Euro ADSR v1.2 – User Guide

This is the setup and user guide. The unit is designed for a monophonic Analog synthesizer.

The module is designed and sized for **Eurorack** systems. You will need a 16-10 pin **Eurorack** power ribbon connector with –12/0/+12 which is connected to a synth power supply. You will also need a trimmer adjustment tool, a digital volt meter.

Calibrating the Euro ADSR

If you bought PCBs or a kit, you should only need to calibrate the unit once. If you bought a pre-built and tested unit, you can skip this section.

1. Power up the module.
2. Attach -ve probe of multimeter set to the 20V range to the GND pin of the power header or the ground pin of one of the output jacks.
3. Attach the +Ve probe to Test point TEST1

4. Turn R4 (MAXIMUM SUSTAIN) trimmer in either direction until the voltage meaured is +10V

5. Now when VR3 (SUSTAIN LEVEL) is set to maximum, there will be no DECAY time. You can play with this setting if you want different behavior.

6. R11 (ATTACK PEAK) determines the maximum voltage that the ATTACK will reach before beginning the DECAY time.

7. Set VR1 (ATTACK) to maximum, VR2 (DECAY) and VR4 (RELEASE) to minimum and VR3 (SUSTAIN) to minimum.

8. Attach the +Ve probe to Test point TEST2.

9. Plug a GATE signal into the GATE input.

10. Turn the trimmer R11 fully counterclockwise by turning up to 25 times or until you hear the click of the end stop, then turn it 10 turns clockwise. The following steps will then need to be repeated until the signal at Test Point TEST2 rises to the desired ATTACK PEAK level and then immediately starts to decay:-

    a. generate and maintain a GATE signal by pressing and holding a key on the keyboard,

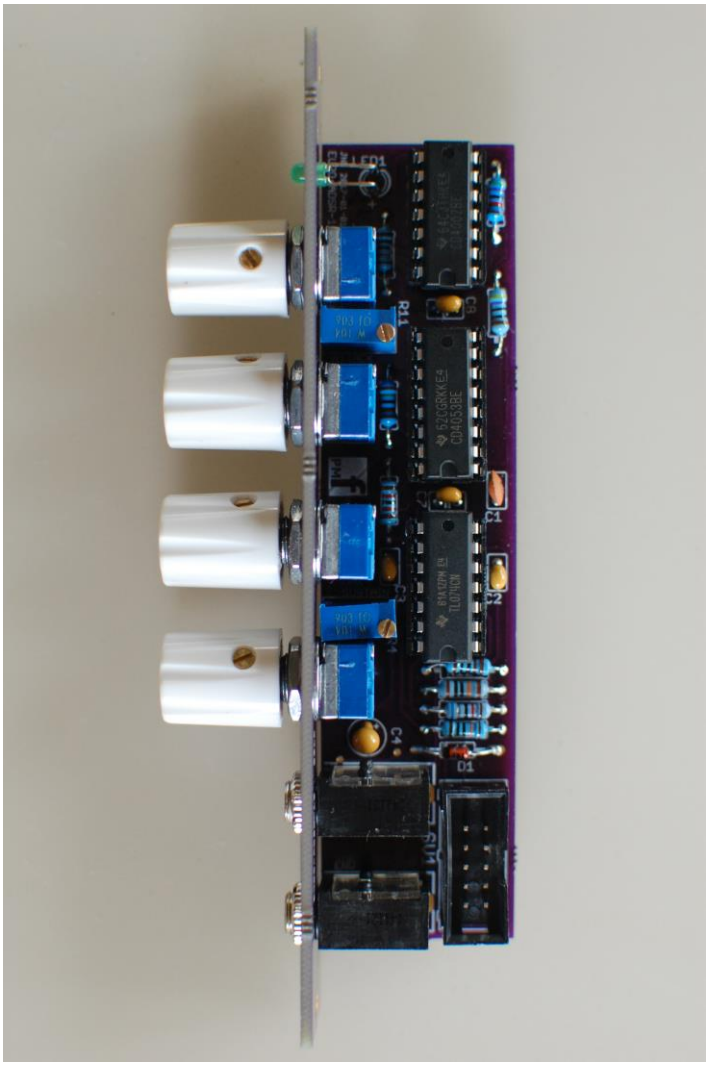
    b. measure the ENVELOPE OUT signal at test point TEST2. It should rise (ATTACK) to a maximum value and may start to decay. The objective here is to get the signal to decay immediately the attack reaches 10V.

    c. while holding the key down, adjust R11 until the ENVELOPE OUT signal switches to decay mode when it reaches 10V, maybe 3 or 4 turns either way.

    d. If the voltage is high, turn the trimmer clockwise until the voltage gets to around 10v and then fine tune it. If it is too low, attack will not reach maximum before decay starts, too high and the attack wil be slow to turn around to the decay or it will not turn around at all but remain high.

    e. release the GATE signal (key) and allow ENVELOPE OUT to reach 0, and repeat the exercise

11. Repeat step 9 until the signal at ENVELOPE OUT reaches an ATTACK PEAK of 10V and then immediately starts to decay.



Operation

The Envelope Out jack will in general be used to control a VCA or filter in response to the ADSR curve generated during the time that a GATE signal is applied to the GATE jack.


ΔV1= 0.000V TRIG 1= -0.09V ΔT= 0.00s
SAVE
100
90
10
0%
0.5V
SAMPLE 1s