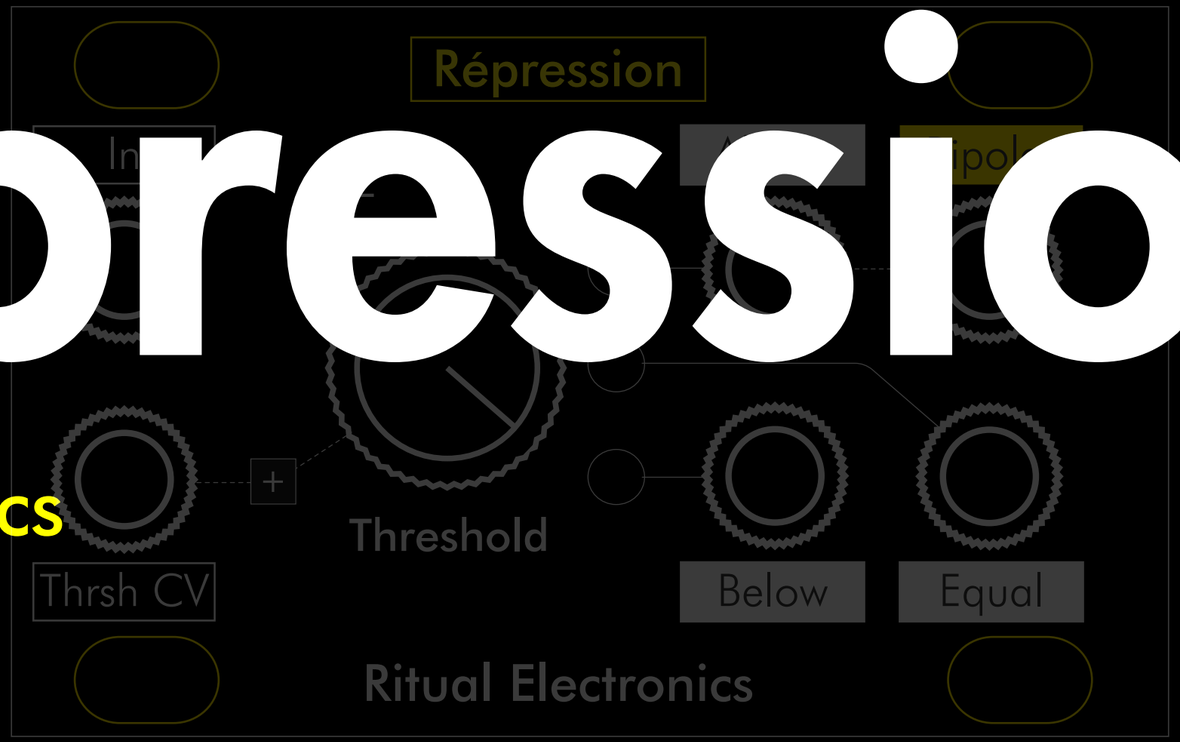
Répression

Ritual Electronics



Summary

Répression

n.f. /'re.pre.sjc/

"the mission was to assess the level of labour repression and human rights violations"

Répression

Thank you for purchasing Ritual Electronics Répression.

Your module has been assembled with care in our studio in Marseille, France.

You can find your module on Modulargrid:
https://www.modulargrid.net/e/ritual-electronics-repression

For any remarks and informations, contact us at:
contact@ritualelectronics.com

For video demos and patch ideas check:
https://www.youtube.com/ritualelectronics
https://www.instagram.com/ritualelectronics

Limited warranty

Ritual Electronics warrants this product to be free of defects in materials or construction for a period of one year from the date of purchase.

Malfunction resulting from wrong power supply voltages, backwards or reversed eurorack bus board cable connection, abuse of the product or any other causes determined by Ritual Electronics to be the fault of the user are not covered by this warranty, and normal service rates will apply.

During the warranty period, any defective products will be repaired or replaced, at the option of Ritual Electronics, on a return-to-Ritual Electronics basis with the customer paying the transit cost to Ritual Electronics. The return of your module is on us.

Ritual Electronics implies and accepts no responsibility for harm to person or apparatus caused through operation of this product.

Installation

Always turn your eurorack case off before plugging or unplugging a module.

Do not touch any electrical terminals when attaching any Eurorack bus board cable.

As the 1U series does not have a shrouded header, so remember:
RED STRIPE DOWN

Ritual Electronics Guillotine requires:
- 53mA on +12V
- 26mA on -12V
- 0mA on +5V

You will need 12HP of free space in your Eurorack case to install Krach. The module is 35mm deep.

Répression is a 1U module, you will need a 1U rack space - Intellijel format.

Overview

Répression is a feature packed CV controllable comparator.

Répression compares two signals. One at the **Input**. The other defined by the **threshold pot** and the **CV Thrsh** which is added to the pot. It outputs 4 signals based on the result of the operation.

Above is high if the Input is above the threshold.

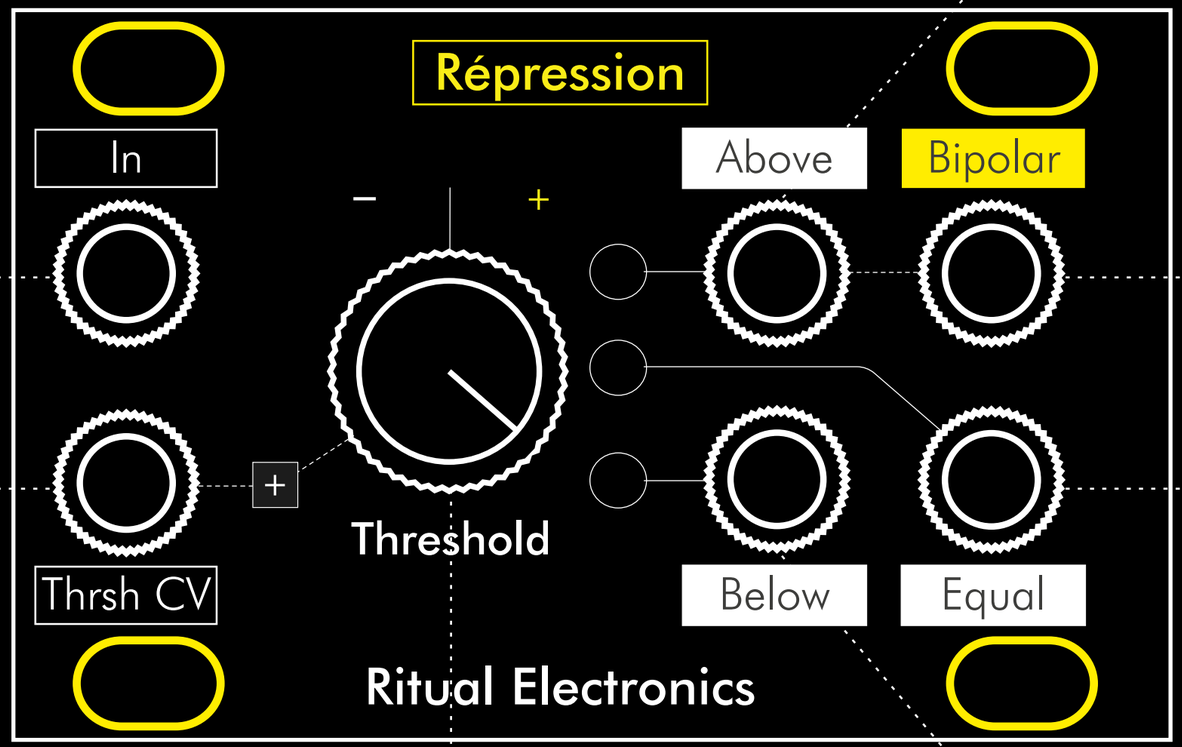
Below is high if the Input is below the threshold.

Equal outputs a trigger when the input and threshold values are the same.

Bipolar is a +/-5V version of the Above output. Very useful when using the comparator for audio duties. I.e. PWM generator, complex oscillator…

The **Threshold knob** has a +/- 8.2V range

Répression controls



Above Out
Sends a gate when the input is above the threshold

Input
Input goes to the + terminal of the comparator

Bipolar Out
+/- 5V (10Vpp) version of the Above output

Threshold CV
Threshold CV is added to the Threshold potentiometer
It goes to the - terminal of the comparator

Equal Out
Sends a trigger when Input = Threshold

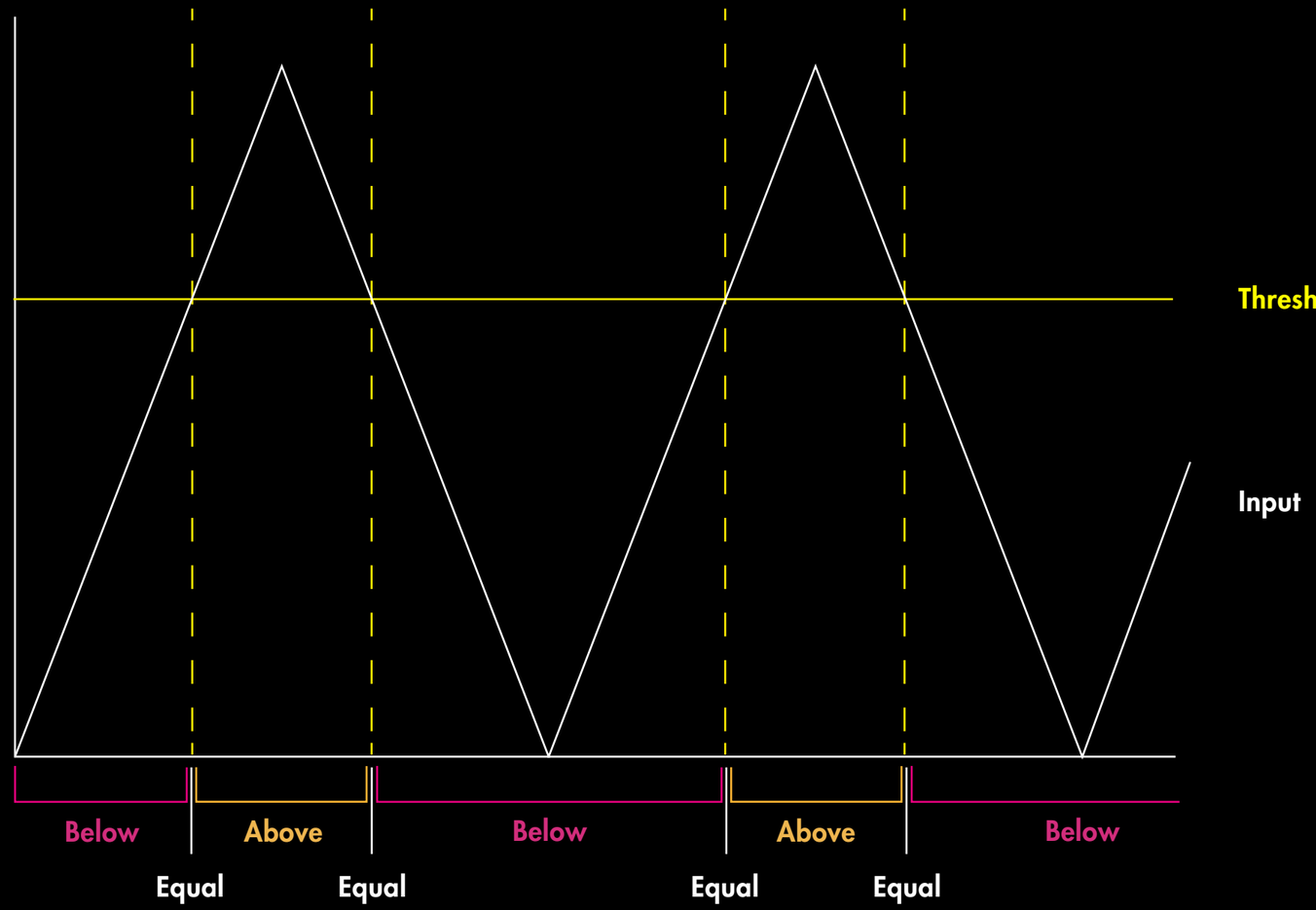
Threshold potentiometer
Sets the threshold from -8.2V to +8.2V
No center detent for finer settings around 0V

Equal Out
Sends a gate when the input is below the threshold

Operations

Fixed threshold

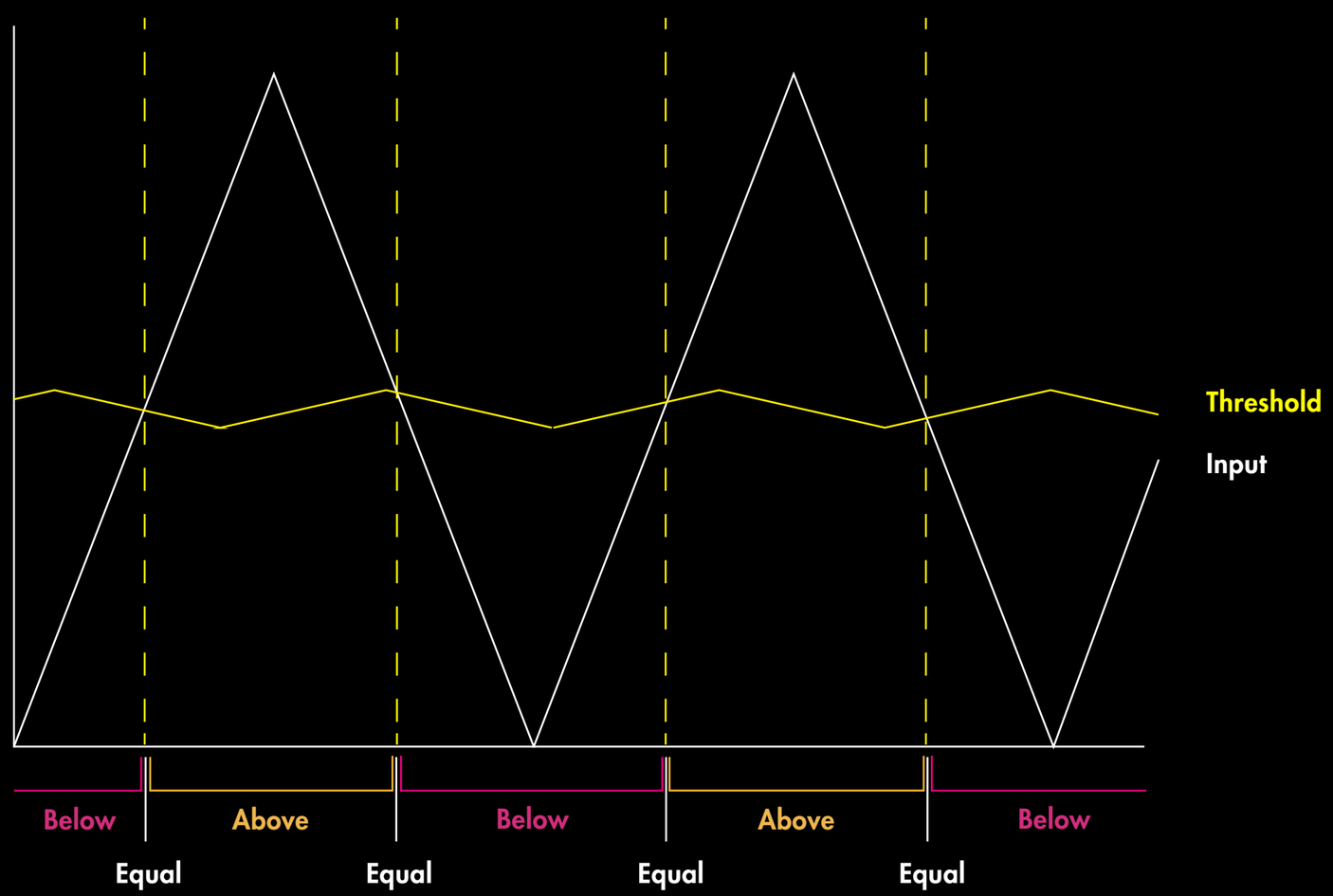
Here we have a steady threshold defined by the Threshold potentiometer and a triangle signal plugged into Répression's Input.
Répression's outputs will change state according to the comparison of the input against the threshold voltage.



CV controlled threshold

Once a fixed threshold has been defined with the potentiometer a good way to introduce some jitter is to have an attenuated CV in the Thrsh CV input to have the Threshold “dance around” the potentiometer offset.

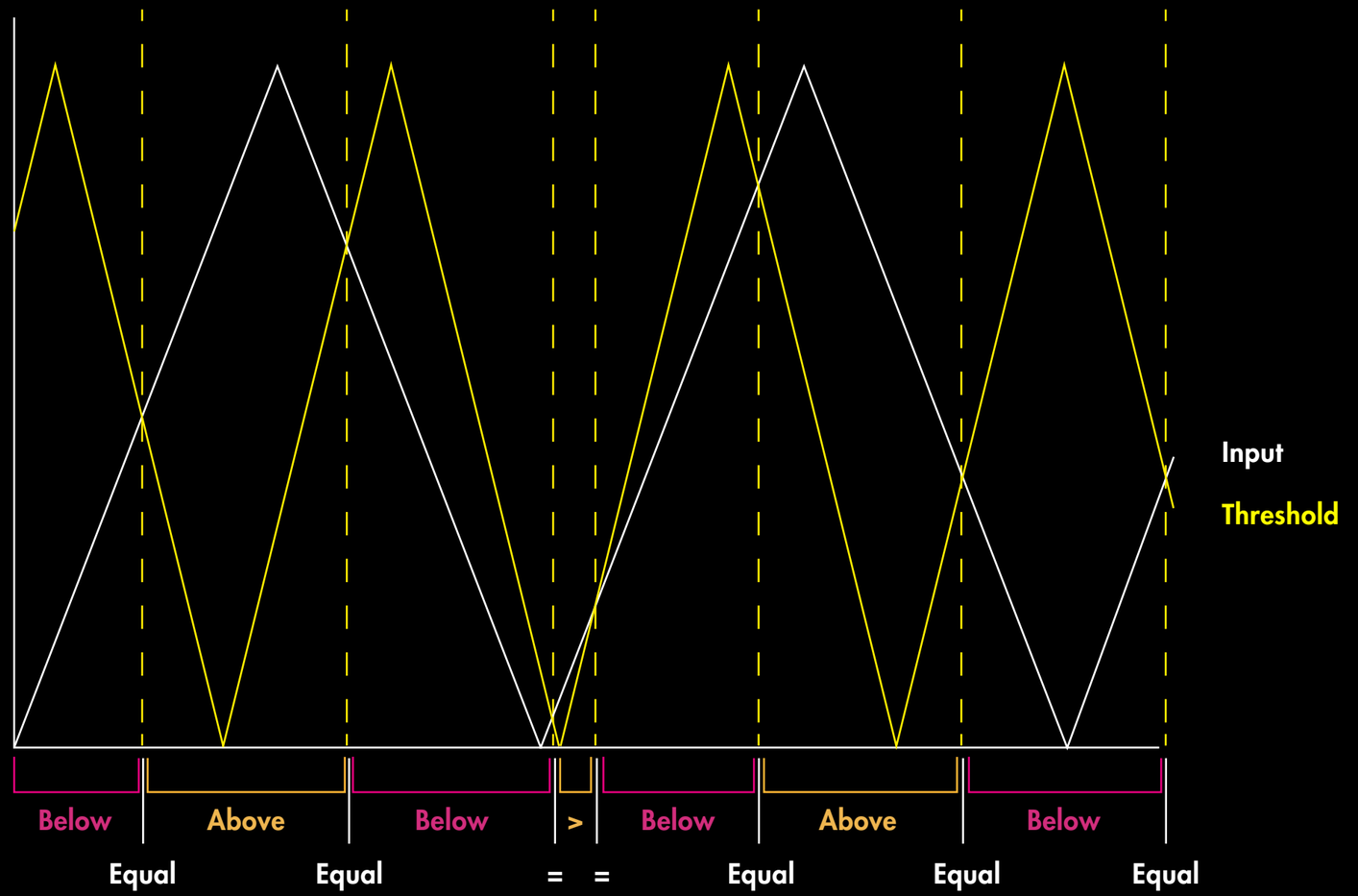
This is only one way to think about CV controlled Threshold. Try using stepped sequences in the Thrsh CV.



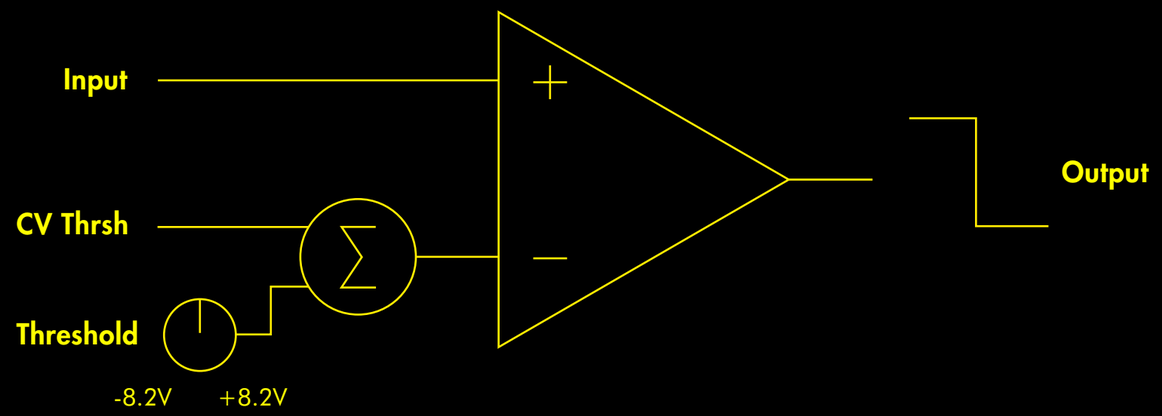
Operations

Comparing two signals

If you set the threshold potentiometer to 0V (12 o'clock) the Thrsh CV inputs will be passed directly to the second input of the comparator with no offset.
This is useful to compare two signals against each other.

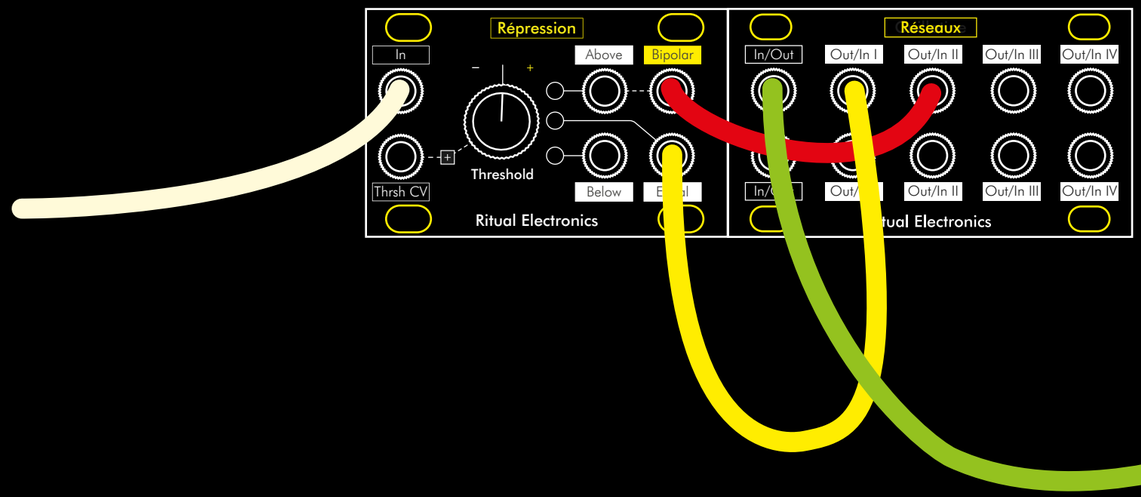


Topology



The controls on Répression have names like “in”, “threshold” or “above” which make them easy to understand. But a comparator can do more than just comparing let’s take a look at the guts of the module.
The input is connected to the + terminal of an opamp.
The CV Thrsh is going to the - terminal of the op amp.
The threshold pot is summed to the CV Thrsh and goes to the - terminal too.

Patch ideas



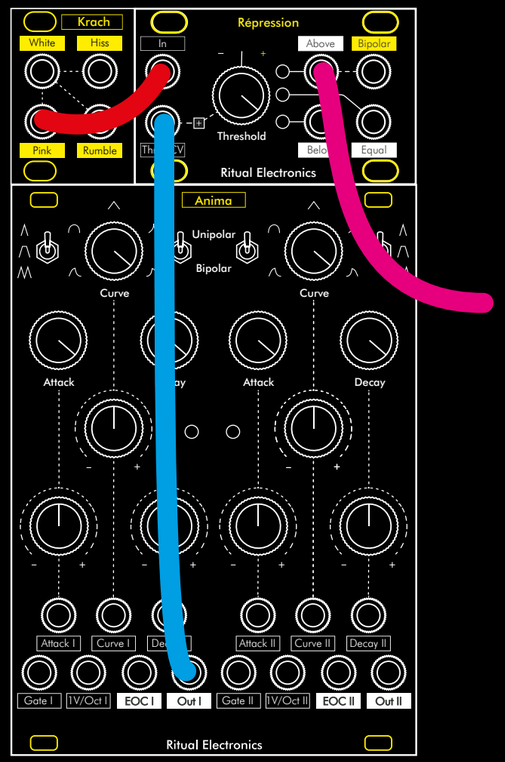
Patch #1 - Fuzz amp

First easy unconventional use of the comparator would be a fuzz amp. If you set the threshold to 0V even the tiniest signal crossing 0V will be turned into a 10Vpp square output at the Bipolar jack.
Bonus: the Equal output fires twice per cycle. Meaning you have an octave up there. Just mix it the Bipolar signal for gorgeous lead tones.

Patch notes

Instrument ——— Répression, In
Répression, Bipolar out ——— Mixer, In
Répression, Equal out ——— Mixer, In

Patch ideas



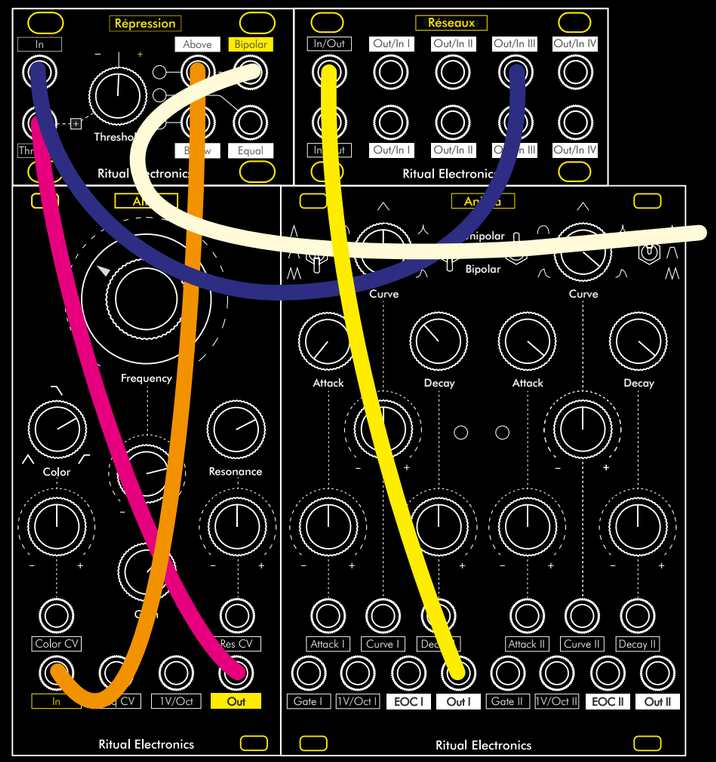
Patch #2 - Fireplace & random gates

Use a noise output and process it with Répression.
Start with a high threshold and back it down slowly to hear the first crackles of the fire. This technic can work for audio or to generate random gates.
Use an LFO or enveloppe to change the density of the gates or he blaze size

Patch notes

Krach, Noise out ——— Répression, In
Répression, Bipolar out ——— Audio / Gates
LFO, out ——— Comparator, CV

Patch ideas



Patch #3 - Oscillator

Turn your comparator into an interesting oscillator by patching it to a filter. No need for resonance here, the feedback patching is doing the trick. Adjust the feedback until you get to a good sound.
Try an other oscillator modulating the In (+) input for sync-like sounds. You may need to run the modulation through an attenuator/offset to get the range needed for the task.

Patch notes

Filter, Out ——— Répression, CV Thrsh
Répression, Bipolar out ——— Filter, In
Oscillator, Out ——— Attenuator, In
Attenuator, Out ——— Répression, In