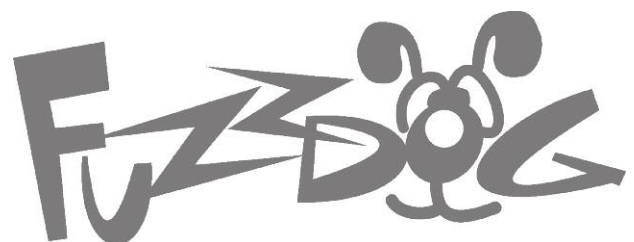
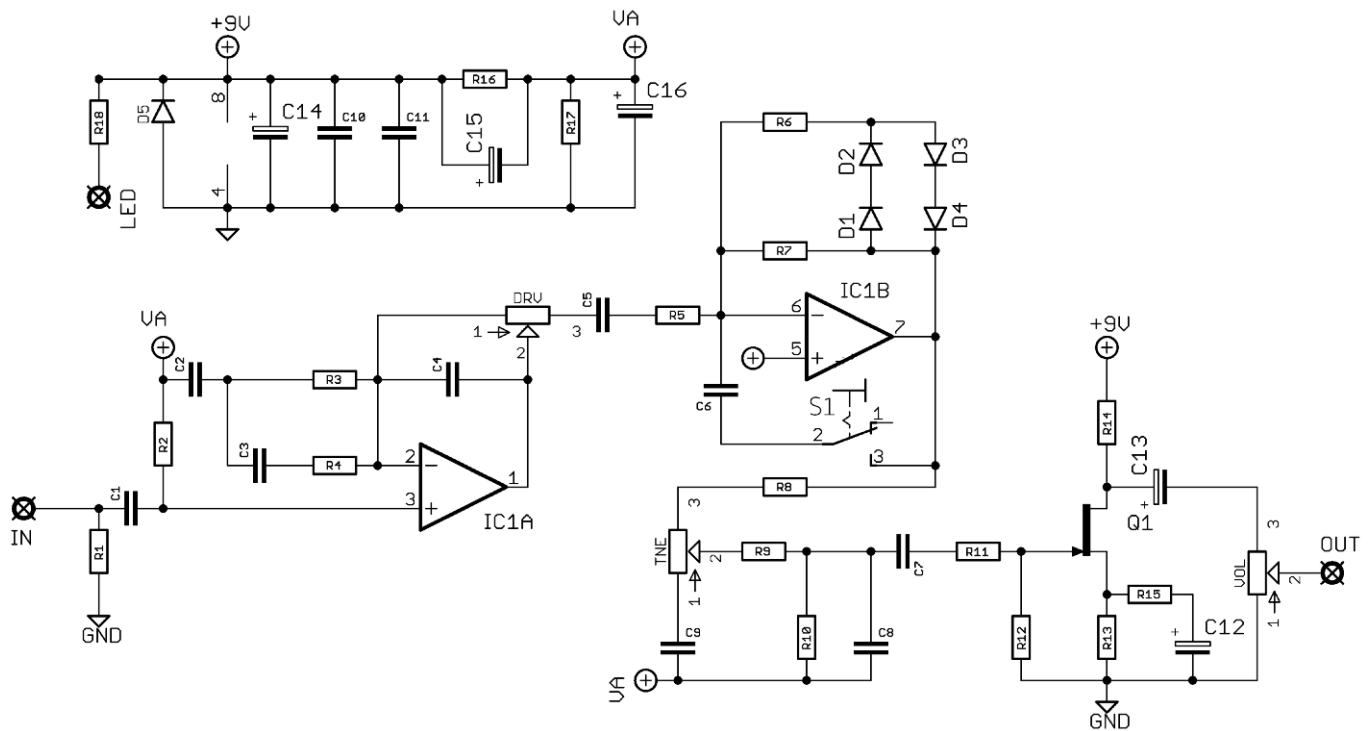


Morning Wood

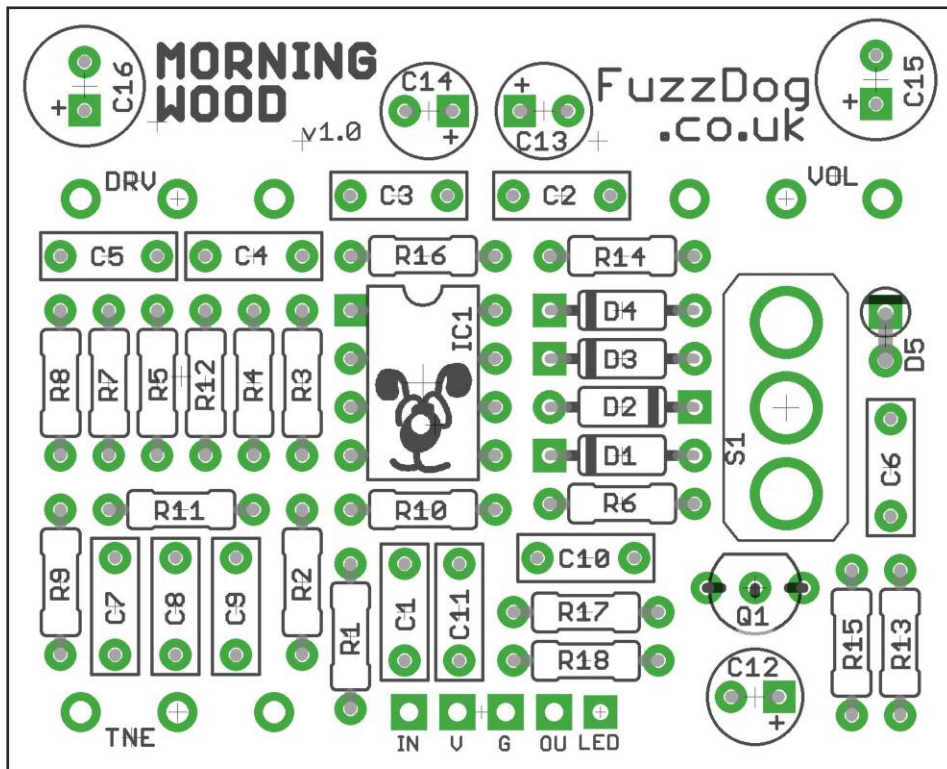
Boutique take on the
Blues Breaker



Schematic + BOM



R1	2M2	C1	47n	D1-4	1N4148
R2	1M	C2	10n	D5	1N4001
R3	4K7	C3	10n	IC1	LM833
R4	3K3	C4	47p	Q1	2N5457
R5	10K	C5	100n	TONE	25KB
R6	6K8	C6	470p	VOL	100KA
R7	220K	C7	100n	DRIVE	100KB
R8	1K	C8	10n	S1	SPDT ON-ON (Bright Cut)
R9	6K8	C9	10n		
R10	100K	C10	100n		
R11	68K	C11	100n		
R12	1M	C12	10u elec		
R13	12K	C13	2u2 elec		
R14	22K	C14	10u elec		
R15	12K	C15	100u elec		
R16	47K	C16	100u elec		
R17	47K				
R18	2K2 (CLR)				



PCB Layout ©2016 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.

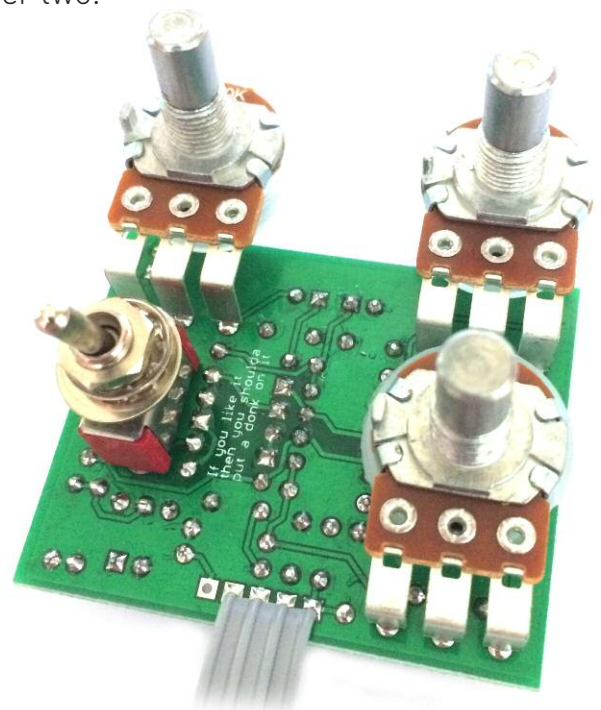
Be very careful when soldering the LED, diodes and Q1. They're very sensitive to heat. You should use some kind of heat sink (crocodile clip or reverse action tweezers) on each leg as you solder them. Keep exposure to heat to a minimum (under 2 seconds). You should use a socket for IC1, or be ultra careful when soldering.

The cathode (striped end) of the diodes go into the square pads. The anode (long leg) of electrolytic capacitors go into the square pads. C15-16 can be bent over as shown in the cover image to save height, giving more clearance when mounting in the enclosure.

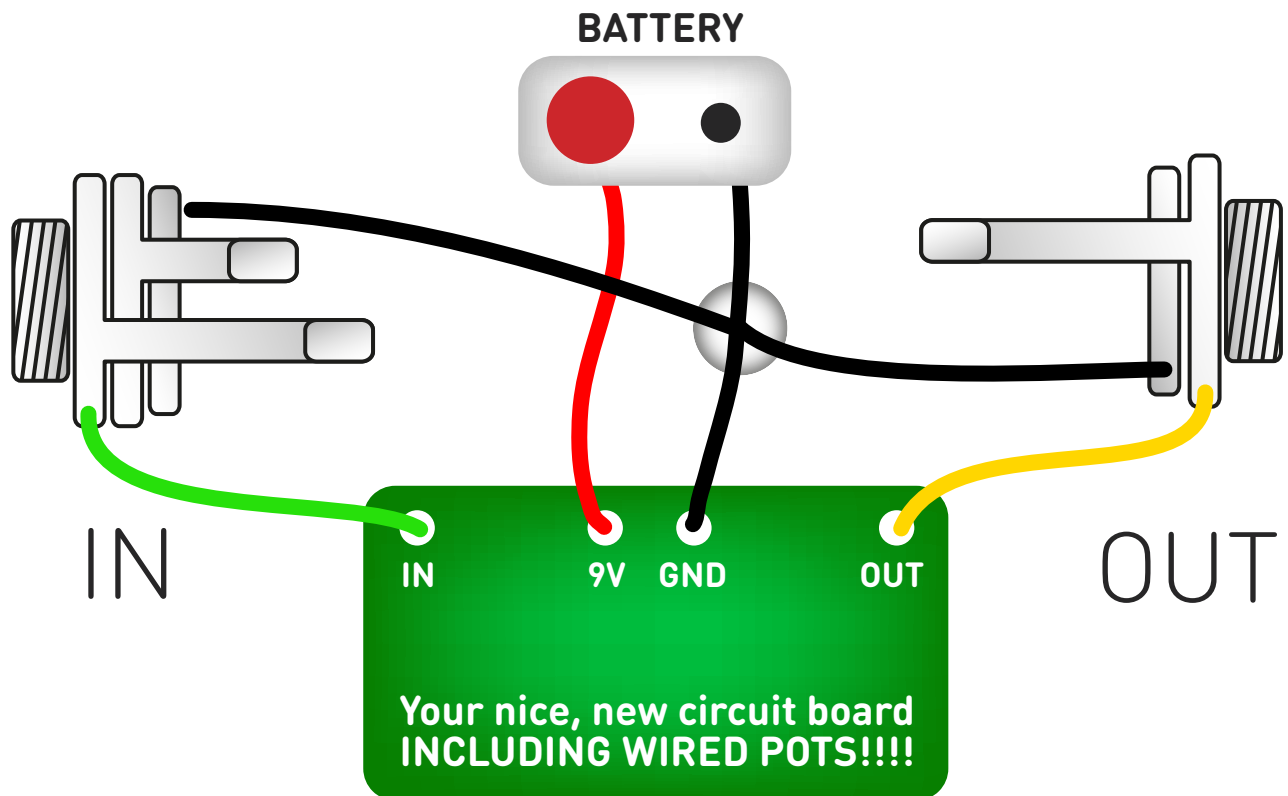
Snap the small metal tag off the pots so they can be mounted flush in the enclosure.

If you're using a footswitch daughterboard don't bother soldering R18. You'll use that on the daughterboard instead.

Pots mount on the back side of the board. You can use vertical-mount pots or just wire up 'normal' ones. It's a good idea to place the pots in their holes in the enclosure when you're soldering them in place on the PCB. That way you know they're going to line up ok. Best way to do it is to solder a single pin of each pot in place, then do a visual check to see that they're sitting at the same height. If not, melt the joints and readjust any that are off. Do the same with the toggle switch - one lug first, then melt and adjust until it sits right before soldering the other two.



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 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.

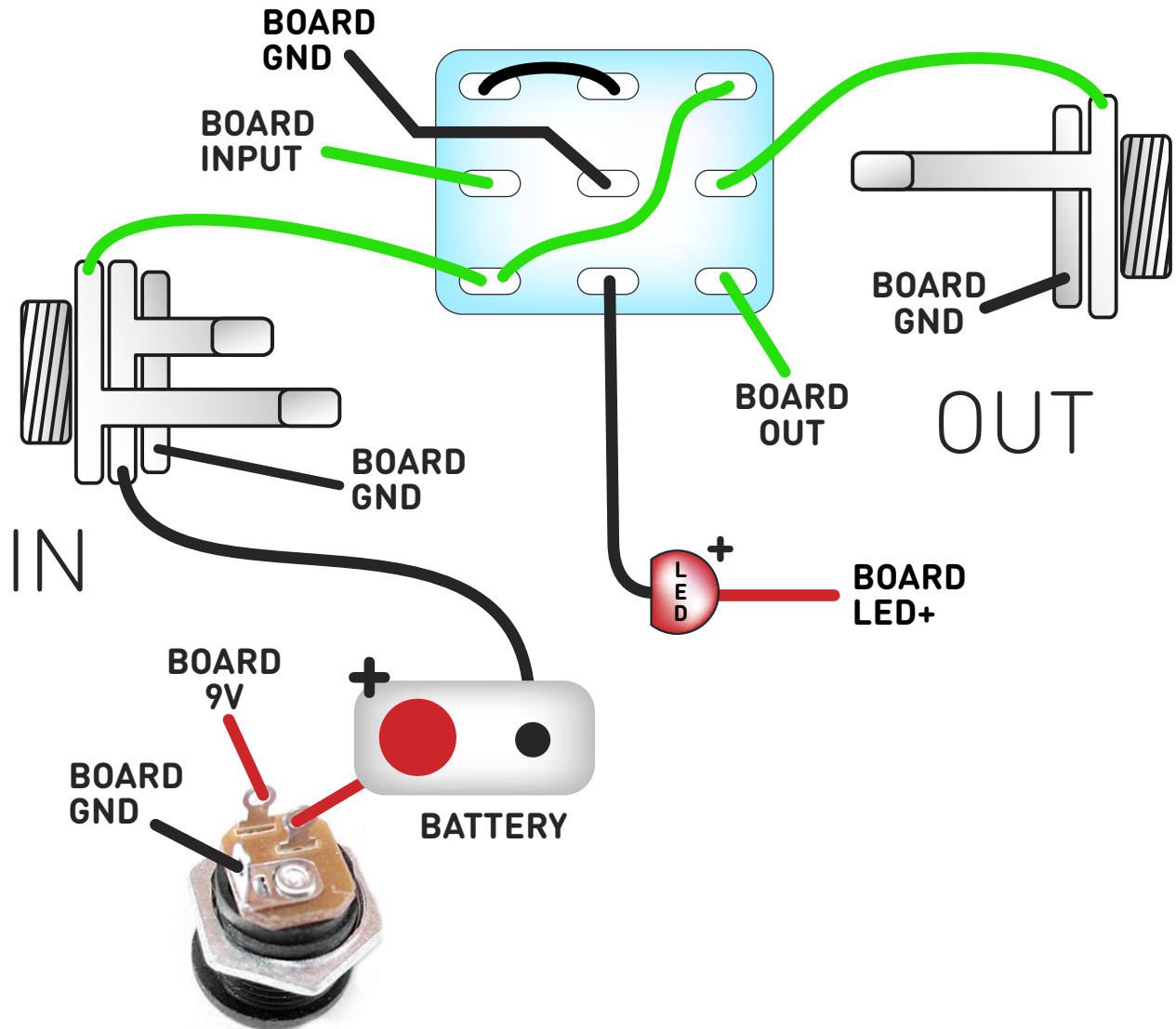
Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

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 - with battery

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

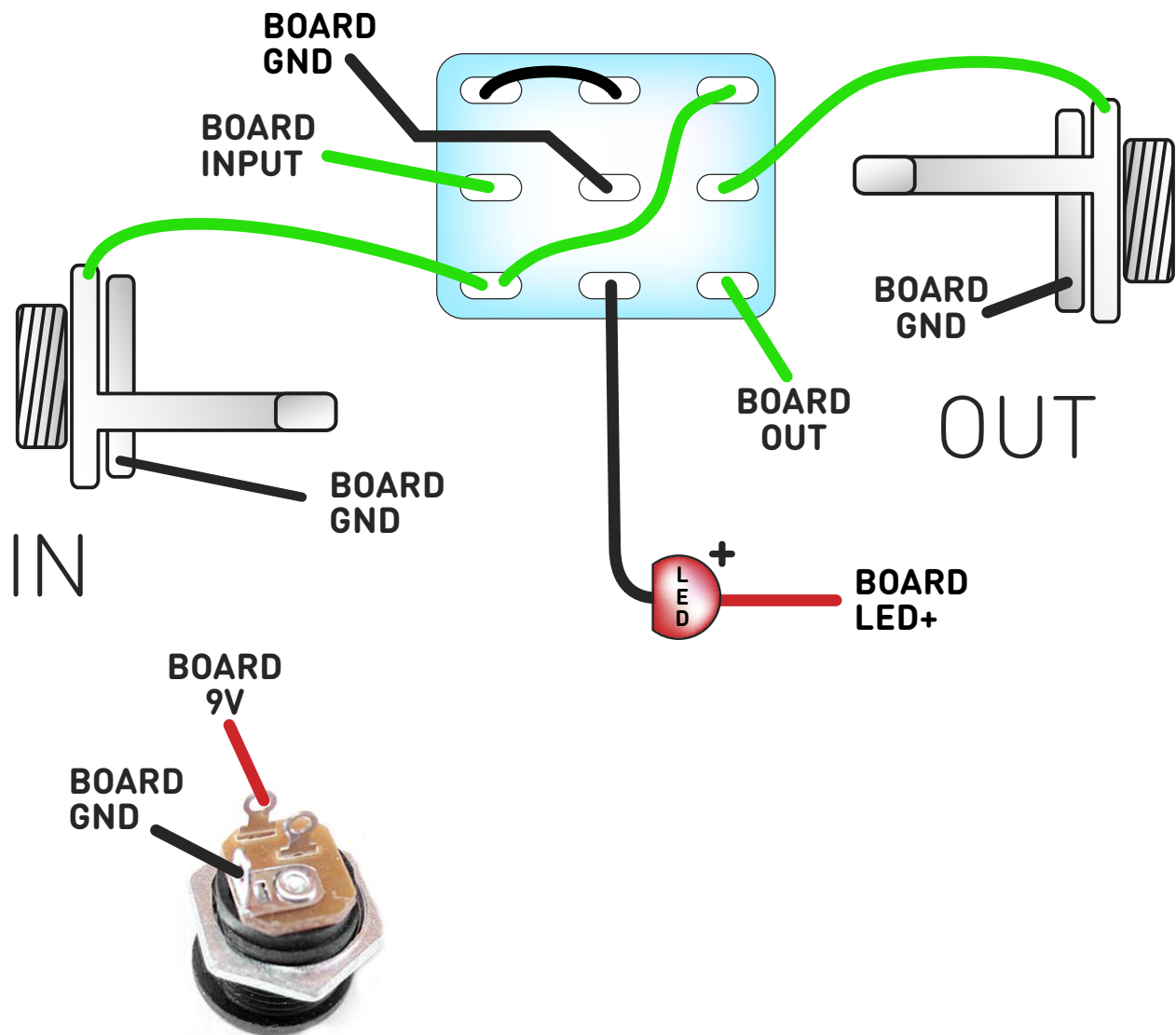


This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

The BOARD GND connections don't all have to connect to one point. They can be daisy-chained around the circuit, using larger connection points (such as jack socket lugs) for multiple connections. As long as they all connect together in some way.

Wire it up - DC only version

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



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.

The BOARD GND connections don't all have to connect to one point. They can be daisy-chained around the circuit, using larger connection points (such as jack socket lugs) for multiple connections. As long as they all connect together in some way.

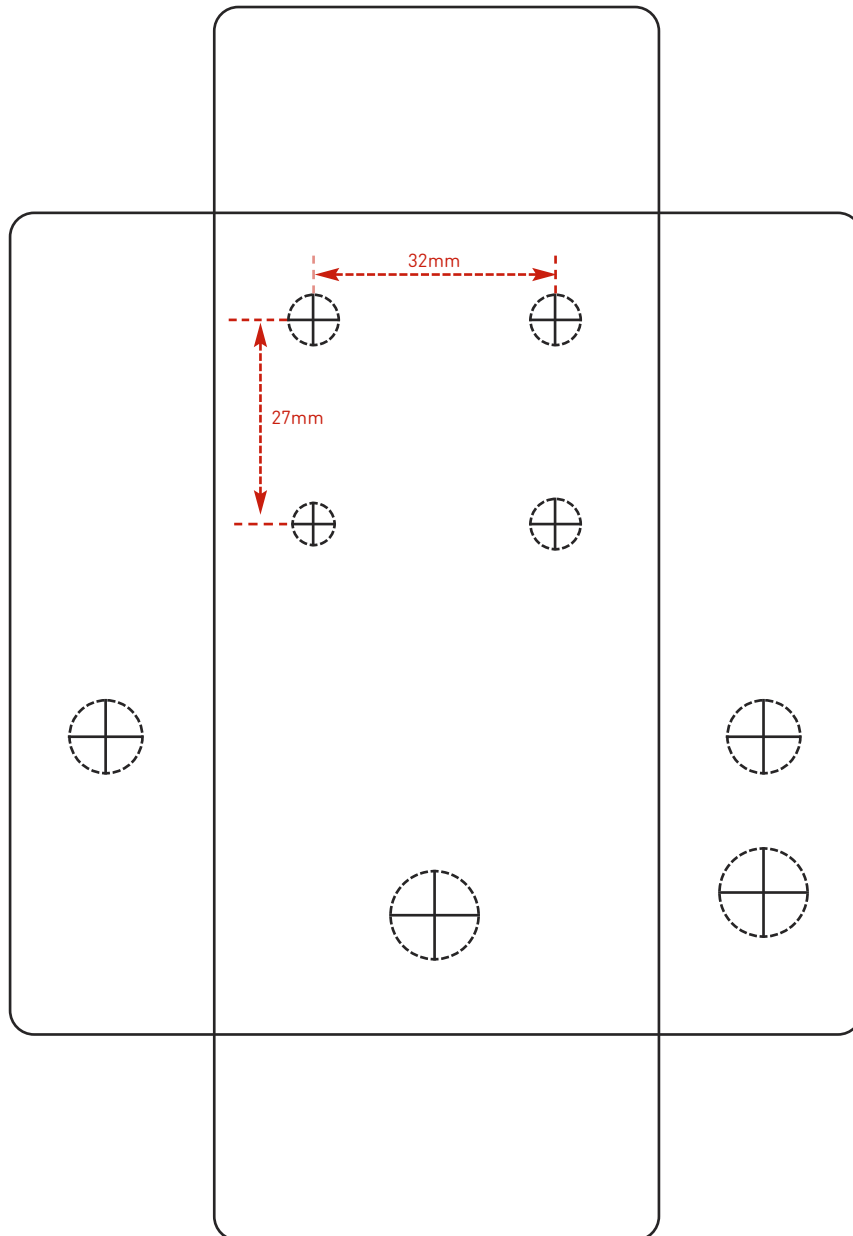
Drilling template

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 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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