NEKYIA

CIRCUITS

SIGIL

Function Generator

User Manual

OVERVIEW

Sigil is an Analog Function Generator in small format with voltage-controlled Rise and Fall stages. It features a voltage-controlled Cycle Function to toggle the output Envelope to an LFO/VCO and vice-versa and a continuous Shape control that morphs both the Rise and Fall slopes from exponential to linear to logarithmic, ranging from really snappy to very slow slope settings. Sigil also includes an End of Cycle Trigger Output, useful to chain subsequent envelopes. Input can work as a Trigger or a Slew Input, depending on the position of the jumper in the back of the module. A handy Attenuverter sets the Output voltage range from -10V to +10V. Sigil has been carefully calibrated to deliver musical slopes throughout and packs all the essential features of a Function Generator into just 4hp!

- *Compact fully analogue Envelope/Function Generator*
- *Voltage-controlled Rise and Fall times*
- *Shape control that morphs from exponential to linear to logarithmic curves*
- *Voltage-controlled Cycle button*
- *End of Cycle Trigger Output*
- *Trigger/Slew Input selectable w/jumper*
- *Output Attenuverter ranging from -10V to +10*

Tech Specs:

Depth: 25mm, Skiff Friendly!

Power: 24mA @+12V / 21mA @-12V

4hp

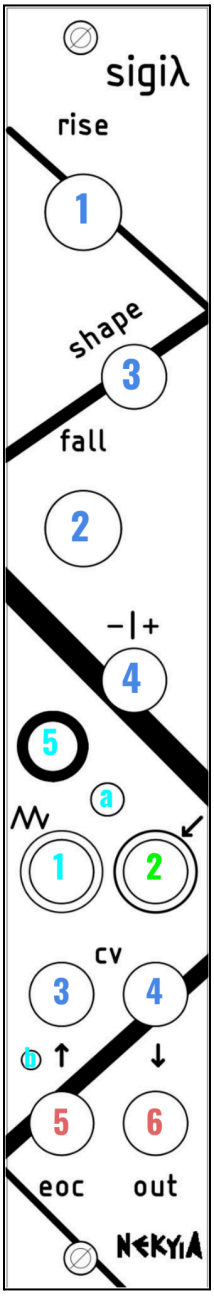
Installation

Before installing this module disconnect the power from your system! Double check the polarity of the ribbon cable! The red stripe should be aligned with the -12V rail, on both the module (white bold line) and on the bus board.

PANEL CONTROLS

1. Rise time (Attack)
2. Fall time (Decay)
3. Controls the Rise & Fall shape from Exp to Log (Linear position at about 12 o'clock)
4. Attenuates and/or Inverts the Signal Output

5. Cycle button loops the Envelope, creating an LFO/VCO



1. CV Input to turn On/Off Cycle. +/-5V
2. Trigger or Slew Input, depending on the jumper position

3. CV Input to modulate Rise time. +/-5V
4. CV Input to modulate Fall time. +/-5V

5. End of Cycle Trigger Output. 0-10V
6. Signal Output. +/-10V
a. Signal Out Bipolar LED
b. EOC Trigger LED

Tips & Tricks

- Sigil can also work as a slew limiter by changing the position of the red jumper on the back of the module. This allows the input to accept audio signals and gates (creates attack, sustain, release type envelope) rather than triggers which is the default state.

- Adjustment of the *Shape* knob affects both Rise and Fall times. To extend Rise and Fall Times than available from knobs, apply a voltage offset to the Rise and Fall CV Inputs. You can also easily achieve an inverted envelope by setting the attenuverter on negative values.

- EOC trigger output that goes high at the end of the cycle (or falling stage) can be very useful to create complex chain functions (e.g trigger another envelope).

- The Cycle button will lock the envelope to retrigger (by routing EOC to trig input) in order to transform the envelope to an LFO/VCO Cycle. Longer cycles are achieved at higher settings of Shape knob (Logarithmic response curves), while fast and sharp curves are achieved at lower settings (Exponential response curves). Various LFO/VCO shapes can be achieved by adjusting the Rise and Fall controls.

- Cycle CV input will activate when a high voltage (threshold is about 3V) is received (e.g positive gate) and it will deactivate when the next positive voltage is received. So it essentially works as a toggle switch which changes states every time it receives a trigger. For example, if the output is oscillating (LFO mode) and receives a positive pulse/trigger it will stop oscillating and vice-versa. This is a very useful feature for creating interesting and controllable dynamic sound effects such as ratchets or wobble basses!

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