



INSTRUO Cruinn Analog Stereo Oscillator Plus Expander User Guide

[Home](#) » [INSTRUO](#) » INSTRUO Cruinn Analog Stereo Oscillator Plus Expander User Guide 

Contents

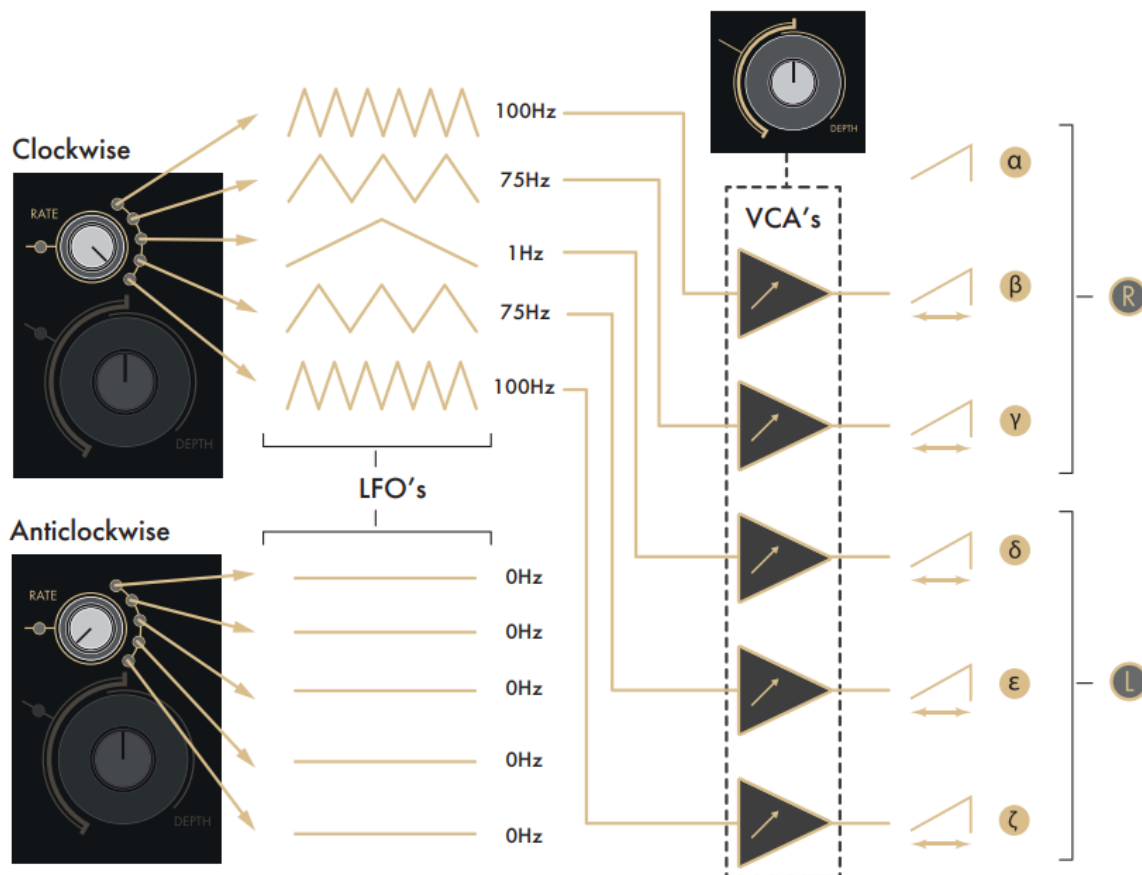
- [1 INSTRUO Cruinn Analog Stereo Oscillator Plus Expander](#)
- [2 Signal Flow](#)
- [3 CV Expander](#)
- [4 Documents / Resources](#)
- [5 Related Posts](#)



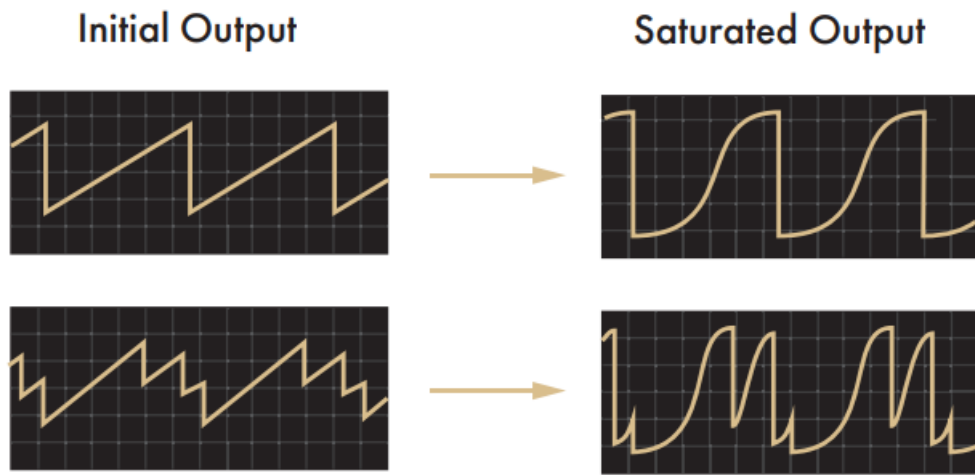
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Signal Flow



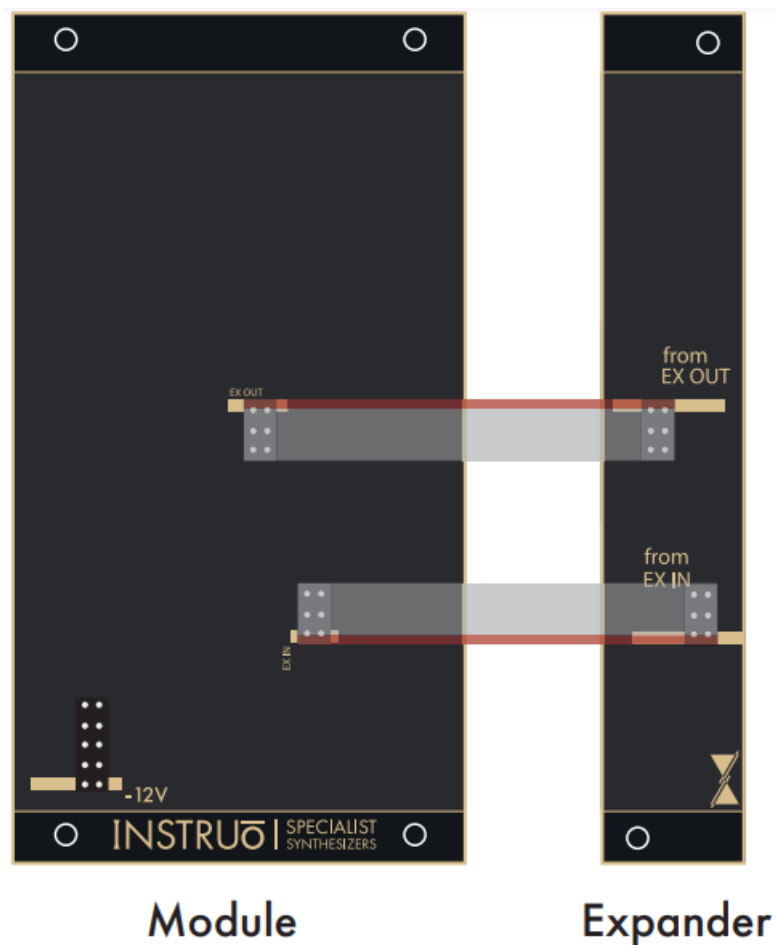
The Rate knob controls the rate of the five triangle waveform LFOs used for phase modulation of the five phase-displaced sawtooth variants. The Depth knob controls the depth of phase modulation applied to the five phase-displaced sawtooth variants by the five triangle waveform LFOs.



To eliminate any chance of hard clipping that may occur when parallel sawtooth waves sum with perfect phase alignment, a soft clipping circuit is implemented and limits the amplitude range to $\sim 10\text{Vpp}$. This essentially turns the built-in VCA into a voltage-controlled saturator that can accentuate a nonlinearity of the sawtooth waveforms.

CV Expander

Included with the cruinn is a CV expander, which is connected to the module via two ribbon cables. The expander allows for discrete access to the core sawtooth waveform, as well as the five parallel phase-displaced sawtooth waveform variants.



Note: Negative voltage will displace the phase forward from the core waveform and positive voltage will displace the phase backward in time from core waveform.

Documents / Resources

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