



4VCLFO

Quad voltage controlled Triangle LFO

User Manual

Written and Illustrated by Ruben Sponar

1. Introduction

The 4VCLFO is four LFOs with triangle Outputs in 10hp. It features a knob for the Frequency of each LFO and CV inputs with attenuators.

The „Aux“ input is normalized to the four CV inputs, so you can modulate all LFOs with one signal at the same time. Plugging a cable into the CV input breaks its connection from the aux input.

This way you can create more interesting Modulations for your Patches.

2. Specifications

- Size: 10HP / 50mm - 3U / 128.5mm
- Depth: Through hole DIY version: 36 mm (measured from the front panel)
Built / DIY kit version: 24 mm (measured from the front panel)
- Current Draw:
 - +12V: +12mA
 - 12V: -12mA

3. Key features

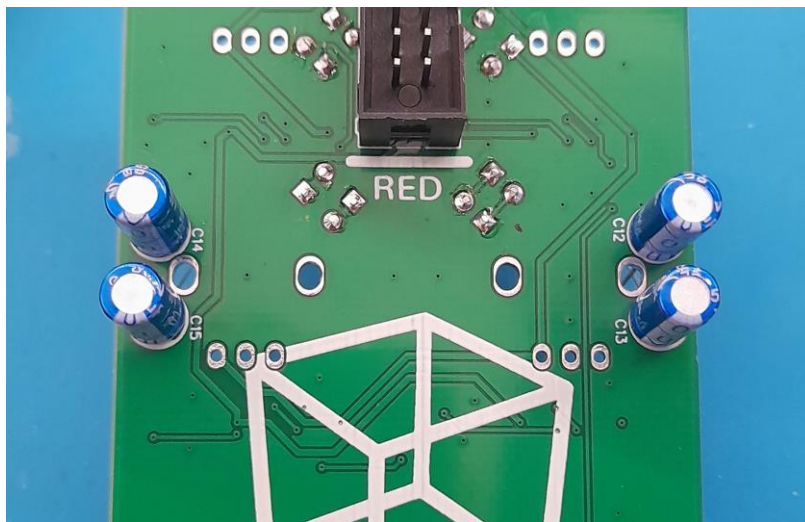
- 4 identical triangle core LFOs
- CV inputs for Frequency of each LFO core
- „Aux“ CV input is normalized to each of the CV inputs
- LED display showing positive voltages in green and negative in blue
- Frequency Range customizable with simple soldering of capacitors on the back

4. Customization

You can customize the LFO speeds to your taste by soldering different capacitors. Choosing larger capacitor values will make the LFO slower while lower values make it faster.

You can choose different values for each of the four LFOs.

Just make sure the longer leg of the capacitor goes through the hole marked with "+"



Here is some capacitor values with LFO times / frequency ranges:

cap. Value	seconds	frequency (hz)
10uf:	140~5 sec	0.007~0.2 hz
4.7uf:	70~2.5 sec	0.014~0.4 hz
1uf:	14~0.5 sec	0.07~2 hz
0.1uf:	0.5~0.014 sec	2~70 hz

LFO 1 - capacitor C12

LFO 2 - capacitor C13

LFO 3 - capacitor C14

LFO 4 - capacitor C15

5. Installing the Module

- Make sure you have 10 hp (50mm) space in your Rack.
- Turn off the Power from your system and unplug Mains Power connection.
- Connect the Eurorack Power Cable into your Bus-Board via 16-pin connector (Correct Orientation!) and via 10-pin connector to the module.

Attention! Make sure the Power is connected the correct way.

You might risk damaging one or more modules in your Rack by reversed Power connectors.

- When Power is connected, you can Place the Module in your case and fix it with the 4 screws to the Rails.

Reconnect the Power to your Case and Power on your System.

In case the Potentiometers for the frequency is on minimum setting while switching it on, it might not start oscillating immediately. Turn up the frequency a bit and it should start to work.



<https://cubusynth.com/>

<https://www.facebook.com/cubusynth>

https://www.instagram.com/cubusynth_modular/

<https://www.youtube.com/@cubusynth>