





1.0.1 USER GUIDE



## **Front Panel**



# OSC

Oscillator

The **WAVE** knob will morph the waveform seamlessly from Square to Sawtooth via Triangle.

EG2 and LFO2 will modulate the waveshape according to the settings of each modulation source.

LFO1 will modulate pitch and EG1 can be set to either modulate the waveshape (default) or the pitch by activating the button connecting to OCT knob.

The **OCT** knob will set the base pitch of the oscillator. For fine tuning use the **TUNE** knob.

The modulation from one of the envelope generators will always be inverted, use the  $\ensuremath{\text{INV}}$  switch to select which one.

**DETUNE** will add and spread saw waveforms. The total amount of saw waveforms can be set using the **UNISON** switch below. The detuned saw waves are faded in as the **WAVE** knob approaches the saw position (or when modulation pushes the waveform towards the saw shape).

The **SUB** switch will activate a square wave one octave lower then the main oscillator.

The **OSCILLATOR** can be set to **POLY** (16 voices) or **MONO** (1 voice). With glide actived the pitch will slide depending on the distance between notes.

## VCF1&2

Voltage Controlled Filters

Both filters can be set to either HP (12dB/oct high Pass), BP (6dB/oct band pass) or LP (18dB/oct low pass) with the MODE switch. Add modulation from EG1, EG2, LFO1 and LFO2 to the cut off FREQUENCY with the corresponding knobs. Use the RESO knob to add emphasis (resonance) the the cut off frequency. The KBD knob will modulate the cut off frequency according to which note is played.

The modulation from one of the envelope generators will always be inverted, use the **INV** switch to select which one.

#### EFFECTS Echo & Reverb

The ECHO TIME can be set to SYNC to the song tempo using the switch. FEEDBACK will control how many repetitions are made and MIX will set the balance between echo and dry signal.

Reverb **DECAY** controlls the length of the reverberation. For imitating large spaces use longer decay time. The **TONE** controll will dull or brighten the reverb signal. The **MIX** knob will set the balance of reverb and the dry signal.

### EGs & LFOs

Envelope Generators & Low Frequency Oscillators

EGs and LFOs are used to modulate the waveform, the pitch and the filter cut off frequency.

The LFOs can be set to **RETRIG** with each note and **SYNC** to the song tempo with the two corresponding switches.

LFO1 has a sharp random wave shape whilst LFO2 has a softer drifting random wave shape.

### **NOISE & DRIVE**

Add white **NOISE** to the oscillator signal before going into the filters.

**DRIVE** the signal both before VCF2 (diode shaper) and after VCF2 (tahn shaper).

### OUTPUT

Level & Pan

Set the over all volume with the **LEVEL** knob. Under **VCA** select what envelope generator to use for the output level.

PAN will shift the signal from left to right.

# **Back Panel**



CV

Control Voltage jacks

Use control voltage to modulate the labeled parameters. Use the small trim knobs next to the jack for adjusting the level of modulation. Each **EG CV** out has a slightly smoothen signal out.

#### Wheels

Modulation & Pitch wheel behaviour

Set the destination for Mod wheel and the range of the pitch bend wheel with these buttons. If set to **LFO Depth** the mod wheel will scale the amount set by knobs on the front panel.

#### **Trimmers**

Velocity Sensitivity, Sub, Polarity, Character, Echo

Use these trimmers to dial in the prefered levels and behaviour of corresponding functions.

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Ekssperimental Sounds Studio is a one man project driven by the passion for experimental electronic sounds, new and old synthesizers and music gear. As a Reason user since 2001 it truly is a dream come true to finally be able to create my own synthesizers and effects for the Reason rack. Thanks to all of you who buy my products I can continue to learn and develope more fun and inspiring devices for our beloved rack.

I hope you will enjoy WaveMaster!

Cheers, Erik Söderberg 2021