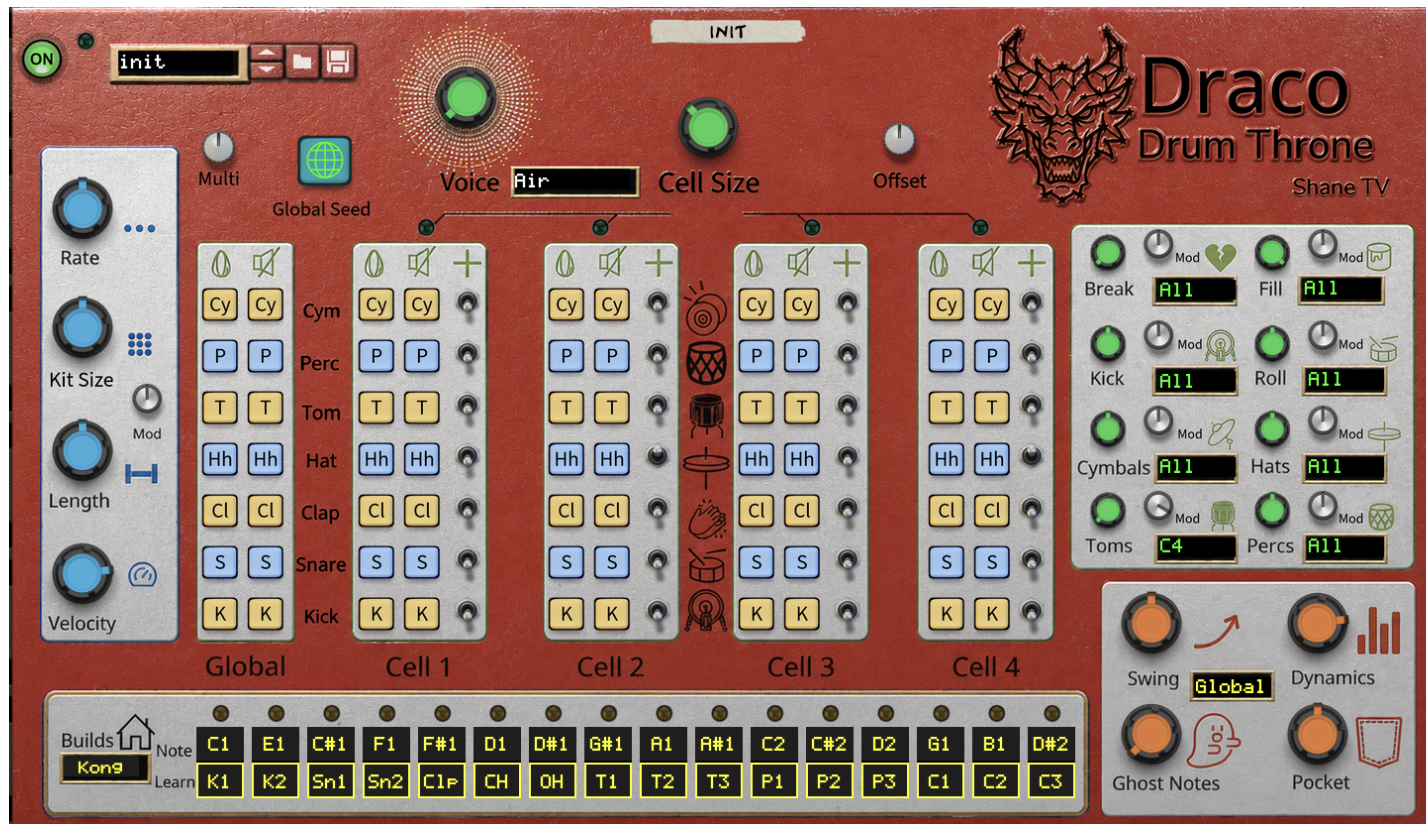


Draco Drum Throne: User Manual



1. Introduction & Overview

Draco Drum Throne is an advanced, generative 16-lane MIDI drum sequencer Reason Extension. Rather than relying on static step sequencing, Draco generates complex, evolving rhythms using 20 distinct genre-based algorithms ("Voices") and a sophisticated internal probability matrix.

By rotating through four distinct "Cells," Draco allows you to build sequences that automatically evolve over time. With deep macro controls over instrument density, intelligent break/fill generation, and humanized groove injection, Draco operates less like a drum machine and more like a virtual studio drummer.

2. Global Configuration & Master Controls



These controls dictate the overall speed, size, and routing of Draco's generative engine.

- **Power (On/Off):** Enables or disables the internal generative sequencer. When powered off, Draco will seamlessly pass your live MIDI controller input straight through to the connected drum machine.
- **Rate & Rate Multiplier:** Determines the base speed of the sequencer. **Rate** allows you to select standard musical subdivisions (1/4, 1/8, 1/16, 1/32, 1/64) including dotted and triplet variations. The **Multiplier (x0.5, x1, x2)** acts as a half-time/double-time switch for instant rhythmic shifts.
- **Kit Size:** A master performance control that selectively unmutes drum families from the bottom up. At low values, you will only hear the foundation (Kicks and Snares). As you turn the knob up, it organically introduces Hats, Percussion, Toms, and finally Cymbals to build the complexity of the kit.
- **Note Length:** Controls the absolute gate length of the MIDI notes generated by Draco.
- **Velocity:** Sets the master baseline velocity for all generated drum hits.
- **Cell Size:** Determines how long Draco remains on a single structural "Cell" before moving to the next. Available options are **1/4-Bar, 1-Bar, 2-Bar, and 4-Bar**.
- **Pattern Offset:** Shifts the internal timeline of the sequencer backward or forward by up to 16 sixteenth-notes. This allows you to slip the entire drum groove ahead or behind the beat relative to the main DAW transport.
- **Master Global Seed:** A single "roll the dice" button that randomizes the structural foundation of every drum lane across all four cells simultaneously.

3. The Generative Macros (Green Section)



This section allows you to dial in the exact complexity and behavior of specific drum families.

- **Kick Density:** Controls the probability and frequency of kick drum hits.
- **Roll Density:** Controls the probability, frequency, and subdivision ratcheting (flams/rolls) of the Snares and Claps.
- **Hats Density:** Controls the probability and frequency of Closed and Open Hi-Hats.
- **Toms Density:** Controls the likelihood of Tom rhythms.
- **Percs Density:** Controls the likelihood of auxiliary percussion elements.
- **Cymbals Density:** Controls the frequency of Crash and Ride cymbals.
- **Break Probability:** Controls the likelihood that the drum groove will drop out and go silent at the end of a cell cycle to create tension.
- **Fill Probability:** Controls the likelihood that an algorithmic drum fill will trigger at the very end of a cell sequence.

Macro Modulators

Beneath each main green macro knob is a **Mod Depth** knob and a **Target Cell Routing** display.

- **Mod Depth (-1.0 to 1.0):** A bipolar attenuator that allows the internal LFOs to animate the macro knob. Turning left pushes the modulation negative; turning right pushes it positive. Center (0.0) bypasses the modulation.
- **Target Routing:** Allows you to dictate exactly *when* the modulation takes effect. You can apply the modulation globally (All), to a single cell (e.g., C3), or to pairs of cells (e.g., C1+C4).

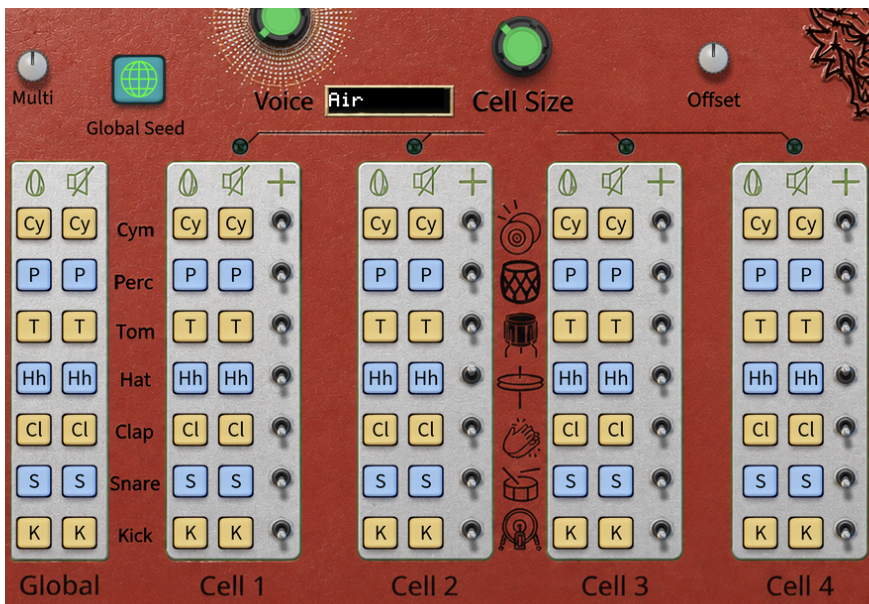
4. Timing & Groove (Orange Section)



This section dictates the "feel" and dynamic response of the drum patterns.

- **Swing Amount:** Pushes off-beat 16th notes late to create a swung, shuffle feel.
- **Swing Target:** Allows you to apply the swing globally, exclusively to the Top End (Hats/Cymbals), or exclusively to the Snares and Tops.
- **Pocket (Micro-Shift):** Introduces humanized slop and timing drift. Turning this knob pushes notes slightly off the rigid sequencer grid, with scaling chaos based on the seed.
- **Dynamics:** A master accent control. As you turn this up, off-beat 8th and 16th notes are significantly reduced in velocity, creating a bouncing, highly accented groove that favors the downbeats.
- **Ghost Notes:** Injects mathematically generated, low-velocity "ghost" hits onto the off-beats for Kicks, Snares, and Hats, filling out the groove without overpowering it.

5. Cell Configuration (C1, C2, C3, C4)



Draco cycles through four "Cells" to create multi-bar looping structures. For each of the four cells, you can override the global behavior of the seven drum families (Kick, Snare, Clap, Hats, Toms, Percs, Cymbals).

- **Seed:** Re-rolls the random mathematical foundation for that specific drum family in that specific cell.
- **Mute:** Completely silences that drum family for the duration of the cell.
- **Alt (Variation):** Triggers an algorithmic variation. For Kicks, Snares, and Claps, this alters the base rhythm. For Hats, it injects Open Hats. For Toms, Percs, and Cymbals, it expands polyphony so multiple lanes within the family trigger together.

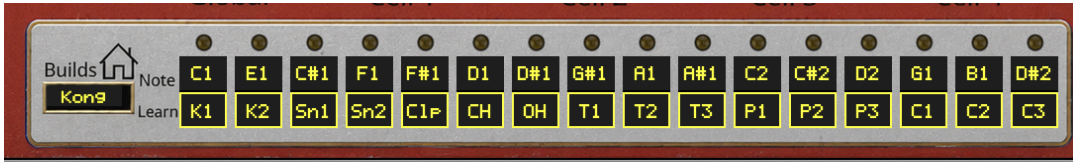
6. The 20 Voices (Drum Algorithms)

The "Voice" knob fundamentally changes the core sequencing logic, hit probability maps, and fill archetypes Draco uses to generate rhythms.

1. **Air:** Unpredictable, heavily syncopated, and constantly evolving. Drops into silence frequently.
2. **Apex:** Aggressive four-on-the-floor foundation with strong offbeat hats and stuttering kick fills.
3. **Quake:** Half-time feel with massive rhythmic gaps designed to leave room for heavy bass wobbles.
4. **Onyx:** Rapid, bouncy 808-style foundations with rapid-fire hi-hat ratchets and claps landing hard on beat 3.
5. **Canopy:** Frenetic, highly complex breakbeat emulation inspired by the Amen Break.
6. **Neon:** Rigid, mechanical, driving 80s grooves with classic descending tom fills.
7. **Strut:** Hip-hop focused. Designed to heavily rely on the Swing and Ghost Note parameters for a dusty groove.
8. **Silk:** Incredibly sparse, laid-back foundation heavily focused on the pocket.
9. **Rust:** Pounding, aggressive, metallic off-beats with sudden rhythmic surges.
10. **Velvet:** Lazy, vinyl-style grooves with lo-fi sensibilities.
11. **Glitch:** Erratically off-grid, breaking traditional sequencing rules entirely.
12. **Stadium:** Heavy four-on-the-floor kicks and massive layered claps.
13. **Disco:** Classic four-on-the-floor with driving 16th-note hi-hat patterns.
14. **Funk:** Incredibly dense ghost-note snare syncopations.
15. **Mirage:** Relentless four-on-the-floor with highly specific rolling bass/tom pockets.
16. **Fever:** Pumping, grooving foundation reliant on offbeat auxiliary percussion.
17. **Echo:** Classic "One Drop" rhythmic foundation.
18. **Drill:** Erratic, triplet-based hat patterns and delayed snares.
19. **Forge:** Relentless, hypnotic, minimal driving foundation.

20. **Abyss**: Extremely sparse, slow-evolving, nearly structureless pulses.

7. MIDI Mapping & Connectivity



Draco generates 16 independent polyphonic drum lanes: **Kick 1, Kick 2, Snare 1, Snare 2, Clap, Closed Hat, Open Hat, Tom 1, Tom 2, Tom 3, Perc 1, Perc 2, Perc 3, Cym 1, Cym 2, and Cym 3.**

- **Builds:** Instantly maps Draco's 16 output lanes to the exact MIDI note layouts of popular drum machines. Options include Kong, Redrum, Rytmik, Umph, RX 1200, Beatmaker, and Reason Drum Kit (DK).
- **MIDI Learn:** On the front panel, each of the 16 lanes has a dedicated LCD display and "Learn" button. Click "Learn" and strike a key on your MIDI controller to instantly map that lane to a specific note.
- **LED Feedback:** The yellow LEDs below each lane indicator will light up when Draco generates a note for that lane, or when you manually strike that mapped key on your physical MIDI controller.
- **Back Panel CV Outs:** Draco isolates the gate outputs for all 16 polyphonic drum lanes on the back panel, allowing you to trigger external modular gear or bypass traditional MIDI entirely.

8. CV Connectivity (Rear Panel)



Draco fully embraces Reason's modular architecture by offering an extensive array of Control Voltage (CV) inputs and outputs on the rear panel. This allows you to patch Draco into the wider Reason ecosystem, using external LFOs to modulate parameters, or using Draco's generative rhythms to trigger other synthesizers and drum machines.

Master CV Outputs

These jacks output the global, summed data of the generative engine.

- **Master Gate Out:** Sends a CV gate signal whenever *any* drum lane fires a note. The CV value corresponds to the velocity of the generated hit.
- **Master Pitch Out:** Sends a CV pitch signal corresponding to the MIDI note mapped to the currently firing drum lane.

Polyphonic Drum Lane Gate Outs

Draco completely breaks out its generative engine into 16 discrete CV Gate outputs. This allows you to bypass Draco's internal sounds entirely and use its algorithmic engine to trigger external devices like Kong, Redrum, or complex modular synth patches.

- **Outputs Available:** Kick 1, Kick 2, Snare 1, Snare 2, Clap, Closed Hat, Open Hat, Tom 1, Tom 2, Tom 3, Percussion 1, Percussion 2, Percussion 3, Crash 1, Crash 2, and Ride.
- **Function:** Whenever Draco generates a hit for a specific lane, a Unipolar CV Gate signal is fired from its respective output. The intensity of the CV signal scales precisely with the velocity of the generated note.

CV Inputs & Trim Knobs

Almost every parameter on Draco's front panel can be modulated via an external CV signal. Next to each CV Input jack is a dedicated **Trim Knob** that acts as an attenuator, allowing you to scale the intensity of the incoming CV signal.

Global & Timing CV Inputs (Blue Section):

- **Kit Size CV In:** Modulates the master VCA, allowing you to organically build or strip away the kit using external envelopes or LFOs.
- **Rate & Multiplier CV In:** Modulates the base speed and subdivision of the sequencer.
- **Note Length & Velocity CV In:** Modulates the absolute gate length and baseline velocity of the generated notes.
- **Mod Length CV In:** Modulates the depth of the internal LFO tied to Note Length.

Macro CV Inputs (Green Section): You can independently modulate the density of every drum family using external sources.

- **Inputs Available:** Kick Density (Drive), Roll Density, Hats Density, Toms Density, Percs Density, and Cymbals Density (Top End Energy).
- **Break & Fill CV In:** Modulates the probability of algorithmic breaks and fills triggering at the end of a cell.

Groove CV Inputs (Orange Section):

- **Inputs Available:** Swing Amount, Pocket (Micro-Shift), Dynamics, and Ghost Notes.

Global Seed & Mute CV Inputs

Instead of manually clicking the interface, you can trigger massive structural changes to the sequence dynamically using CV Gate signals from matrix sequencers or LFO square waves.

- **Mute CV Ins:** Available for Kicks, Snares, Claps, Hats, Toms, Percussion, and Cymbals. Sending a high CV signal to any of these jacks acts exactly like pressing the global Mute button, instantly silencing that drum family across all cells.
- **Seed CV Ins:** Available for the Master Global Seed, as well as the 7 individual drum families. Because seeds are numeric properties, passing fluctuating CV values into these jacks will radically scramble the algorithmic foundations of the kit in real-time.