

FREQUENCY CENTRAL

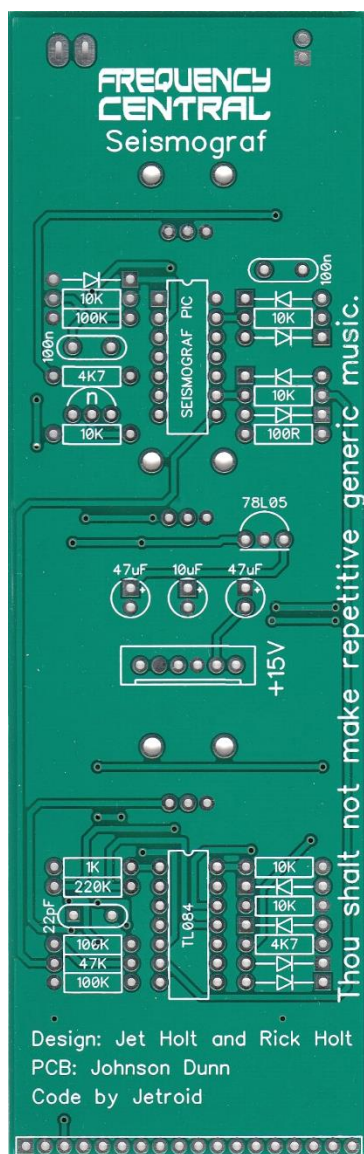
Build documentation for:

SEISMOGRAF

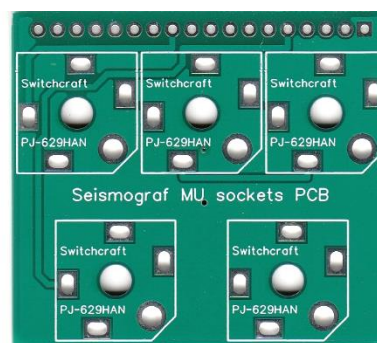
Seismograf is a PIC based drum module featuring coding by Jetroid. There is currently a choice of two PICs which may be used with Seismograf, 'BD' and 'SD'. As you might expect, BD contains a range of 8 bass drums, while SD contains a range 8 of snare drums. The drum sounds are 10 bit encodings of some 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.

Seismograf features 2 PCBs:

Main PCB



Sockets PCB



Key to PCB screen print:

n: This signifies NPN BC547 transistor. Note the correct pinout as shown by the half circles. The PCB shows the correct orientation for BC547. Other transistor types can be used (eg 2N3904), but please observe the correct pinout.

Please observe correct polarity of the electrolytic caps, voltage regulators, transistor, ICs etc!

Bill of Materials

100R x 1 1K x 1 4K7 x 2 10K x 6 47K x 1 100K x 3 220K x 1 <u>All resistors ¼ watt metal film.</u>	<u>22pF x 1</u> <u>100nF x 2</u> <u>10uF x 1</u> <u>47uF x 2</u>	SEISMOGRAF PIC <u>TL084 x 1</u> <u>BC547 x 1</u> <u>78L05 x 1</u> <u>1N4148 x 8</u> <u>5mm red LED x 1</u> <u>14 pin IC socket x 2</u>	<u>B100K x 3</u> <u>Push Button x 1</u> <u>6.3mm socket x 5</u> <u>Male 40 pin header x 1</u> <u>Female 40 pin header x 1</u> DOTCOM 6 pin header
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Main PCB:

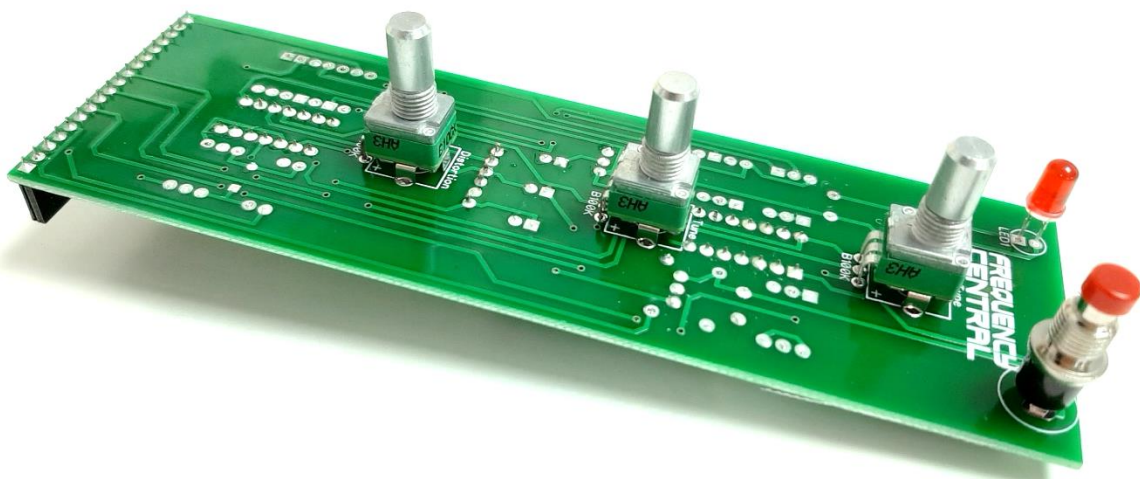
Populate the Main PCB front first, as shown on the silkscreen, starting with the lowest profile components, so:

- Resistors, diodes
- IC sockets
- Non-electrolytic capacitors, transistor and voltage regulator
- Header for Sockets PCB (cut to size)
- Power header
- Electrolytic capacitors

Now populate the rear of the Main PCB:

- Panel mount components (pots, pushbutton, LED) – it can be useful to use the panel to make sure of nice fit.

Mount the PCB to the panel with the various washers and nuts.



Sockets PCB

- Place all sockets on the PCB, 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.
- Cut the male header to size and place the long end into the female header of the Main PCB
- Present the populated sockets PCB to the panel, making sure the male header passes through the PCB pads.
- Make sure everything fit's nice and snug and solder the header into place.

.....you're done!



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