

# BMA\_005 ESQUIVEL SV VCF USER'S MANUAL



# INTRODUCCIÓN

#### **ESQUIVEL- STATE VARIABLE VOLTAGE CONTROLLED FILTER**

Congratulations on your acquisition of ESQUIVEL, our voltage controlled variable state filter and our humble tribute to the of space-age pop, Juan García Esquivel, who was probably one of the first Mexican musicians to experiment with electronics to enrich his musical creation (he himself was an electronics engineer graduated from the National Polytechnic).

We designed Esquivel around a diode ladder topology, which gives it a very warm sound in its resonance and filtering. We hope you enjoy it as much as we enjoyed designing and assembling it for you.

# SPECS Y LAYOUT.

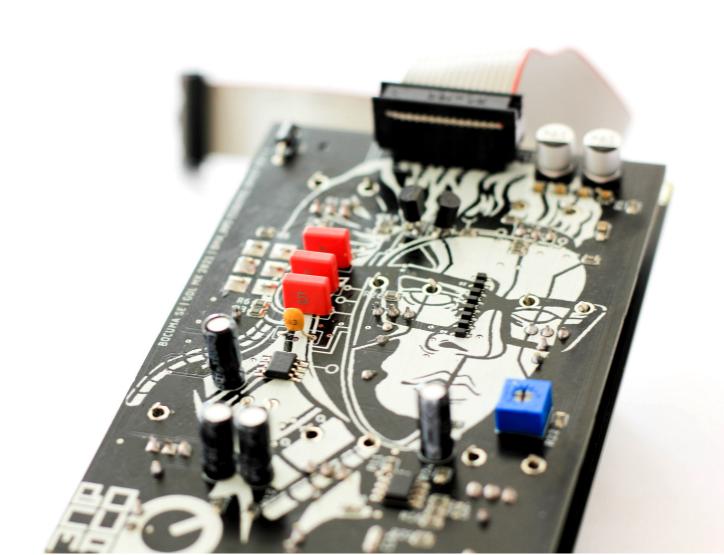
#### **ESQUIVEL- STATE VARIABLE VOLTAGE CONTROLLED FILTER**

Medida y formato: 14 HP EURORACK Consumo de poder: +/- 12V 12mA

Estado variable LP, BP y HP con funcionamiento individual mediante el

switch selector.

Topología de escalera de diodos.





- 1. CUTOFF CONTROL
- 2. RESONANCE CONTROL OR "Q".
- 3.CV INPUTS 1 AND 2.
- 4. STATUS SELECTOR AND OUTPUT CONNECTOR.
- 5. INPUT MIXER, IN 1, IN 2 AND IN 3.

## QUICK START.

Once you have installed your ESQUIVEL module in your rack you will be able to use it as follows:

- 1. Connect an audio signal to any of the inputs on your mixer (5) and turn the corresponding level knob clockwise.
- 2. Select the desired filter mode on the status selector switch (4), the output signal after the filter will be on this connector.
- 3. Experiment with cutoff control (1) and resonance (2) to filter the signal.
- 4. To add CV you can connect your control signals to any of the 2 CV input jacks (3) and adjust their level with the corresponding attenuation knob. These two CV signals modulate the level cutoff, you can connect two different signals and adjust their levels to obtain more complex or randomized control signals.

#### A NOTE ABOUT RESONANCE:

Resonance in an audio filter is achieved by injecting the output signal into the input signal a second time, in a kind of feedback. We have adjusted the levels of this feedback in our calibration process so that it does not exceed the 10vpp at the output (with the resonance at maximum) that is commonly used as a level in audio signals for Eurorack systems. We strongly recommend that the user take care to adjust the corresponding input levels in the mixer (5) so that the volume level after the filter is acceptable to the ear and the other modules in the system.

### TO FINISH...

Our inspiration to create is you and all the musicians and sound artists who challenge the status quo to explore new horizons and, to do so, make use of technology and innovation.

Esquivel takes his name from the master of space age-pop, who at the time made use of his background in electronic engineering to take his compositions to other destinations.

Designed and assembled with a lot of passion in Guadalafunk, Mexico.

August 2021.

