.: Slope Generators User Manual :.

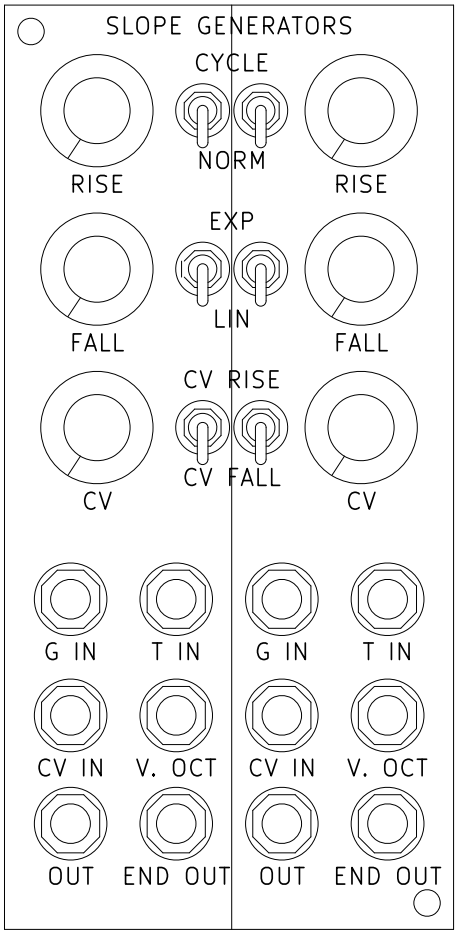
Brief:

Dual Slope-Generator module. Each slope generator can be used in many creative was to achieve a variety of functions.

A few typical uses are:

- LFO with adjustable rise and fall times.
- Attack-Decay envelope generator.
- Voltage controlled portamento with adjustable rise and fall times.

Panel layout:



Description of the controls:

- RISE: rate control for rise times. Clockwise rotation results in longer times.
- FALL: rate control for fall times. Clockwise rotation results in longer times.
- CV: attenuator for the CV IN input.
- CYCLE/NORM switch: causes the slope generator to auto-cycle when set to CYCLE.
- EXP/LIN switch: selects either linear or curved slope segments. Note that when switching between linear and curved slopes the rise and fall times may need to be readjusted.
- CV RISE/CV FALL switch: applies the attenuated control voltage signal from the CV IN jack to either rise times, fall times, or both rise and fall times when the switch is in the middle position.

Description of the jacks:

- G IN: gate or signal input. Apply a gate signal to this jack to create an attack/sustain/release envelope. Apply a keyboard or sequencer signal to this jack to create portamento with adjustable rise and fall times.
- T IN: trigger input. Apply a signal with a rising edge to this jack to create an attack/decay envelope.
- CV IN: attenuated control voltage input. This signal is attenuated by the CV knob, and then applied to either the rise time, fall time, or both with the CV RISE/CV FALL switch.
- V. OCT: approximate 1 volt per octave control voltage input which is applied to both the rise and fall times.
- OUT: main signal output.
- END OUT: end-of-decay output. This output signal goes high as the main output falls to near zero volts, and goes low when the main output goes above zero volts. Useful for creating delayed triggers and many other creative uses.

What do you do with this thing?

This module is based off of the Serge Dual Universal Slope Generator. There are many videos and discussions on the web about using these interesting modules. Note that this is not a straight clone of the Serge DUSG, so some reading between the lines will be required.

Calibration:

Each Slope-Generator has a single trim potentiometer on the back of the pcb. To calibrate, set the CYCLE/NORM switch to CYCLE, and the EXP/LIN switch to LIN. Adjust the rise and fall controls fully counter-clockwise. Do not inject any control voltages into the CV IN or V. OCT jacks. Monitor the main OUT jack with an oscilloscope, and adjust the trim pot such that the triangle wave appearing at the OUT jack goes from zero volts to approximately +10 volts.

Current draw:

+12 volts: 35mA

-12 volts: 20mA