



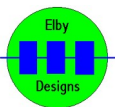
3U Octave-Transposer Switcher

Construction Guide

Revision 1.0

PCB Revision V2

March 20th, 2016

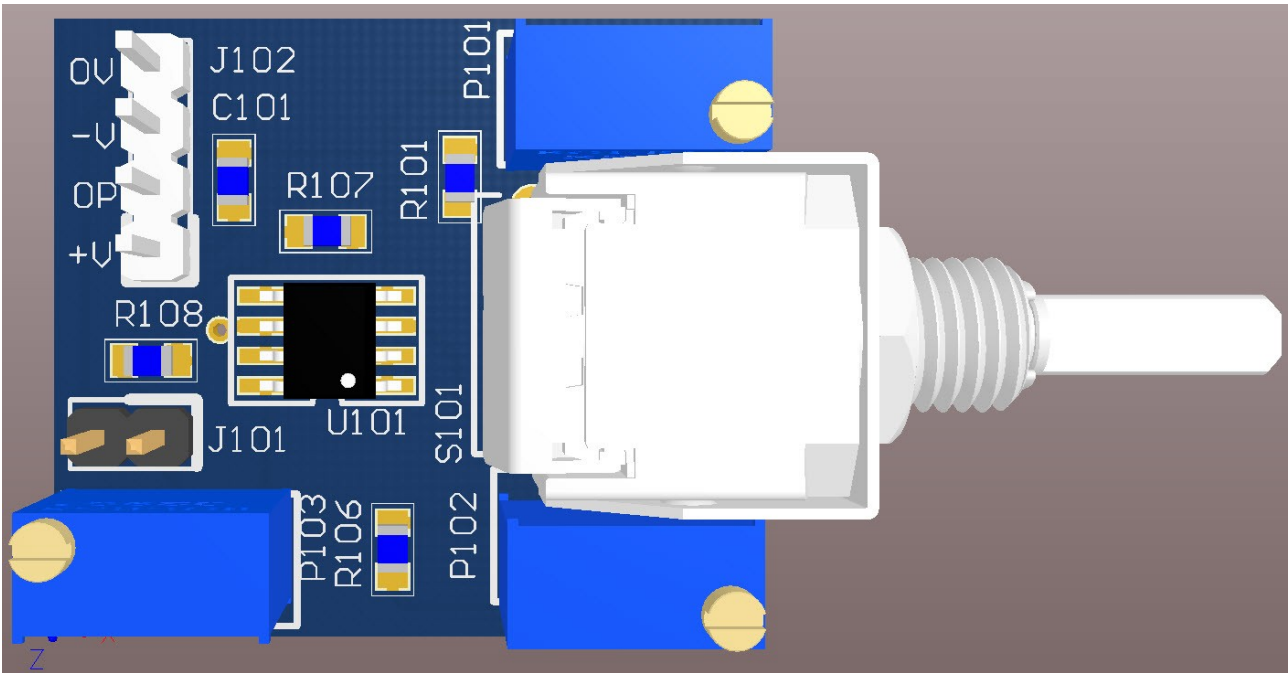


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3U Octave-Transposer Switcher



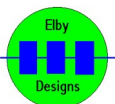
Construction of the 3U Octave Switcher is very straight forward but does involve the use of surface-mount components. Constructors should refer to the printed [Component Overlay](#) for any specific comments regarding the board assembly, the [Bill of Materials](#) for the current value of all components and [General Construction Notes](#) for general PCB assembly guidelines.

1. First fit all the SMT components to the boards ([3D Model](#))
2. Then fit the through-hole components

There are 2 pairs of resistors provided for positions R1 & R6. Select the pair relevant to the power rails being used i.e. +/-15V or +/-9V to +/-12V. Other power rails can be accommodated by selection of the appropriate resistors.

For optimum performance the power rails should be as stable as possible which is why we recommend the +/-9V option using a suitable local drop-down regulator supply.

The standard kit and module use 1% resistors which should be adequate for most applications. If extra accuracy is required then 0.1% resistors can be fitted for R102 through to R105.



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Calibration

1. Remove JP1 if fitted
2. Monitor the [OP] output (J1 pin 1)
3. Set the selector switch to its maximum(clockwise) position
4. Adjust P1 for +2.00V
5. Set the selector switch to its minimum (anti-clockwise) position
6. And adjust P2 for -2.00V

This completes the initial calibration of the 3U Octave Switcher unit.

P3 - Transpose Offset

By default, the 3U Octave Switcher is set to give you -2, -1, 0, +1 and +2 octave transposes. If your application requires a different range of transposes such as -3, -2, -1, 0, +1 then use P3 to apply the necessary offset. For this example:-

1. Set the selector switch to its maximum clockwise position ([OP]
2. Adjust P3 to set [OP] to the desired output voltage (+1V for the above example)

