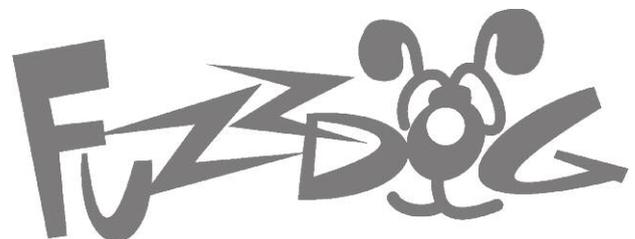


Juicy Blue Drive v2

Seriously nice bass dirt



Important notes

If you're using any of our footswitch daughterboards, DOWNLOAD THE DAUGHTERBOARD DOCUMENT

- Download and read the appropriate build document for the daughterboard as well as this one BEFORE you start.
- DO NOT solder the supplied Current Limiting Resistor (CLR) to the main circuit board even if there is a place for it. This should be soldered to the footswitch daughterboard.

POWER SUPPLY

Unless otherwise stated in this document this circuit is designed to be powered with 9V DC.

COMPONENT SPECS

Unless otherwise stated in this document:

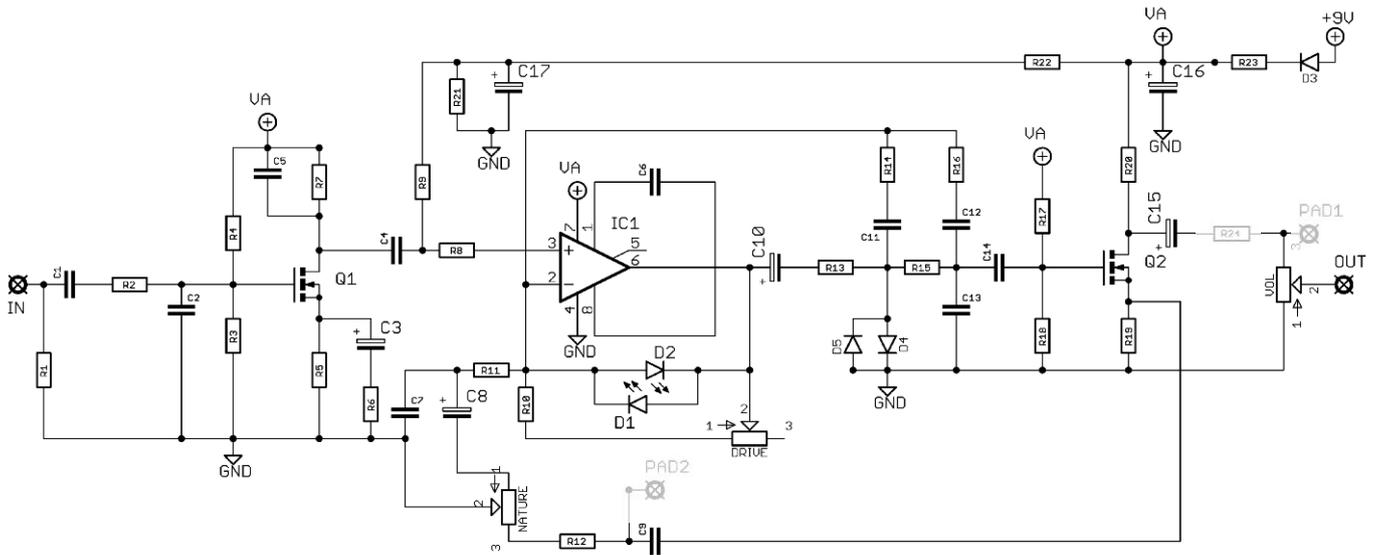
- Resistors should be 0.25W. You can use those with higher ratings but check the physical size of them.
- Electrolytics caps should be at least 25V for 9V circuits, 35V for 18V circuits. Again, check physical size if using higher ratings.

LAYOUT CONVENTIONS

Unless otherwise stated in this document, the following are used:

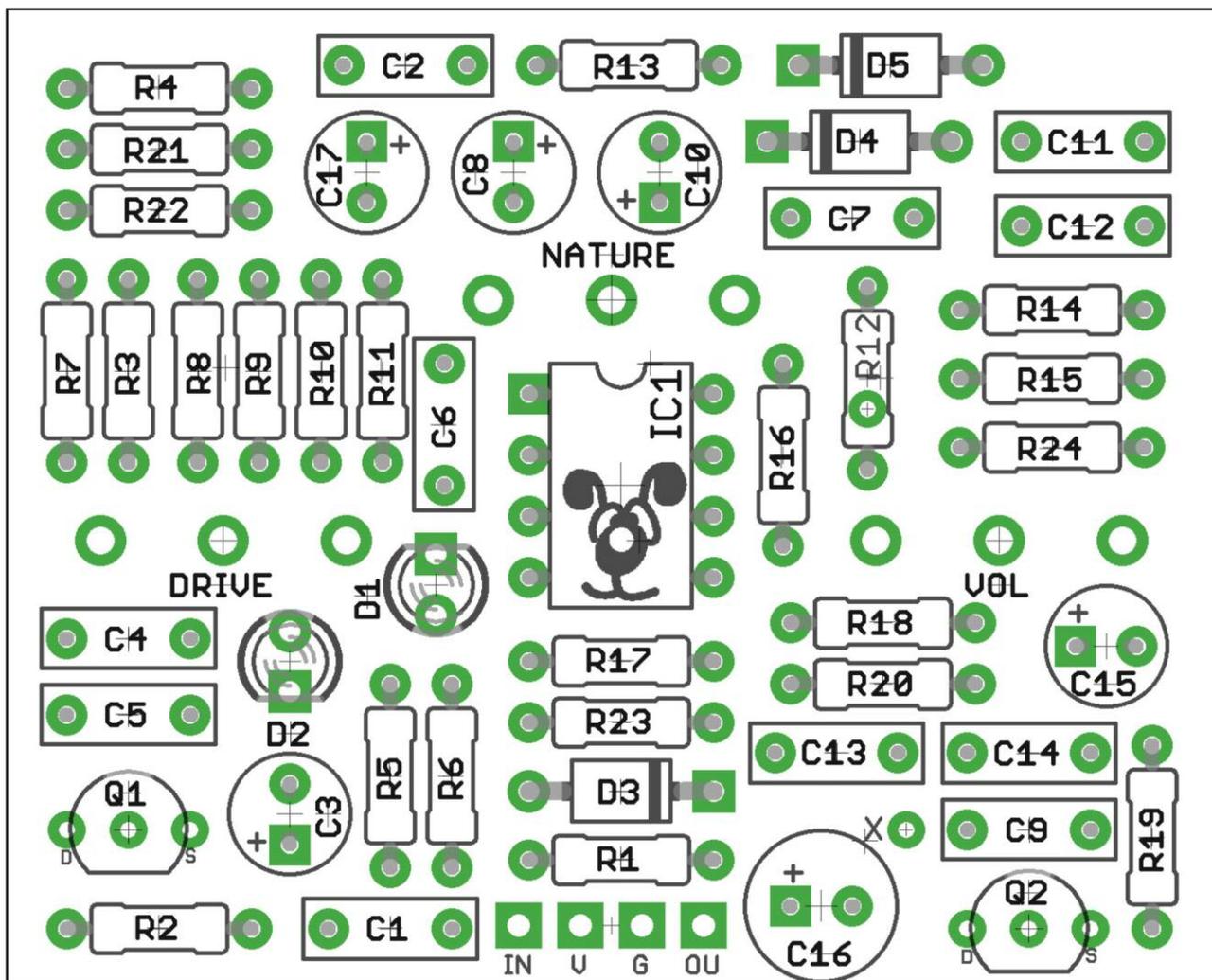
- **Electrolytic capacitors:**
Long leg (anode) to square pad.
- **Diodes:**
Striped leg (cathode) to square pad.
- **ICs:**
Square pad indicates pin 1.

Schematic + BOM (standard version)



R1	1M	C1	47n	Q1-2	BF244A
R2	15K	C2	47p	IC1	CA3130
R3	1M	C3	4u7 elec	D1-2	3mmRed LED
R4	10M	C4	47n	D3-5	1N4007
R5	15K	C5	470p	DRIVE	1MA
R6	10K	C6	100p	VOL	50KB
R7	30K	C7	220n	NATURE	50KA
R8	15K	C8	10u elec		
R9	360K	C9	220n		
R10	2K	C10	1u elec		
R11	1K	C11	22n		
R12	1K5	C12	4n7		
R13	1K	C13	22n		
R14	27K	C14	47n		
R15	10K	C15	1u elec		
R16	150K	C16	100u elec		
R17	10M	C17	22u elec		
R18	1M				
R19	2K7				
R20	5K6				
R21	47K				
R22	47K				
R23	47R				
R24	jumper				

There are a couple of extra pads on the PCB - one on R12, another marked X next to C9. Ignore these if you're building the standard version of the circuit.



PCB layout ©2018 Pedal Parts Ltd.

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. Check the separate daughterboard document for details.

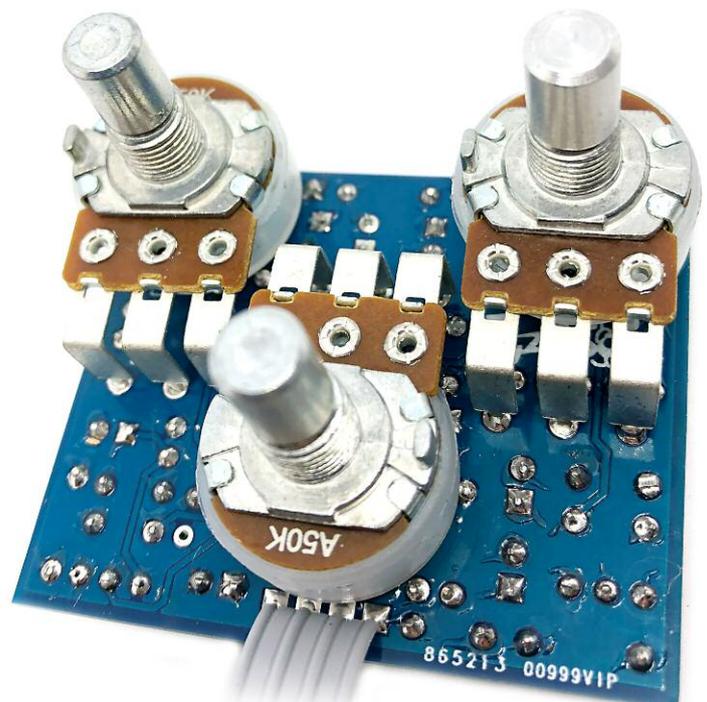
Be very careful when soldering the diodes, LEDs and transistors. They're very sensitive to heat. You should use some kind of heat sink (crocodile clip or reverse action tweezers) on each leg as you solder them. Keep exposure to heat to a minimum (under 2 seconds). Same goes for the IC if you aren't using a socket.

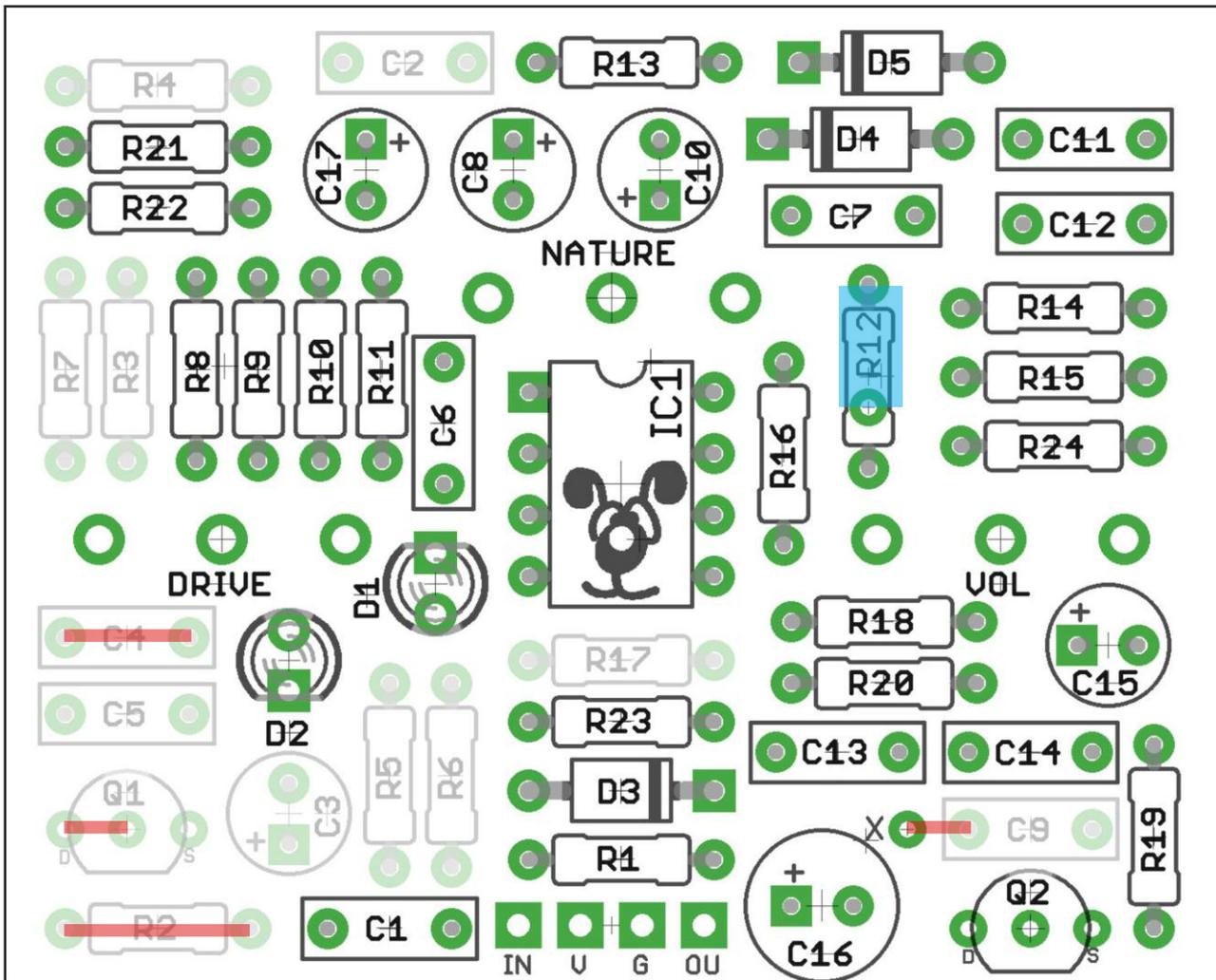
You should solder all other board-mounted components before you solder the pots. Once they're in place you'll have no access to much of the board. Make sure your pots all line up nicely. The best way to do that is to solder a single pin of each pot in place then melt and adjust if necessary before soldering in the other two pins. If your pots don't have protective plastic jackets ensure you leave a decent gap between the pot body and the PCB otherwise you risk shorting out the circuit.

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

R24 is only used for the BJoutique version of the circuit, so put a jumper in place of this.

Ignore the extra pad on R12 and the one marked X next to C9.





PCB layout ©2018 Pedal Parts Ltd.

To make the BJoutique version, follow the BOM on the previous page.

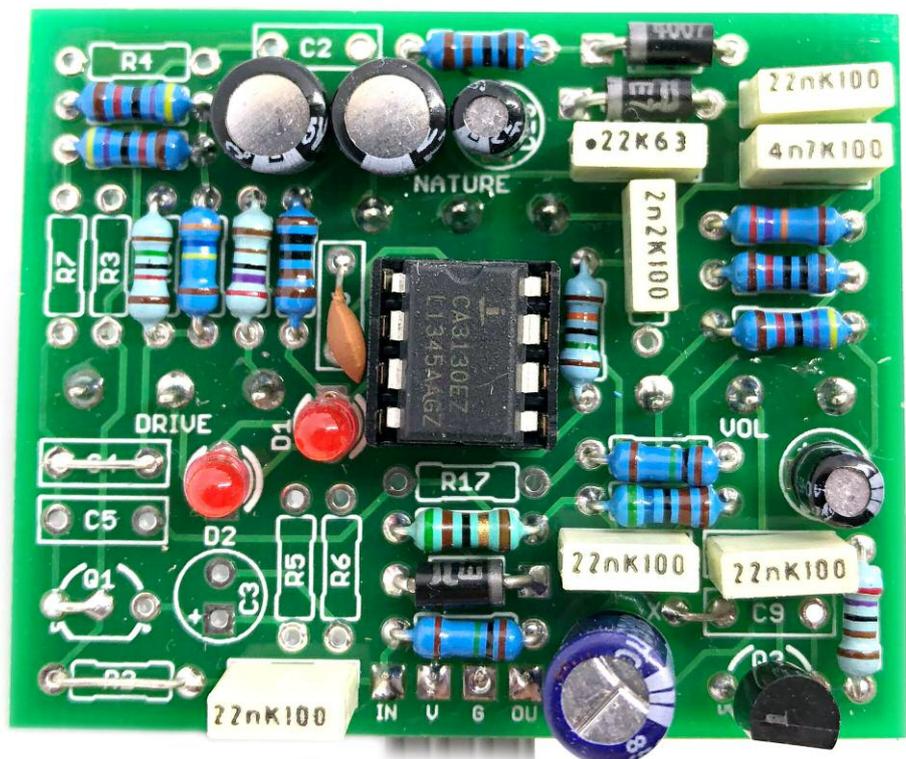
All the parts that should be left empty are shown faded above.

Four jumpers are required, shown in red.

C9 goes in place of R12 (shown in blue above), utilising the extra pad so you don't have to bend the legs of the cap.

Yes the PCB is green. >>>>>
We had some prototypes made before the production run was done in blue.

And yes, R24 is 47K in the pic. It was quickly taken out and replaced with 27K. We must improve our handwriting!



Test the board!

Check the relevant daughterboard document for more info before you undertake this stage.

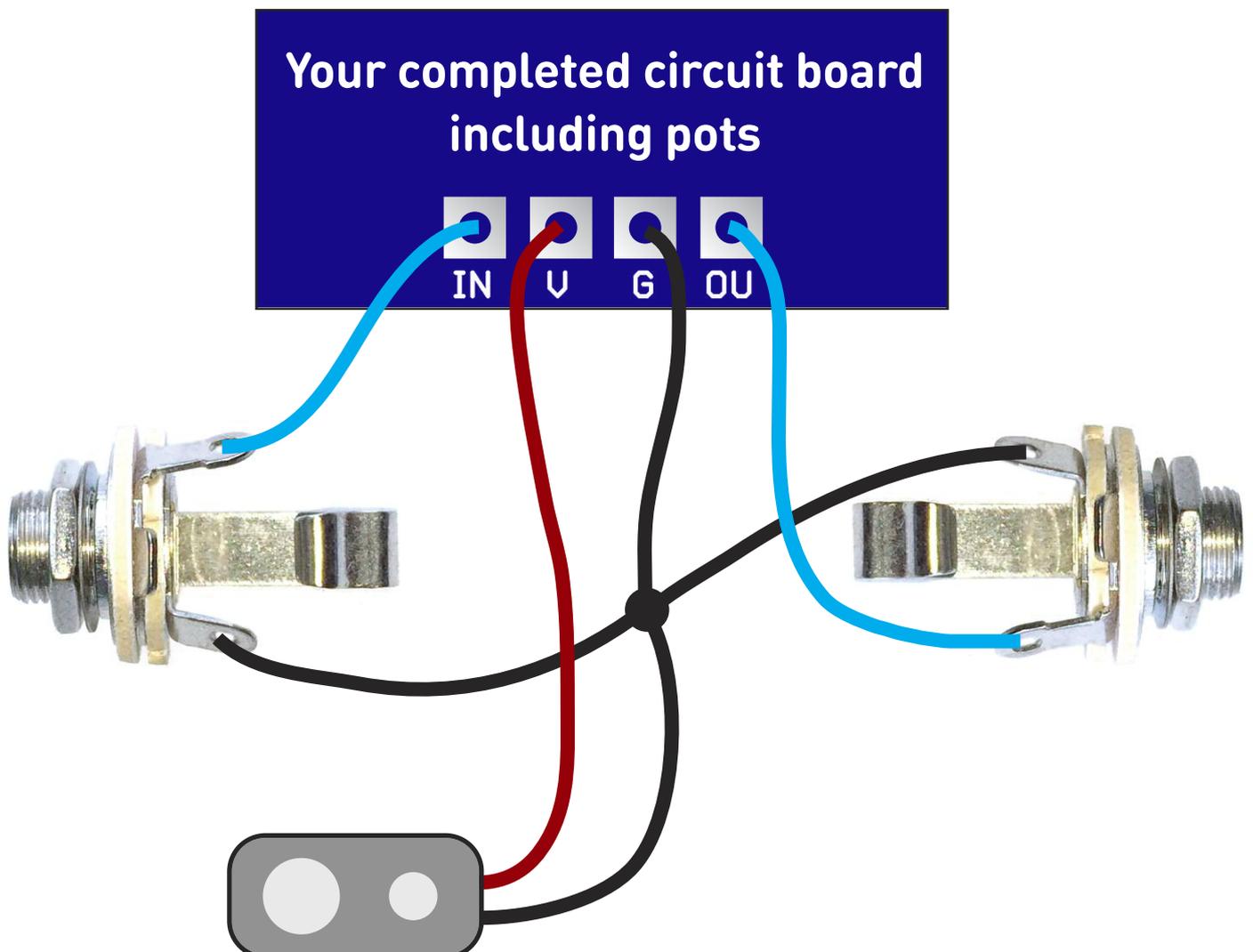
UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

Once you've finished the circuit it makes sense to test 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.

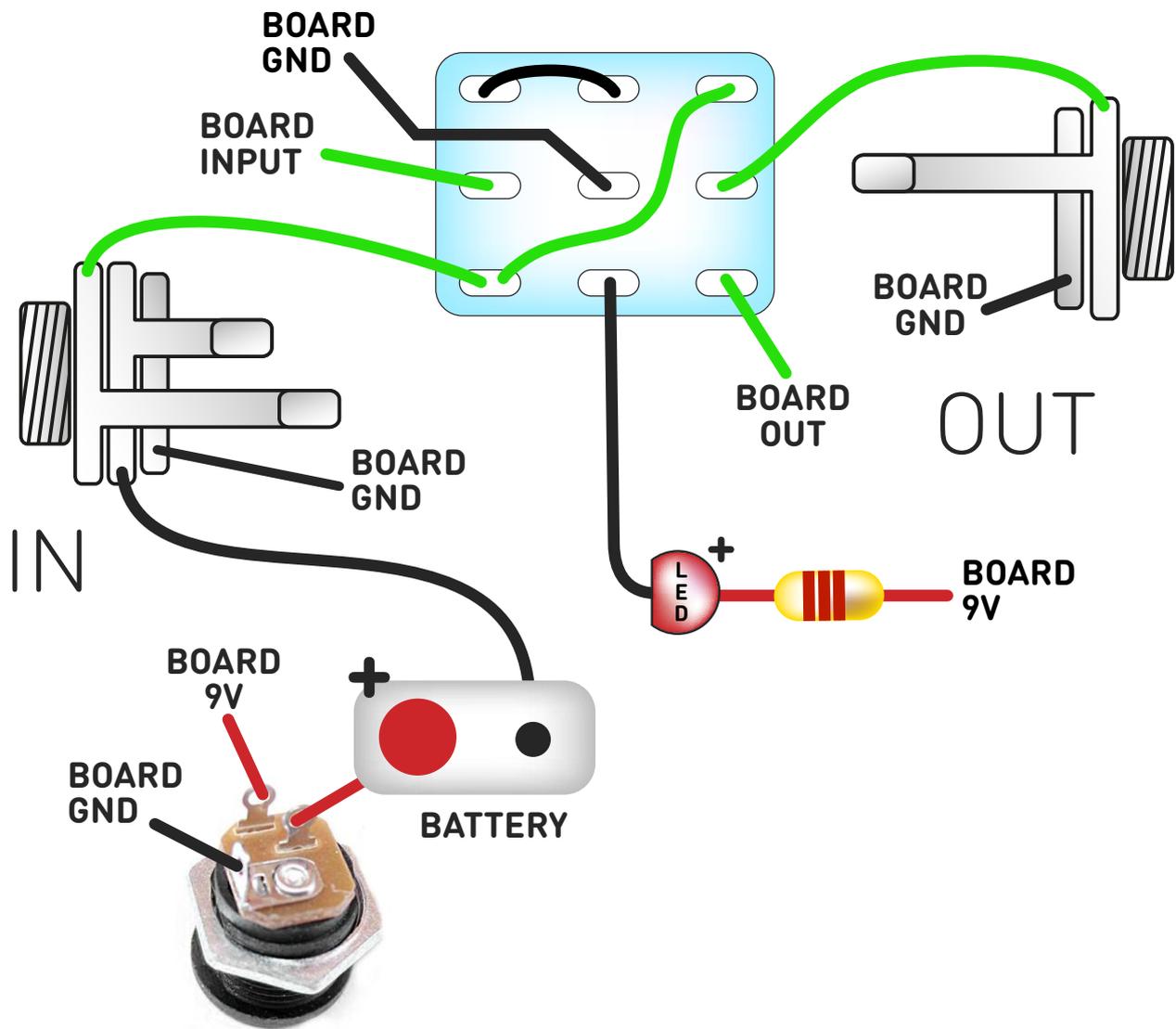
Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If you're using a ribbon cable you can tack the wires to the ends of that. It's a lot easier to take them off there than it is to desolder wires from the PCB pads.

If it works, carry 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.

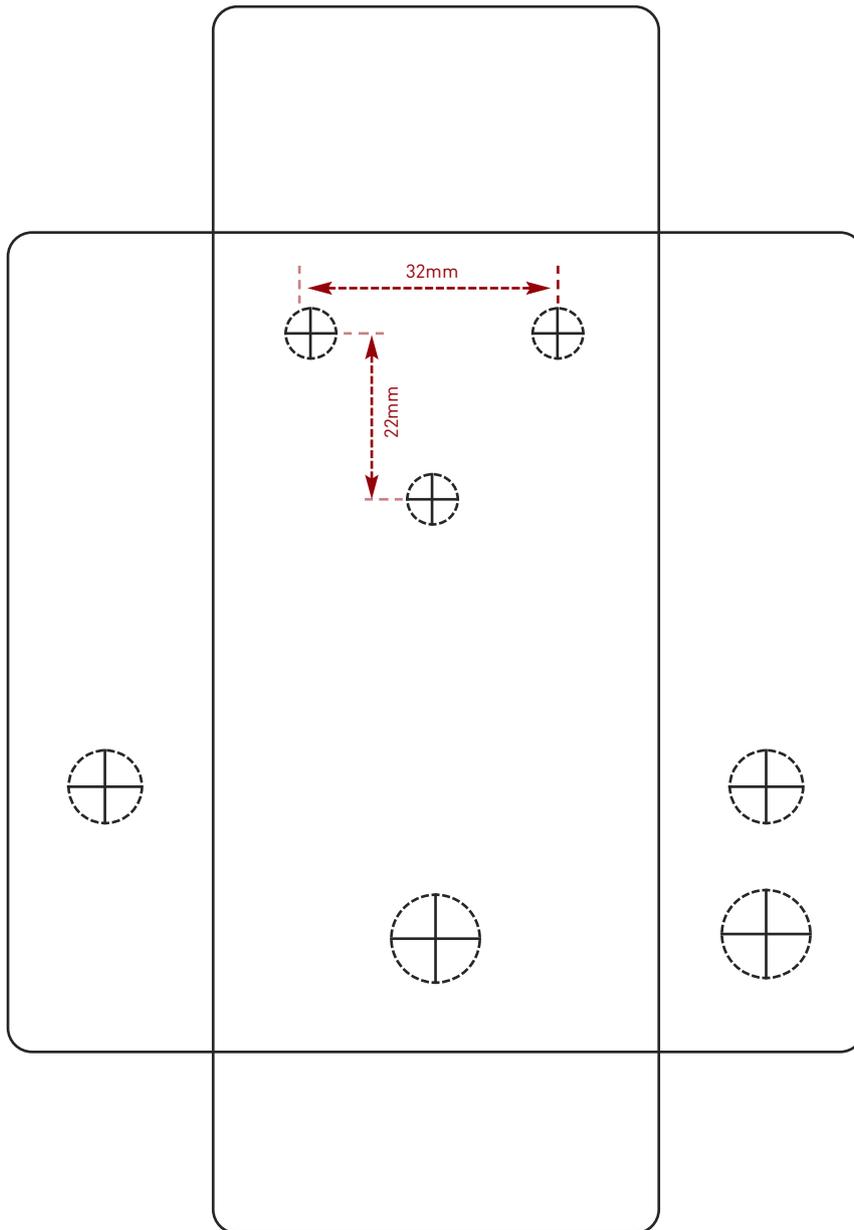
Drilling template

Hammond 1590B
60 x 111 x 31mm

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm
Toggle switch	6mm

It's a good idea to drill the pot and toggle switch holes 1mm bigger if you're board-mounting them.
Wiggle room = good!



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.

FuzzDog.co.uk