



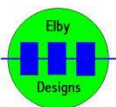
ES11 Triple Comparator & Schmitt Trigger

Construction Guide

Revision 1.02

PCB Revision V0.6

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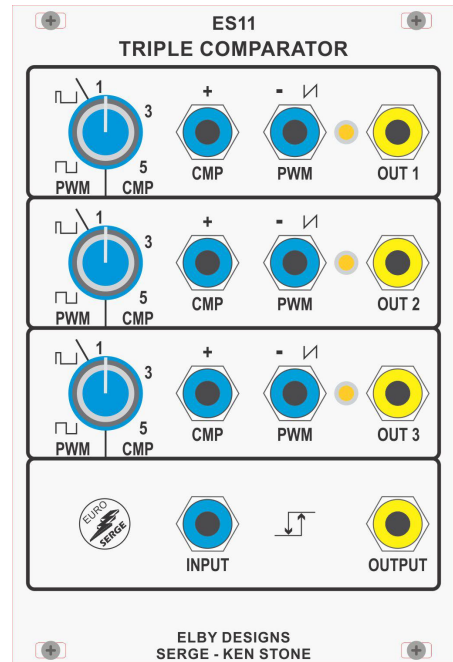
ES11 Triple Comparator & Schmitt Trigger

Construction of the ES11 requires the assembly of 6 boards:-

- Column 1 - Panther Pot PCB ([3D Model](#)) ([Overlay](#))
- Column 2 - Panther Jack PCB ([3D Model](#)) ([Overlay](#))
- Column 3 - Panther Jack PCB ([3D Model](#)) ([Overlay](#))
- Column 4 - Panther Jack LED PCB ([3D Model](#)) ([Overlay](#))
- Main Board - ES11 PCB ([3D Model](#)) ([Overlay](#))
- Chicklet - ES11 Chicklet PCB ([3D Model](#)) ([Overlay](#))

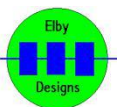
Constructors should refer to the PCB Overlays for any specific comments regarding the board assemblies, the [Bill of Materials](#) for the current value of all components and [General Construction Notes](#) document for general PCB assembly guidelines.

1. Fit all components to the boards following normal assembly guidelines except for the LEDs and L501 and C501 on the Main PCB
2. Assemble the Chicklet PCB and fit the 3x header pins to the UNDERSIDE of the PCB
3. Position the Chicklet PCB on the Main PCB locating the 3x headers in to positions on L501 and C501. Solder in to place.
4. Mount the Column 4 assembly to the front panel
5. Fit and solder the 3x LEDs noting the orientation of each LED and being careful when forming the legs to not stress the body-leg junction
6. Mount the 3 remaining column boards and then the Main Board ensuring correct alignment of the IDC connectors



Calibration

1. Set all [PWM CMP] controls to the '5' position
2. Inject a 20Hz 5VDC sawtooth wave form into the [-] input of COMPARATOR 1
3. Monitor [OUT 1]
4. Adjust P101 for a 50/50 duty-cycle



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