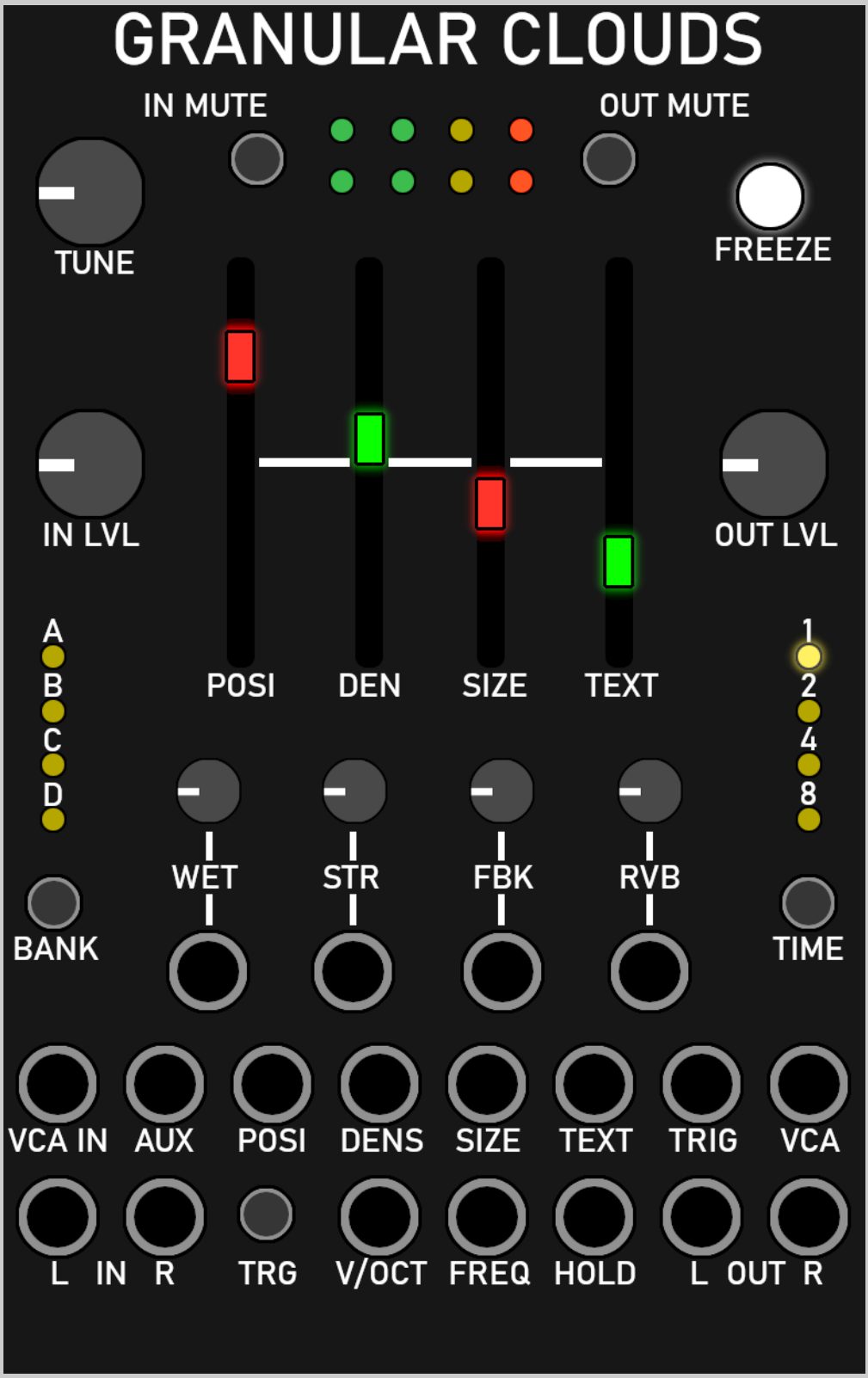
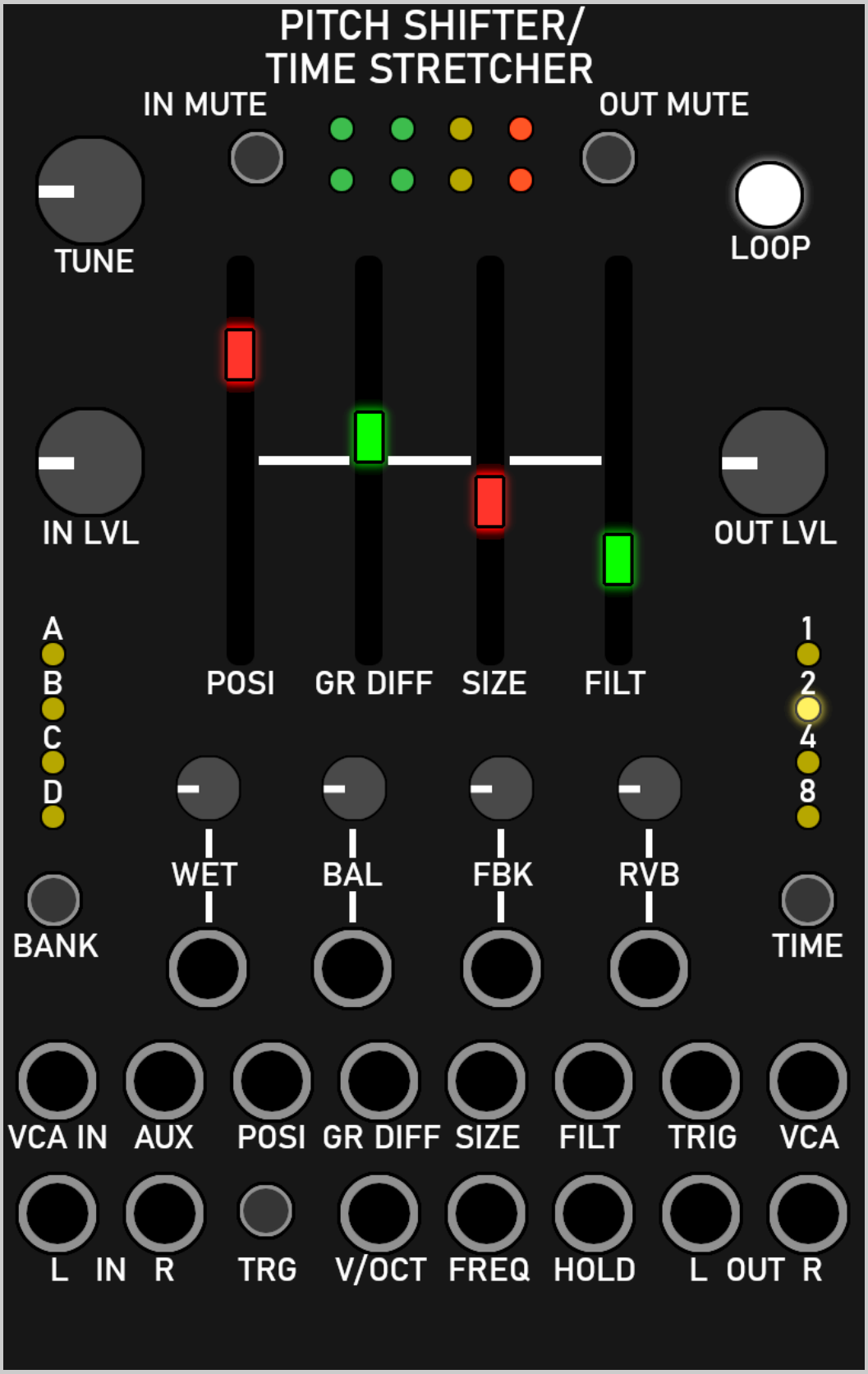
TYPHOON MODES

Mode 1 [●○○○]: Granular Clouds (Parasites)



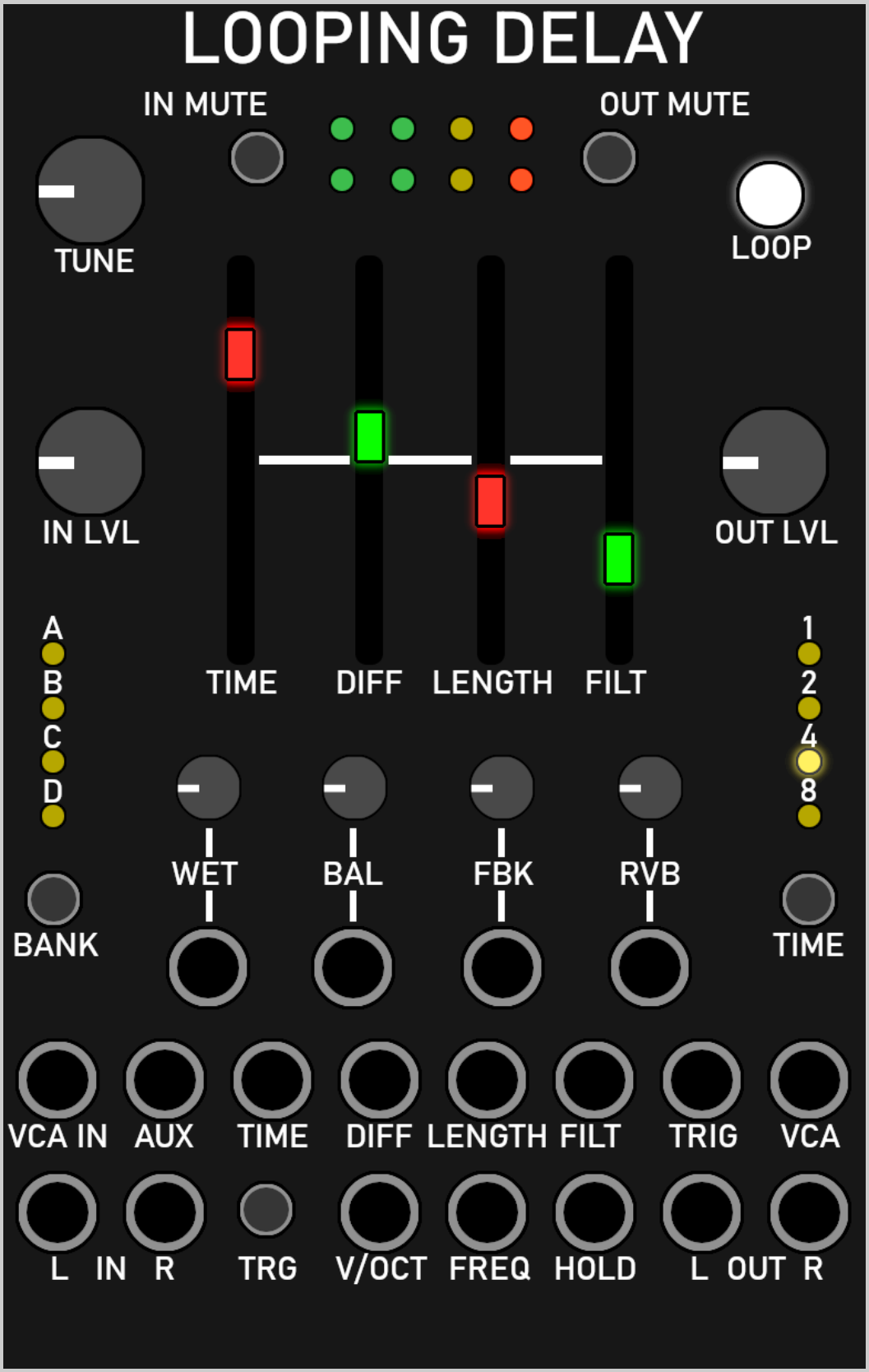
TYPHOON MODES

Mode 2 [○●○○]: Pitch Shifter / Time Stretcher (Parasites)



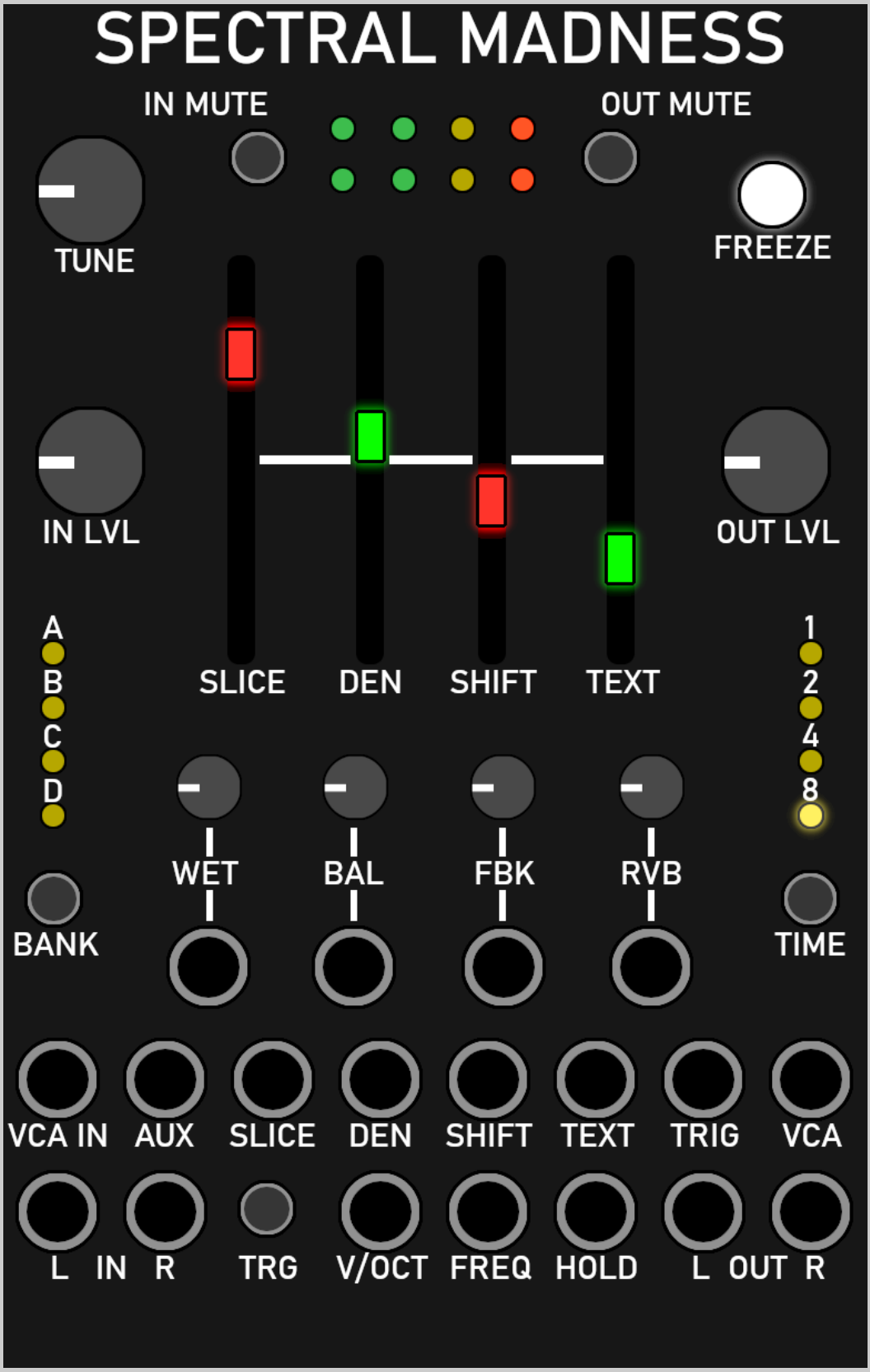
TYPHOON MODES

Mode 3 [○○●○]: Looping Delay (Parasites)



TYPHOON MODES

Mode 4 [○○○●]: Spectral Madness (Parasites)



TYPHOON MODES

Mode 4 [○○○●]: Spectral Madness (Parasites)

CONTROLS

Position:
Selects in which buffer the audio is poured (when FREEZE is not active), or from which buffer the audio is synthesised (when FREEZE is active).

Example:
Set POSITION to minimum value. FREEZE. You get a first texture. Set POSITION to maximum value. UNFREEZE.
Wait for something else to happen in the incoming audio. FREEZE again. By moving POSITION you interpolate between the two textures which had been captured at the press of FREEZE. Depending on the quality settings there are 2 to 7 buffers laid out on the course of the POSITION knob. So it's a bit like morphing between FFTslices.

Size:
Change the coefficients of a polynomial that determines how frequencies are mapped between the analysis and synthesis buffers. It's like a 1-knob GRM Warp. Over the course of the knob it'll do spectral shifting, but also spectral reversal.

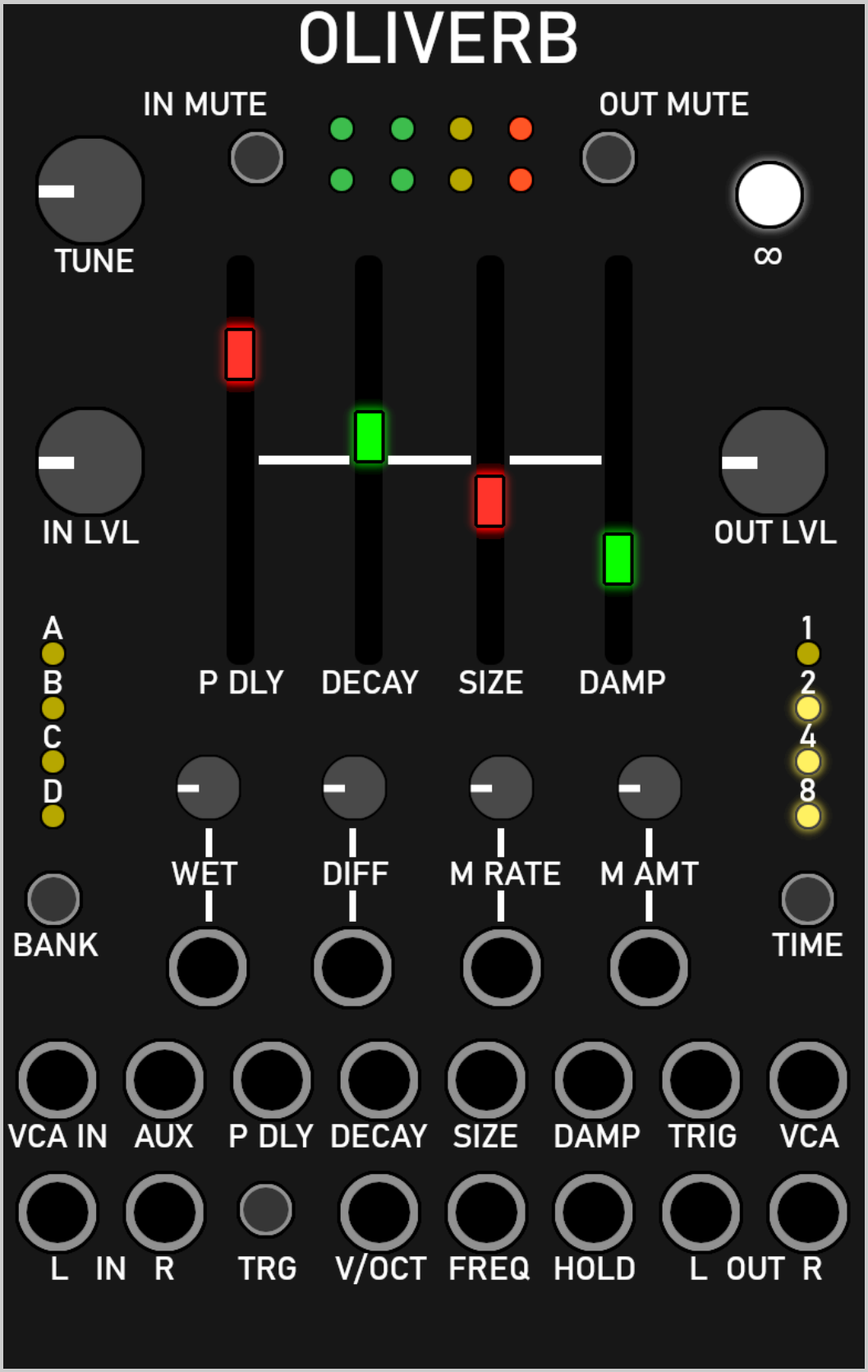
Pitch:
Pitch-shifting.

Density:
Determines how results from the analyzer are passed to the resynthesizer. Below 12 o'clock, there's some increasing probability that a given FFT bin won't get updated, causing a kind of partial freeze. After 12 o'clock, adjacent analysis frames are increasingly merged together (like a low-pass filter in the amplitude, each frequency bin). At extreme settings, random phase modulation is applied to smooth things - giving you different flavours of spectral muddling/reverb.

Texture:
Does two things: below 12 o'clock, it increasingly quantize the amplitudes of the spectral components, like a very low-bitrate audio file (a long time ago I loved making super harsh noise textures by loading text files as raw audio files in an audio editor... then encoding as mp3 or real audio with super low bitrate to make it sound like some underwater brian eno). After 12 o'clock, it increasingly weakens the strongest partials and amplifies the weakest ones. This has the effect of making the spectrum more noise-like.

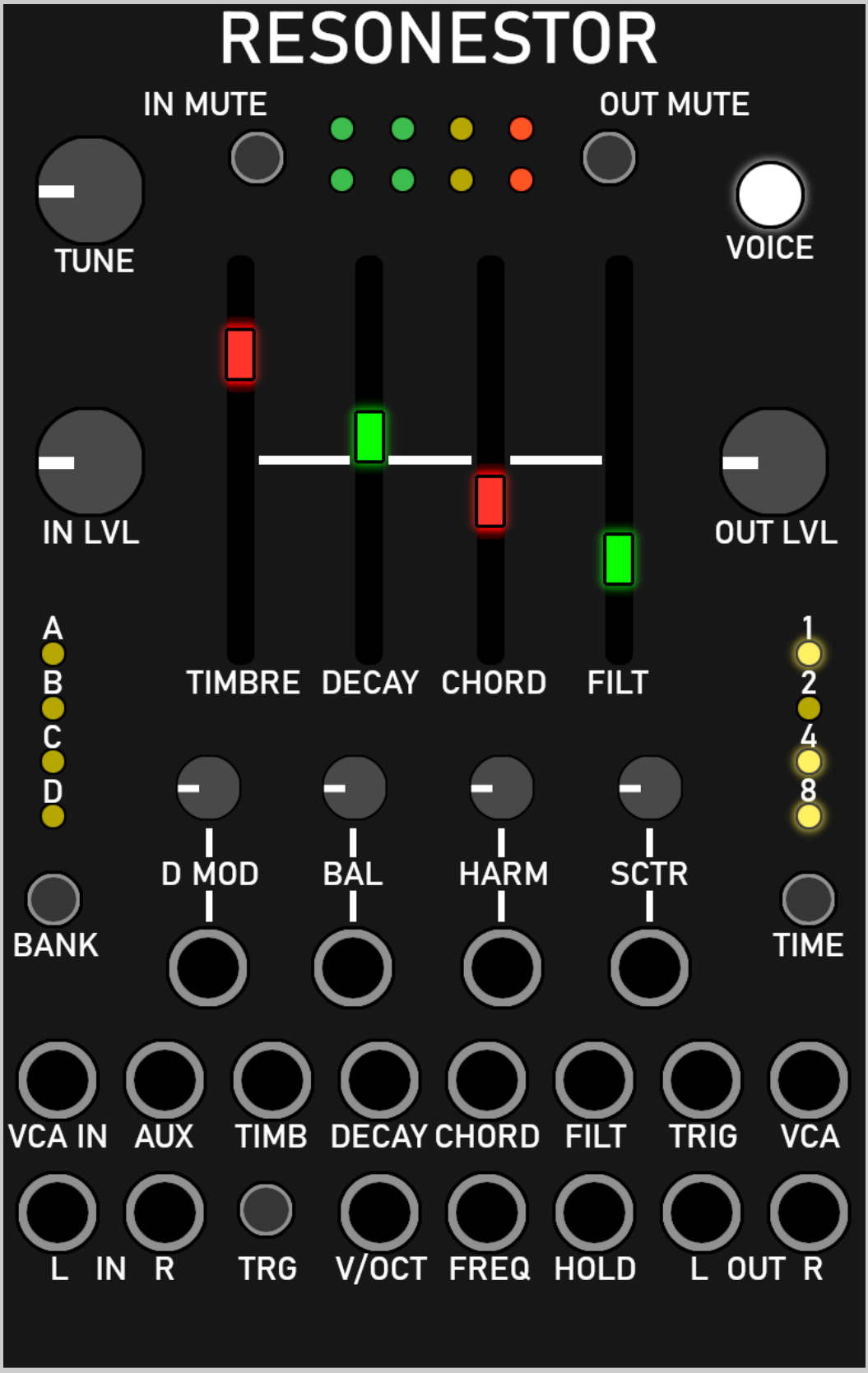
TYPHOON MODES

Mode 5 [○●●●]: Oliverb (Parasites)



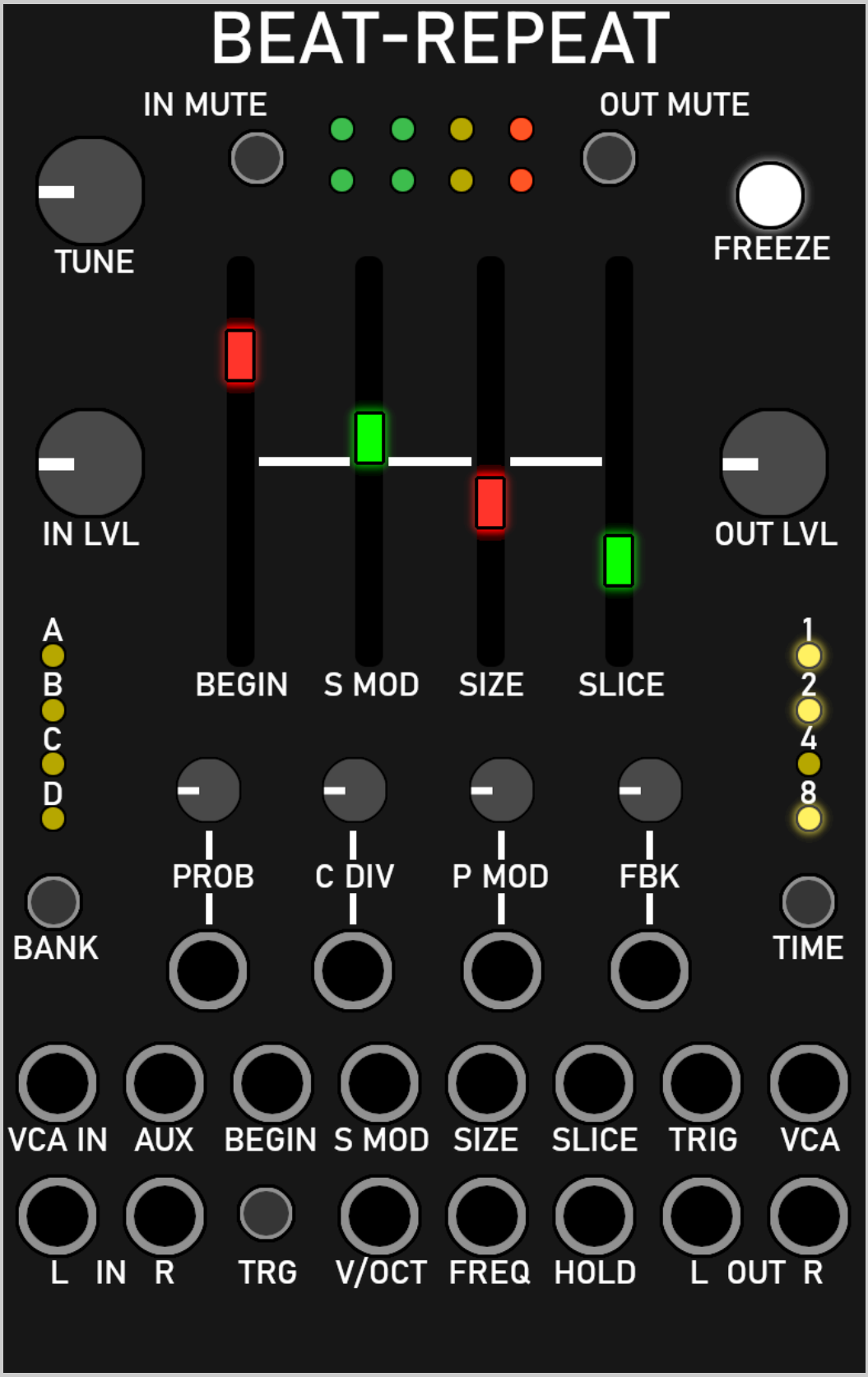
TYPHOON MODES

Mode 6 [●○●●]: Resonestor (Parasites)



TYPHOON MODES

Mode 7 [●●○●]: Beat Repeat (Kammerl)



TYPHOON MODES

Mode 7 [●●○●]: Beat Repeat (Kammerl)

Note: This mode requires a clock signal plugged into the Trigger input. Without a clock signal, it holds the most recent slice (or outputs silence if no clock signal has been previously provided).

The Kammerl Beat-Repeat mode analyzes the incoming clock signal to enable real-time slicing of the audio input. It manages multiple slices in real-time which can be individually selected. Each slice can be played back with different loop, pitch and distortion settings.

CONTROLS

Freeze:
Enables slice processing / beat-repeating. If not enabled, slice processing is randomly enabled based on the blend mode Slice Probability.

Loop Start:
Defines the beginning of the loop interval relative to the total slice duration. To support in-sync beat repetitions, it is quantized as follows: [0-1/64] free/unquantized, 1/64, 1/32, 1/16, 1/8, 1/4, 1/3, 1/2, 1.

Loop Size:
Defines the size of the loop interval relative to the total slice duration as well as the loop mode (regular/alternating). To support in-sync beat repetitions, it is quantized as follows:
Regular from the left to 12 o'clock: [0-1/64] free/unquantized, 1/64, 1/32, 1/16, 1/8, 1/4, 1/3, 1/2
Alternating from 12 o'clock to the right: 1/2, 1/3, 1/4, 1/8, 1/16, 1/32, 1/64, [1/64-0] free/unquantized

Pitch:
Defines the playback speed. The Kammerl Beat-Repeat mode does not time-correct the pitch changes (like a tape or record running at different speeds). This allows for interesting groove effects, since audio is delayed towards the end of the slice but reset at the slice beginning. To the very left, the knob defines a zero pitch, to the very right, the original playback speed. The pitch modulation is determined by the Pitch Mode knob.

Loop Size Modulation (Density Knob):
Enables a decreasing loop size towards the slice end. This enables a ping-pong bouncing ball effect: Tak tak tak taktak tatatatatttttttt

Texture CV:
Selects one of the eight most recently recorded slices. 0V corresponds to the most recent slice (real-time / no delay!). Note that slices are continuously created from audio input, independent from FREEZE or slice probability mode.

Slice Step (Texture Knob):

TYPHOON MODES

The Texture CV and the Slice Step control different slice selection parameters. The Texture CV directly selects one of the most recently recorded slices. In contrast, the Slice Step parameter selects individual iteration patterns to jump between slices during playback (which also incorporates the Texture CV slice selection by using it as an offset)

- Disabled - Only Texture CV selects slices
- Slice step 1 - Repeats current slice due to synced playback index
- Slice step 2 - Skips every second slice
- Slice step 3 - Skips two slices
- Slice step 5 - Skips four slices
- Slice step 6 - Skips five slices
- Slice step 7 - Skips six slices
- Random - Randomly selects slices

BLEND MODES

Slice Probability:
Defines the probability of disabling bypass and processing an incoming slice. Note that activating the FREEZE button overwrites this setting.

Clock Divider:
Selects a clock divider: 1, 1/2, 1/4, 1/8 which changes the slice lengths accordingly.

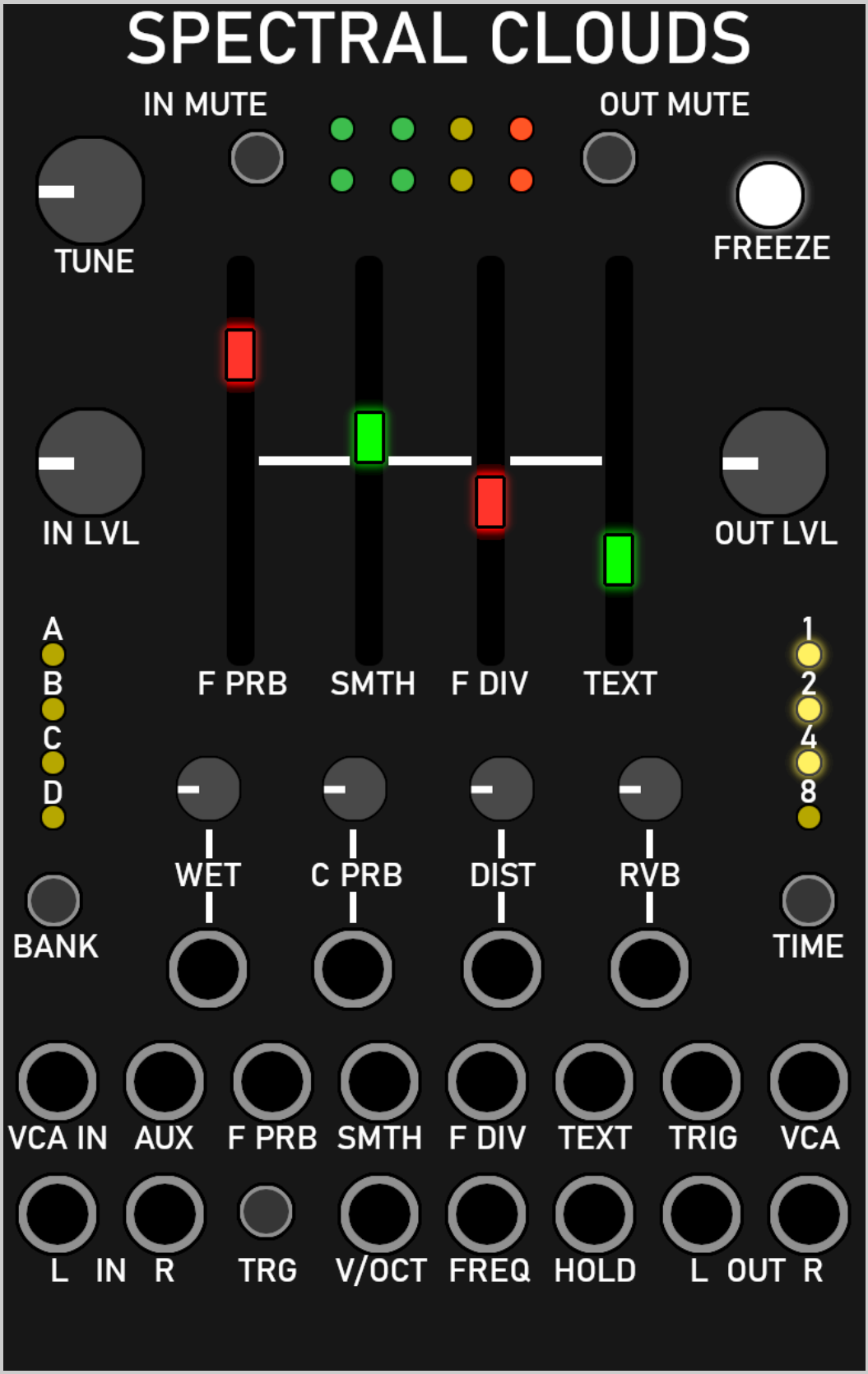
Pitch Mode:
Selects one of four pitch modulation modes (from left to right):

- (left position) Fixed pitch - no modulation.
- Fixed pitch - reverse playback.
- Linearly decreasing pitch starting from the original pitch to the selected target pitch (Pitch Knob).
- Linearly increasing pitch starting from the selected target pitch (Pitch Knob) to the original pitch.
- (right position) Simulated vinyl scratching - sinusoidal pitch modulation. The Pitch Knob defines the intensity.

Feedback:
Controls the contribution to Cloud's feedback path. Combined with lower pitch playback, this leads to *amazing* laser gun effects on drums :)

TYPHOON MODES

Mode 8 [●●●○]: Spectral Clouds (Kammerl)



TYPHOON MODES

Mode 8 [●●●○]: Spectral Clouds (Kammerl)

The Spectral Clouds mode creates cloud-like frequency spectra. It is a high-resolution multiband filter with randomly modulated frequency bands. The logarithmic divisions of the frequency spectrum result in a continuously morphing but musical sounding filter. This mode is inspired by this FFT Randomizer project.

CONTROLS

Trigger input:
Randomizes the set of active frequency bands and defines their random attenuation intensity. Note that these trigger events can also be simulated with the second blend mode ("Probability of random filter changes").

Frequency band probability:
Defines the probability of a frequency band to become enabled. To the left all frequency bands are disabled. Check out the sweet spot where only a few frequency bands are active.

Frequency band division:
Controls the number of filter bands and their corresponding frequency width. To the left, the frequency spectrum is split into 4 filter bands and to the right into 128 filter bands. All frequency band divisions are applied in logarithmic scale to sound musical.

Pitch:
Pitch shifting applied to the Spectral Clouds output.

Filter Smoothing:
Defines the smoothing intensity on the frequency band division as well as the filter band attenuation changes during "trigger input" events. To the left, filter changes are applied immediately; to the right, the current filter configurations is hold.

Filter texture:
Defines the degree of phase randomization in the frequency domain. This affects mostly waveforms with transients.

BLEND MODES

Dry / wet balance:
Balance between input signal and Spectral Clouds output. Note that the warm distortion effect as well as Cloud's reverb is applied post dry / wet.

Probability of random filter changes:

TYPHOON MODES

Defines the chance of simulated "Trigger input" events. To the left, simulated trigger events are disabled and random filter reconfigurations only happen during high trigger input gates.

Warm distortion:
It's back :) Adds a warm sounding distortion effect (applied post dry/wet).

Reverb:
Controls the contribution to Cloud's reverb (applied post dry/wet).

Typhoon Manual consolidated from Matthias Peuch's "Clouds Cheat Sheet" and Julius Kammerl's "Beat-Repeat Effect" document. Mode diagrams cheaply botched together by Eric Jolliffe. Free use. Sept 2021.