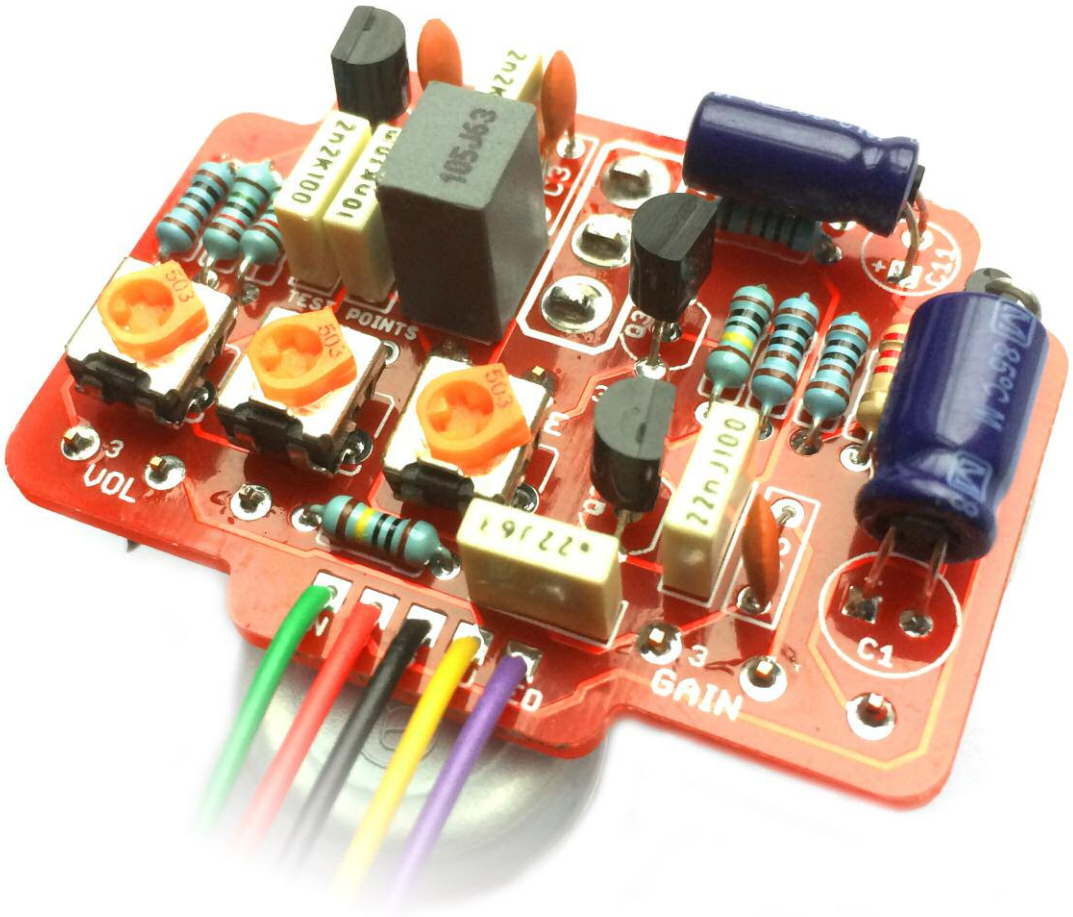
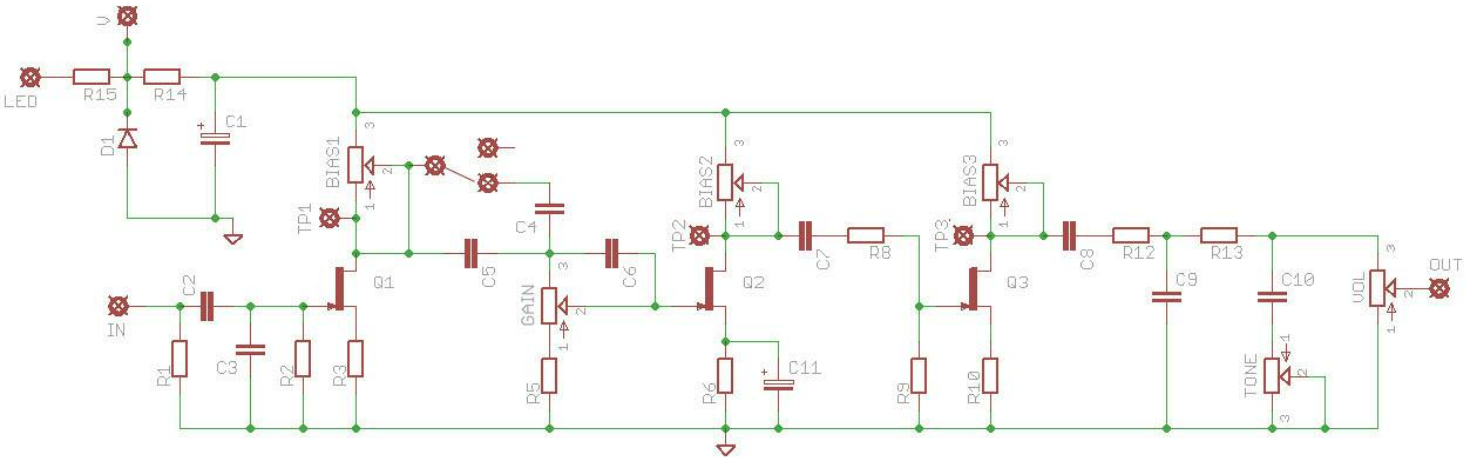


Pixel Drive

Most excellent full range Marshall amp-style oomph

Schematic and BOM

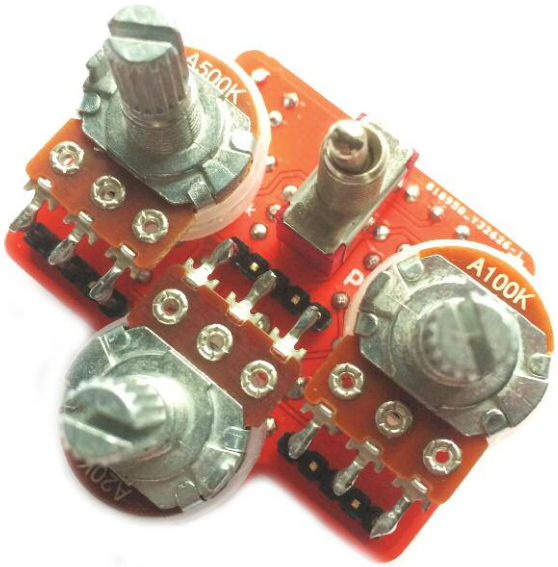


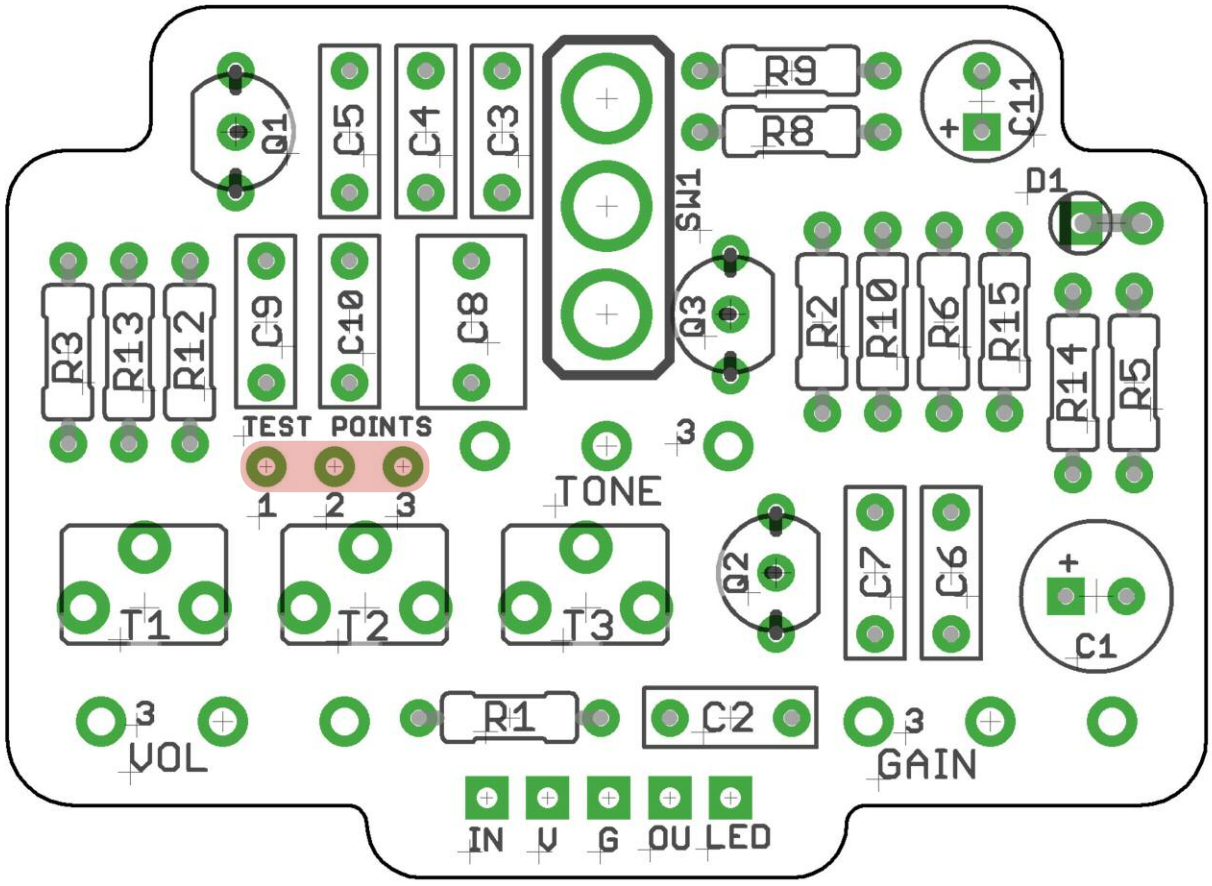
R1	1M	**C1**	100u	**D1**	1N4001
R2	1M	**C2**	220n		
R3	1K	**C3**	47p	**Q1-3**	J201*
R5	1K	**C4**	2n2		
R6	1K	**C5**	470p	**GAIN**	500KA
R8	10K	**C6**	220p	**TONE**	25KA
R9	100K	**C7**	22n	**VOL**	100KA
R10	1K	**C8**	1u		
R12	15K	**C9**	2n2	**T1-3**	47K Trim**
R13	15K	**C10**	10n		
R14	10R	**C11**	47u	**SW**	SPDT ON-ON
R15	2K2 (CLR)				

* You could try other FETs with a similar spec, but the original uses J201.

** You'll likely only need 22K trims, but better to use bigger than necessary in case your J201 is way off the biasing mark.

The trimmers are spaced quite tightly, so ensure you get some that'll fit.





The power and signal pads on the PCB conform to the FuzzDog Direct Connection format, so can be paired with the appropriate daughterboard for quick and easy offboard wiring.

Snap the small metal tag off the pots so they can be mounted flush in the box.

Pot mounts on the back side of the board, along with the toggle switch. You can use a vertical-mount pot or just wire up 'normal' ones.

The striped leg (cathode) of the diode goes into the square pad.

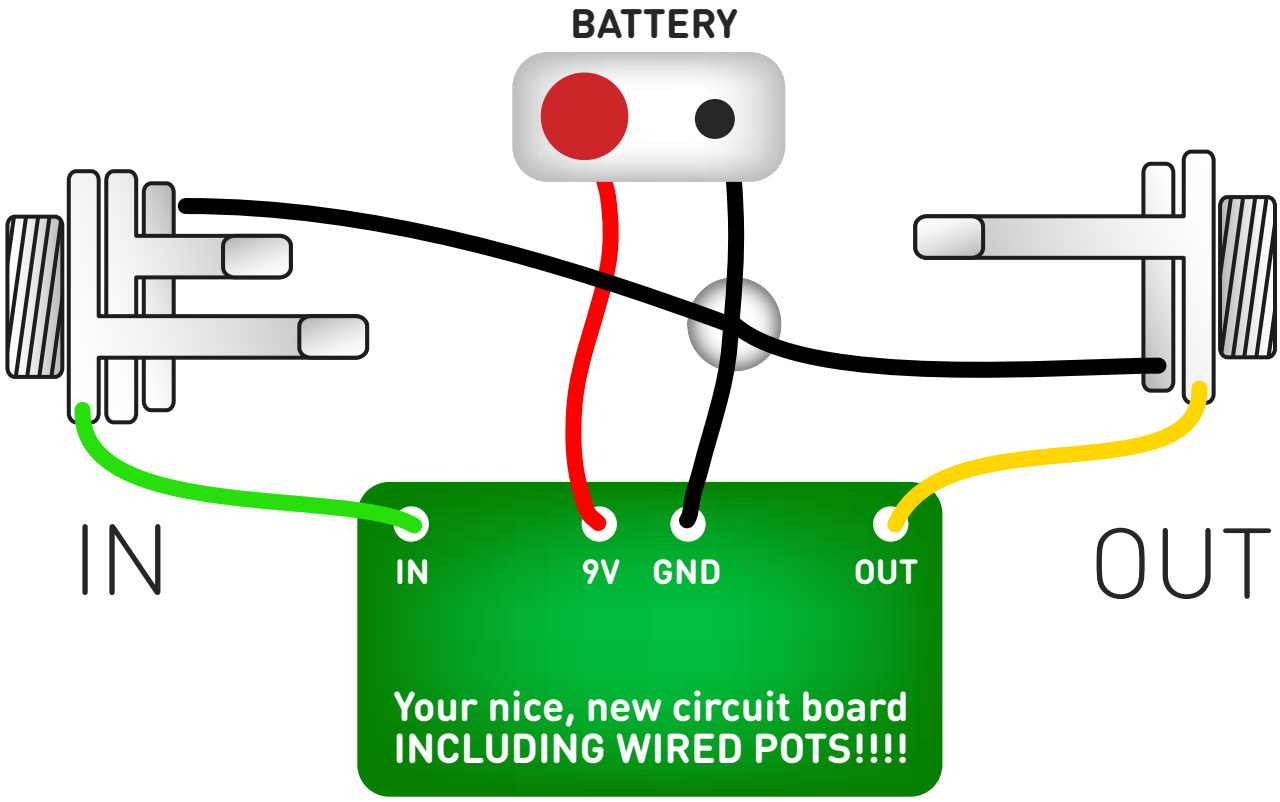
The long leg (anode) of the electrolytic capacitors go into the square pads.

BIASING

Once built, wire it up as per the test wiring on the next page, then adjust the trimmers to bias the FETs. T1 adjusts Q1, T2 adjusts Q2. Guess what T3 adjusts?...

Set your multimeter (you do have one, right?) to DC Voltage, small range around 20V. Black lead attaches to any GND point, red lead on the Test Point of each FET (marked in red above). You're looking to get a reading of around 4.5V on each.

Test the board!



UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

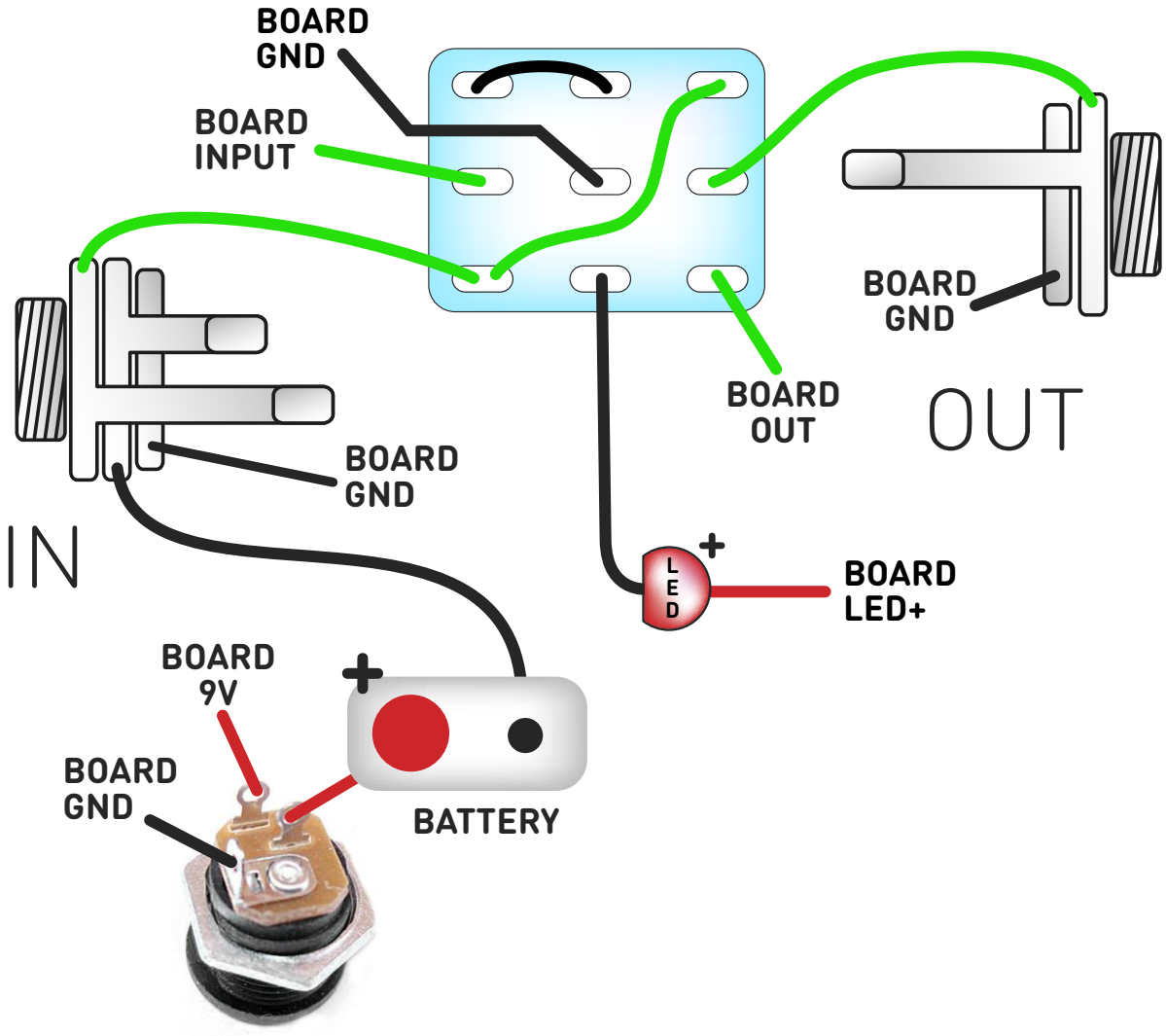
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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

(if using a daughterboard please refer to the relevant document)



Wiring shown above will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

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.

Drilling template

Pixel Drive

Hammond 1590B

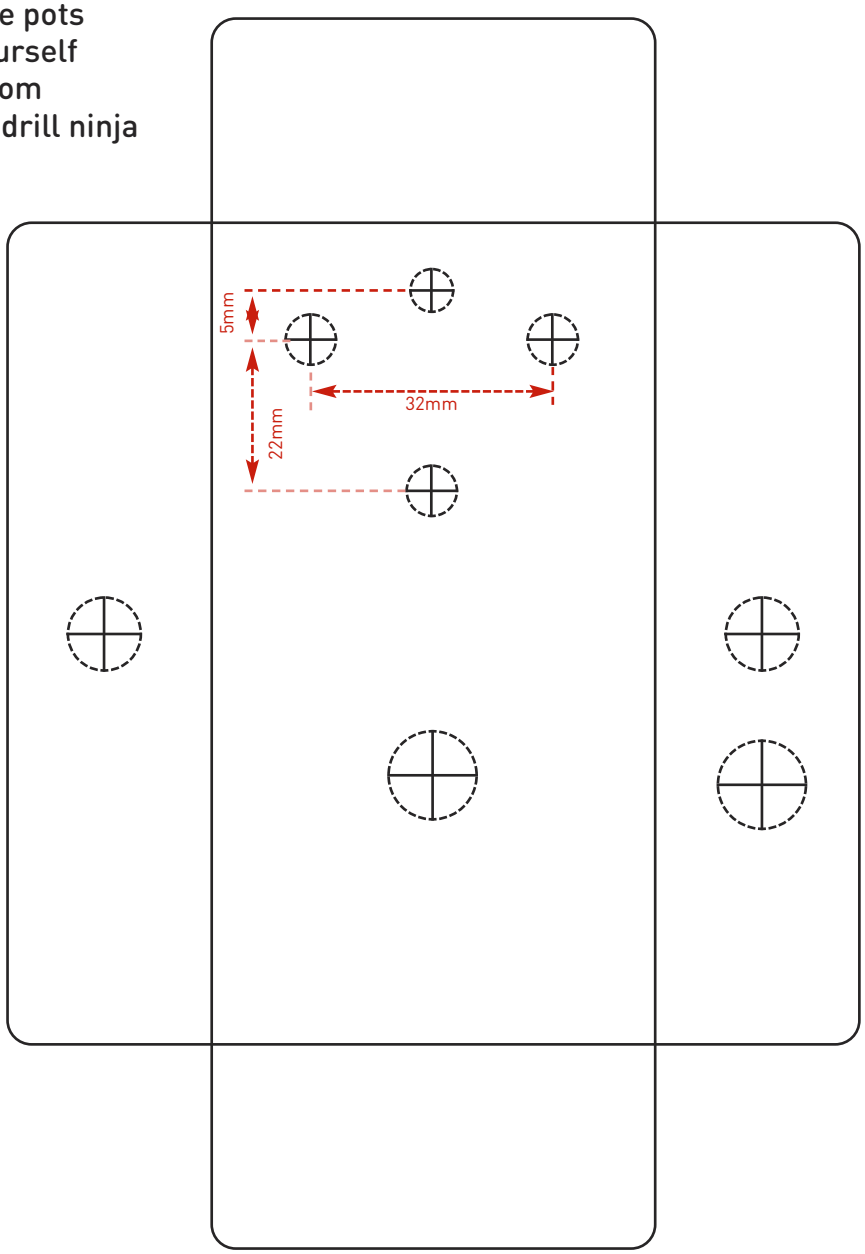
60 x 111 x 31mm

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm
Toggle Switch	6-7mm

It's a good idea to drill the holes for the pots 8mm to give yourself some wiggle room unless you're a drill ninja

Switch hole can be in line with the top pots or a little further down if you prefer.



This template is a rough guide only. You should ensure correct marking of your enclosure before drilling. You use this template at your own risk.
Pedal Parts Ltd can accept no responsibility for incorrect drilling of enclosures.

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