

## Erica Synths Black VCO Calibration

Thank you for purchasing Erica Synths Black VCO! It comes 1V/oct calibrated, but PSUs on modular synths are so different, therefore, if needed, you can perform the calibration procedure specifically for your modular setup. To perform a calibration procedure, follow these steps:

1. Connect the VCO to the rack's PSU. Let it "heat up" for ~15mins. Set FM LEVEL and PULSE WIDTH to min, set octave switch to 0.
2. Connect a tuner to the SAW output of the VCO.
3. Connect a keyboard/MIDI-CV interface that generates 1V/oct CV to the 1V/OCT input.
4. Play C3 on the keyboard and use TUNE potentiometer on the front panel to adjust tuning so that tuner shows C3.
5. Play C4 on the keyboard and see the tuner reading.
6. If the tuner shows something higher than C4 use SCALE trimpot\* (the upper one) to INCREASE the frequency of the VCO slightly (by turning it CCW). If the tuner shows something lower than C4, use SCALE trimpot to DECREASE frequency slightly (by turning it CW).
7. Play C3 again and use TUNE potentiometer to adjust tuning so tuner shows C3 again.
8. Play C4 and see, what you get. The tuning should be more precise. If it's not exactly C4, go back to step 6.
9. Once you are happy with C4, check what you get on C5, C6 and C7. You may need to adjust it little bit more as described on step 6.
10. Now set the frequency to C4 and rotate the OCTAVE switch around several octaves, and check tuner readings! If switching octaves up, frequency gradually increases octave by octave, turn OCTAVE trimpot (the bottom one) slightly CCW, set frequency to C4 and check readings again. If the frequency decreases, turn the trimpot CW. With slight adjustments you should be able to get precise readings C4, C5, C6 and C2, C3 when rotating the octave switch.

\* There are two trimpots on the front panel: the top one is scale – it adjusts 1V/octave, but the bottom one adjusts octave intervals.

Enjoy!  
Erica Synths team