

# worng Electronics – Vertex

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- [Manual PDF](#)
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[WORNG Electronics Vertex Manual \(PDF\)](#)

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## Using the WORNG Electronics Vertex for Complex, Rhythmic, and Percussive Music

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As a Eurorack musician focusing on hyper-complex rhythms and intricate patterns, the WORNG Electronics Vertex is a powerful tool for dynamic stereo processing, voltage-controlled amplitude shaping, and creative CV routing. It's not a drum voice itself, but as a high-quality dual/stereo VCA with unique analog features, Vertex can transform your drum and percussion sequences into vibrant, animated, and punchy soundscapes.

Below, I'll detail ideas and advanced techniques based on the manual, tailored for polyrhythmic, densely-layered music.

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### 1. Voltage-Controlled Stereo Shaping for Percussive Content

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#### Patch Concept:

- Use Vertex to process stereo (or dual-mono) rhythmic sources, such as paired drum voices, metallic percussion, or chimes, routed into L/R inputs.
- Patch independent or interrelated envelopes or triggers (from different parts of your rhythm grid) into the *Gain CV* and *Skew CV*. - Modulate the

*Gain* amount to create precise, voltage-controlled gating/ducking, perfect for sharp, percussive attacks or rapid polyrhythmic chops.

#### **Advanced Layering:**

- Combine multiple rhythmic CV sources with *Skew CV* for real-time control of the stereo field.
  - For example, clock one rhythmic envelope at 4/4 into *Gain CV* and a second at 10/8 into *Skew CV* for intricate, phase-shifting patterns that feel multidimensional.
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## **2. Complex Polyrhythmic Stereo Panning and Tremolo**

- Send a mono or polyrhythmic percussion mix to Left input (R will duplicate via normalization).
  - Use two or more LFOs/envelopes running at different rates (e.g., clock-divided, odd/even tuplets, or euclidean patterns) into *Gain CV* and *Skew CV*.
  - The *Skew Amount* lets you voltage-control stereo balance in sync (or out of sync) with your main sequence.
  - At audio-rate CV, the Vertex will impart AM (tremolo) effects. Use envelope patterns that mirror your complex rhythms for tightly integrated movement.
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## **3. Dynamic Envelope Shaping for Punchy Percussion**

- Take advantage of the Vertex's over-unity gain limiting:
  - When envelope CV exceeds unity gain, it "clips" the CV envelope, effectively adding a pseudo-hold stage to the amplitude envelope.
  - This can emphasize hits, create harder attacks, or lengthen perceived transient width on one side of your mix at precise moments.

- Patch fast rhythmic gates (from a trigger sequencer, euclidean generator, or burst/ratcheting module) directly to the Gain or Skew inputs. Rapid modulations can articulate ultra-punchy, chopped percussion without unwanted distortion.
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## 4. CV Stereo Animation of Layered Percussion

- Sum multiple percussive voices to Vertex's stereo inputs. Use Vertex as both a performance and modulation instrument:
    - Sequence or record automation of Gain and Skew controls, or modulate them at control and audio rates.
    - Employ sequencer CV lanes or random/chaotic sources to pan, accentuate, or "ghost note" different elements of your pattern, tied to your polyrhythm structure.
  - For multi-layered percussion (i.e., polyrhythms nested inside polyrhythms), use Vertex to emphasize specific elements mid-pattern, flipping the stereo focus or amplitude dynamically.
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## 5. CV Layering Tricks/Meta-Modulation

- Since Vertex is DC-coupled, it can be used for CV mixing:
    - Use percussive/clocked envelopes or LFOs as input "voices" and let the Gain/Skew work as voltage-variable crossfaders.
    - Employing "meta-modulation" (modulating the modulator), you can shift how polyrhythmic CV's are distributed downstream—for example, affecting drum timbre or sequencer quantization in staggered bars.
  - Feedback Vertex output CV signals to other modules for complex, self-evolving rhythmic evolutions.
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## 6. Quick Patch: Rhythmic Stereo Gating for Hypercomplex Patterns

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1. Mult a polyrhythmic trigger pattern (e.g., 7-step gate, 5-step gate) to Vertex's Gain CV.
  2. Send another regardless or evolving rhythm to Skew CV input.
  3. Patch front panel stereo input/output/insert after percussion submix for true stereo VCA action.
  4. Adjust Skew and Skew Amount for dynamic, per-step stereo shifts and accent layering—making each percussive hit dance differently across time and stereo image.
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### Extra Modulation Tips

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- Try modulating Gain/Skew with **audio-rate** signals for FM-style amplitude sculpting.
  - Use Vertex at the end of your percussion chain to bring subtle (or extreme) side-to-side movement to even the fastest, busiest drums.
  - Manipulate envelopes with sharp, short decay for snap/crunch; use “clipped” over-unity settings for quasi-digital, peak-limited snappiness.
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For more inspiration and utilities to help generate complex rhythmic CV and audio, check out this repository:

[Generated With Eurorack Processor](#)