

Popcorn v1.1 update

Version v1.1 introduces new feature to pair your oscillator with the output of the popcorn to achieve precise quantizing. It is as easy as tuning a guitar with a chromatic tuner and makes the quantizer tightly in tune in all octaves. It also allows for user calibration and that opens the door for module for DIY market. The version also fixes few bugs in the firmware mainly regarding the dual mode (two popcorns connected together as 16-step sequencer).

Bug fixes:

- dual mode gate output behaviour
- dual mode jump behaviour
- dual mode gate expander fix
- dual mode cv input fine tune
- cv input mode for inverting trigger direction affects now both channels as indicated in the animation

New feature:

Manual output calibration mode

- allows to pair oscillator with popcorn and adjust each octave precisely

How to make manual calibration:

- 1) Hold down button 1 and 4 at startup and you enter the manual calibration mode.
- 2) Connect output of your oscillator to a [chromatic tuner](#) and fine tune the pitch of the oscillator precisely to correspond to the desired root note (C for instance).
- 3) Rotate TRIG A / SLIDE TIME KNOB to select the octave - TRIG A and TRIG B leds indicate the selected octave (0-5V).
- 4) Select 0V (lowest octave-fully CCW) & Connect CV OUT to the V/OCT input of your oscillator.
- 5) Press buttons 2 and 3 to make fine increments up and down for the voltage for the selected octave. Check the tuner for tuning precision.
- 6) Press buttons 1 and 4 to make larger increments up and down for the selected octave.
- 7) Select the first octave (1V) by turning the TRIG A / SLIDE TIME KNOB.
- 8) Press buttons to tune voltage for this octave and check the tuner for precision.
- 9) Repeat for the remaining octaves.
- 10) Rotate the TRIG A / SLIDE TIME KNOB to check the tuning for all octaves. Adjust if necessary.
- 11) Press FN button to continue to calibrate the CN INPUT. Three red lights start to blink on top of the CN IN jack. The following procedure is necessary for precise functioning of transposing via the CV INPUT.
- 12) You can skip the calibration of CV IN by pressing the FN button otherwise:
- 13) Make a loop by connecting the CV OUT to the CV IN of the Popcorn and hold button number 4 to proceed the calibration. Three green lights at TRIG A confirm successful CV input calibration.
- 14) You are done.