Build documentation for:

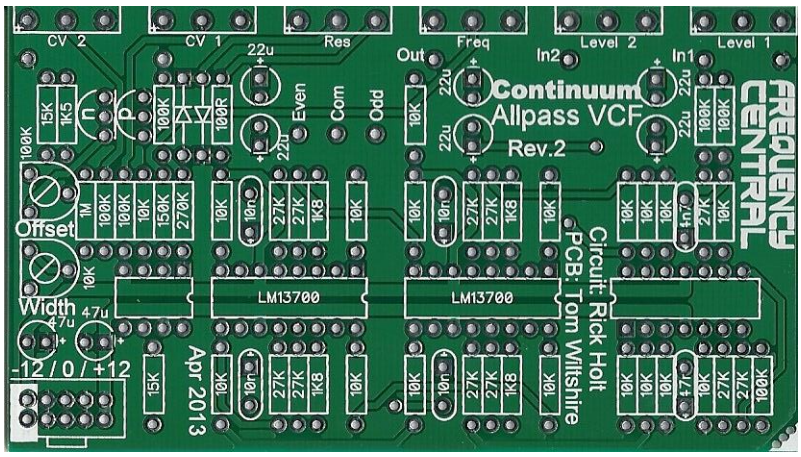
CONTINUUM PHASE SHIFTER

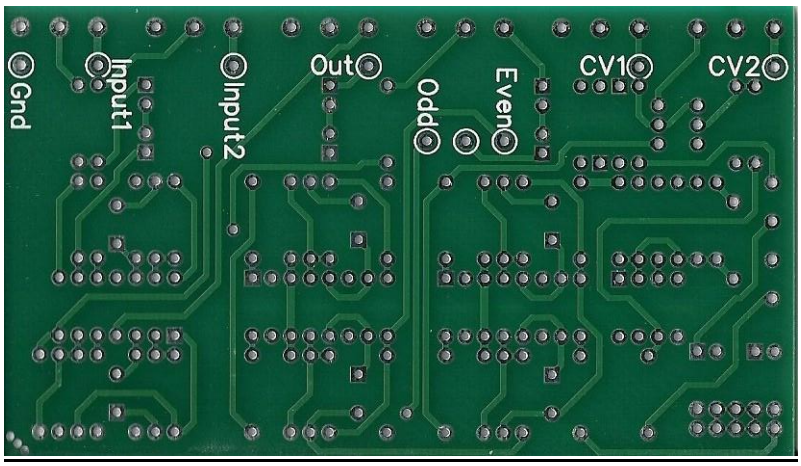
An original design by

FREQUENCY CENTRAL

Rev 2 / April 2013

B100K B100K A100K B100K A100K A100K





Key to PCB screen print:

n: This signifies NPN BC547 transistors. Note the correct pinout as shown by the half circles.
p: This signifies PNP BC557 transistors. Note the correct pinout as shown by the half circles.
Odd: Connects to Odd/Even SPDT lug 1.
Com: Connects to Odd/Even SDPT lug 2.
Even: Connects to Odd/Even SDPT lug 3.
Gnd: Ground

The screen print is missing the signifier for the single opamp on the left, this is a LF351.
The screen print is missing the signifier for the quad opamp on the right, this is a TL084.

Please observe that the TL084 is 'the other way round' with respect to the LF351 and 2 x LM13700.

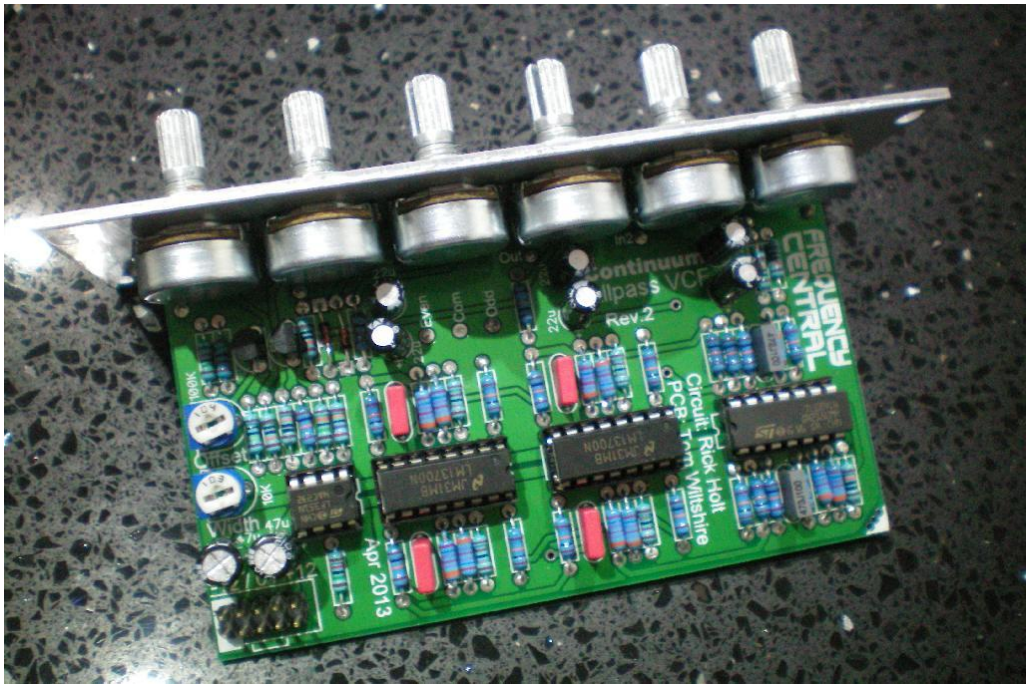
Please observe the correct polarity of the 2 diodes and 8 electrolytic capacitors. The 6 x 22uF are configured in sets of 2 back to back (negative to negative).

The PCB shows the correct orientation for BC547/BC557. Other transistor types can be used (eg 2N3904/2N3906), but please observe the correct pinout.

Trimmers: turn both fully anti-clockwise (that's how I like 'em), adjust to taste.

Bill of materials

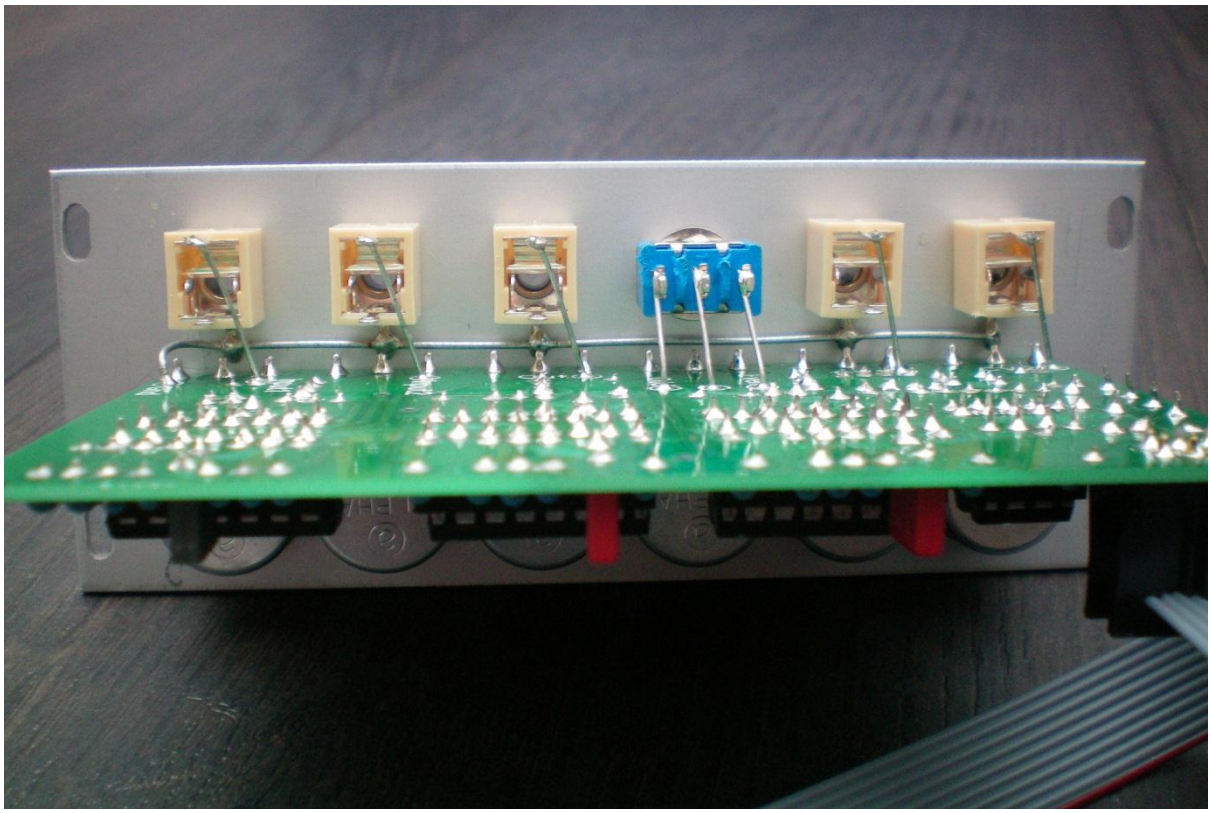
100R x 1 1K5 x x 1 1K8 x 4 10K x 18 15K x 2 27K x 11 100K x 6 150K x 1 270K x 1 1M x 1	4n7 x 1 10n x 4 47n x 1 22uF x 6 47uF x 2	LF351 x 1 LM13700 x 2 TL084 x 1 BC547 x 1 BC557 x 1 1N4148 x 2	A100K x 3 B100K x 3 All pots are 16mm Alpha. 10K trimmer x 1 100K trimmer x 1 All trimmers are 6mm (Tayda) SPDT x 1



Underside of the PCB showing:

- Ground bus between sockets and PCB
- Connections between inputs/output and PCB
- Connections between SDPT and PCB

I use solid core for all of the above.



RDH 16th May 2013

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