VERBOS ELECTRONICS

Foundation Oscillator



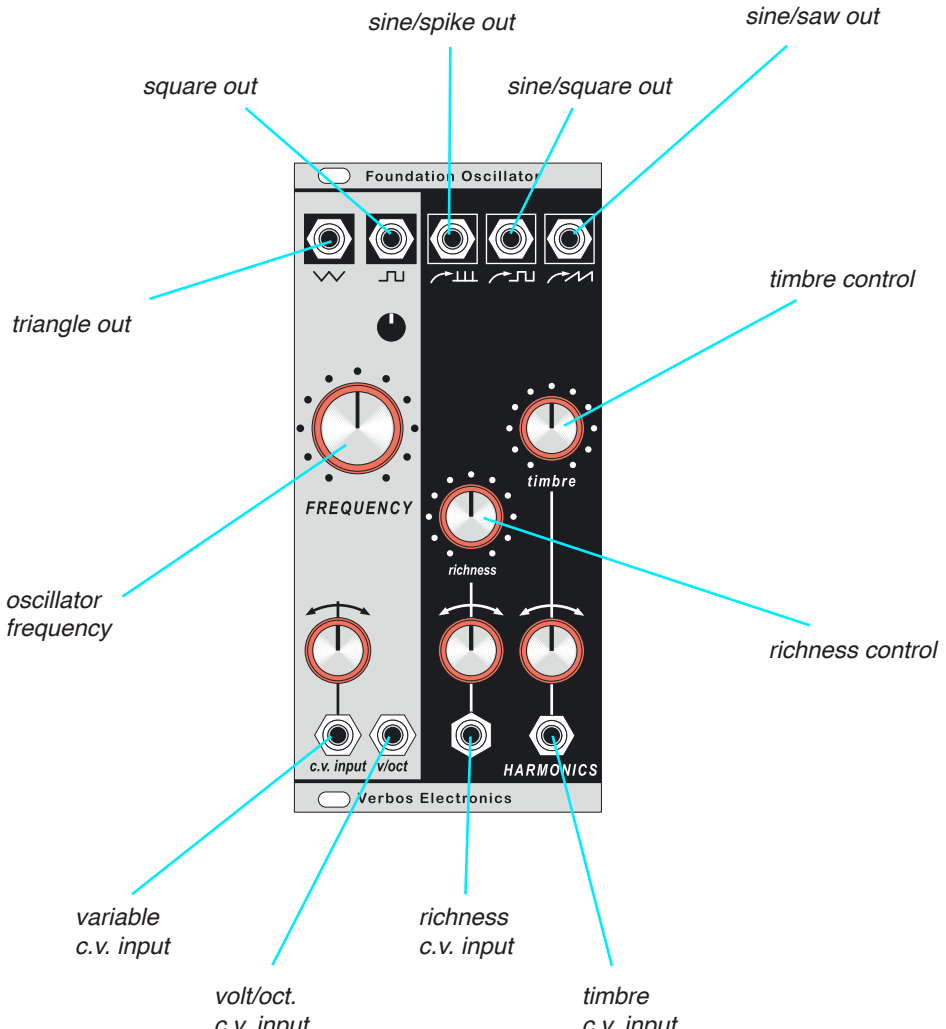
Congratulations on obtaining your Verbos Electronics Foundation Oscillator. This module introduces a new voice into the pantheon of classic analog synthesizers. Contained is a discrete, analog, triangle core voltage controlled oscillator with facilities for voltage control of wave multiplication, called ***richness,*** *and blending from sine wave to the multiplied spike, square and saw waves at the same time.*

The oscillator ranges from 3 Hz to 20 kHz from the ***Frequency*** *control. It has outputs for triangle and square and 3 seperate dynamically shaped outputs, which are fed from a novel waveshaping circuit. The* ***c.v. input*** *goes through a reversing attenuator on it's way to exponential modulation of pitch. A calibrated* ***volt/octave*** *input is also provided.*

The ***HARMONICS*** *section allows adjusting of the* ***richness*** *and* ***timbre*** *parameters on the three variable outputs. At the minimum timbre setting, all outputs will be a sine wave. At the maximum timbre setting, the waves on the outputs are* ***spike***, ***square*** *and* ***saw****. The* ***richness*** *control activates a wave multiplier that converts the oscillator's* ***triangle*** *into a* ***saw*** *wave and makes the* ***saw*** *wave have greater and greater frequency within the cycle of the oscillator core as the control is increased. The result is similar to an oscillator that is hard synced to the main oscillator having its frequency increased with up to 8 cycles within the root frequency. This multiplied* ***saw*** *wave is then converted to a square wave and a spike wave with a pulse width of 1mS. The sine wave is not multiplied, resulting in the tumbre blending between the sine at the root frequency and the multiplied spike, square or saw depending on the output. The single set of controls effects the waveshape on all outputs at the same time.*

At only 12HP, the ***Foundation Oscillator*** *offers the opportunity to squeeze a Verbos Electronics Oscilltor into a small space while offering a powerful and all new sound useful in both agressive and subtle patches.*

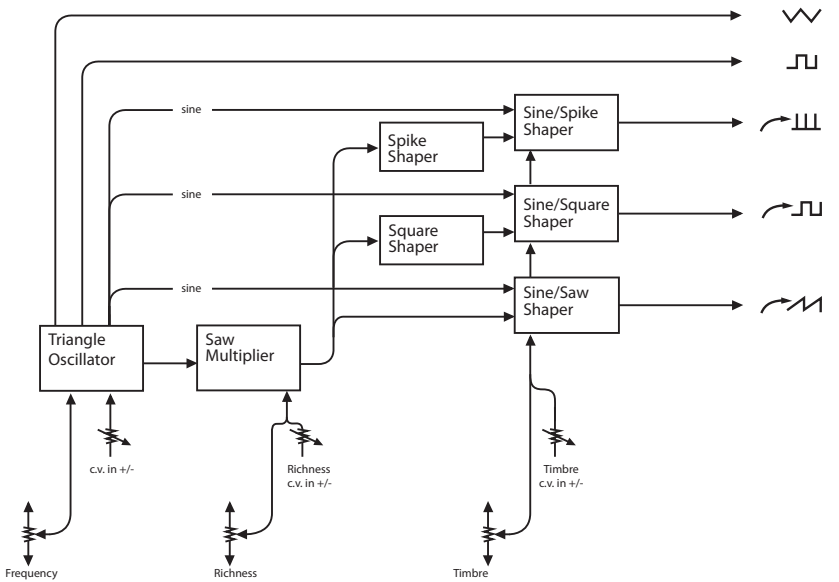
12HP • 142g • +12v 64mA • -12v 58mA


sine/spike out
sine/saw out
square out
sine/square out
Foundation Oscillator
triangle out
timbre control
FREQUENCY
timbre
richness
oscillator
frequency
richness control
c.v. input
v/oct
HARMONICS
Verbos Electronics
variable
c.v. input
richness
c.v. input
volt/oct.
c.v. input
timbre
c.v. input

VERBOS ELECTRONICS

designed and assembled in Berlin, Germany

Block Diagram



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