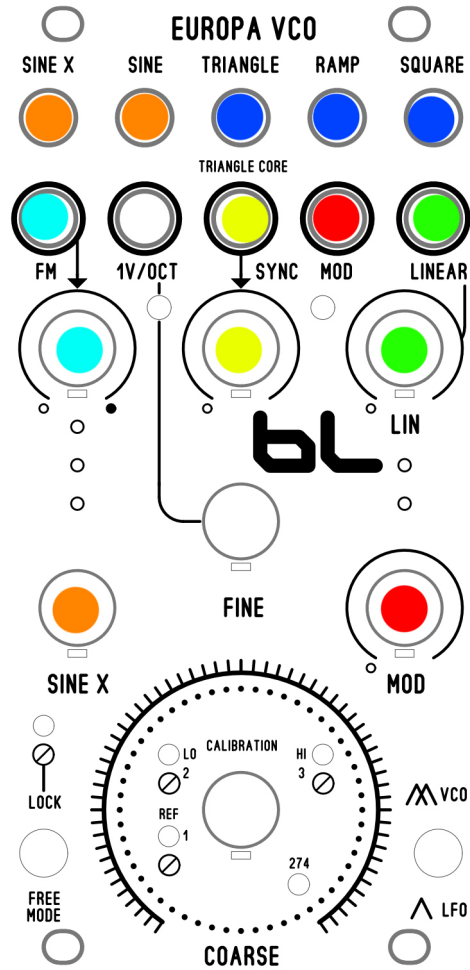


BLM EUROPA VCO



Orange: Sine, and Sine X. These are sine wave outputs. The internal sine wave was buffered twice so that two outputs were possible. One output is direct out, and the SINE X has output level control. The SINE X is a good way to crossmod patch another Europa VCO. Both SINEX and SINE outputs can be used simultaneous.

Blue: Ramp, Triangle, and Square wave outputs. These can be used simultaneous.

Yellow: Sync input, with input level control. The internal vco is a triangle core circuit. This sync causes the wave form to restart from the top portion of the triangle wave.

Green: Linear FM input with level input control. This is not a zero through fm type input.

Red: Mod input with level input control. This is an exponential cv input.

1v/Octave input is used for musical tracking. This is an exponential cv input.

Toggle switch: Free Mode and Lock Mode. Free mode lets you use the big knob to frequency tune. Lock mode uses the small trimmer to tune the vco. This is not a calibration trimmer. The lock feature is used for quick tuning so that you don't always have to manually find a frequency with the big black knob.

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Most people tune the vco to low note C when 0V or nothing is patched into the 1V/OCT inputs. In other words in lock mode, tune the frequency to low note C with nothing patched into the 1v/octave inputs.

VCO and LFO Mode toggle switch: this is used to choose a slower or faster overall range for the vco.

Calibration: You have to remove the big black knob to reach the trimmers. The big black knob has a set screw. The set screw will either be flat head screw driver or hex type.

REF trimmer is used to adjust the reference voltage for the tracking circuit. There is a small hole '274' where you can stick a volt meter probe to get a measurement. The voltage should be 0.274V DC

A reading of 0.273V would not make a big impact to the tracking. If it reads 0.254V for example, then adjustment would improve tracking. You would have to re adjust Lo and Hi trimmers also if this is the case. Reference Voltage is the first adjustment I make before Lo and Hi tracking when I do a factory calibration. This parameter really does not change too much unless someone adjusted the trimmer not knowing what the parameter does.

Lo and HI trimmers are for adjusting the 1V per Octave converter for musical tracking.