

LOW DUAL LOW FREQUENCY OSCILLATOR

User Manual, 2024



About

At its core, **LOW** is a 6HP analog Dual **Low-Frequency Oscillator** offering both triangle and square waveforms simultaneously.

What sets **LOW** apart from the crowd is its **unprecedented variability**, where the pulse width of your square wave can seamlessly transition from a mere 1% to a staggering 99%, while the **triangle** wave morphs effortlessly from its classic form into a dynamic **saw** or **ramp**, all while maintaining the fundamental cycle frequency.

But the magic of **LOW** doesn't stop there. With its **CV input**, you have the power to dynamically alter the oscillation frequency. And with a simple **flick of a switch**, you can seamlessly toggle between **two distinct frequency ranges**, spanning from a leisurely 2 seconds to a patient 150 seconds, or dialing it down to a pulse-pounding 0.35 seconds to 25 seconds.

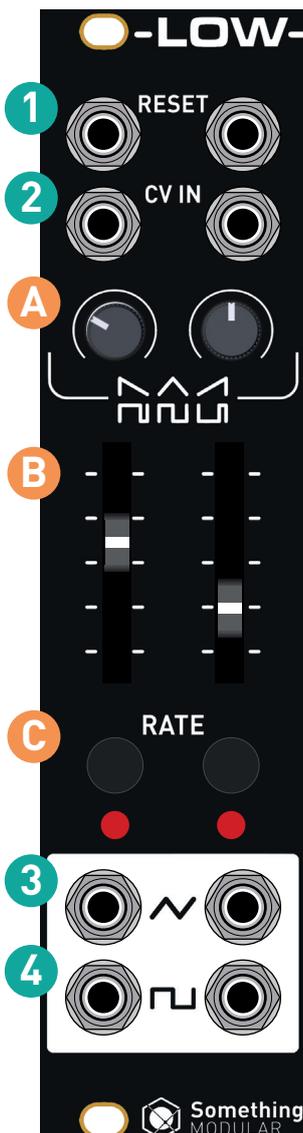
Need to **reset** and start anew? **LOW** has you covered. With its dedicated reset input, a swift positive pulse is all it takes to bring your oscillations back to zero volts, ready to embark on a fresh sonic journey at a moment's notice.

Features

- Range from 350 ms (2,86 Hz) to 150 s (6,67 mHz).
- Morphable output waveforms (saw to ramp).
- CV input for frequency control.
- Reset input restarts the oscillation cycle.

Specifications

- Module width : 6 HP
- Module depth : 33mm
- Power Consumption : 18mA at +12V / 18mA at -12V
- Reversed polarity protection



Controls

A. MORPH knob

The Morph Knob controls both output waveforms shape:

- On the left, top output is a ramp and bottom output is a PWM >99% ON.
- In the middle, top output is a triangle and bottom output is a square.
- On the right, top output is a ramp and bottom output is a PWM <1% ON.

B. RATE Slide Potentiometer

This slider controls the frequency of the low-frequency oscillator.

C. RATE Toggle Switches

Selection of the oscillator range:

- Slow range : from 2 s (0,5 Hz) to 150 s (6,67 mHz).
- Fast range: from 0,35s (2,86 Hz) to 25 s (40 mHz).

Inputs & Outputs

1. RESET Input

The RESET input restarts the oscillator cycle.

Note that:

- The voltage is restarted at 0V on the triangle output.
- The oscillator restarts keeping the rising or falling state it had before RESET trig.

2. CV Input

The CV input allows you to control the oscillator frequency.

3. TRIANGLE Output

Triangle output jack. The waveform at this output can vary from saw to triangle to ramp depending on the MORPH knob position.

4. SQUARE Output

Square output jack. The waveform at this output is a pulse with a width depending on the MORPH knob position.