

# 2hp – EG

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- [Manual PDF](#)
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## [EG 2HP Envelope Generator Manual \(PDF\)](#)

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## Using the 2hp EG for Dense, Hyper-Complex Percussion

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The 2hp EG is an ultra-compact, full-featured two-stage envelope generator. In your pursuit of hyper-complex, densely rhythmic percussion with polyrhythms, odd time signatures, and wild textures, this module can become a central utility—especially if you're working within tight HP constraints or want multiple envelope generators in your system.

### Core Strengths for Complex Percussion

- **Ultra-Fast to Ultra-Slow Envelopes:** Ranges from punchy 3ms attacks/decays up to sprawling 11 minute swells per stage.
  - **Linear/Exponential Curve Options:** Dial in snappy "percussive" or smooth "natural" contours on the fly.
  - **Built-In CV Attenuator:** Modulate your envelope amplitude for dynamic grooves or evolving accent patterns.
  - **Dedicated CV Over Attack/Decay:** Voltage control means you can sequence or modulate your rhythmic shapes for intricate patterns.
  - **Tiny Form Factor:** Stuff more envelope action into your case for maximal layering.
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# Strategies for Generating Complex, Rhythmic Percussion

## 1. Multiple EGs for Polyrhythms

To exploit advanced rhythms, use several EGs—each triggered by a different clock division, pattern generator, or probabilistic gate. Sum their outputs to a VCA or combine them to modulate different drum/percussion voices, with each generator shaping a distinct percussive event at a distinct rhythmic subdivision.

**Example Patch:** - EG1: Triggered by a 5-step clock; CV modulating decay with a random stepped generator for irregular swing. - EG2: Triggered by a 7-step clock; CV modulating attack from a Euclidean pattern. - Both envelopes go to separate VCAs/drum modules, or are mixed to create staggered, polyphonic percussion bursts.

## 2. Envelope Modulation for Evolving Grooves

The CV inputs for attack and decay are critical for programmed complexity. Use LFOs, stepped random voltages, sequencers, or envelope followers to continually change the envelope shape.

- Random stepped CV to Decay: Each trig results in subtly (or drastically) different envelope lengths for organic percussion.
- Euclidean gate/patterns to Attack CV: Shifting how "punched" or "soft" each hit is for expressive grooves.

## 3. Linear vs Exponential

Switch between linear and exponential responses for each rhythm or even automate the toggle with a “hand-on” approach during performance. Linear provides harder, more mechanical percussion; exponential gives you snappier, more natural drum contours.

## 4. Attenuation for Accent Patterns

The AMP knob can be used to program accents: Manually or via CV, reduce amplitude on unaccented steps to create ghost notes, or amplify certain pulses to make accented hits pop.

## 5. Envelope as Audio Source

For even more unique results: Use the envelope OUT as an audio-rate source for "clicks," "ticks," or layered percussive noise, especially with fast decay settings. The module slams out fast voltage spikes that can be filtered or waveshaped for glitchy percussion.

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## Pro Tips for Uniqueness, Punch, and Percussiveness

- Use very fast attack/decay times with exponential response for "transient designer" style punch.
  - Stack several EGs for layered transients, each modulated separately to avoid robotic repetition.
  - Route EG outs to filter CVs (especially ultra-snappy attacks) to create "snap" or "pluck" percussion, or to FM drum VCOs for clicky, metallic timbres.
  - Combine envelopes of different lengths (polyrhythmic cycling) for non-repeating grooves.
  - Change attack/decay times on the fly with sequencer lanes assigned to CV ins for morphing between percussive feels.
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**More Details:** For exact jack and knob placement, power ratings, and user controls, view the full manual [here](#).

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