



# Fuzz Rite v4

Mosrite FuzzRite /  
Gus' Rite Fuzz



# 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:

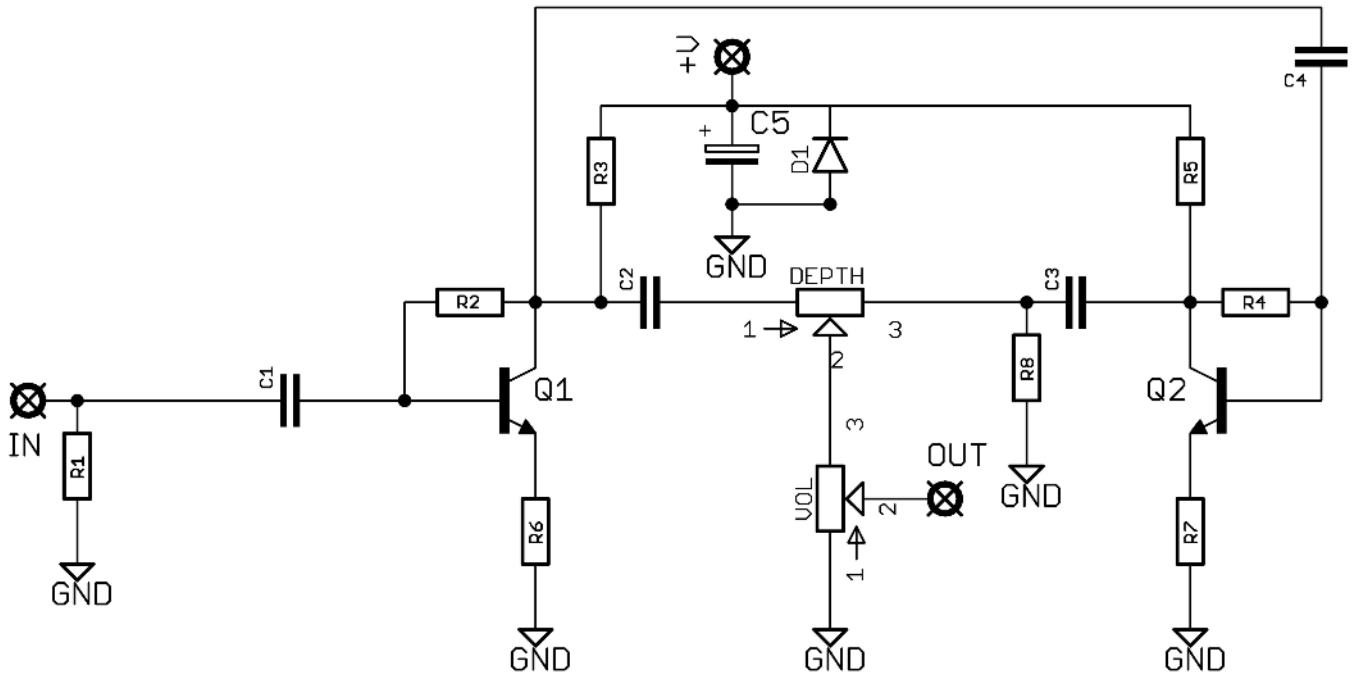
- Resistors should be 0.25W. You can use those with higher ratings but check the physical size of them.
- Electrolytics caps should be at least 25V for 9V circuits, 35V for 18V circuits. Again, check physical size if using higher ratings.

## **LAYOUT CONVENTIONS**

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

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

# Schematic + BOM FuzzRite



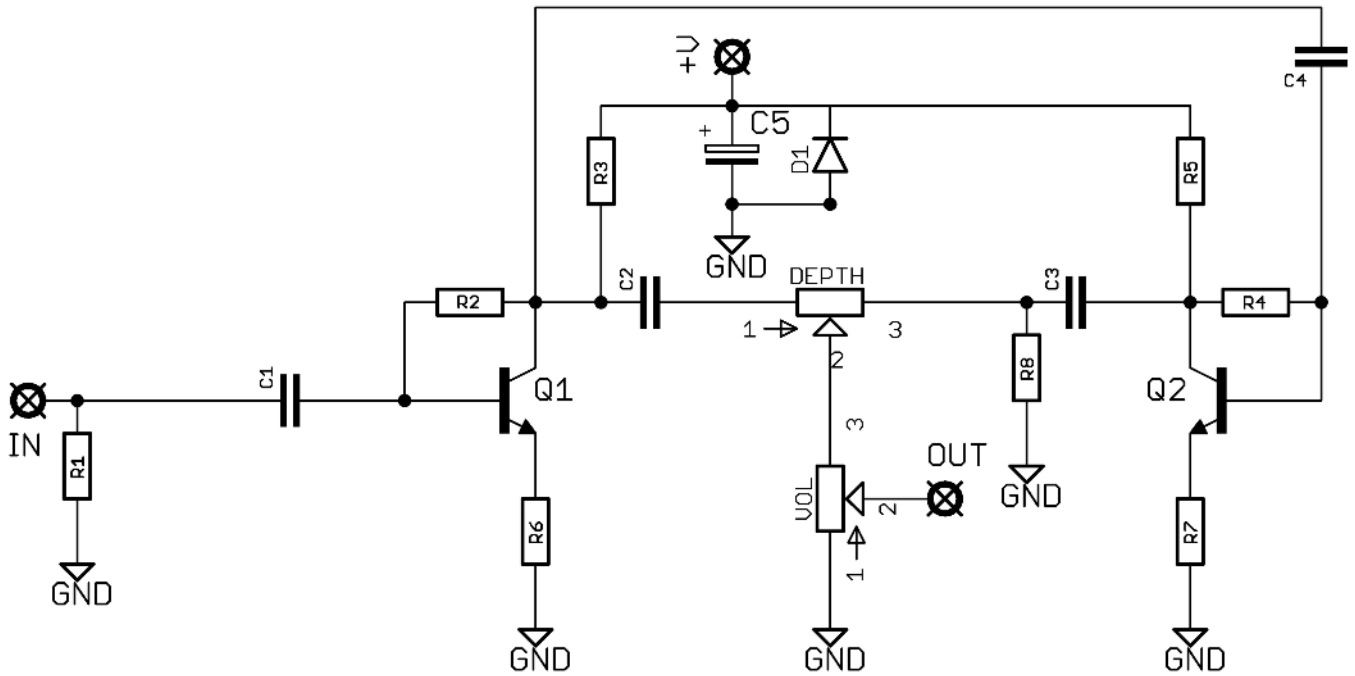
R1	1M	C1	47n	Q1	BC337-16*
R2	470K	C2	2n2	Q2	BC337-16*
R3	470K	C3	2n2		
R4	470K	C4	47n	D1	1N4001
R5	470K	C5	100u elec		
R6	Jumper			FUZZ	500KB**
R7	Jumper			VOL	500KA**
R8	22K				

\*Experiment with any low gain NPN silicon transistors. BC337-16 are around 150hFE, and give a really skanky 60s fuzz tone which we love. Go slightly higher for a different feel. 2N3904 around 200hFE change the nature of the fuzz quite a lot. IMPORTANT - the cover image shows the board with BC337-16, which should be placed on the PCB reversed compared to the screen print. Others such as 2N3904, 2N5088 etc should follow the screen print guide.

**\*\*We've increased the volume pot value to make the circuit a bit louder at full volume. By all means reduce it to 50KA if you prefer, but really - don't!**

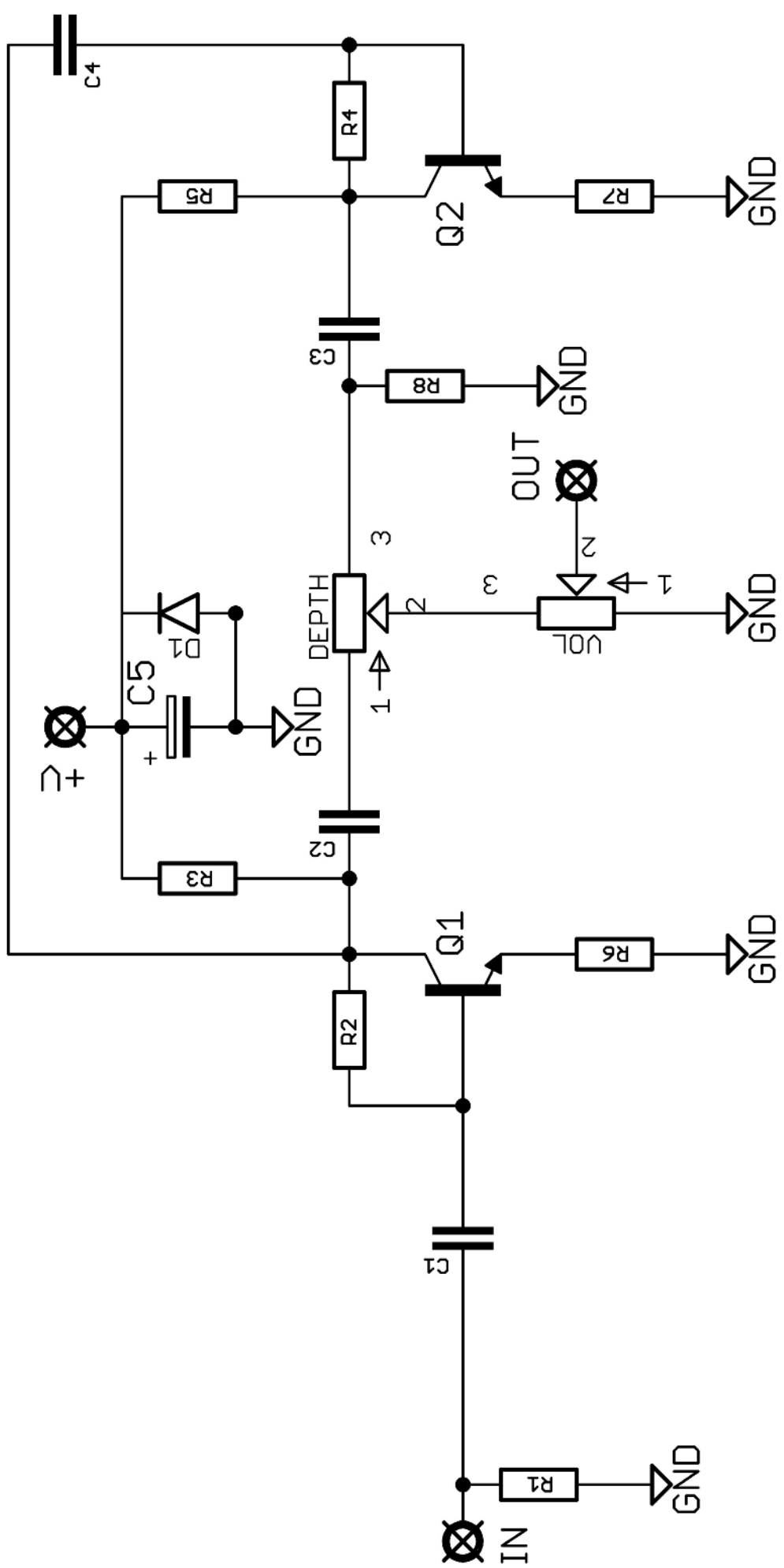
# Schematic + BOM

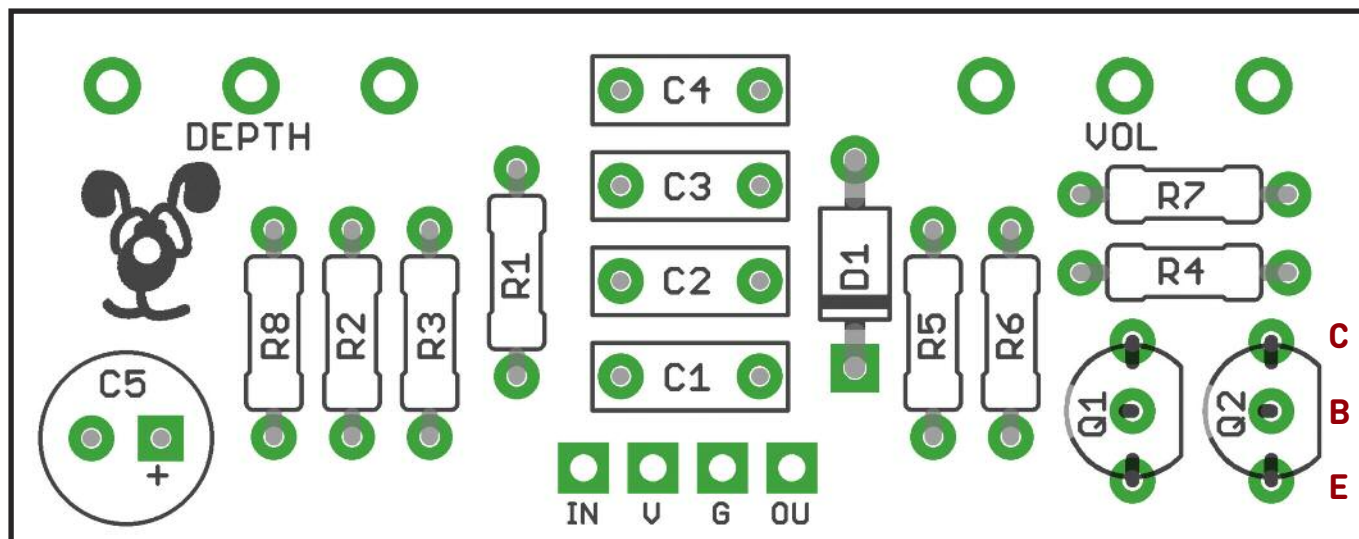
## Gus' Rite Fuzz



R1	1M	C1	100n	Q1	2N3904
R2	470K	C2	100n	Q2	2N3904
R3	10K	C3	100n	D1	1N4001
R4	470K	C4	100n	DEPTH	100KB
R5	10K	C5	100u elec	VOL	100KA
R6	100R				
R7	100R				
R8	22K				

Beefier than the stock circuit, but loses some of that vintage feel.





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 transistors and diode. 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).

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

Modern transistors in a TO-92 package will drop straight into the PCB. Watch your pinout. BC337-16 supplied with the kit need to be reversed.

Older style metal can TO-18 fit fine, but watch the pinout. The small metal tag indicates the emitter. Pinout on the PCB is marked above.

# Test the board!

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

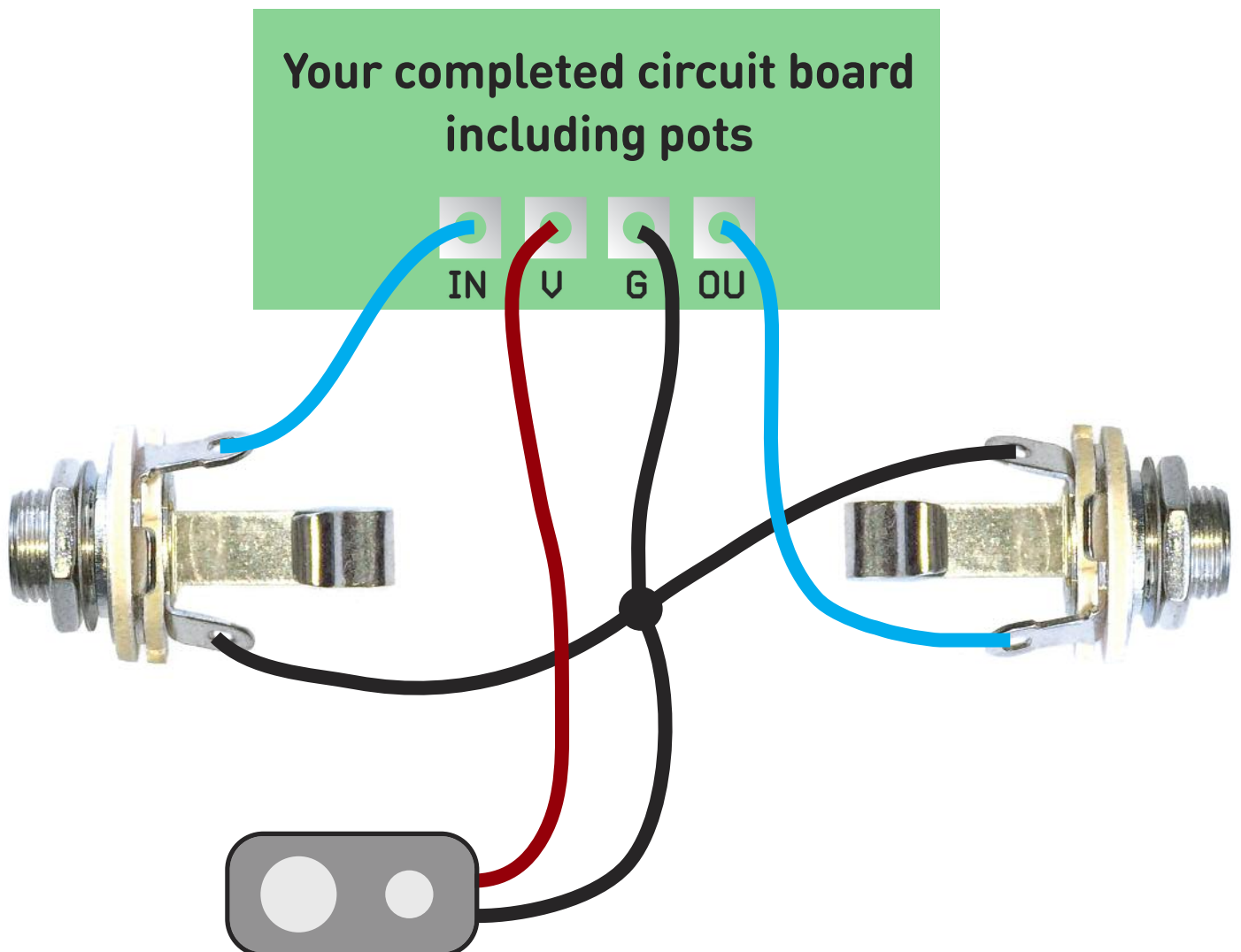
**UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.**

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.

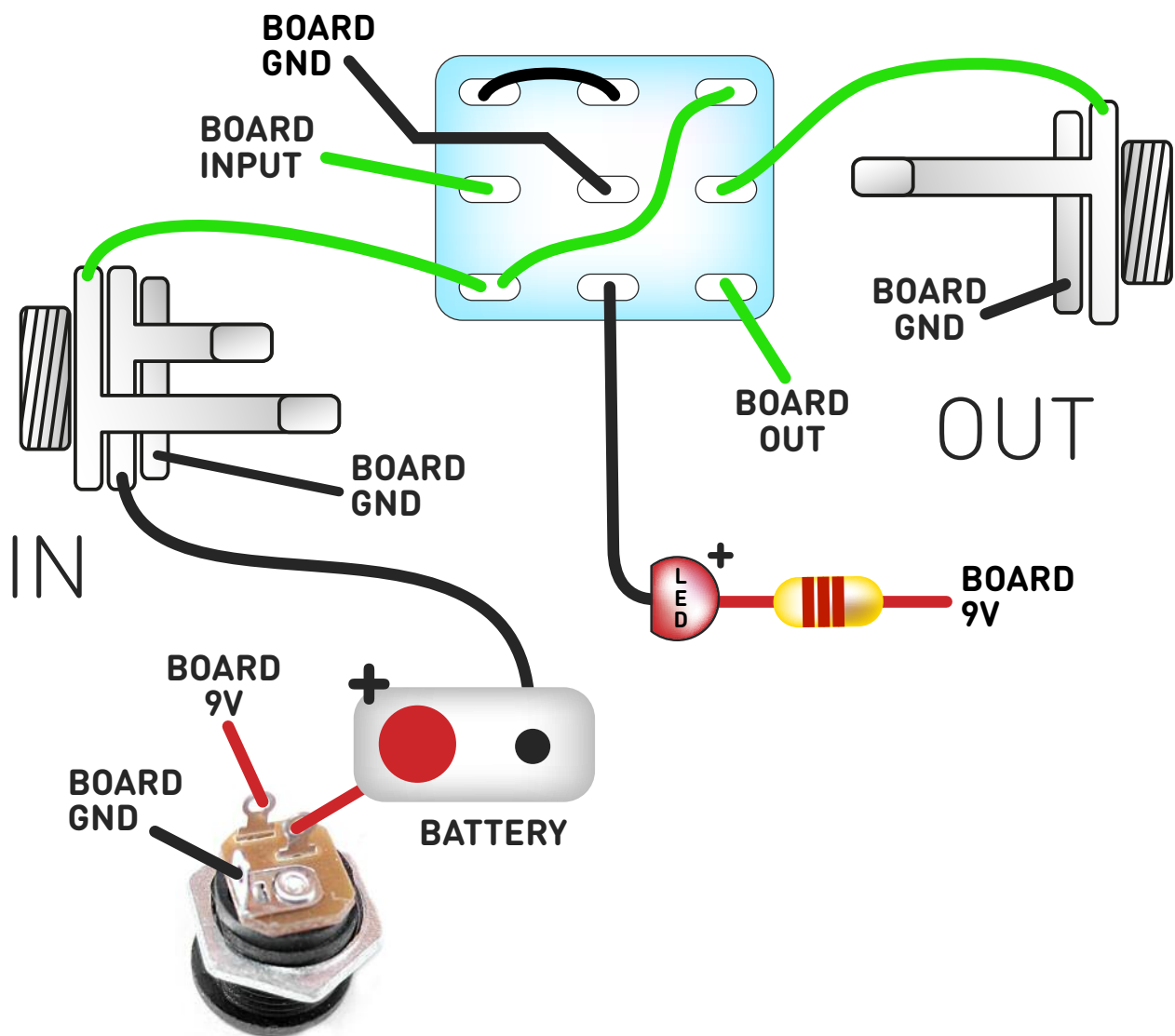
Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

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

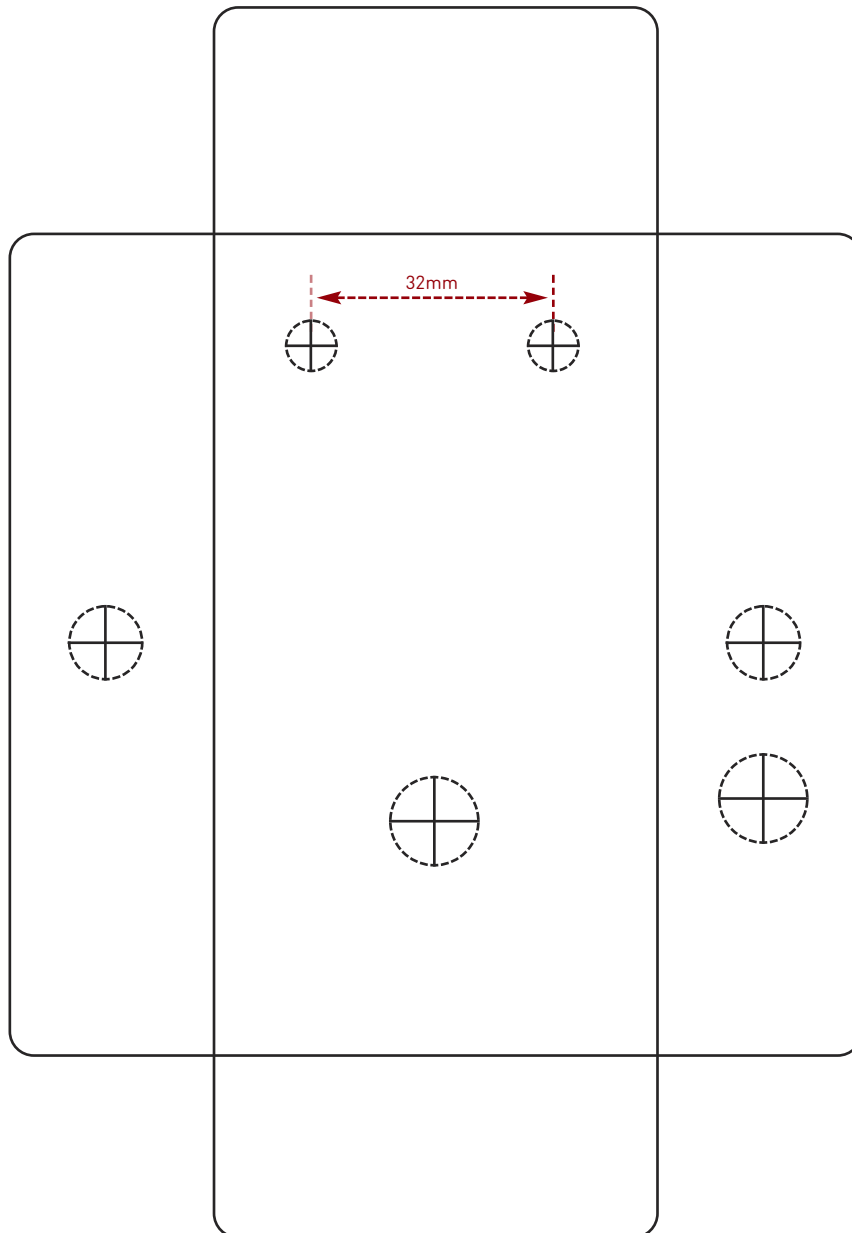
60 x 111 x 31mm

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm
Toggle switches	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.

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