2hp — Delay

- Manual PDF

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Using the 2hp Delay for Hyper-Complex Rhythmic Percussion

The 2hp Delay is a compact effect module, not a voice, but it can absolutely transform simple percussive sources—or even static clock pulses—into densely rhythmic patterns, especially when combined with modulation and creative patching. Here's how you can harness its capabilities for complex, polyrhythmic, and unique percussion sequences:

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1. Delay as a Rhythmic Multiplier

- **Use as a Multitap Delay:** Patch your main percussion hit or clock pulse into the Delay IN. Set a short TIME for tightly repeating echoes—each delay repeat becomes a subdivision, instantly multiplying your rhythmic material.
- **Polyrhythmic Repeats:** Modulate the TIME CV with a sequencer or complex LFO (not synced to your main tempo). Each cycle can introduce shifting rhythmic accents that drift in and out of sync with your original pattern, generating polyrhythms.

2. CV Over All Parameters = Instantly Morphing Grooves

- **TIME CV:** Feed random voltage or a sequencer channel to TIME CV to continually shift the spacing between repeats. For instance, random stepped CV can create ever-evolving delay times, resulting in glitchy, hiccupping rhythm clusters when used with short percussive sounds.
- **FDBK CV:** Automate the feedback path to accentuate or cut off trails at precise moments in your pattern—emphasize certain beats by giving them extra repeats, or cut feedback abruptly for punchy, staccato responses.

3. Creating Complex Patterns

- **Mix Wet/Dry Blends Rhythms:** Sequence the MIX CV so that certain moments are fully dry (no echo) and others are fully wet (echo only). This can swap the perceived “beat” to different rhythmic layers throughout your sequence.
- **Audio-Rate Modulation:** For ultimate complexity, try modulating TIME or MIX with an audio-rate signal—this “smears” your rhythms into noisy, almost granular patterns, adding unique timbres to each percussion hit.

4. Feedback Path for Infinite Layers

- **Feedback to Infinity:** Crank FDBK up for a “looping” effect, where sounds stack on top of one another, building dense, layered percussion beds beneath your main groove.
- **Self-Oscillation Percussion:** With high feedback and the right delay time, the module can begin to self-oscillate—use this as a noisy, ringing percussive source or as a reactive pseudo-drum sound that shifts with modulation.

5. Patch Examples & Percussive Tips

- **Trigger + Noise Source:** Use an external clock or rhythm generator into a noise source, then through the Delay. Modulate all parameters for wildly shifting polyrhythmic hi-hat or shaker textures.
- **Processing Drum Loops:** Take entire drum loops or clusters of triggers, feed them through the Delay, and automate delay time/feedback. This turns simple loops into rolling, evolving breakbeats.
- **CV Feedback with Pattern Logic:** If your sequencer allows, send gate sequences into FDBK CV, emphasizing certain steps with additional echo bursts for constantly morphing patterns.

Summary Table of Rhythmic Techniques

Parameter	Modulation Ideas	Rhythmic Outcome
TIME	Stepped/random/sequencer	Polyrhythm/glitch/clocks that drift in/out of phase
FDBK	Gate/cv patterns	Accentuation, echo bursts, layer density manual control
MIX	LFO/envelope/sequencer	Alternating dry/wet, shifting groove focal points

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Punchy, percussive results come from fast modulation, careful use of feedback for staccato echoes, and creative routing of triggers and noise-based sounds through the delay.
