

Muzzle is an analog vactrol based 12dB/octave low pass filter and low pass gate. The resonance goes from smooth to increasingly acidic and bubbly towards the max setting. Muzzle can create very interesting percussive sounds when in self-oscillation which can be dynamically controlled through the ping input which also activates a circuit that adds extra grit. The white LED is part of this circuit! Muzzle is perfect for creating additional harmonics and give life to any dull/sterile sound!

Features:

- *Frequency control with CV input and attenuator.*
- *Resonance control that makes the filter self-oscillate past mid position.*
- *Ping input for striking the filter frequency and resonance and creating extra grit.*
- Handmade Vactrols!

Tech Specs:

Depth: 25mm. Skiff Friendly!

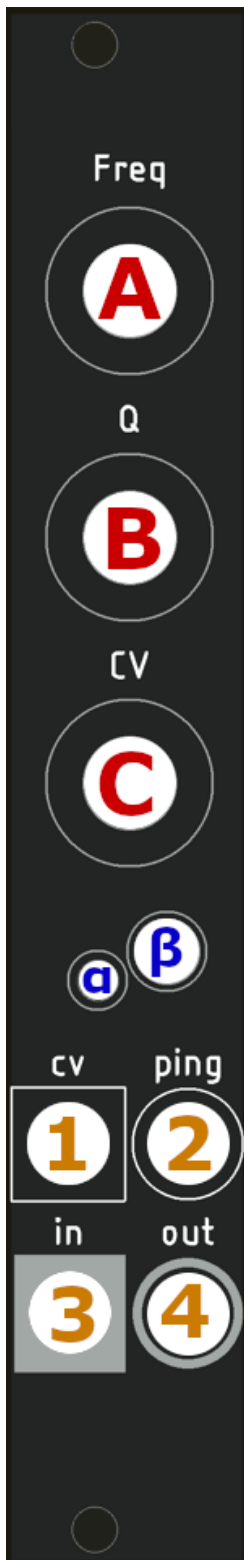
Power: 9mA @+12V / 10mA @-12V. *Reverse polarity protected!*

4hp

Installation

Before installing this module disconnect the power from your system! Double check the polarity of the ribbon cable! The red stripe should be aligned with the -12V rail, on both the module (white bold line) and on the bus board.

User Guide:



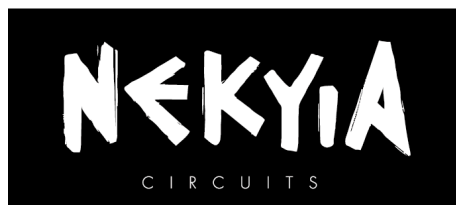
- A.** Cutoff Frequency of filter.
- B.** Resonance level control.
- C.** Attenuator for frequency CV Input.

- α . CV Input modulation indicator.
- β . Ping trigger indicator. The brighter the led the grittier the sound.

1. Voltage control of Cutoff Frequency (0-10V).
2. Trigger Input for striking the filter and saturating the input audio.
3. Signal Input.
4. Signal Output.

Tips & Tricks

- When Resonance is at zero the filter is clean. Turning the Resonance knob clockwise even slightly Muzzle will add harmonics and lots of acid character to the incoming signal.
- *Ping* input not only opens the Cutoff frequency but also subtly affects the resonance too for varying the tone! It can also add saturation as the white led is part of a circuit that affects the overall resonance amount. The brighter the white led lights up the grittier the sound will be. You can reduce saturation by attenuating the trigger level. You can alternatively send a trigger to CV input to achieve clean, non saturated pinging sounds.
- When the *CV* input is fed by short/fast envelopes, it briefly fully opens Cutoff frequency which results in organic bongo-like sounds with a natural decay response. By sending another trigger in *Ping* input it can act as an Accent and dynamic saturator, achieving very interesting tonal and rhythmic variations. *CV* attenuator control has a broad range, so you easily find your sweet spots on the *Frequency* modulation amount.
- Trigger level is important when pinging the filter while in self oscillation (Resonance set to the max position). For example, a very high trigger level will create a zap sound while attenuating trigger level can create a thumpy kick-like sound.
- Due to the nature of vactrols some variation on attack and decay times can occur.



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