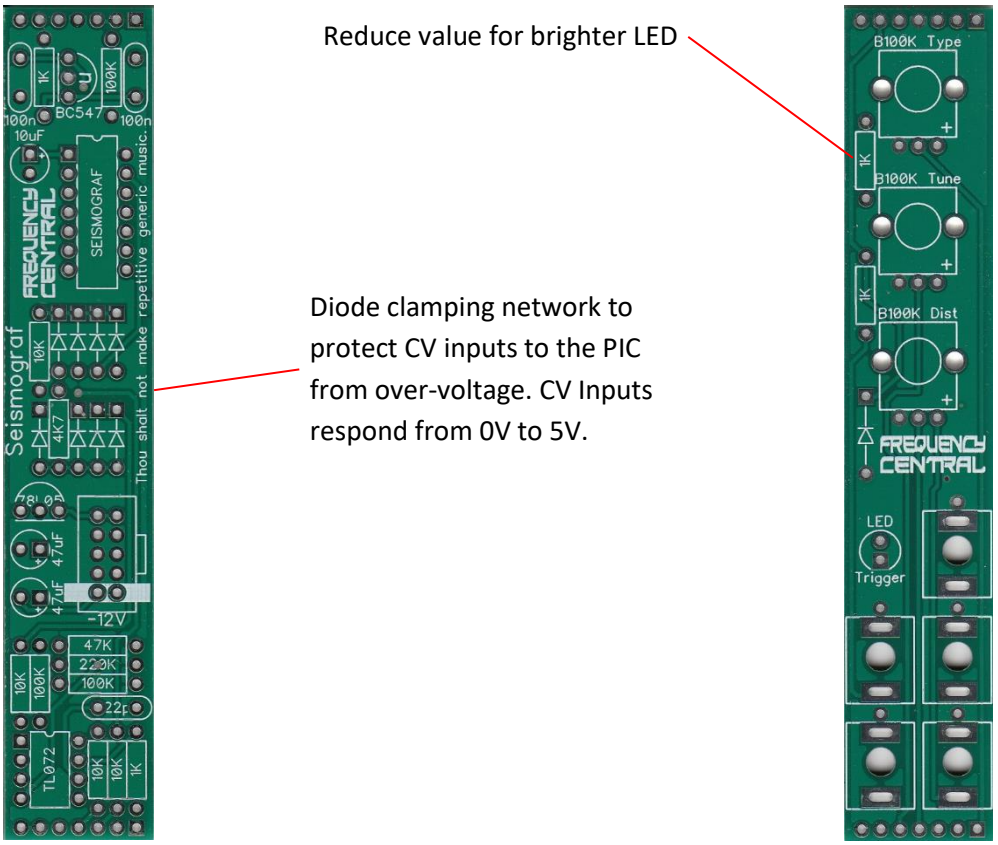
FREQUENCY CENTRAL

Build documentation for:

SEISMOGRAF

Featuring code by Jetroid

Main PCB **Control PCB**



Seismograf is a PIC based drum module featuring coding by Jetroid. There is currently a choice of two PICs which may be used with Seismograf, 'BD' and 'SD'. As you might expect, BD contains a range of 8 bass drums, while SD contains a range 8 of snare drums. The drum sounds are 10 bit encodings of some of our favourite electronic kits from yesteryear. It is not possible for the user to load their own sounds onto Seismograf PICs, but there is a chance that we may release alternative drum sets as the years roll (!) by.

Key to PCB screen print:

n: This signifies NPN BC547 transistors. Note the correct pinout as shown by the half circles.

The PCB shows the correct orientation for BC547. Other similar transistor types can be used, but please observe the correct pinout.

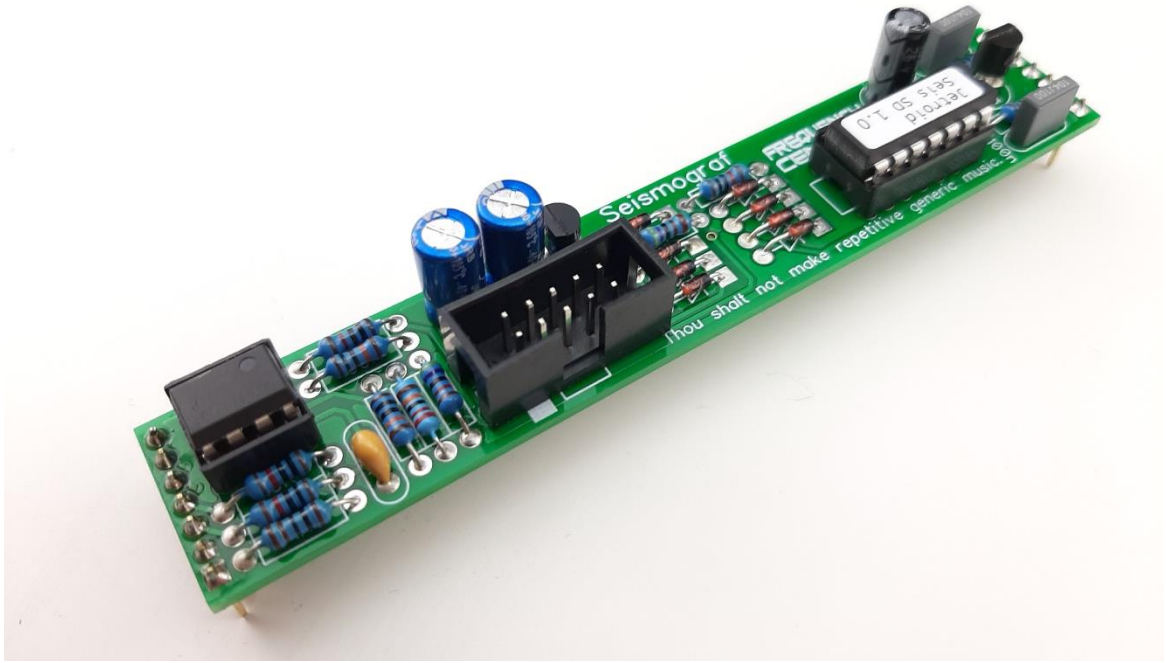
Please observe the correct polarity of the diodes and electrolytic capacitors.

Bill of Materials

1K x 4 4K7 x 1 10K x 4 47K x 1 100K x 3 220K x 1 All resistors ¼ watt metal film.	22pF x 1 100nF x 2 10uF x 1 47uF x 2	SEISMOGRAF PIC TL072 x 1 BC547 x 1 1N4148 x 9 78L05 x 1 3mm red LED x 1 14 pin IC socket x 1 8 pin IC socket x 1	B100K x 3 3.5mm socket x 5 Male header x 1 (cut to size) Female header x 1 (cut to size) Power header x 1 Knob x 3

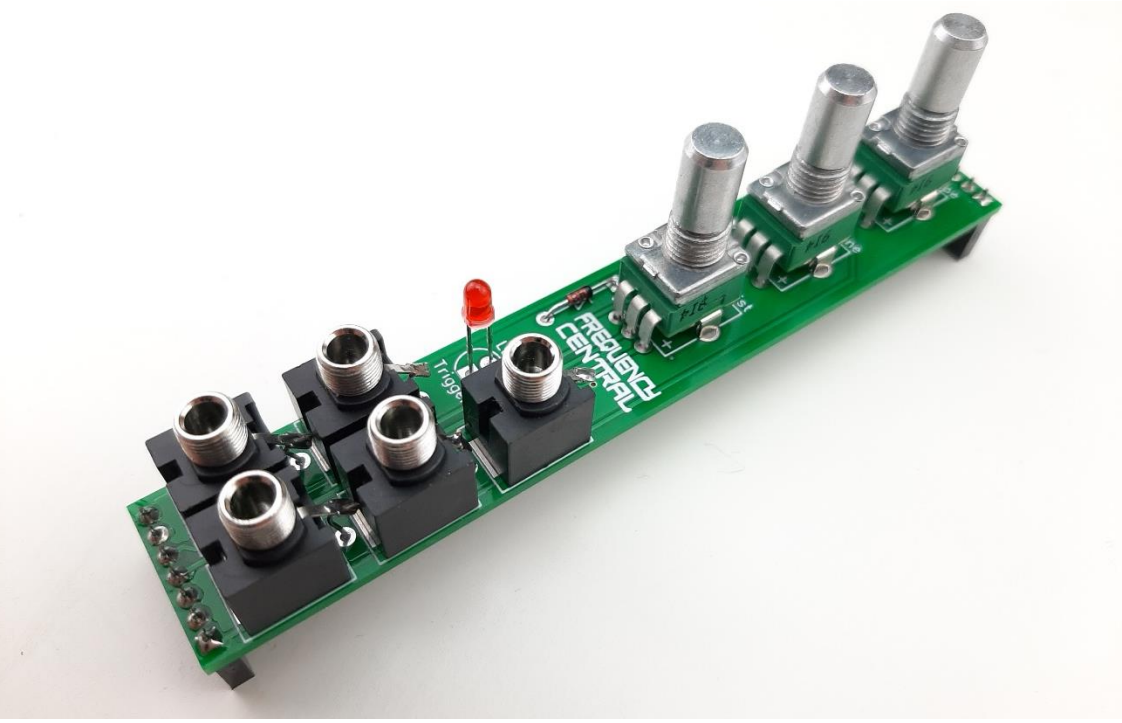
Main PCB assembly

1. Solder the diode and all resistors
2. Solder all two IC sockets
3. Solder the non elecrolytic capacitors
4. Solder the 78L05 – watch the polarity!
5. Solder the box power header. Make sure the notch lines up with the screenprint legend. If in doubt, have a look at a power cable, and make sure when inserted into the header the red stripe lines up with the -12V screenprint.
6. Solder all electrolytic capacitors.
7. Cut male headers to size and solder them into place. Make sure that they stick out of the bottom of the PCB.



Control PCB

1. Solder the 3 potentiometers, use the panel to make everything line up nicely.
2. Place all sockets on the PCB, making sure the ground tabs line up with the PCB's ground pads, then place the panel over them. This will assure that the sockets are correctly positioned. Flip the whole lot over and solder the sockets into place. Use cut off resistor legs to connect the sockets' ground tabs line up with the PCB's ground pads.
3. Cut female headers to size and solder them into place. Make sure that they stick out of the bottom of the PCB.
4. Place the LED in position into the PCB. Present the panel to the PCB, flip the whole lot over, make sure the LEDs stick though the holes in the panel, solder in place.



All done! Go bang your drum!

You can use a Sharpie to write 'BD' or 'SD' on the white rectangle on the Seismograf panel. You can easily remove the ink with nail varnish remover without harming the panel graphics.

RDH 11/01/20

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