

LOW FREQ OSC

Manual



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THINGS TO KNOW

What is 1U?

1U is a measurement of height in the 19" rackmount standard. Eurorack modules adhere to 3 rack units, or 3U. Mosaic tiles adhere to 1 rack unit in height, and require appropriate rails to mount in a rack or modular case.

What 1U format are Mosaic modules?

We ship our modules with [Intellijel 1U formatted front panels](#). If you use the Pulp Logic format, don't worry! You can purchase Pulp Logic replacement front panels on our [Replacement Panels page](#).

Mosaic Color Guide

Each color indicates a function across the Mosaic lineup.

Green: Audio Signals

Purple: Gate Signals

Blue: Control Voltage

OVERVIEW

Description

Modulate your sound the right way with the Low Freq Osc! With a host of features packed into 14HP, Low Freq Osc give you immediate control over your LFO, with the ability to offset your LFO, change the rate between two different ranges, and attenuate your LFO with a ducking CV input. Build wub wubs, orchestral swells, and more with the Low Freq Osc!

- Low frequency oscillator
- 4 morphing waveforms: Sine, Triangle, Saw, and Pulse
- Two offset modes: 0V to 5V, -5V to 5V
- Rate Range: from 30 second cycles to audio rate
- Attenuator with unique CV ducking input

Tech Specs

- Width: 14HP
- Depth: 38mm
- Front Panel: Ships in Intellijel format. Pulp Logic replacement panels available [here](#).
- Current Consumption: +12V = 40mA, -12V = 6mA

Installation

To install, locate space in your Eurorack case for your 1U module, and confirm the positive 12 volts and negative 12 volts sides of the power distribution lines. Plug the connector into the power distribution board of your case, keeping in mind that the red band corresponds to negative 12 volts. In most systems, the negative 12 volt supply line is at the bottom. The power cable should be connected to the module with the red band facing the front of the module.

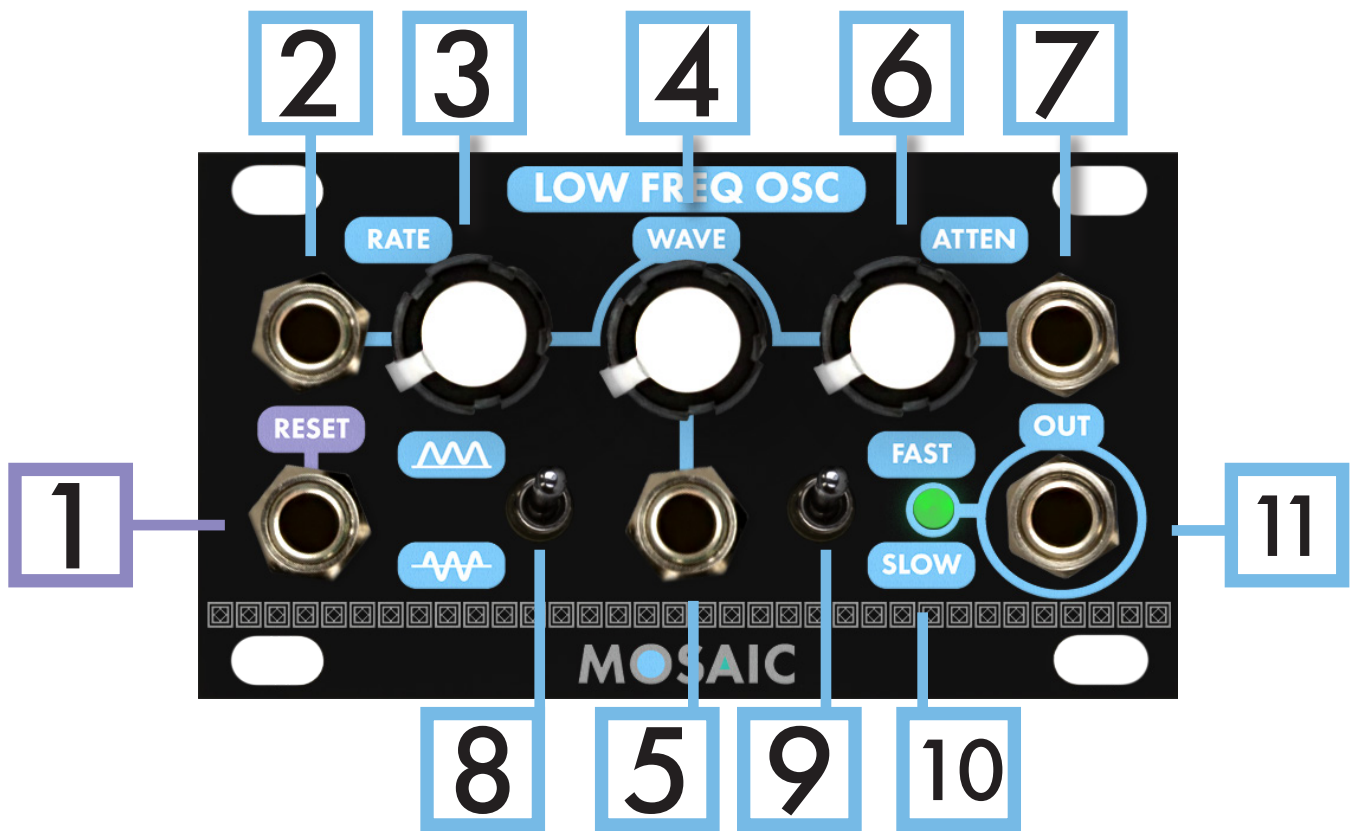
DETAILS

How It Works

When slowing an oscillator to sub audio-rate levels, the resulting output is a slow moving voltage signal that can be used to control any voltage input, and modulate most all parameters over time, within a modular system.

Common uses of low frequency oscillators (LFO) include vibrato, where the pitch of an oscillator is modulated by an LFO, or tremolo, where the amplitude of an oscillator is modulated by an LFO. Different waveforms result in different forms of modulation, from slow sine wave sweeps, to stabbing sawtooth punches, and to gated pulses. Use your LFO as a clock source with a pulse wave output, or use it to create ducking effects with a VCA or filter. Every patch point in your system can take advantage of an LFO, so make sure to try them all!

Diagram



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DETAILS

1. Reset

Gate input to reset the LFO. Useful for creating clocked LFO patterns.

Threshold: 2.5V

2. Rate CV

CV input for the LFO Rate.

Range: 5Vpp

3. Rate

Controls the LFO rate within the range set by the LFO Speed toggle. When the knob is fully left, Rate is at its slowest. When the knob is fully right, Rate is at its fastest.

4. Wave

Selects the waveform the LFO will output. Waveforms available: Sine, Triangle, Sawtooth, Pulse. Waveforms morph into one another across the knob, creating unique combinations between subsequent waveforms.

5. Wave CV

CV input for the LFO waveform.

Range: 5Vpp

6. Attenuator

Attenuates the outputted LFO signal. When the knob is fully right, no attenuation is applied to the signal. When the knob is fully left, full attenuation is applied to the signal.

DETAILS

7. Ducking CV

CV input that ducks the LFO signal when positive CV is present.

Range: 0V to 5V

8. Polarity Switch

Switches between unipolar and bipolar signals. When the toggle is up, the unipolar waveform is outputted. When the toggle is down, the bipolar waveform is outputted.

Unipolar Range: 0V to 5V

Bipolar Range: -5V to 5V

9. Rate Range Switch

Changes the rate range for LFO.

Fast Range: 3.3s to 152Hz

Slow Range: 27s to 20Hz

10. LED

LED indicator of waveform and rate.

11. Out

LFO output

Range: 0V to 5V