ADDAC Systems — ADDAC-207 Quantizer

- Manual PDF

ADDAC207 Intuitive Quantizer Manual PDF

Using the ADDAC207 Intuitive Quantizer for Densely Rhythmic, Hyper-Complex Percussion Sequences

As a Eurorack artist, the ADDAC207 is a powerful tool to introduce advanced rhythm, timing, and tonal complexity into your percussion programming. Here's a focused strategy to use it for hyper-complex, polyrhythmic percussion:

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1. Module Overview in Percussion Context

- **Type:** Multi-channel CV quantizer (not a voice or effect, but a pitch/voltage processor—can act as a rhythmic switch/logic utility for percussion).
- **Key Features for Rhythm:**
- Four independent quantizer channels (Voices), each with its own inputs and GATE output.
- Flexible scale/key selection, user-chosen intervals, microtonal options.
- Per-channel Gate Length control (10ms to 10s+!).

- External Trigger/Gate Inputs for each channel (for sync or retriggering).
- Assignable CV input for menu functions (remote, sequencer, or LFO modulation).

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2. Building Polyrhythms & Complex Patterns

A. CV-to-Gate Percussion Triggering

- **Voice Outs → Percussion Modules:**
  Patch the GATE OUT of multiple voices (1–4) to percussion module trigger inputs (kick, snare, hats, etc).
- **Multiple Gate Lengths:**
  Assign each output a different gate length for each percussive voice, using the Intuitive Menu (Button 6). This can create “flams,” rolls, ratchets, or ghost notes.
- **Asymmetric Triggering:**
  Quantize multiple asynchronous CV sources (different sequencers, random patterns, S&H, or LFOs) into the four voices. With each quantized to a different scale or interval, it forces the triggers (Gate Outs) into unique timing grids.
- **Polymeter/Polyrhythm:**
  Route clock-divided signals into each channel’s Gate Input. Voice 1 = /4, Voice 2 = /5, Voice 3 = /7, Voice 4 = /9 divisions—a fast way to create fluid polyrhythmic triggers.

B. Quantizer as a Creative Clock Divider/Mangler

- **Trigger Inputs:**
  Send complex, irregular clocks or Euclidean pulses to the Gate In jacks. Each channel quantizes only on incoming gates (gated quantization), generating new rhythms driven by your external logic/gates.

C. Complicated Melodic Percussion

- **Assign Intervals:**
  Use interval assignment for Voice 2–4 (chord modes). Set Voices 2–4 to intervals like 7th, 9th, 11th, 13th. Send CV from a trigger sequence to the first voice. Each percussion hit can have multiple, controlled harmonic variations, generating tuned percussion chords or clusters.
- **Transpose Inputs:**
  Use the ASSIGN input with an LFO or further random/stepped CV to shift the root or intervals. Modulating this with fast stepped random can cause quantizer pattern "rotation," instantly creating complex fills, tuplet divisions, and breakbeats.

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3. Techniques for Unique, Punchy Percussion

A. Microtonal & Temperament Mode

- **Non-Standard Scales:**
  Set the quantizer to Bohlen-Pierce, Just, or Exotic temperaments (Buttons 5–9 in Tuning Menu). Passing noisy or random CV through these scales, then using gates for triggers, produces unexpected "off-grid" events—great for glitch or experimental percussion.

B. Gate Length & Gate-Off Condition

- **Gate Off for Syncopation:**
  Set long gate lengths (>500ms) on one or more voices, use the "Gate Off Condition" (Button 12 in Gate Length Menu) so new triggers only happen when gate is low: this delays and "pushes" notes in time, making the rhythm uneven/complex.
- **Fast Chops & Ratchets:**
  Run GATE OUT to a fast analog envelope into percussive VCAs—use shortest gate times for rapid-fire percussion.

C. CV Assign for Live / Algorithmic Mutation

- **Automated Pattern Morphing:**
  Use an LFO or random stepped voltage into the ASSIGN CV jack, assign to “Change Preset” (Button 12) or “Quantization Type” (Button 5), so the module’s whole rhythmic/interval logic is switched or morphed mid-sequence.

D. Modular "Keyboard Mode" Tricks

- **Monophonic Keyboard as Percussion Selector:**
  Hold Button 1 to enter Keyboard Mode. Use manual button jabs or a voltage-addressed switch to trigger specific rhythm voices, playing percussive melodies or fills live.

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4. Patch Example: Dense Polyrhythmic Percussion Grid

- **Sequencer 1 (slow random):** → CV IN 1 (Voice 1): Quantizes to Dorian scale, GATE OUT 1 → Perc Module 1 (Kick)
- **Sequencer 2 (faster, odd clock):** → CV IN 2 (Voice 2): Quantizes to Just scale, GATE OUT 2 → Perc Module 2 (Snare)
- **LFO (audio rate, bursty):** → CV IN 3 (Voice 3): Bohlen-Pierce scale, GATE OUT 3 → Perc Module 3 (Bongos)
- **Stepped Random:** → ASSIGN CV (set to Preset Change & Gate Length): Mutates patterns, fills, breaks.
- **All Gate OUTs:** Go to VCAs with short attack—shaping each percussion hit for extra punch.

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5. Advanced: ADDAC207 as Meta-Pattern Modulator

- **Preset Switching:**
  Rapid/cv-driven preset switching for sudden metric/time

signature changes—makes the grid “breathe” and stumble in intentional ways.

- **Negative Octave Offset:**
  Set certain voices to negative octave offset, forcing extremely low-frequency triggers (subsonics) mixed with higher, on-grid triggers.

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6. Summary Table: Unique Rhythmic Approaches

Feature	Use Case for Percussion
Gate In	Sync with other complex trigger sources & clocks
Gate Out	Directly pings drum modules/VCAs for percussive structure
Multiple Voices	Each quantized differently → multi-instrument polyrhythms
Interval Assign	Chorded/rippled triggers for complex accents
CV Assign	Remote mutation of quantizer logic (for fills/chaos/variation)
Gate Length	"Ratchet," roll, or extend percussion articulation
Nonstandard Scales	Glitchy, off-grid, experimental hits
Keyboard Mode	Live-reassign any drum voice by hand or with voltage switching

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7. Keep It Unique, Punchy, and Percussive

- Use fast, short gates for tight transients.
- Leverage microtonality/temperaments to make “gridless” snare fills or rimshots.
- Harness polyrhythm via asynchronous triggers into each channel.
- Automate menu changes with the Assign input for evolving, “alive” drum programming.

If you want more ideas or patch recipes, grab the manual here (PDF).

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