

# 3U Octave-Transposer Switcher

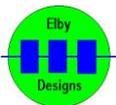


## 3U Octave-Transposer Switcher

### Construction Guide

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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. You are advised to check all of these documents on our website to ensure you have the latest copy.

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

There are 3 pairs of resistors provided for positions R1 & R6. Select the pair relevant to the power rails being used i.e. +/-15V, +/-12V or +/-10V. Other power rails can be accommodated by selection of the appropriate resistors. In some instances one of the above pairs could be used, for example for +/-9V power rails you should be able to use the +/-10V resistor pairs.

For optimum performance the power rails should be as stable as possible which is why we recommend the +/-10V option using a suitable local drop-down regulator supply.

The standard kit and module offering use 1% resistors which should be adequate for most applications. If extra accuracy is required then 0.1% resistors can be fitted or a dedicated high-accuracy solution used such as our Reference Module.

## 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 +2.0V
5. Set the selector switch to its minimum (anti-clockwise) position
6. And adjust P2 for -2.0V

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] the desired output voltage (+1V for the above example)

