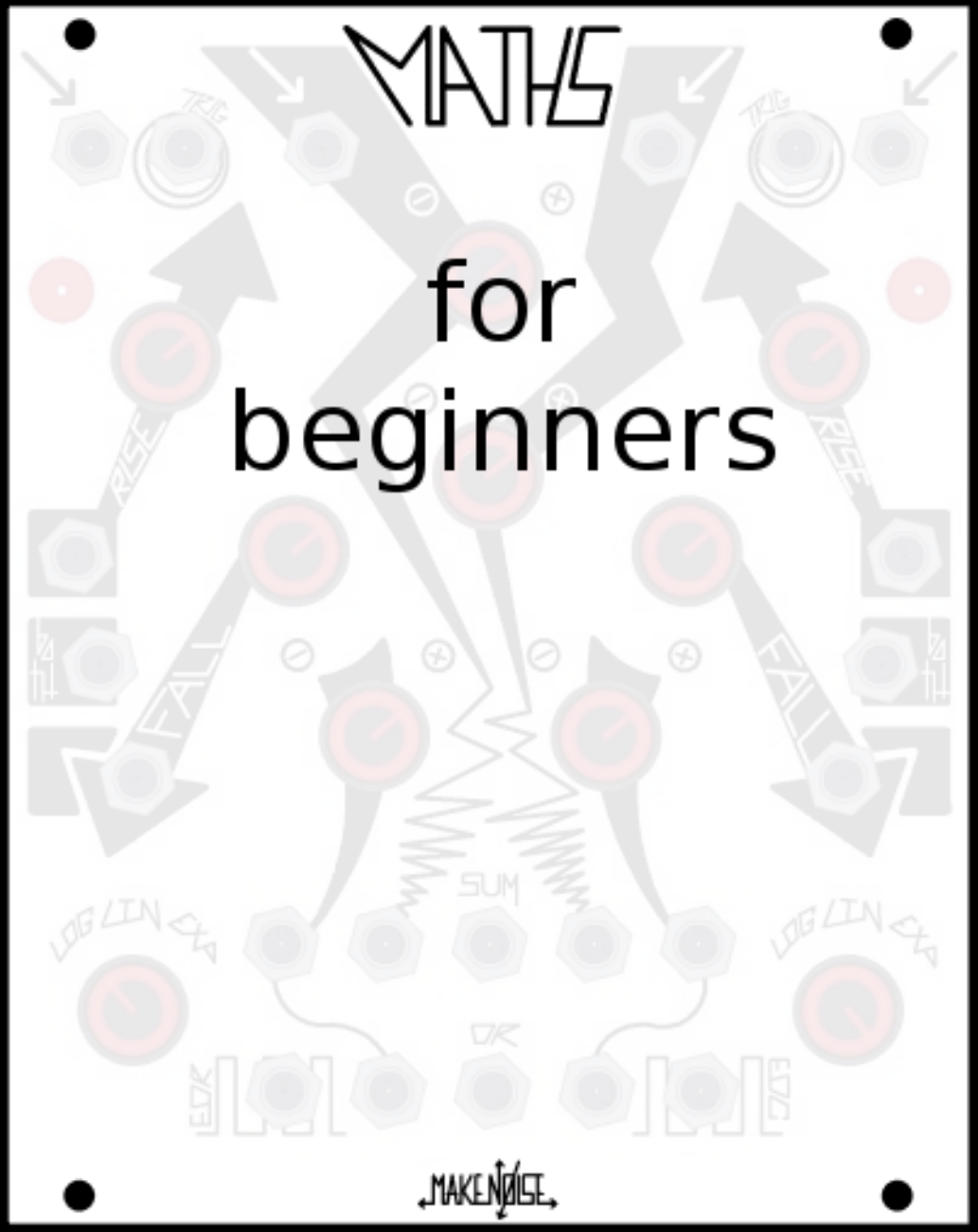
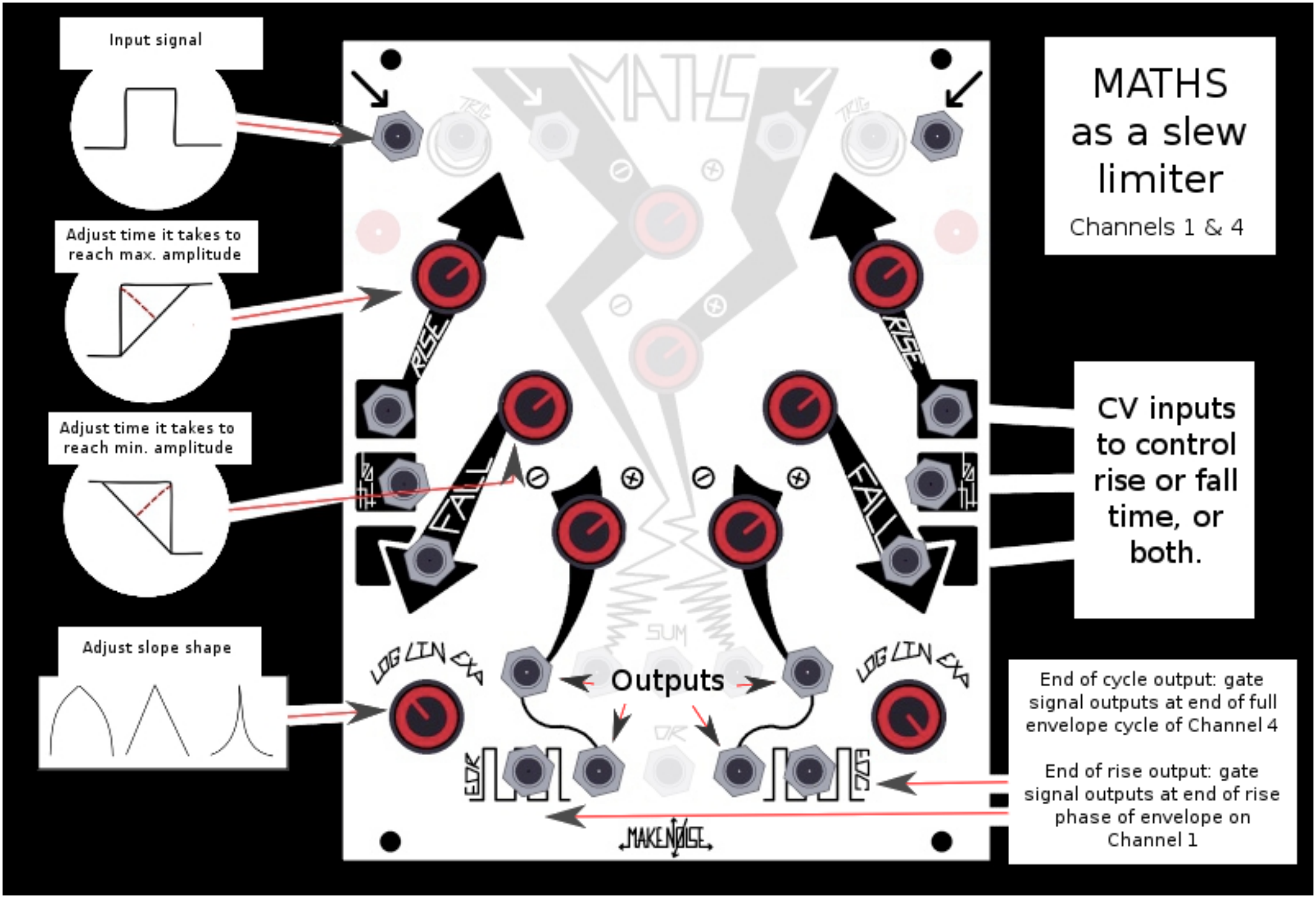
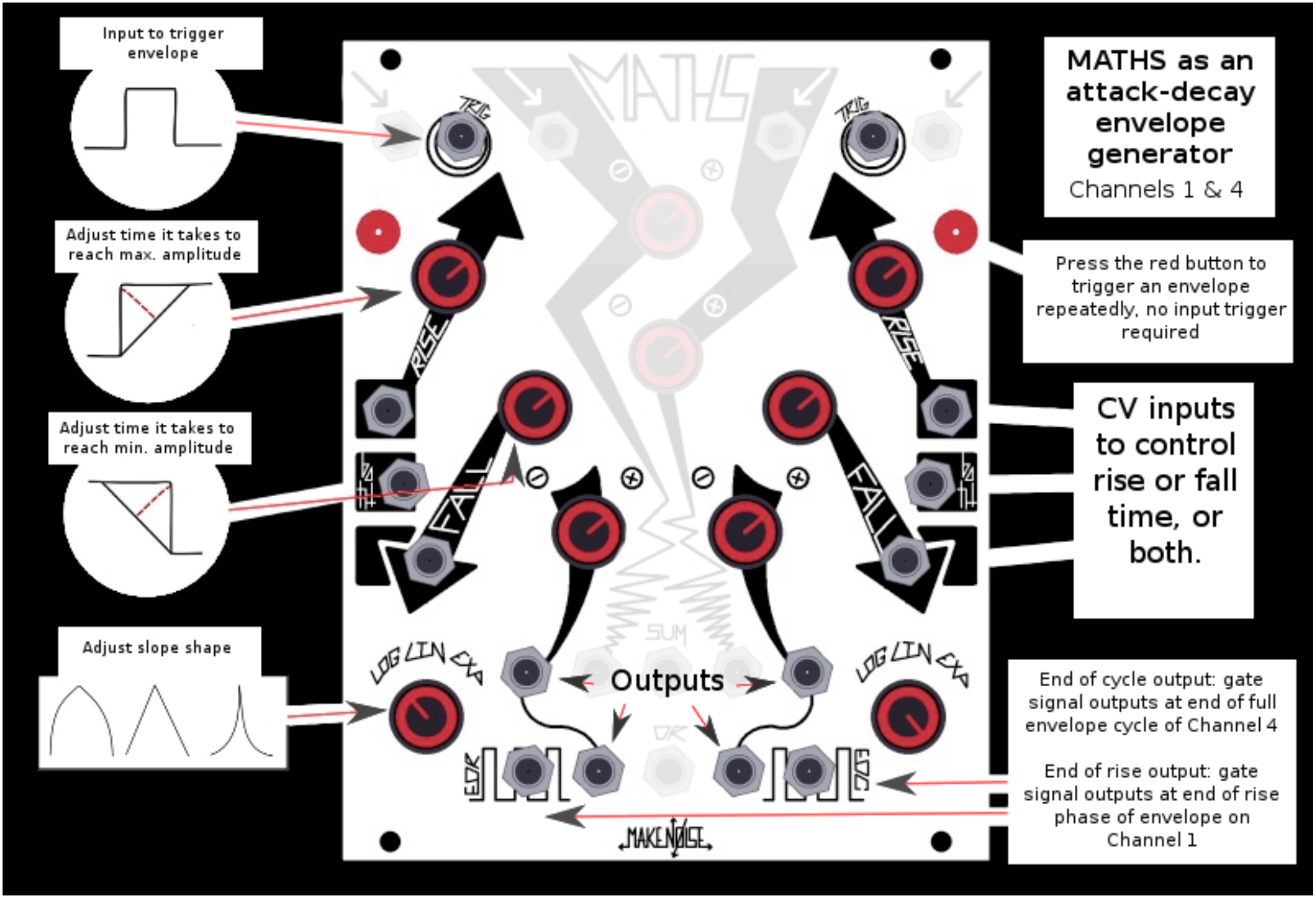

MATHS
for
beginners
MAKENOISE


Input signal
Adjust time it takes to reach max. amplitude
Adjust time it takes to reach min. amplitude
Adjust slope shape
MATHS
RISE
FALL
LOG LIN EXP
SUM
Outputs
EOR
EOC
MAKENOISE
MATHS as a slew limiter
Channels 1 & 4
CV inputs to control rise or fall time, or both.
End of cycle output: gate signal outputs at end of full envelope cycle of Channel 4
End of rise output: gate signal outputs at end of rise phase of envelope on Channel 1


Input to trigger envelope
Adjust time it takes to reach max. amplitude
Adjust time it takes to reach min. amplitude
Adjust slope shape
MATHS as an attack-decay envelope generator
Channels 1 & 4
Press the red button to trigger an envelope repeatedly, no input trigger required
CV inputs to control rise or fall time, or both.
End of cycle output: gate signal outputs at end of full envelope cycle of Channel 4
End of rise output: gate signal outputs at end of rise phase of envelope on Channel 1
TRIG
RISE
FALL
LOG LIN EXP
SUM
Outputs
MAKENOISE

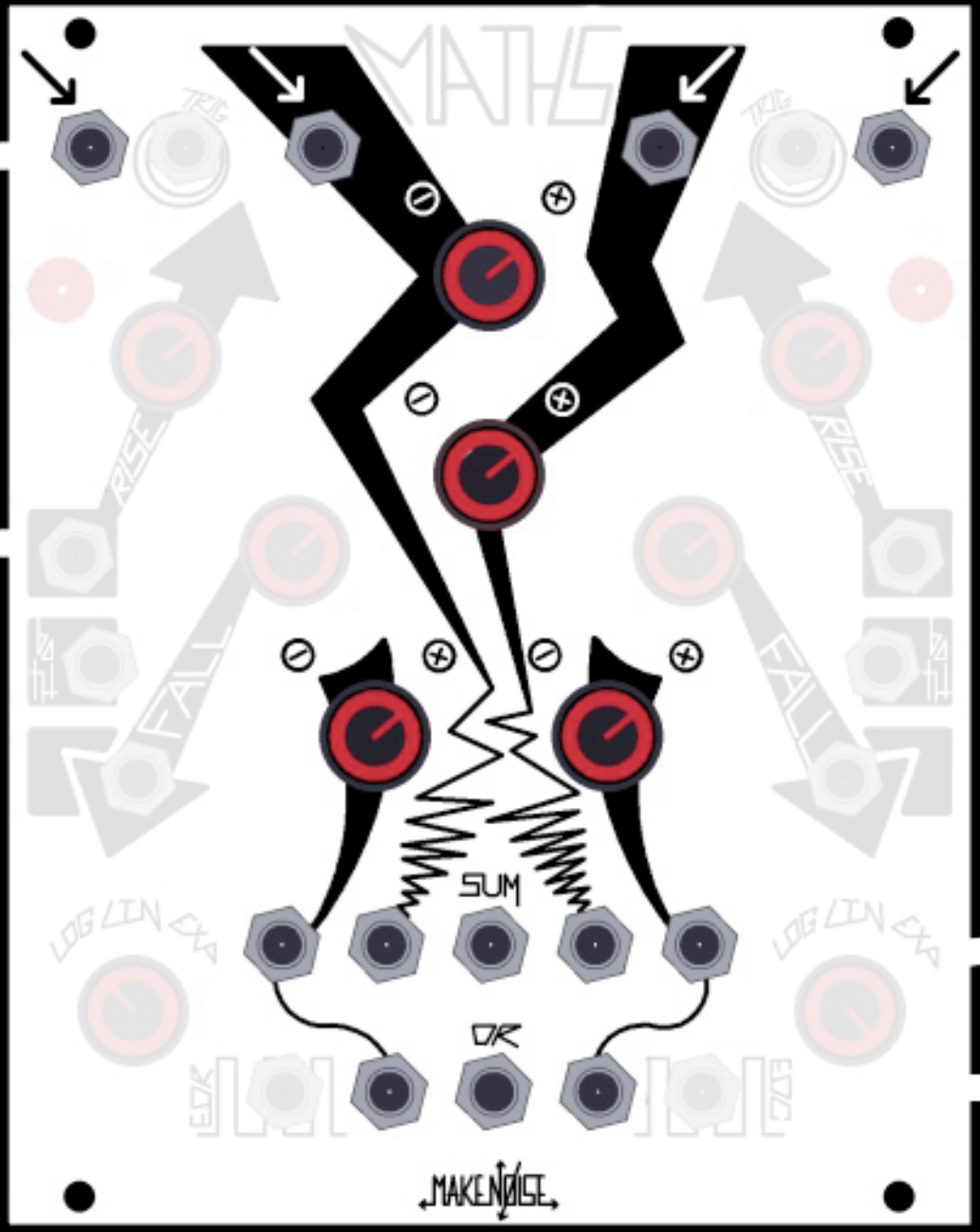
MATHS as a bipolar mixer

The four jacks at the top of MATHS marked with ↘ arrows are inputs, and they can take any audio or control signal

The four knobs with ⊖ ⊕ symbols on either side are gain knobs for each channel

When a knob is turned fully clockwise, the signal will be at its full amplitude, when it is turned fully counter-clockwise, it will be at its full amplitude but its polarity will be inverted. Channels 2 and 3 give the signal a bit of extra gain at maximum levels.

When MATHS is used as a mixer, signals can be added or subtracted from each other by adjusting the polarity of the gain knobs

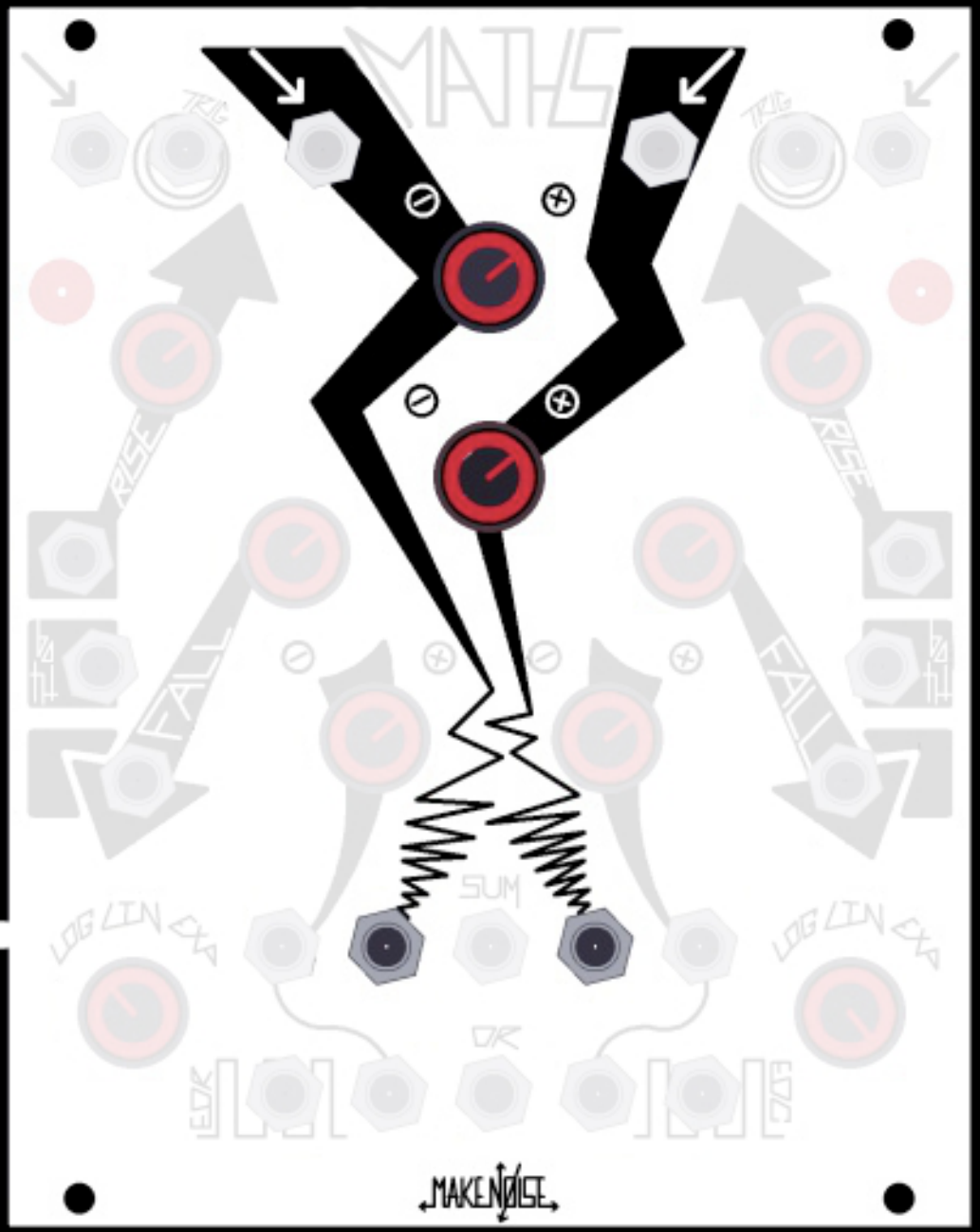


These lines / ≈ point to the individual outputs of each channel. When a cable is plugged in to any of these four outputs, the signal is removed from the summed output.

The SUM output combines the signals of the four channels, except for any of the signals that have been removed at their individual outputs.

The OR output is the positive signal (0 to +5V) from the SUM output. It can be used as a half-wave rectifier.

These lines ∿ point to multiple outputs of channels one and four. The SUM output is not affected when a cable is plugged into these outputs.



When nothing is connected to the inputs of channels 2 and 3, the channels output a fixed voltage dependent on the level of the gain knob for each channel