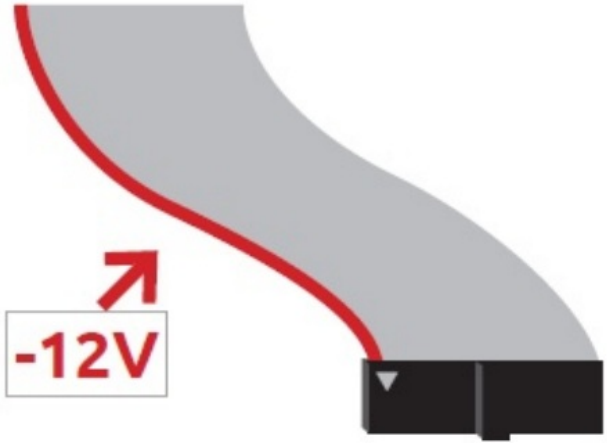
BEFACO V1 Percall Envelope Generator Module User Manual

PERCALL
USER MANUAL
Rev. Jul 2020

POWERINGTHEMODULE

THANKSFORPURCHASINGAMODULEFROMBEFACO!
BEFOREYOUPLUGTHISMODULEIN...



1. Disconnect your cabinet from the mains.
2. Triple check the power cord polarity. The colored line on the cable (pin number one) is the -12V rail.
3. If you plug the module backward you might burn it out and unfortunately, this is not covered by the warranty.
4. If you have any questions about this product please send them to: **befacosynth@gmail.com**

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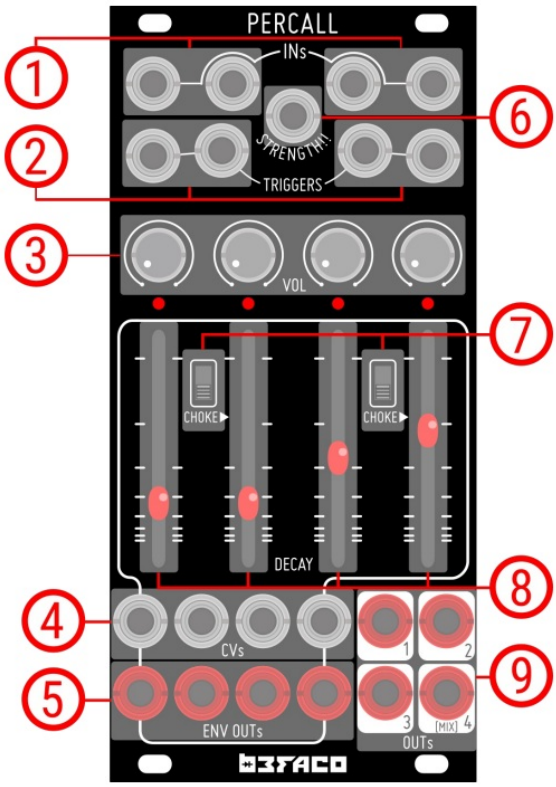
INTRODUCTION PER CALL

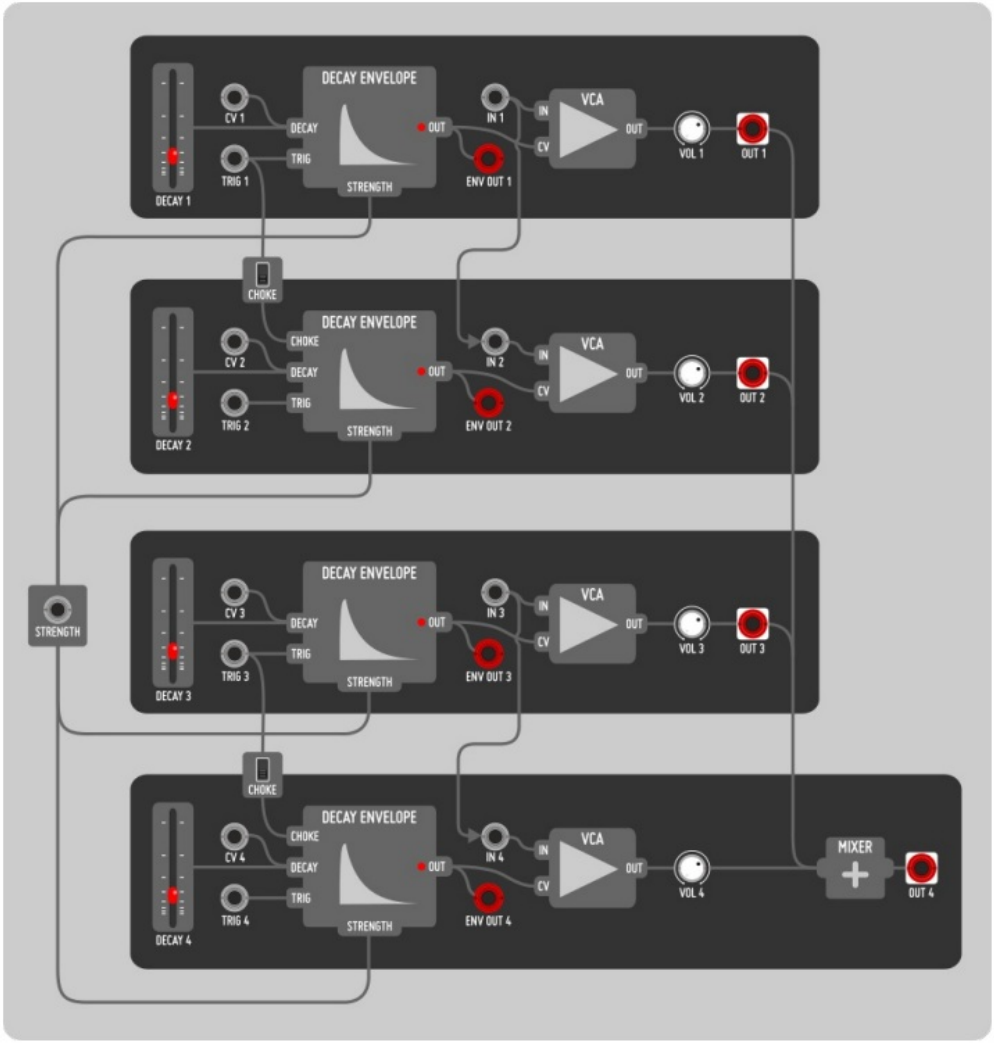
Percale is a percussive-oriented module that will shape four different sound sources into percussive sounds. Percale has four VCAs with dedicated decay envelopes and a mixer, so you can prepare a percussion submission. The strength input will provide extra dynamics to the sounds!
To round up the module, audio inputs are normalized from one to two and from three to four, spicing them up with choke control. This allows creating open and closed Hats or kind of side-chained baselines with your kick!

MODULE REFERENCE
PANEL OVERVIEW



1. Audio Inputs They are normalized in pairs. That means what you plug on IN 1 also goes to IN 2 until you plug a cable on IN
2. Same for IN 3 to IN 4. 2. Trigger Inputs
3. Volume Controls
4. & 8. Decay Controls They control the tail of the envelopes. Both are added together.
5. Envelope Outputs Envelope range: 0-10v.
6. Strength Input This is an amplitude+decay CV control, shared by all four envelopes. It is normalized to 10v so when it is not used, envelopes have maximum strength.
7. Choke Controls When active (up position), channel 1 kills 2 and channel 3 kills channel
8. It is often used to simulate mutually exclusive drum sounds like open/closed Hi-hats.
9. Audio Outputs Channels 1 to 3 are summed at channel 4, so 4 acts as a master mix out. Channels 1 to 3, get removed from the mix, as soon as a jack is plugged at their INs.

FUNCTIONAL BLOCKS
INTERNAL STRUCTURE



As you can check on the diagram above, Percell is based on four identical channels.
Each channel has a VCA circuit, which is internally controlled by a Decay Envelope circuit. This envelope is fired via its TRIG Input and the time of the decay can be either controlled manually or CV via its dedicated CV Input.

The module counts with two Choke circuits for channels 1-2 and 3-4.
When the Choke switch is activated (Switch on top position), the TRIG signal of the first channel mutes the second channel's envelope. The obvious application to this is to make open-close hi-hat patterns but we encourage you to get creative on this a try more stuff.

The Strenght input is a macro CV Input that affects to all envelopes amplitudes at the same time. As the ratio of the envelope is constant, the falling time will be affected depending on the signal plugged in, as well as the amplitude of the sound. This emulates the behavior of a real percussive instrument, where the release time depends on the energy applied to the membrane.

The audio Output of every channel is summed on a final mixing stage at Out 4. Inputs 1 to 3 are normalized, so they will be taken out of the mix if you use that individual output.

MISCELANEA SPECS & CREDITS

* Size: 12HP * Depth: 32mm * +12v: 75mA * -12v: 56mA	Designed with care and love by the Befaco Te Thanks a lot to all beta testers and friends tha provided loads of valuable information!

Documents / Resources

	**BEFACO V1 Percall Envelope Generator Module** [pdf] User Manual V1 Percall Envelope Generator Module, V1, Percall Envelope Generator Module