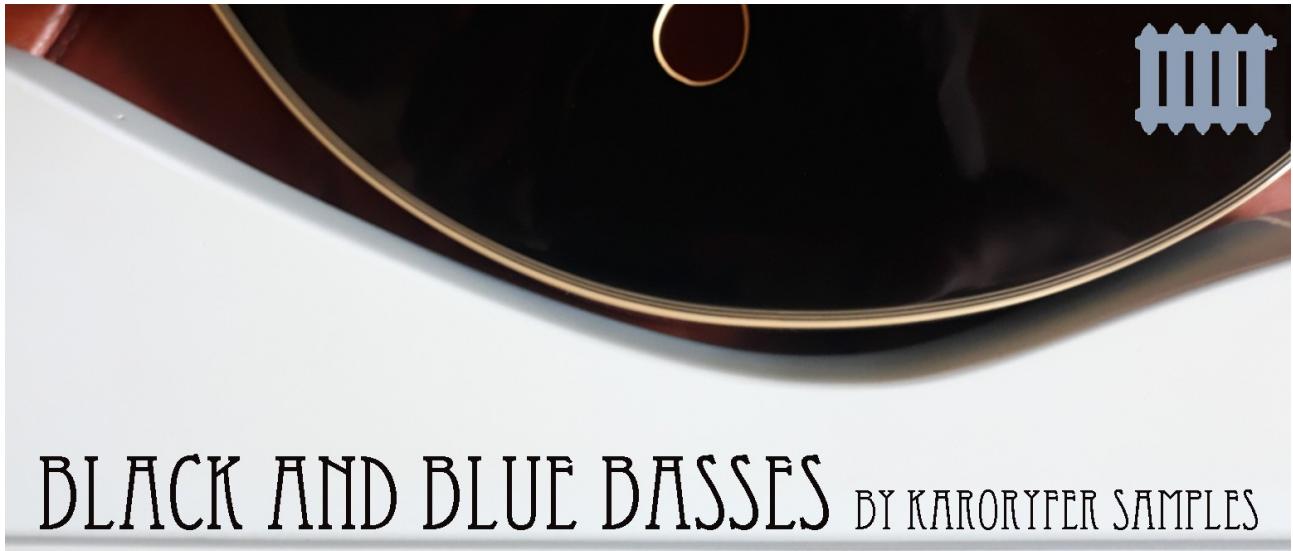


# BLACK AND BLUE BASSES USER GUIDE



## BLACK AND BLUE BASSES BY KARORYFER SAMPLES

Karoryfer Samples' entry in the 2023 KVR Developer Challenge, Black And Blue Basses is a virtual bass guitar instrument using samples of two 5-string bass guitars: a dark black Washburn AB-95 and a baby blue Thunderbird-shaped parts bass. The black one is played with the fingers and recorded using the neck pickup; the blue one is pick and bridge pickup.

This is free and open-source, with a CC 0 license.

The virtual instrument requires Plogue Sforzando version 1.977 or higher, which is free and can be downloaded from <https://plogue.com/downloads.html>

Any questions or comments? Contact us at [samples@karoryfer.com](mailto:samples@karoryfer.com)

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# INSTALLATION AND REGISTRATION

If you do not have Sforzando installed, install that first – version 1.977 or newer is required. After downloading and unzipping the Black And Blue Basses content into a folder, launch Sforzando, either in standalone mode or as a plugin. It is important that all the files stay in the same folder – changing the folder structure would require editing the SFZ files. Drag the Black And Blue Basses.bank.xml file onto the Sforzando interface – if this does not work in your DAW, try doing it with Sforzando in standalone mode. After providing administrator credentials, the instrument will be registered. The SFZ files and WAV files can be used without registration, but registration causes Black And Blue Basses to appear in Sforzando's instrument list, which allows the instruments to be loaded with the GUI.

If all that seems confusing, a quick video guide to the registration process is available at <https://www.youtube.com/watch?v=6R0s8qx5k8c>

## INSTRUMENT BANK

The instrument bank includes eleven instrument patches.

- Darkblack keyswitch – all articulations, selectable via keyswitch.
- Darkblack keyswitch warm – plucks and ghost notes without the top velocity layers.
- Babyblue all – picked notes.
- Babyblue warm – picked notes without the top velocity layer.
- Darkblack single articulation patches.

## ARTICULATIONS AND SAMPLING DEPTH

- Darkblack plucks have four dynamic layers and four round robins, with releases that have four round robins.
- Darkblack ghost notes have two dynamic layers and four round robins.
- Darkblack staccato and behind the bridge have four round robins.
- Darkblack behind the bridge samples exist in two versions: one sampled with the string fretted, and split roughly equally between the five strings, and the other sampled using the open strings only, which means only five pitches are actually sampled, and they are stretched across the keyboard to fill in the missing notes.
- Babyblue notes have two velocity layers, with eight round robins in the top layer and four round robins in the bottom layer.

## RANGE

Both basses were tuned BEADG (standard 5-string tuning). The darkblack bass has 21 frets so its highest note is an E, while the blue one has 20 frets and goes up to Eb. The babyblue bass also has samples going down to E, an octave below a standard low E, in two versions.

# CONTROLS



## PERFORMANCE CONTROLS

Mono is a simple mono/poly switch.

Preroll makes the instrument more responsive but less realistic by not using some of the approximately 25 milliseconds of pre-note noise that's included in each sample.

Swell increases the attack and release time of the notes, while also raising the volume (to compensate for the fact that the loudest part of the note will be turned down). This is useful for making pads and other soft swells.

## UNISON CONTROLS

Unison is the volume for two additional voices, created via transposition trick. These voices have a highpass filter, so they do not muddy up the sound too much.

Width controls the stereo placement of the two additional voices.

# VIBRATO CONTROLS

Though it is possible to perform different types of vibrato on a bass guitar, the vibrato of Black And Blue Basses is violin-style – fairly narrow, and moves the pitch both above and below the normal pitch of the note. Vibrato also has speed, depth, delay and humanize controls.

The fade control brings vibrato in gradually. The delay control causes vibrato to start later than the note start, and the humanize control makes the vibrato rate slightly unsteady. With unison on, the humanization affects each of the unison voices differently. The humanize control is not enough to achieve natural, expressive vibrato - for that, modulating the vibrato depths is essential.

In addition to vibrato, the vibrato LFOs can do tremolo, which modulates the volume rather than the pitch. This isn't possible on bass guitar without external effects.

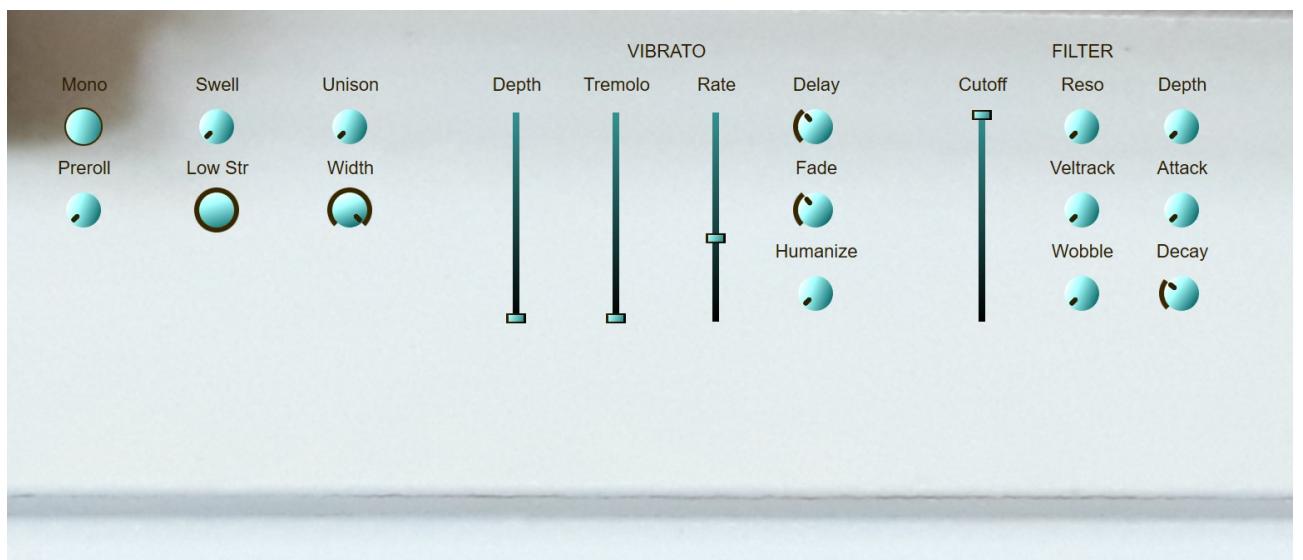
# FILTER CONTROLS

This is a synth-style filter with cutoff, resonance, and adjustable velocity tracking. Wobble modulates the filter's cutoff using the vibrato LFO. Envelope also modulates the filter. There's some interesting trickery going on under the hood to make the keytracking musical.

# INSTRUMENT-SPECIFIC CONTROLS

The darkblack bass also has a Release control, which sets the release noise volume for plucks. The other articulations do not have release noises.

The babyblue bass has a Low Str button, which controls which samples are used for notes below the low B. With it on, digitally pitch-shifted samples of the B string are used. With the button off, samples of the B string physically tuned down a fifth to E are used.



# SAMPLER FEATURES

The below are standard features of Sforzando, and are explained in more detail in the Sforzando manual. This is just a short summary of how these features apply to Black And Blue Basses.

## SNAPSHOTS

Specific control settings can be saved using Sforzando's Snapshot function – basically, these are presets. This saves a snapshot of the instrument currently loaded into one instance of Sforzando and its MIDI CC settings.

## EFFECTS AND SETTINGS TAB

The Effects tab and Settings tab contain default Sforzando functions. Effects can be used to add more reverb (together with the Send control at the top of the Sforzando interface). Settings can be used for monitoring adjusting RAM usage and polyphony.

Increasing the maximum engine RAM will be needed if keeping the samples on a hard drive, or in projects which use multiple instances of Sforzando and other ARIA engine products which combine to use a large amount of RAM. The basic instrument and single articulation instruments consume less RAM.

## CREDITS AND ACKNOWLEDGMENTS

Recorded, edited, programmed and even photographed by Drogomir Smolken.



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