
Animate

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Quadrature Low Frequency Oscillator- User documentation



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Animate is a quadrature low frequency oscillator with triangle, sinusoid and square waveform outputs.

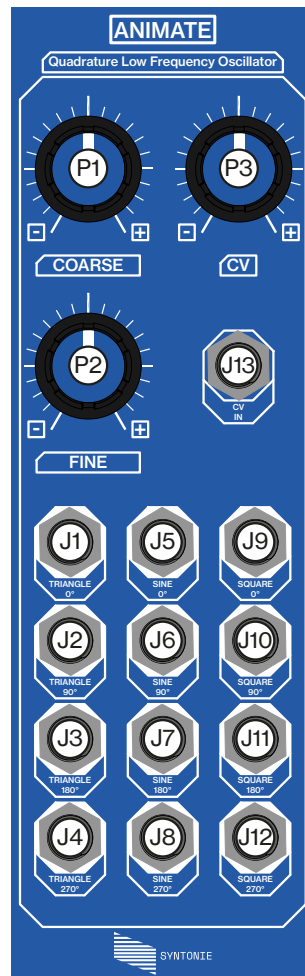
Each waveform has 4 outputs that are 90 degrees apart.

An expander module allows to add 4 more waveforms (saw, trapezoid, shark and chainsaw).

Specifications

- 8HP
- 90 mA +12V (16pin or DC)
- 0 mA -12V
- 0 mA +5V
- 42mm depth

Special thanks to: Jürgen Haible for his triangle core quadrature oscillator design which was the starting point to develop this module. **Lorenzo Ferronato** for the documentation design // And of course, **everyone who has supported Syntonie until now & those who will support it in the future.**



(P1) Coarse Frequency control

(P2) Fine Frequency control

(P3) FM CV attenuverter

(J1) Triangle 0° output

(J2) Triangle 90° output

(J3) Triangle 180° output

(J4) Triangle 270° output

(J5) Sinusoid 0° output

(J6) Sinusoid 90° output

(J7) Sinusoid 180° output

(J8) Sinusoid 270° output

(J9) Square 0° output

(J10) Square 90° output

(J11) Square 180° output

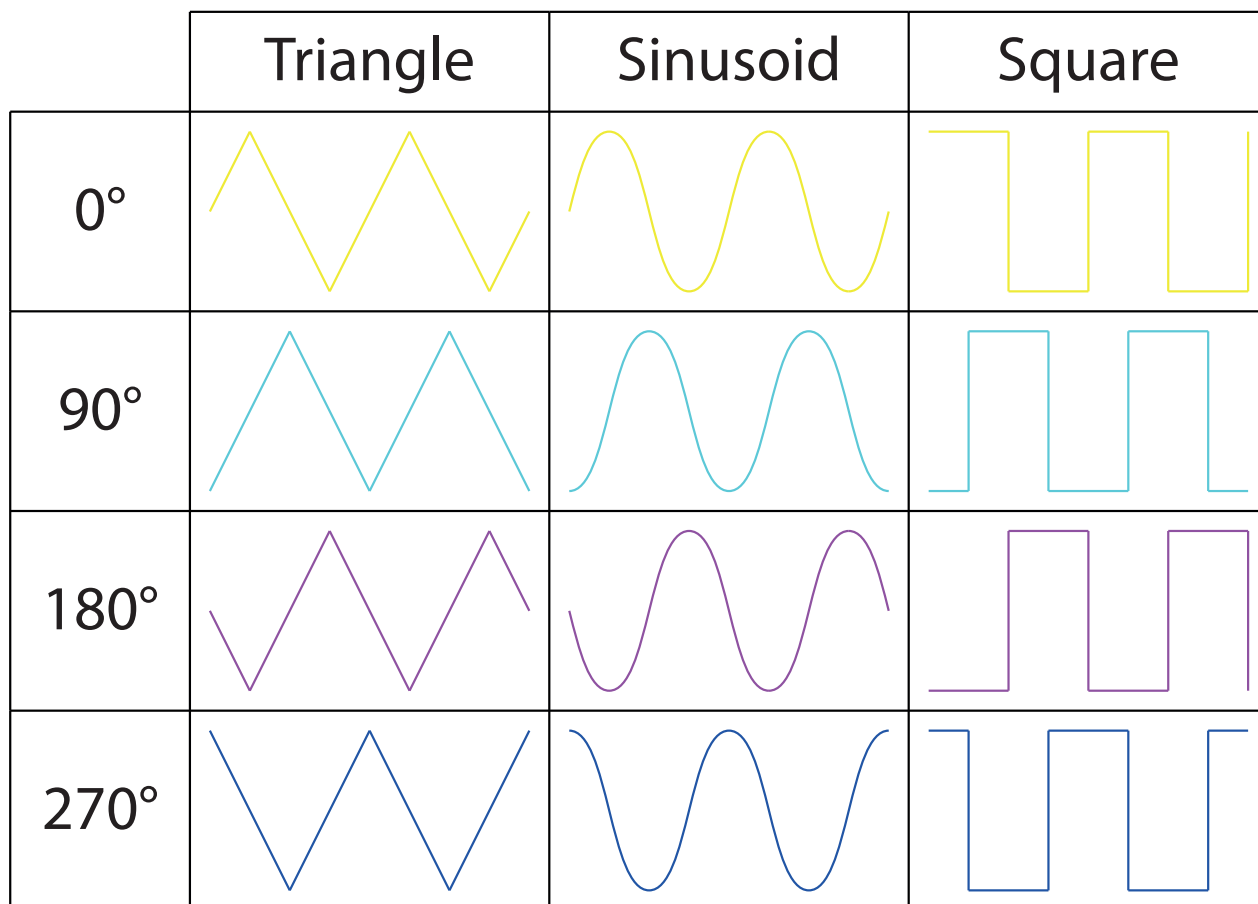
(J12) Square 270° output

(J13) FM CV input

Frequency range: 0.01Hz to 600Hz

The CV input is normalised to 1V in order to reach the maximum frequency setting.

Plugging an external signal into the CV input allows for frequency modulation.



Here are graphic representation of the three waveforms produced by Animate.

The core of the oscillator generates the triangle and square waves at 0°/90°. Triangle and square waves at 180°/270° are obtained by inverting the 0°/90° waveforms respectively.

The 0°/90° sinusoid waves are made by sine shaping the corresponding triangle waveforms, and the 180°/270° waveforms are once again inversions of the 0°/90° waveforms.

The two trimmers on the rear of the PCB sets the offsets of the triangle waves before they're shaped to adjust the symmetry of the resulting sinusoids.

