Qu-Bit — Cascade

- [Manual PDF](#)

Cascade Eurorack Module Cheat Sheet

Cascade by Qu-Bit Electronix: Ratcheting envelope generator, VCA, sound source, compressor, and envelope follower.

BASIC OPERATION

- **Powerful envelope generator normaled to a high-fidelity analog VCA (2164-based)**
- **Ratcheting, AD, ASR, ADSR, Envelope Follower & Compressor modes**
- **Internal sound sources**: White noise, 808 hi-hat, 808 kick, hi-frequency sine
- **Snappy envelopes down to 0.5ms, envelope/CV out: 0–10V**
- **Digital control with analog signal path**

1. PANEL CONTROLS

Knobs

Knob	Function	CV Input	Range
Attack	Envelope attack time	Yes	0.5 ms – 5 s
Decay	Envelope decay/release time	Yes	0.5 ms – 10 s (or 5 s)
Curve	Changes envelope curve (logarithmic–linear–exponential/response)	Yes	
Repeats	Ratchet (# repeats, clock multiplier, or loop)	Yes	1–16/infinite loop, 1x–16x
Level	Envelope output level	Yes	0–10V
Offset	DC offset to envelope	Yes	0–10V
Sustain	(ADSR mode only) Sustain level	No	0V–Level knob setting
Threshold	(Follower/Compressor) Signal threshold	No	
Ratio	(Compressor) Compression ratio	No	

Buttons

Button	Function
Trig	Manually trigger envelope
Invert	Flip envelope (maintains selected voltage range, Green LED on)
Mode	Cycle through main modes (AD/ASR/ADSR/Follower/ Compressor/Ratcheting, etc)
Shift	Shift for Edit/secondary functions

2. JACKS (Inputs & Outputs)

Jack	Type	Function	Voltage Range
Trigger	Input	Triggers the envelope/controls repeat tempo	Gate/Trigger (0–5V/10V)
VCA In	Input	Audio input to VCA (feeds internal VCA and Follower/Compressor modes)	Audio/CV
VCA CV	Input	Overrides envelope out for external VCA control	0–10V CV
Invert	Input	CV for inverting envelope	0–10V
GATE	Output	Configurable: gate/trigger (varies by Edit Function)	0–10V
	Output		Audio/CV

Jack	Type	Function	Voltage Range
VCA Out		Audio out (external/internal source, enveloped/compressed etc.)	
ENV	Output	Envelope CV out bundle	0–10V

3. MODES OVERVIEW

Mode	Unique Controls/Notes
Ratcheting AD	Repeats ratcheted, clock-multiplied envelopes
AD	Basic Attack/Decay envelope (optionally looped)
ASR	Gate controls sustain; loopable
ADSR	Classic four-stage envelope
Envelope Follower	Follows input amplitude, outputs CV/gate
Compressor	Audio compression w/ virtual sidechain trigger

4. EDIT FUNCTIONS (Hold Shift)

Sound Source Select

- White Noise
- 808 Hi-Hat
- 808 Kick
- High Frequency Sine

Gravity Modes (Envelope Scaling)

- No Gravity (standard)
- Amplitude Gravity (amplitude follows gravity)
- Amplitude & Time Gravity

Gate Output Modes

- 6ms trigger at start of every envelope
- **EOD Mode:** Gate HIGH except during decay
- **EOA Mode:** Gate HIGH except during attack

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5. QUICK PATCH EXAMPLES

- **AD Envelope**: Patch trigger source to `trigger`, take env to VCA CV or modulators.
- **VCA Control**: Patch audio to `vca in`, enveloped audio is at `vca out`.
- **Use Internal Sound Source**: Nothing patched to `vca in` —use internal sound from edit menu.
- **Compressor/Env Follower**: Patch audio to `vca in`, configure in mode, audio out at `vca out`, envelope/CV at `env`.

For more examples and advanced setups visit the product manual PDF.

Generated With Eurorack Processor