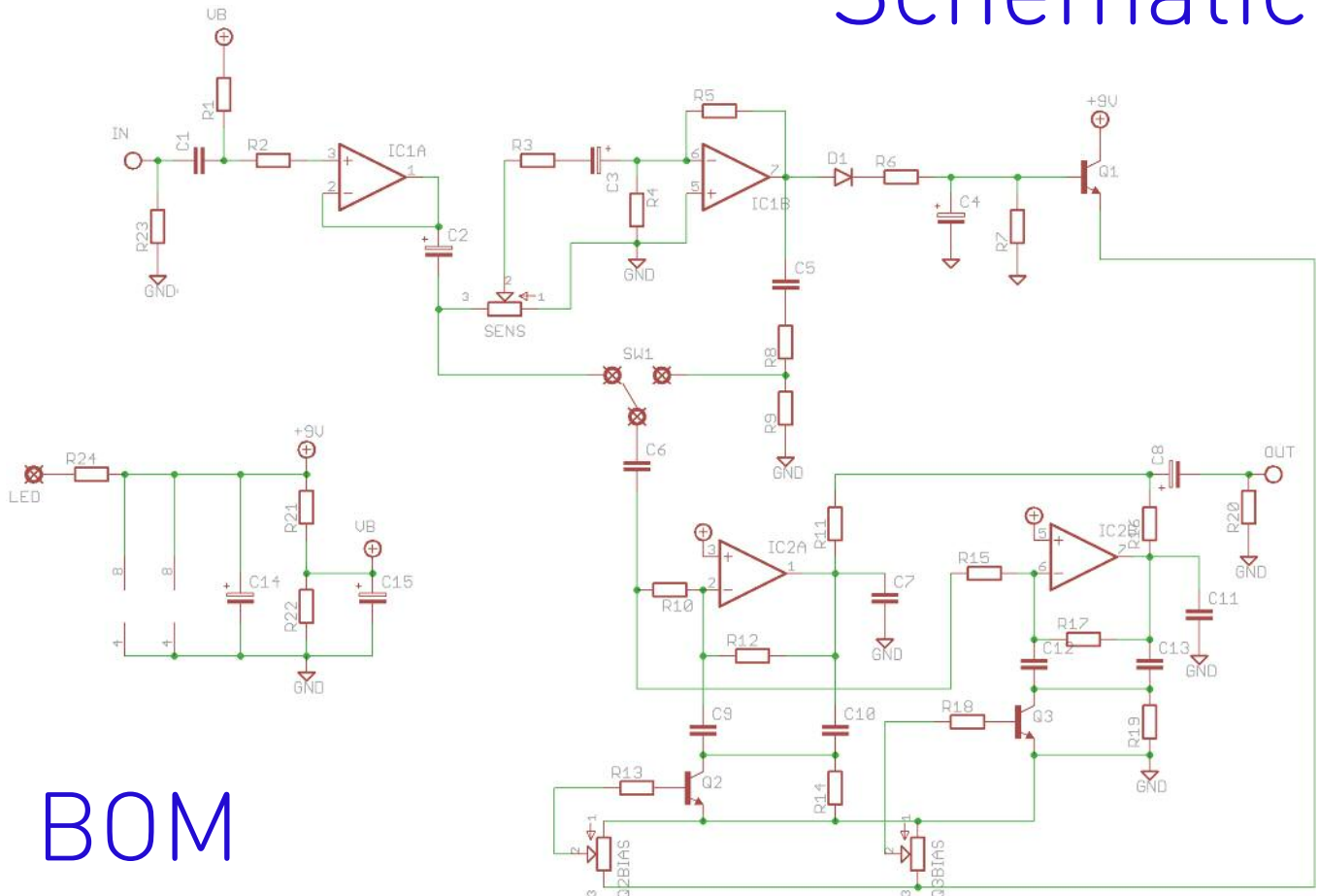


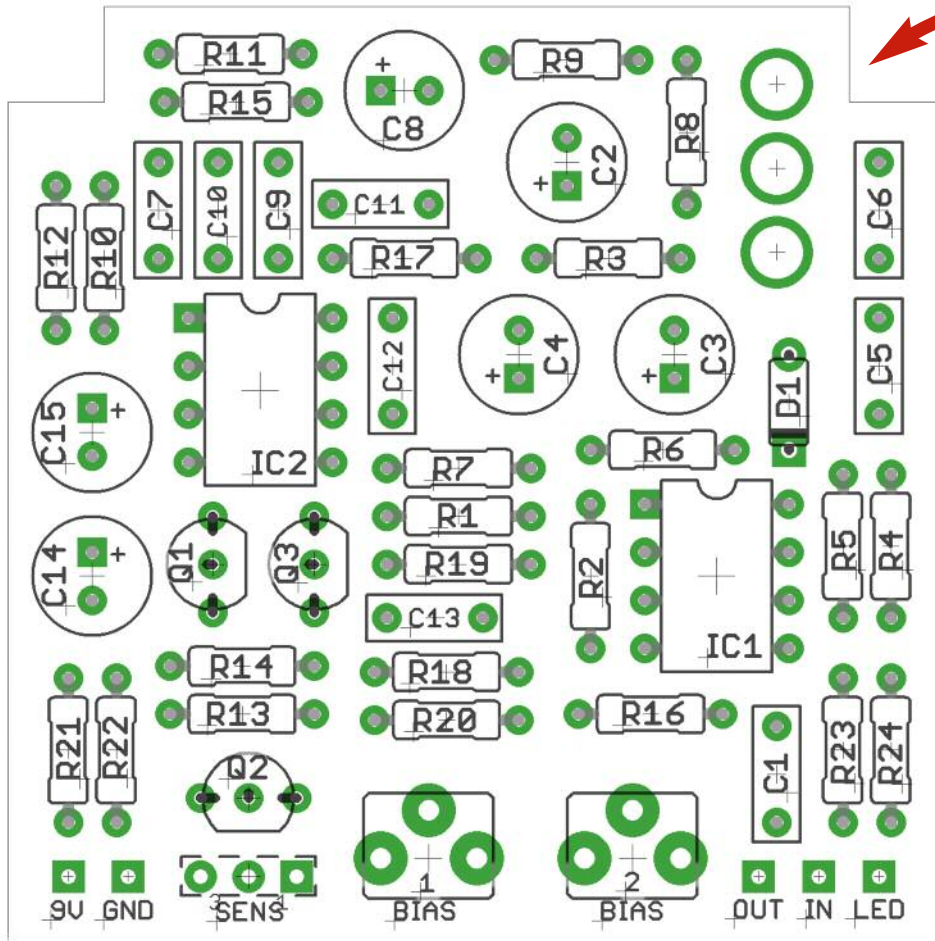
Schematic



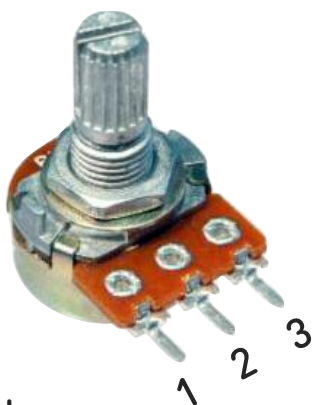
BOM

| | | | |
|-----|------|-------|-------------------|
| R1 | 220K | | |
| R2 | 2K7 | | |
| R3 | 4K7 | | |
| R4 | 2M2 | | |
| R5 | 220K | | |
| R6 | 100R | R21 | 47K |
| R7 | 330K | R22 | 47K |
| R8 | 100K | R23 | 1M |
| R9 | 47K | R24 | 2K2 (CLR) |
| R10 | 470K | | |
| R11 | 2K7 | D1 | 1N4148 |
| R12 | 470K | Q1-3 | 2N5088 |
| R13 | 22K | IC1 | 1458 |
| R14 | 47K | IC2 | 4558 |
| R15 | 470K | | |
| R16 | 2K7 | | |
| R17 | 470K | | |
| R18 | 22K | SENS | 10KB |
| R19 | 47K | BIAS1 | 10K TRIM |
| R20 | 47K | BIAS2 | 10K TRIM* |
| | | C1 | 47n |
| | | C2 | 10u electrolytic |
| | | C3 | .47u electrolytic |
| | | C4 | 4u7 electrolytic |
| | | C5 | 47n |
| | | C6 | 47n |
| | | C7 | 560p |
| | | C8 | 1u electrolytic |
| | | C9 | 22n |
| | | C10 | 22n |
| | | C11 | 560p |
| | | C12 | 4n7 |
| | | C13 | 4n7 |
| | | C14 | 10u electrolytic |
| | | C15 | 10u electrolytic |

*Can be external pot. See note later.



The toggle switch mounts on the back side of the PCB. When attached to the enclosure this holds the PCB firmly in place.

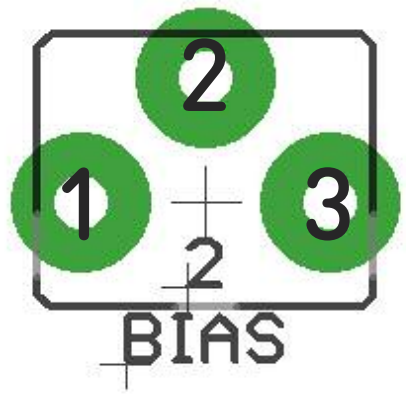


Snap the little metal tag off the pot to mount it flush in the box.

You should use some kind of heat sink on the legs of the diodes and transistors when soldering. They aren't keen on heat. Any more than 3-4 seconds of iron and they're toast.

I've incorporated the Current Limiting Resistor for the LED into the board for your pleasure.

You can use an external pot on 2BIAS if you want to control the filter frequency range. Just attach wires to the pads as shown:

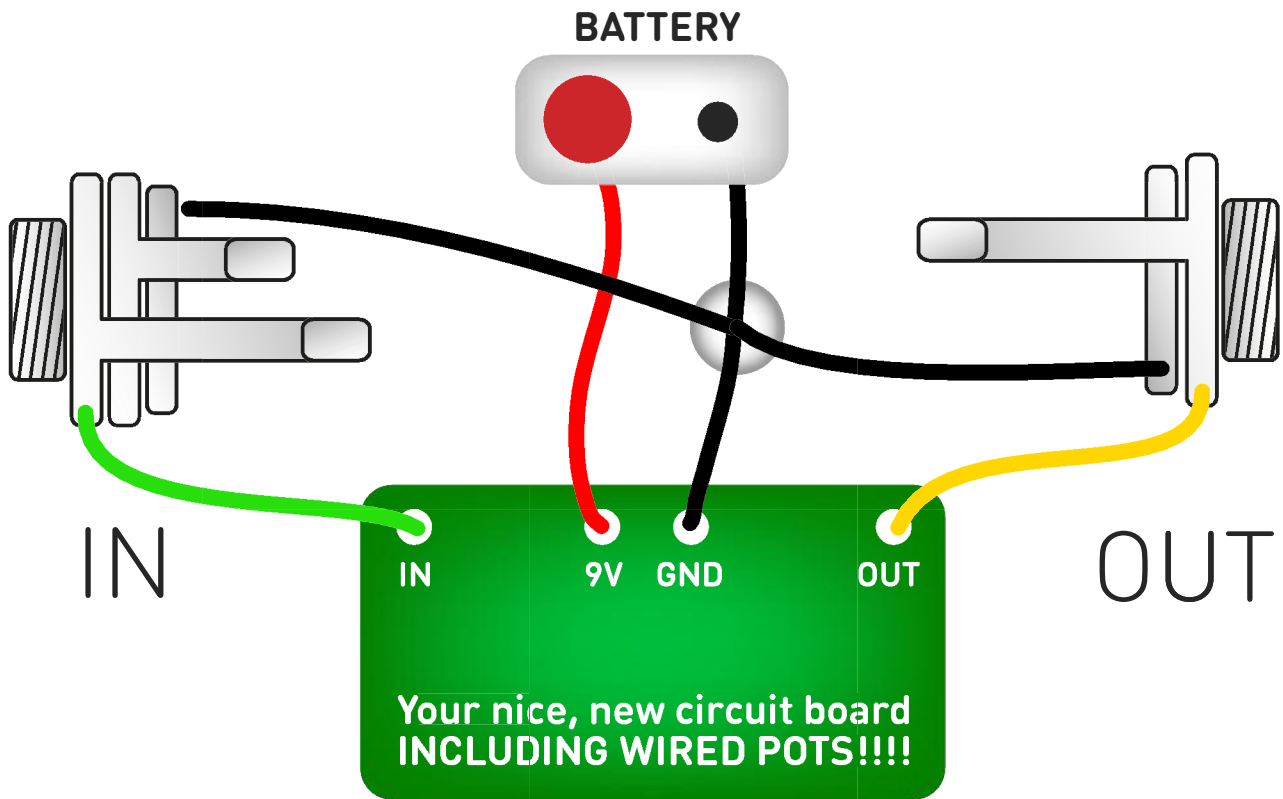


Biasing:

Adjust 1BIAS until you get a good response to picked notes.

Adjust 2BIAS to get your required frequency range.

Test the board!

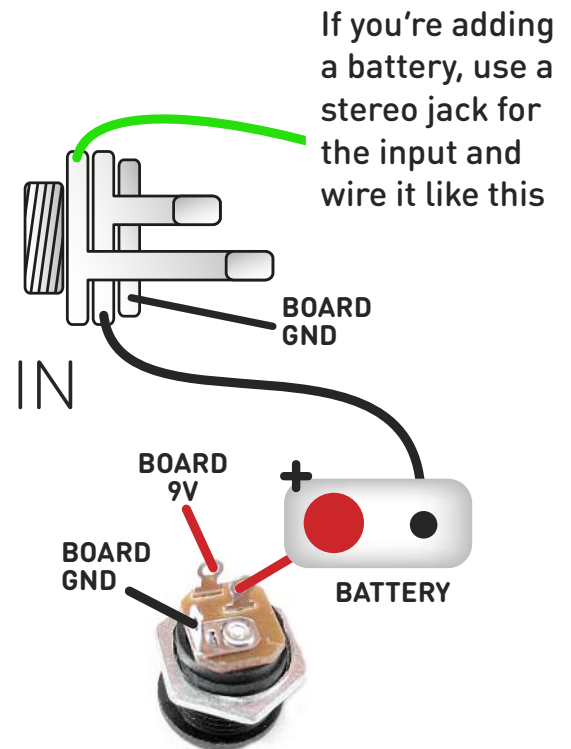
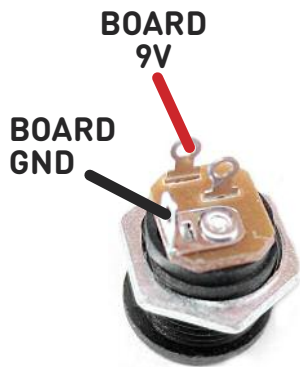
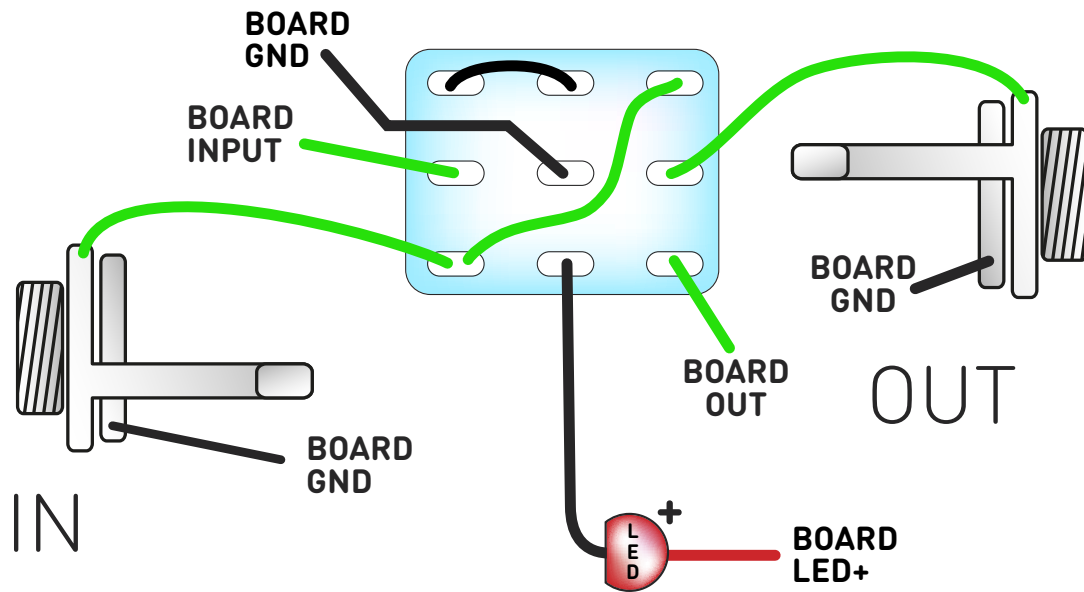


Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If it works, crack on and do your switch wiring. If not... aw man. At least you know the problem is with the circuit. Find out why, get it working, THEN worry about the switch etc.

Wire it up



The Board GND connections don't all have to directly attach to the board. You can run a couple of wires from the DC connector, one to the board, another to the IN jack, then daisy chain that over to the OUT jack.

It doesn't matter how they all connect, as long as they do.

This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal. Now... get cho funk on!

PedalParts.co.uk