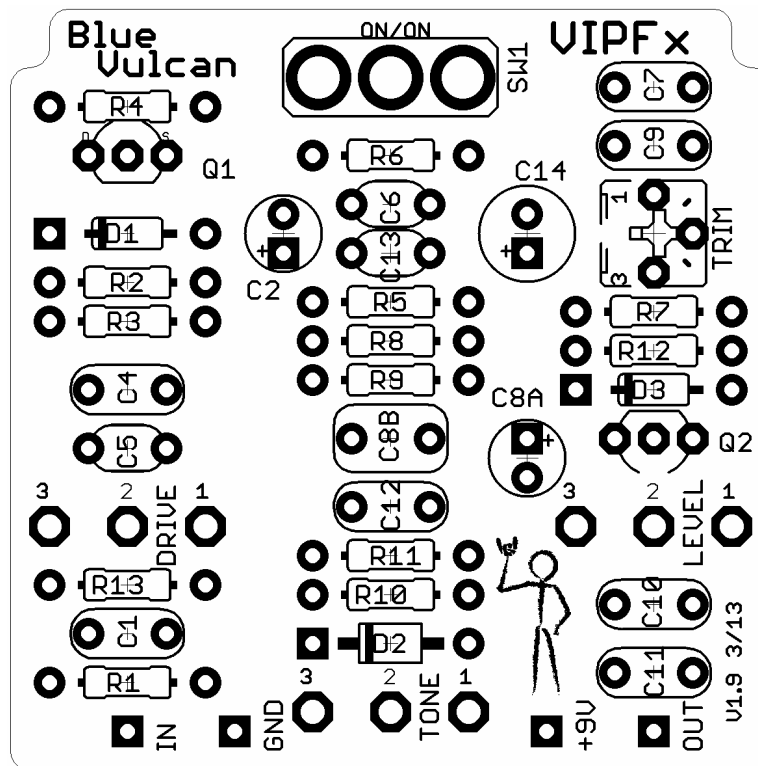


Blue Vulcan

Overdrive

The Blue Vulcan is a hybrid design that blends both the Blue Magic and JFET Vulcan designs with the intent of finding more grit and drive. The hybrid design was suggested on DIY Stompboxes back in 2006 but never seemed to take off.



Parts Guide

Resistors: 1/4 watt metal film

Film Caps: The board is laid out for Panasonic ECQ-V caps, but any standard 5mm caps will fit.

Eletrolytic Caps: 16v or better

pF Caps: Ceramic or other 5mm caps.

Pots: Layout is for Alpha PCB mount pots, RV16AF-41-15R1-Value, but any pots will work.

BOM

Resistors		Caps		Diodes	
R1	1M5	C1	1n	D1	12v
R2	4M7	C2	2u2	D2	1N5817
R3	2M2	C4	22n	D3	1N914
R4	4k7	C5	470p		
R5	1k	C6	470p	Transistors	
R6	470k	C7	22n	Q1	BS170
R7	68k	C8A	1uF	Q2	J201
R8	1M5	C8B	100n		
R9	33k	C9	1n	Switch	
R10	6k8	C10	15n	SPDT	On-On
R11	12k	C11	1n		
R12	10M	C12	2n2	Pots	
R13	100R	C13	1n	DRIVE	500kB
		C14	100uF	LEVEL	100kA
				TONE	50kB
				TRIM	100k

Notes**Biasing**

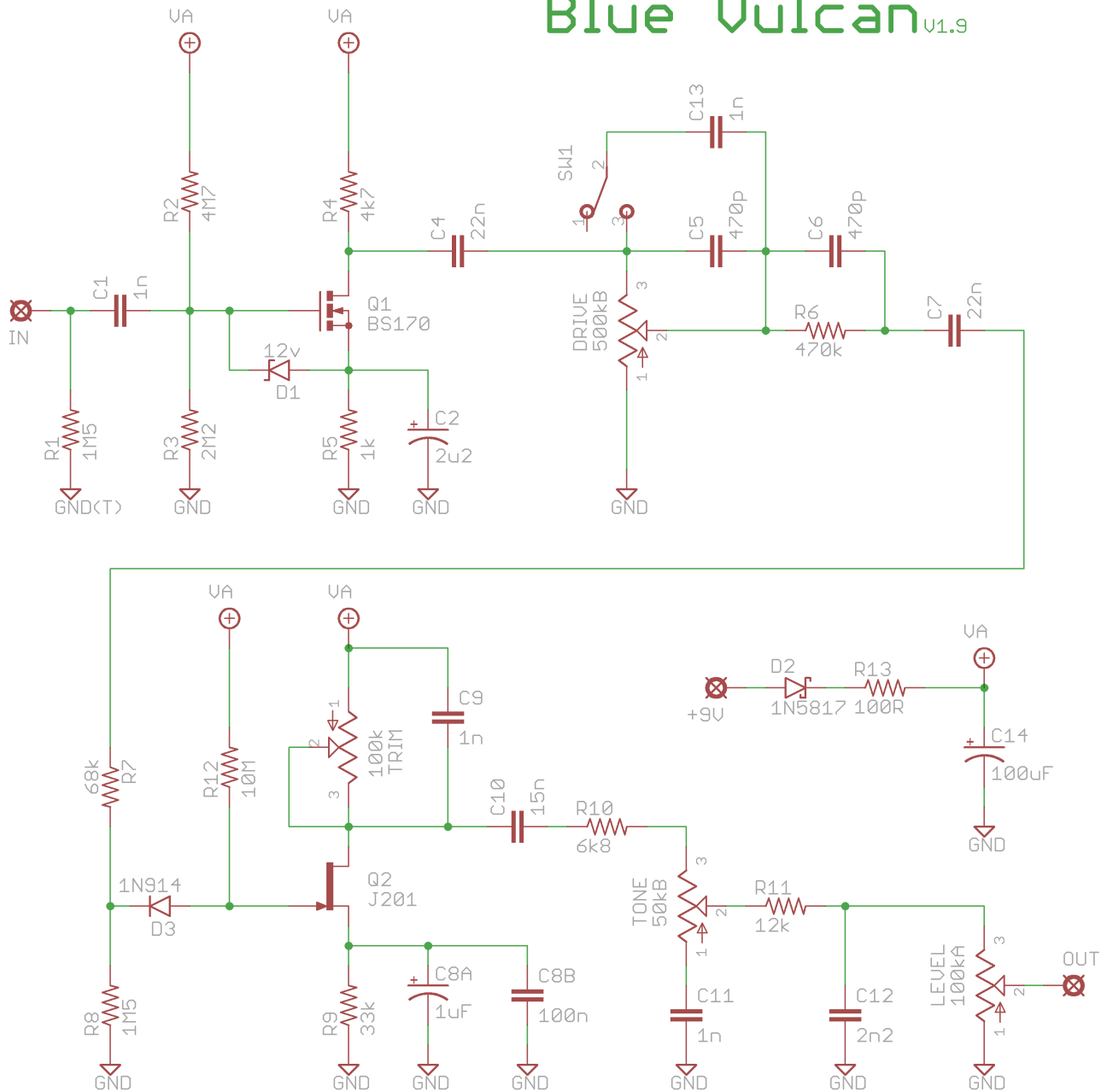
Adjust the trimmer so that the voltage at the drain of the J201 is at about 4.5 volts. Some prefer the voltage higher so experiment from there to see what sounds best.

Modifications

One comment that was pretty widespread was that the Mids Boost switch did not make a significant difference in the tone of the circuit. The simple solution is to increase the value of C13 to between 1n and 1n5. A socket may be a good choice for that position.

Schematic

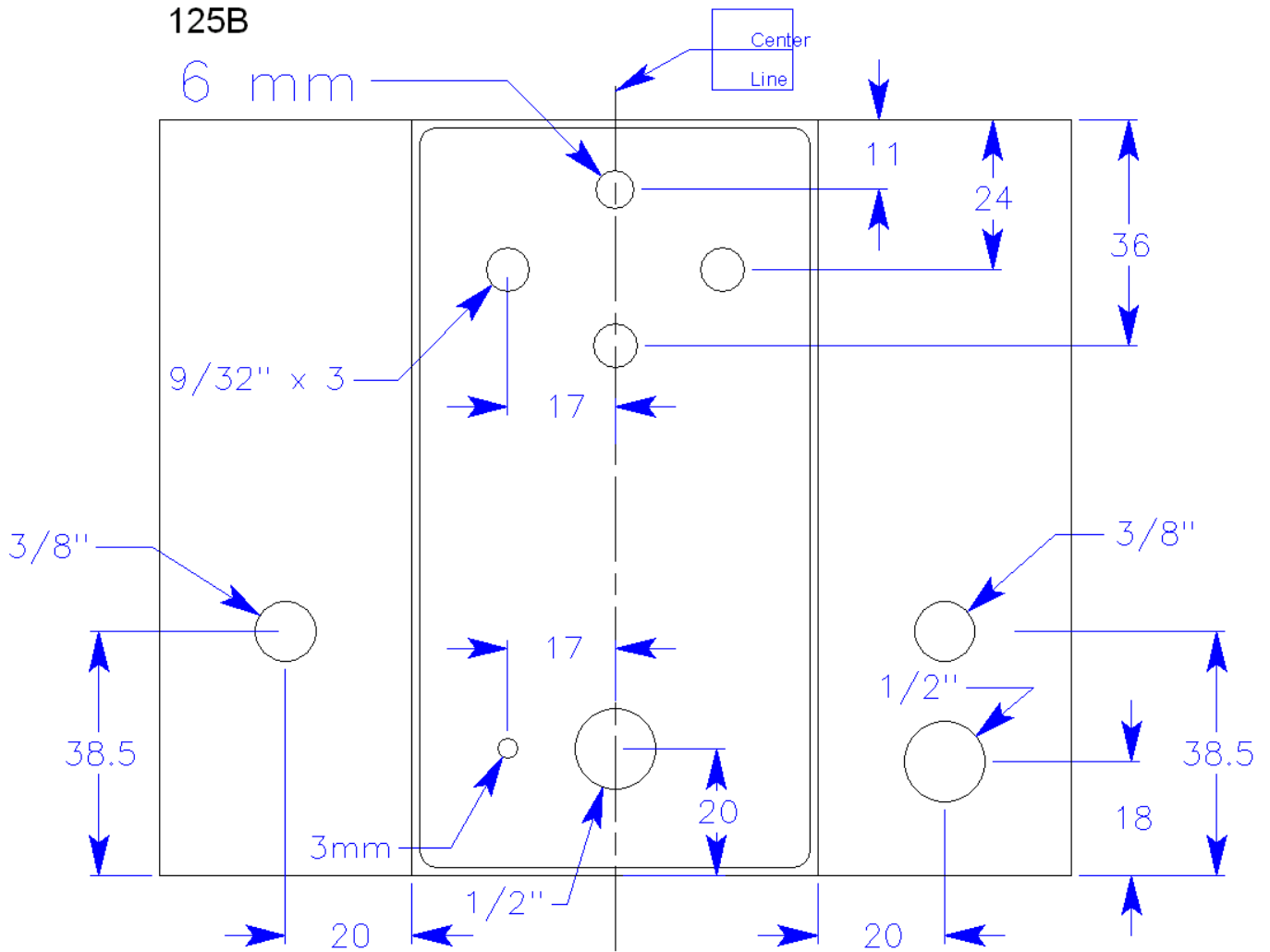
Blue Vulcan_{V1.9}



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Drill Template

This is the drill template I used to order my box from Pedal Parts Plus. The box I specified was their standard 125B, code 1400.



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