



Badmath

User Manual - Version 1.0

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1.1 Device Overview

Badmath is an audio plugin that uses a bit of simple math to make simple, or subtle, results. The three dials change the amount of each of the three gain stages that result in errors that, through rounding, create a subtle tonal variation. There is also 'b hole' which adds a bit of magic when the gain stages are manipulated. A little can do little, but, sometimes a little is really a lot! A bit of mystery is sometimes all you need.

1.2 System Requirements

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

1.2 Installation

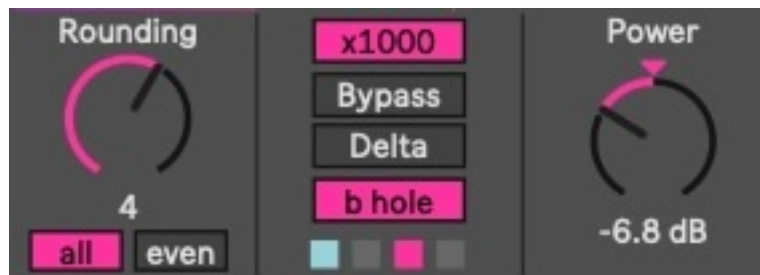
- Double-click the installation file or drag it directly onto an open instance of Ableton Live.
- A dialogue box will appear with a notice and ask if you'd like to continue.
- Click Yes
- The device will now be installed under: Packs > Badmath
- Drag the device onto a Audio track or a MIDI track that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

2.1 Device Structure

- Badmath Dials



- Utilities



- Input Control



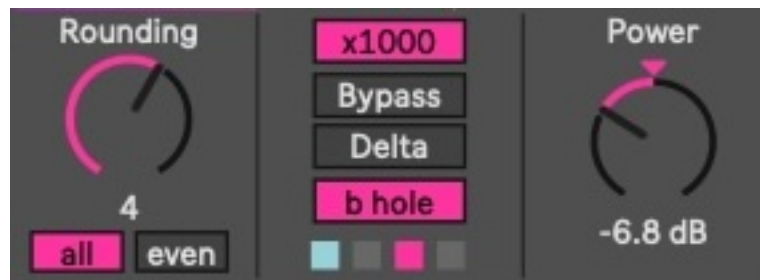
3.1 Badmath Dials

- Three Dials - These control the amount of gain given to the three gain stages. The dials range is between zero and one but each dial interacts with the other dials to always equal the same amount of gain. This gain is compensated for so there is no perceived volume increase.



- ? - This is a simple random generator for the three dials.
- Meter - this shows very loosely how much the dials are affecting the audio.

4.1 Rounding & B hole



- x1000 – This controls displaying a meter that shows the delta of the original signal and the plugin (without the clipper). The display is amplified 1000 times, hence the x1000. You can turn this on if you want to see what’s happening and turn it off if you want to use your ears more than your eyes.
- Bypass – This controls bypassing the plugin for simple A/B’ing.
- Delta - You can loosely hear what is being removed with the plugin. Because this is happening at such a small amount, the signal is increased dramatically.
- B hole - engages a mystery colour algorithm that is patent pending. No, not really.
- Preset - save a setting to compare with another setting. Shift-click saves a preset. Shift-(option / alt) will delete the preset.
- Rounding – This controls the decimal places the gain dials are using to multiply by the signal. The higher the number, the more subtle.
- all / even – This controls the rounding to be any number or just even numbers. What does this do to the sound? I don’t know.
- Power - The gain stage is auto gain corrected to minimise volume fluctuations but it still happens. Turning the Power up will create a more distorted sound and turning down will create a punchier sound.

5.1 Input Gain

- Input Triangle – This controls the input gain but also controls the output as well. It tries to affect the inner workings of the plugin.
- Dot – Zeros out the input/output gain to zero dB.

