CubuSynth

Exhaust

Expander Module for the CubuSynth Engine

User Manual
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Contents

Limited Warranty:

CubuSynth guarantees this product to be without defects in materials and workmanship for a period of one year from the date of purchase (proof of purchase/invoice needed).

Malfunctions due to improper supply voltages, incorrect or reversed Eurorack power cable connection, misuse of the product, removal of knobs, changing faceplates, or other causes determined by CubuSynth are the user's responsability and are not covered by this warranty.
During the warranty period, all defective products will be repaired or replaced, in the CubuSynth workshop with the customer paying the shipping costs to us.

CubuSynth takes no responsibility for any damage to persons or equipment caused by the operation of this product.
Please contact cubusynth@gmail.com with any questions, authorization for return to manufacturer or any needs and comments.
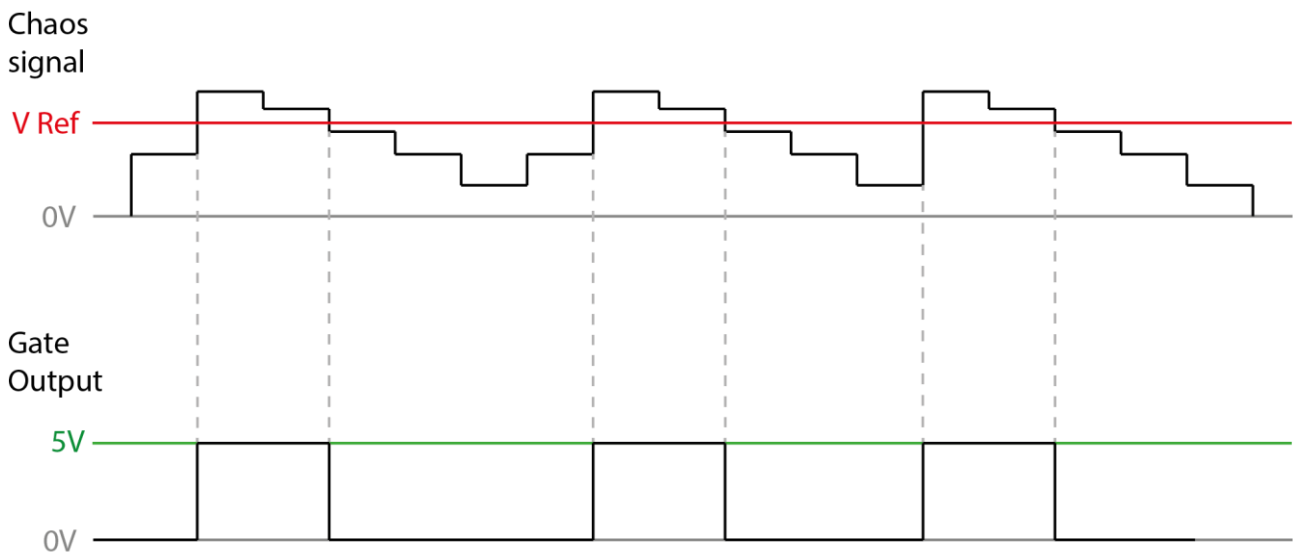
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1. Introduction

The Exhaust adds many features to your Engine VCO module like Sub-octaves, Mixing and a Gate generated by the Chaos signal.
You can select one of the two VCO cores of the engine to Produce Square Waves one and two octaves below the Oscillators frequency. You can set the level of each octave by its volume knobs and listen to them from the "Sub" output. They are also Mixed into the Main "Mix" output.
The knobs "VCO1" "VCO2" and "AM" set the level of the selected waveform of each VCO and the AM output from the Engine to the Main Mix. The "Ext In" Input is normalled from the RM output, but you can plug in any other signal to go to the Main Mix.
The V Ref sets a Voltage between -10V and +10V which compares against the Chaos signal from the engine. Whenever the Chaos signal is higher in Voltage than the Knob setting, It will Give you a Gate signal. There is also a CV input, which offsets your V Ref and can create interesting Rhythms. This function works best when the "Clock In" on the Engine is synced by your Main Clock.

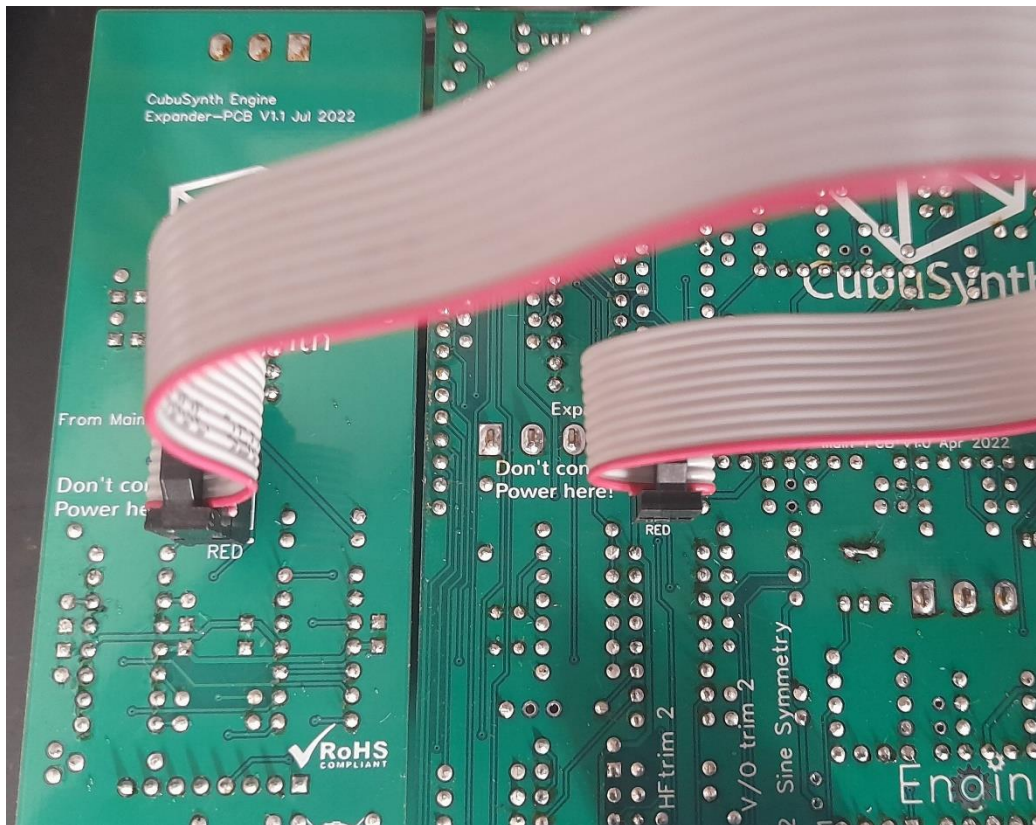Visual Demonstration of the Gate Output:

2. Specifications

- **Size:** 8HP / 40mm
- **Depth:** 35mm (measured from the front panel)
- **Current Draw:**
    - **+12V:** +6mA
    - **-12V:** -5mA

3. Key features

– Two Sub-Ocatve generator with selection switch

– 4 Channel Audio Mixer for different Outputs from the Engine

– External Input for Mixing with existing signals

– Semi-Random Gate Output generated by the Chaos signal

– Separate Outputs for Sub-Octave and Main Mix

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4. Installation

To connect the module, plug in the 10pin Ribbon cable correctly to your CubuSynth Engine and the Exhaust while your rack is powered OFF! Make sure orientation is correct. (Red stripe down).

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