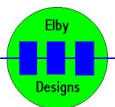




ES06 Envelope Generator Construction Guide

Revision 0.4
February 27th, 2016



ES06 Envelope Generator

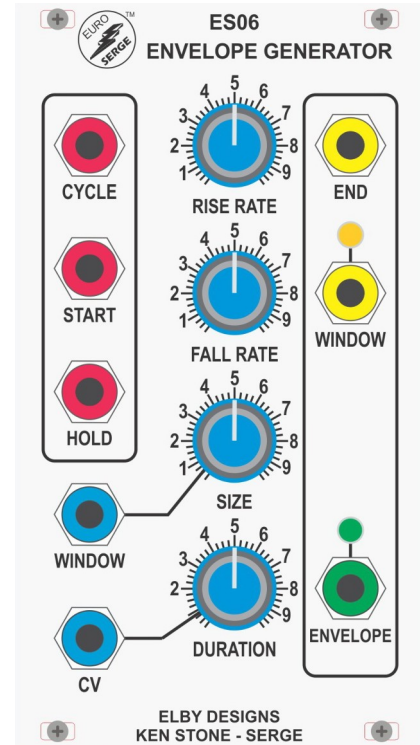
Construction of the ES06 requires the assembly of 4 separate boards:-

- Column 1 - ES21 Support PCB ([3D Model](#)) ([Overlay](#))
- Column 2 – ES06 Column 2 Pot Support PCB ([3D Model](#)) ([Overlay](#))
- Column 3 - Panther Jack LED PCB ([3D Model](#)) ([Overlay](#))
- Main Board - ES06 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.

Assembly

1. Fit all components to the Support Boards except for the 2 LEDs J301E and J301G in Column 3.
2. Mount the Column 3 assembly on to the Front Panel
3. Install and solder the 2 LEDs
4. Mount the 2 remaining Support Boards to the Front Panel
5. Fit all components to the Main Board
6. Mount the Main Board on to the Front Panel assembly ensuring that the IDC sockets are correctly aligned

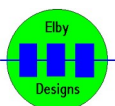


Addendum

R402 has been replaced by a zener diode. See [3D Model](#) for correct orientation

Calibration

1. Set [SIZE] and [DURATION] to their minimum position
2. Set [RISE] and [FALL] to their maximum position
3. Adjust P204 until TP1 measures 10.0V
4. Patch [END] to [CYCLE]
5. Monitor the [ENVELOPE] output using an accurate multimeter (ideally with 4 decimal places)
6. Set [RISE RATE] and [FALL RATE] to a near minimum position for a slowly undulating waveform
7. When the waveform is around ~2.5V apply a DC voltage of 5V to [HOLD]
8. Adjust P101 for minimum drift



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