Bokoodo

User Manual - Version 1.0

Developed by Bradley Schirmer at White Horse

1.1 Device Overview

Bokoodo is a type of pitch shifter effect inspired by an effect used in Doctor Who aliens in the 70's. But that was a long time ago or from now. This plugin can do so much more than that. Watch out for the blackhole of feedback!

1.2 System Requirements

- Ableton Live 11 or 12.
- Max for Live (included with Live Suite).

1.2 Installation

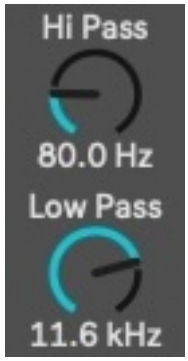
- Double-click the installation file or drag it directly onto an open instance of Ableton Live.
- A dialogue box will appear with a notice and ask if you'd like to continue.
- Click Yes
- The device will now be installed under: Packs > Bokoodo
- Drag the device onto a Audio track or a MIDI track that has an synth or other sound generating device in Live to begin using it.

2.1 Device Structure

- Pitch Controls

- Utilities

- Delay / Feedback



3.1 Pitch Controls

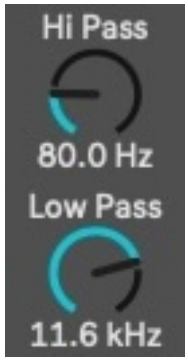
- Sidebands – This controls the blend of the two pitch shifters. -100% means only the Pitch 1 is being heard. 0 means both are blended together and 100% means only the Pitch 2 is being used. Because low frequency audio is usually quieter than high frequency audio, its best to add more 'gain' or blend to the lower pitch Shifter to get more equal power (if that's something you're looking for).
- Freq / Pitch – This switches the dials controlling the pitch shifting.
- Freq-Pitch 1/2 – This controls the amount of pitch shifting in the signal. In Freq mode the dials have a smooth range of 2 octaves. This appropriate if the desired results are about a smooth pitch movement when automated or if one wants to set the pitch 'away' from the mathematical relative pitch of the audio. The Pitch mode is a 24 stepped 2 octave range which works in relation to the audio's own frequency.
- -x3 / x3 – This controls what two octaves range the dial is working in. Zero means the pitch will dial has a range of 1 octave higher and lower from the original. x1 means it is at the dial centre it is one octave higher and will go down to the original pitch or go up two octaves.
- O / R / L – This controls the how the two dials are linked or not. O means linking is off. R means the linked dials move in reverse of one another (opposite pitch direction). L means the dials are link in unison (this is helpful when they are set to different octaves).
- Window Size – This is a very important dial! Or not really. This is dial sets the amount of audio the plugin is using to pitch shift. At very short settings the pitch shifter can create a comb, phaser like quality, and at long setting very slow, loopy tones. This dial is more important to set correctly with transient or time related material. Below the dial is a drop-down menu if you'd like to sync this dial with your Ableton. If set and then the dial is turned, the sync function is overridden by the dial's value.

4.1 Utilities

- Width – This controls the amount of mid-side the plugin outputs. Set at zero there is equal mid and side content. At 100% there is only side information of the effect being sent to the output. This blended with the dry signal will make the audio wider and more spacious. Reversely at -100% only mono information is sent which focus the sound to the centre of the stereo field.
- Gain – This simply controls the gain of the post wet signal. Just in case you need a bit more of the effect.
- Dry / Wet – This simply controls the amount of the original signal and the plugin effect.
- x1 / x2 / x4 – This controls the upsampling of the plugin. It can be set normally, two times or four times. Upsampling will dramatically smooth out the aliasing of the audio but will obviously tax your computer a bit more.

5.1 Delay / Feedback

- Feedback - This controls the amount of pitch shifted audio is fed back into the system.
- Feedback Gain – This adds even more gain to the feedback circuit. This is helpful when the saturator is utilised.
- Sat – This turns on and off the saturator circuit.
- Tube/Tape – The Tube (grayed) adds more definition to the feedback cycles. Tape (highlighted) gets as close to self-oscillation as possible without redlined distortion.
- Feedback Delay – This adds a delay line to the feedback cycles. This can be set in the drop-down menu to sync with Ableton or touching the dial will reset that and change the value to the set milliseconds.



- Hi Pass Filter - This is a highpass filter with the range of 40 to 1000 hertz. The filter is in the feedback loop path so the feedback/delay tails can be contoured.
- Low Pass Filter - This is a lowpass filter with the range of 2 to 20 kilohertz. The filter is in the feedback loop path so the feedback/delay tails can be contoured.