phrases* plus the *Common Phrases* at your immediate disposal.

The highest key of the Style Range – B3 – is the Stop key. In Latch mode, pressing this key will stop playback.

Realtime Controls in Player Mode

In *Player Mode*, the two wheels have distinct functions to let you create a more dynamic performance:

- The Pitchwheel will be labeled Force and control the dynamic intensity of the bass. Turn it down for softer passages, turn it up to create accents.
- The Modulation Wheel lets you gradually dampen the string, creating a shorter, more percussive sound.

Instrument Mode

Like all titles from our Virtual Musician range, *Virtual Bassist ROYAL* is designed to deliver absolutely realistic performances as if played by a real musician on a real instrument. No compromise.

If you are a skilled player and know how to play the typical phrasings and riffs of a bass, we highly recommend *Instrument Mode*.

However, if you're not a skilled keyboard player, chances are that you are way better off using *Player Mode*.

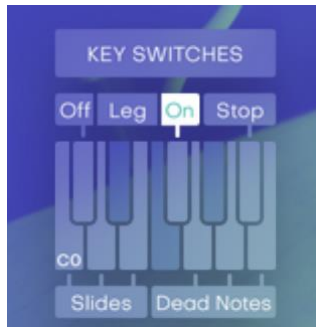
Like the name says, *Instrument Mode* lets you play the bass *instrument*. Actually, *Instrument Mode* is active in *Player mode* too – it is the bass model that gets played by the Player.

We wouldn't be surprised if playing *Virtual Bassist ROYAL* in *Instrument mode* felt like your keyboard were hooked up to a mechanism playing the physical bass.

This is because a *Virtual Bassist* is not just a multisample, but a real model that emulates all the behaviors of a physical bass guitar. Unwanted "unrealism" of a conventional sampled bass won't be found in *Virtual Bassist ROYAL* – such as machine-gun effect when repeating notes, unnatural note-offs or pitching/transposition artifacts.

Playing tip: Unlike many other instruments, realistic, grooving bass performances rely heavily not only on the correct onset of notes, but also on their end! A succession of long bass notes with no pause in between is easy to play on strings, but hard on a MIDI keyboard. In these cases, try recording your bass performance at half the original tempo – chances are this will still sound more realistic than note-length editing.

Key Switches in Instrument Mode



Key Switch Octave

In Instrument Mode, the lowest octave of the Interactive Keyboard lets you switch on Legato behavior and play a few essential noises for a more lively performance:

- Slides: The keys C0, D0 and E0 pre-select different slides that are perfect for “pre-intros”. Hold one of those keys and then play keys in the note range to trigger those slides.
- Legato Mode: You can switch the legato slide behavior in the note range on and off in real-time by using the keys C#0 (off) and F#0 (on).
- Dead Notes: The A0 and B0 keys trigger Dead Notes – Dead Notes are “noteless attacks” that are used as a playing technique in-rhythm to make the bass phrase sound more percussive
- “Silent” Dead Note: In addition to the above-mentioned Dead Notes, the G0 key doesn’t trigger a Dead Note but toggles the Main Keyboard to play Dead Notes with the played Key.
- Full Stop: The Key B ♭ 0 plays a Full Stop.

Realtime Controls in Instrument Mode

In *Instrument Mode*, the Pitchwheel will function as exactly that with a note range of 2 semitones, whereas the Modulation Wheel lets you gradually dampen the string, creating a shorter, more percussive sound.

Insight: The “Bass Model”

In all Virtual Bassists, there is a mechanism at work under the hood that ensures realistic behavior of the bass instrument.

This is important as we don't want to require our users to be intimate experts of the inner workings of a bass guitar, nor do we want to require you to know exactly what notes to play when, when to switch strings, or trigger slides or articulation noises manually.

In this paragraph, we'll give you a little bit of insight into how this mechanism works.

If you're in a hurry, skip it and read it later, because you don't need this knowledge to make full use of Virtual Bassist (that's the whole point). It's hopefully interesting nonetheless.

String Logic

When you play a certain MIDI Note, Virtual Bassist will automatically pick a certain string. Here's strings versus MIDI Notes in detail:

- E: 28 – 34 (26 – 34 in Drop D Mode)
- A: 35 - 39
- D: 40 - 45
- G: 46 – 63

Interval Handling

When you play an interval greater than 4 semitones, Virtual Bassist will change to a different string and play an extra note. Like a real bass, you can create up to 4 note polyphony.

Intervals between 1 and 4 semitones are regarded as a change of fret on the same string and played monophonically.

Position Change

There isn't a fixed logic to position change. The Bass Model automatically calculates the position of a note from the previous note played. This means a preference of "realistic sound" over "realistic playing behavior".

Legato Energy Level

The energy level of a legato note is not only dependent on the MIDI velocity, but also on the energy of the previously sounding note – taking its initial velocity and length into account.

Articulations

A note is a note is a note, but some notes are different depending on their context – velocity, previous sounding note and so on. Here are a few examples – try them out in Instrument Mode to get a better feel for what happens:

- Slides: Whenever a subsequent note is played louder than the previous one and its pitch is only one or two semitones apart, Virtual Bassist will not play a new note, but a slide (in reality, this is the finger of the player moving one or two frets on the fret board, increasing the energy of the sounding string).
- Hammer Ons/Pull-Offs: Likewise, if the subsequent note's velocity is lower, Virtual Bassist will play a Hammer-On if the note is one or two semitones higher, and a Pull-Off if it's lower. Hammer-On and Pull-Off are descriptive terms for what the finger on the fretboard does.
- Neither a Slide, Hammer-On or Pull-Off is played if the notes cross the note range limit of a string – in this case a new note is played on the neighbor string.
- Note-Offs are dynamically different depending on the remaining energy of the string and at which point of time into the sounding note it is stopped – there are staccato Note-Offs and legato Note-Offs.

If you are unfamiliar with those terms and playing techniques but want to understand them, google them to find lots of explanations and videos on the web.

Bass Setup



Bass Setup Controls (plus wheels to the bottom left)

This area is where you tweak the overall sound character and dynamic response of the bass guitar.

Pickup



Virtual Bassist ROYAL features two simultaneously sounding pickup signals. The Pickup control allows you to mix them continuously to find exactly the basic sound character you want.

The Neck Pickup sounds a little more guitar-y and nasal, whereas the Bridge pickup has a rather round and hollow character. Anything in between is possible, naturally.

Character

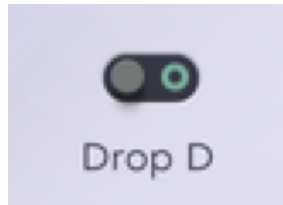


The *Character* control is a chicken head switch selects one of five basic characteristics. These define the overall sound character as well as the dynamic response. Under the hood ...

- the sound character is achieved by a bass channel featuring various audio processors to control the low, mid and high end.
- The dynamic response attenuation limits the “spectral” range of the bass guitar so that the same velocity levels sent to *Virtual Bassist ROYAL* produce different sound characters without affecting the overall volume response too much.

Name	Sound	Dynamic range	Use case
Soft	Full low end with attenuated mids and highs	Soft to mid	A low-key, ballad-y bass sound that leaves room in the mix
Warm	Emphasized low end, slightly emphasized mids	Full	Full bass sound that stands out in a mix
Neutral	Original	Full	Use this setting when using outboard plug-ins or gear
Hard	Attenuated low end, emphasized high mids and highs	Mid to High	Very good for effects, licks, melodies and generally for the mid to upper note range

Drop D



Drop D switch (in the "off" position)

This switch, when activated, tunes the E string down by a whole note, dropping the pitch to D (hence the name). This extends the note range to D, but also makes the note range played by the E string sound different.

AMP Setup



Amp Setup Controls

AMP



Amp Selector

This chicken head switch sends the bass guitar signal through either one of three bass amp setups or selects a direct signal in case you want to use an external amp (plugin).

The Amp Models include top amp, cabinet and microphones and are perfected for a range of applications of *Virtual Bassist ROYAL*.

Knob position	Character	Use ...
Rock	American rock setup with a tube amp and a “fridge-size” speaker cabinet.	... in a pop/rock band setup, usually with distorted guitars
Soul	Similar top amp but different speaker setup (1x15” plus tweeter) and vintage microphones	... for a cooler, hollower bass sound that still cuts through in a mix
Pop	British transistor amp, 4x10 speaker	... when you want an amped, but rather timeless and linear bass sound
Direct	No effect of the AMP section	... if you intend to process the signal in an external bass amp (plugin), or if you want a distinctly clean, unprocessed bass sound

Drive



Drive knob

This control adjusts the overdrive level of the bass amp to create a slightly distorted sound. The effect is very different depending on the *AMP* setup you've chosen.

As graphically indicated, the DRIVE control has no effect when you've chosen the Direct setting of the AMP control.

Bass Channel Setup



Bass Channel

Virtual Bassist ROYAL features a bass channel with three audio processors dedicated for exactly this type of bass sound – a Compressor, an Equalizer and an Octaver.

As you will notice on first glance, we've designed them to be super-easy to work with – even without knowing how a compressor or equalizer are perfectly set up for a bass.

This is possible because - while a generic compressor or EQ has to offer a rather large set of parameters – here we already “know” the signal, so many parameters (such as ratio or attack time in the compressor, or frequency ranges and Q factors in the Equalizer) are optimally pre-conditioned under the hood. Thanks to this, you can control each processor very easily using one macro knob.

If you use external gear or plugins to shape your bass sound, make sure to set the bass channel components to neutral values.

Compressor

As you turn up the Compressor control in *Virtual Bassist ROYAL*, you will notice that the overall volume goes slightly up, that notes in the lower dynamic range sound louder, and – towards the maximum – the bass becomes more attack-y, i.e. the transients are shaped accordingly.

Using the compressor means you can lower the overall volume of *Virtual Bassist ROYAL* without it losing presence in the mix, and the overall dynamic range is evened out, which you want in louder mixes, particularly with prominent drums and guitars.

Equalizer

The Equalizer complements the CHARACTER control really nicely in that combining the two creates a large variety of bass sounds.

This Equalizer is four-band parametric. As you turn the knob from Vintage over Neutral to Modern, you move multiple parameters under the hood – gains, frequency bands and Q factors. In any setting, the Equalizer produces a useful curve. A rough guideline for what the Equalizer does is the following table:

Knob position	Low	Lo Mid	Hi Mid	Hi
Vintage	+		-	-
10 o'clock		+	+	-
Neutral				
2 o'clock			+	
Modern			-	+

Octaver



Octaver

The *Octaver* is less of a typical mixer channel component, but a bass-typical effect: It adds a duplicate of the bass signal one octave above the original. The knob controls the volume of the effect signal.

When used very subtly, the Octaver adds harmonic content in the high mids and highs, leading to a more pronounced bass sound, and adding throttle to any subsequent distortion or overdrive effects.

Higher knob positions change the overall sound of the bass towards a more melodic character and work particularly well for licks or fills in the higher note range.

Use the Octaver carefully – less when in doubt! Also note that the Octaver is calculated from the entire bass signal – not just the harmonic content – so may sound wobbly or rough. Use these artifacts to your benefit.

Master Volume



The Volume knob adjusts the master output volume of *Virtual Bassist ROYAL*. It is a highly dynamic instrument, and there is a lot of functionality – from Force to Compressor to Amps – affecting the overall volume, so use this control to adjust the gain of *Virtual Bassist ROYAL* before sending it into subsequent audio processors or effect devices.

MIDI Learn

Using MIDI Learn, you can assign any *Virtual Bassist ROYAL* control to hardware controls of MIDI keyboards or other controllers.

To assign a control, you usually right-click or ctrl-click a control in *Virtual Bassist ROYAL* to open the MIDI Learn context menu of your DAW. Then use “Overwrite remote mapping” to assign your hardware control.

Automation

All controls in *Virtual Bassist ROYAL* can be automated. In combination with the phrase select keys this is actually a very powerful way of creating more dynamic performances. For example, automate *PICKUP* and *DRIVE* with faders to create dynamic transitions, or switch-automate *AMP* or *Doubling* to drastically change the sound between song parts.

For instructions on how to activate Virtual Bassist ROYAL parameters for automation, please refer to Reason’s userguide.

Sustain Pedal

The sustain pedal replicates the *Latch* control, so you can use it as an additional way of varying phrases in real-time. Pressing the sustain pedal activates latching of chord notes. Releasing the sustain pedal releases any latched chord notes even if the *Latch* button is on.

CV Note Inputs

With CV Note Inputs, you can trigger notes of Virtual Bassist ROYAL independently of playback mode. Connect an external pad controller to play Virtual Bassists "Instrument" mode and trigger individual notes. Be aware that even if the interface is showing *Player* mode, CV notes always trigger *Instrument* mode.

CV Gate Inputs

With CV Gate Inputs, you can trigger velocities of notes independently of playback mode.

Audio Outputs

With Audio Outputs, you can control Virtual Bassist ROYAL's master outputs.



Rear pane of ROYAL

FAQ

Where can I get help?

We keep a help desk with a knowledgebase and known issues here: [UJAM Helpdesk](#)

Where can I get inspiration, tutorials and other helpful videos?

You can find these things among others in our very own [Blog](#) as well as on our [YouTube channel](#).

I still have questions! Where can I send them?

Please send your questions to support@ujam.com. We will help you out asap!