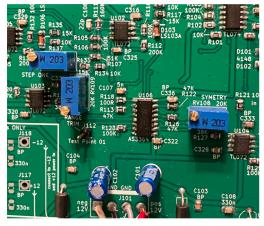
## clee Euro Looping Gain Sequencer Trimming



Start with: all Sequencer sliders full LEFT Modulation pot full CW Loop pot full CCW No CV inputs

Range Trim: Adjusts the sequencer maximum modulation level

Step One Trim: Adjusts the multiplier offset

Symmetry: Adjusts the symmetry of the balanced modulator

IMAGES ARE FROM THE 4U PCB - component placement is slightly different

Range Trim



The Modulation pot should be fully CW

With the sequencer sliders full LEFT measure the voltage at the test point and adjust the trimmer for  $5.0 \ensuremath{v}$ 

Step One Trim



1) Adjust the front panel OFFSET pot CW just until the OVER LED (under the OFFSET POT) turns on, then back off just until the OVER LED is off.

2) Make note of whether any LOOP LEDs are lit and which sequencer LED is lit

3) You will adjust the STEP ONE trimmer so the #2 LOOP LED is off but about to light.

Making note of which sequencer LED is lit; if a LOOP LED is lit turn the trimmer so the sequencer LEDs go down, if no LOOP LED is lit turn the trimmer so the sequencer LEDs go higher.

The loop circuit has hysteresis, so you'll need to go back and forth a bit.

\* IF NO LOOP LED IS LIT: Increase the trimmer so the sequencer LEDs will count up until going past the top one. Then #1 will light and a the #2 LOOP LED will light. Back off until the LOOP LED goes off. Then slowly increase the trimmer just until #2 LOOP LED lights, then back off the trimmer 2/3 turn.

\* IF #2 LOOP LED IS ON: Decrease the trimmer so the sequencer LEDs will count down until you go past #1 and the LOOP LED turns off and sequencer #8 lights. Slowly increase the trimmer until the LOOP LED goes ON. Then back off the trimmer 2/3 turn.

## Symmetry Trim



Monitor the input and output waveforms on an oscilloscope with a triangle wave input

With all sequencer sliders full LEFT adjust the Symmetry trimmer so the output is matched to the input but inverted