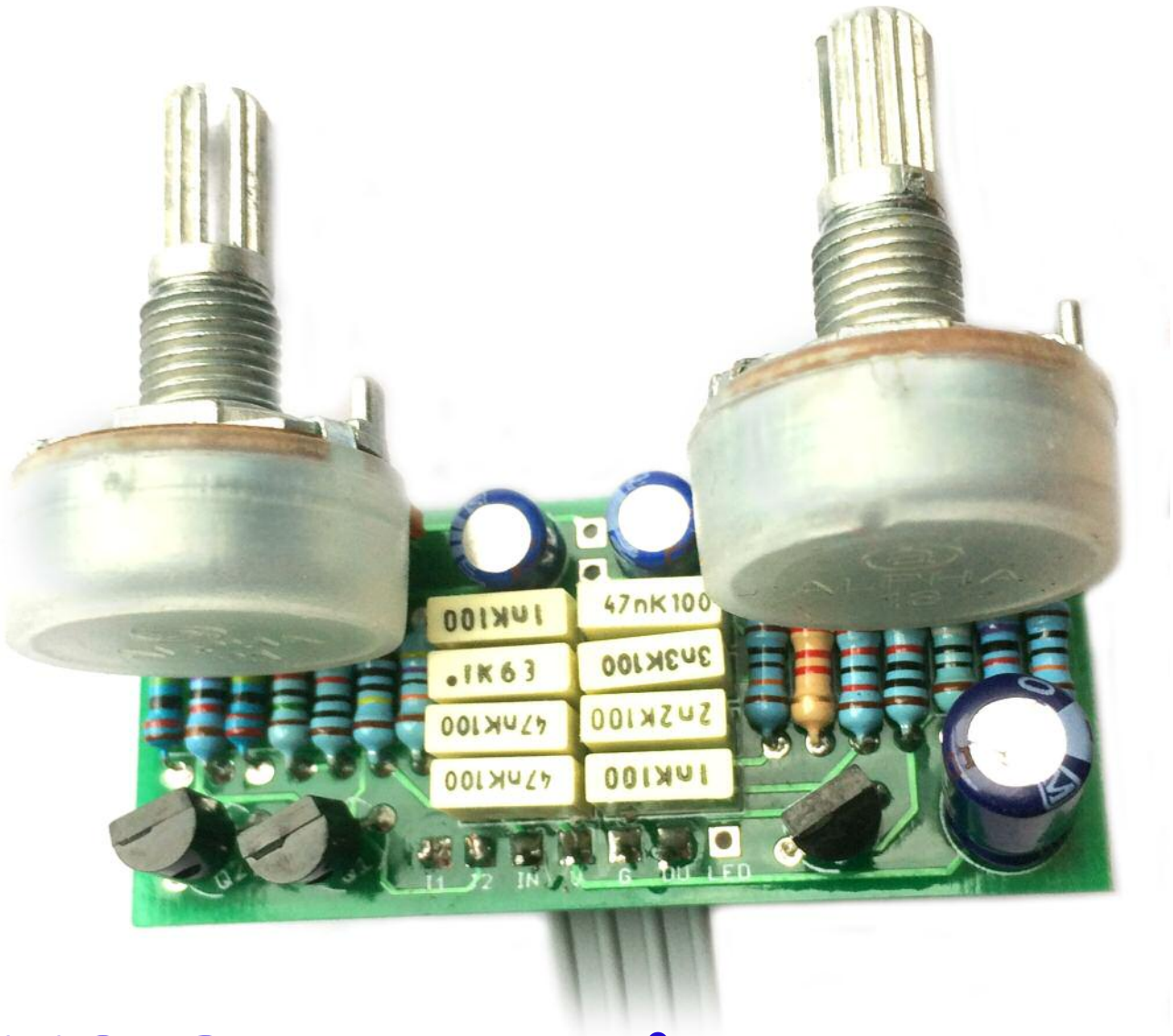
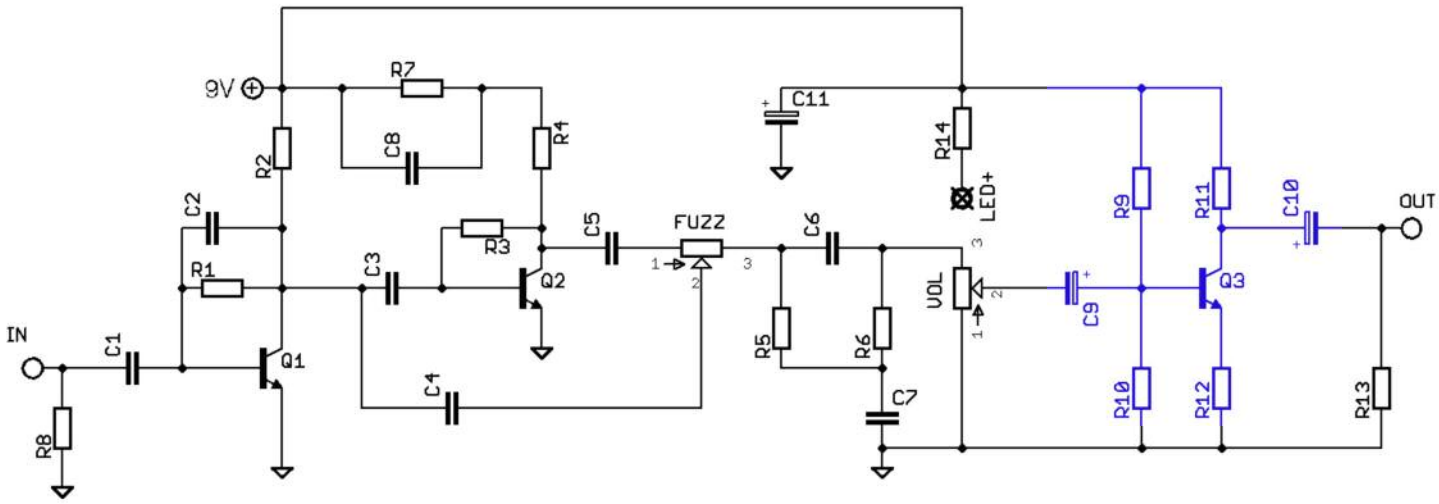
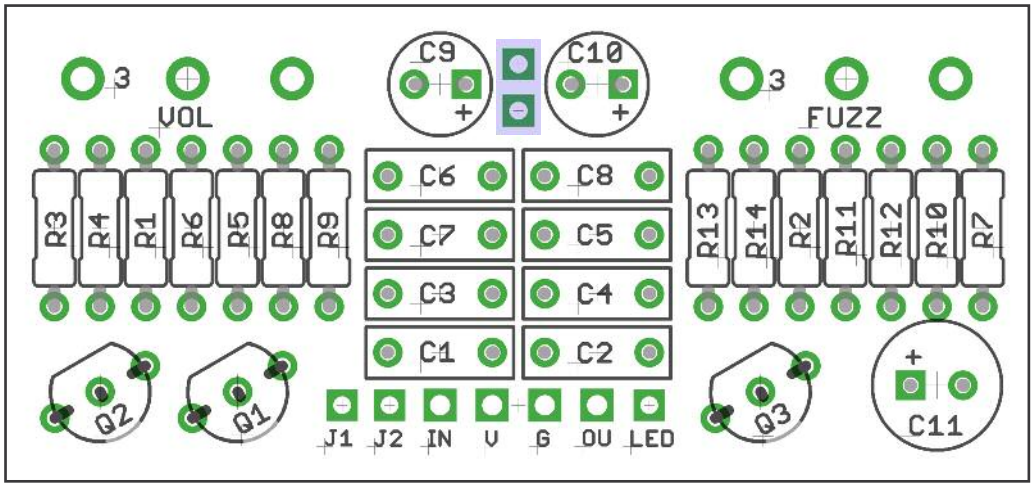


FY2 Companion Fuzz

A lot of nasty-ass fuzz with a bonus post-boost

Schematic + BOM





BOM

Components shown in blue on the schematic are the LPB post-boost circuit. To make it without the boost, leave out the blue components and place a jumper wire across the two pads marked in blue above.

R1	2M2
R2	22K
R3	1M2
R4	47K
R5	10K
R6	15K
R7	100K
R8	1M
R9	470K
R10	47K
R11	10K
R12	390R
R13	100K
R14	CLR (2K2)

C1	47n
C2	1n
C3	47n
C4	2n2
C5	3n3
C6	1n
C7	100n
C8	47n
C9	10u
C10	10u
C11	100u

Q1,2	Low gain silicon NPN (2N3904, 2N2222 etc)
Q3	2N3904
VOL	50KB
FUZZ	50KB

See notes overleaf about pads J1 and J2.

SCOOP MOD

Some people don't like the scooped mids on the FY2. Crazy people. If you want to add a bit of versatility to the circuit you can add a scoop control. There are a couple of ways to do this.

Either replace R5 with a pot (10-20KB), connecting the pads to pins 2 and 3.

Or, a much more convenient and easily removeable way is to use the extra pads J1 and J2 on the board. These are connected to C7 and GND, so you're adding resistance between them. Take a wire from each and attach to pins 2 and 3 on a 5KB pot (or your choice - experiment!). Which way round depends on if you want it to be a More-Scooped or Less-Scooped control when turned clockwise.

If you aren't adding a scoop control you must place a jumper wire across pads J1 and J2.

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.

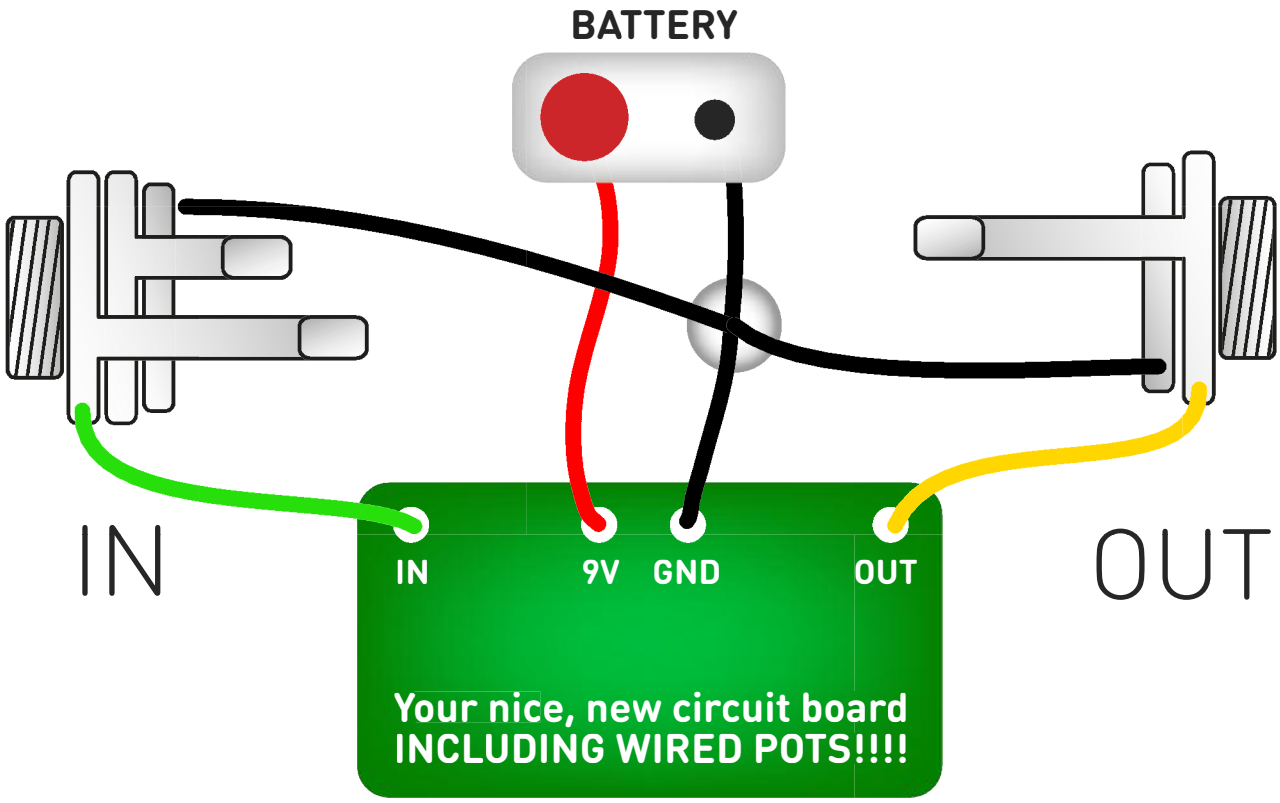
Be very careful when soldering the LED and transistors. They're very sensitive to heat. You should use some kind of heat sink (crocodile clip or reverse action tweezers) on each leg as you solder them. Keep exposure to heat to a minimum (under 2 seconds).

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

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

Solder carefully (you always should anyway). The pads are small and tightly spaced. This was necessary to squeeze the circuit into this board-mounted pot, vertically seated format.

Test the board!



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

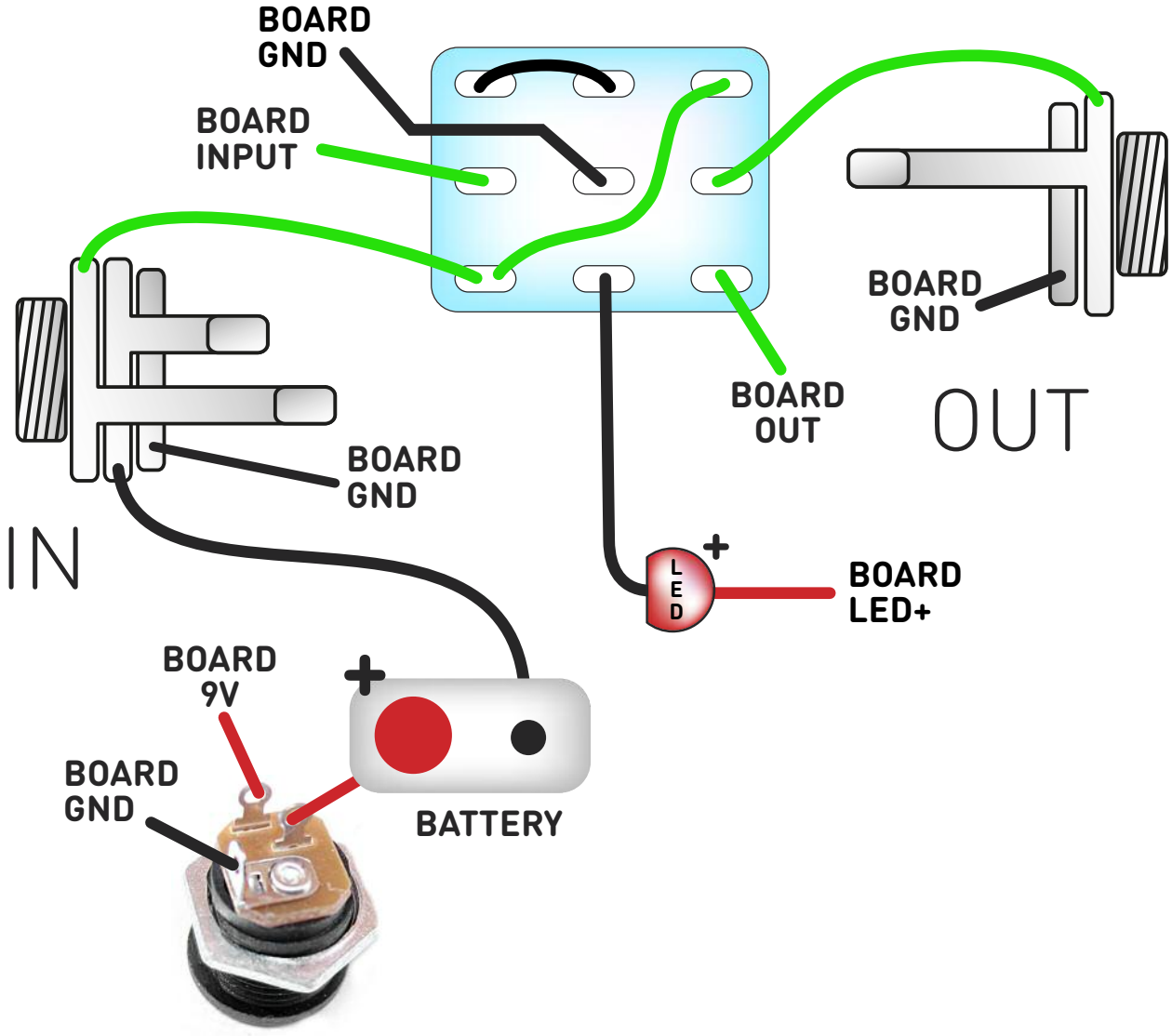
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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 - with battery

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

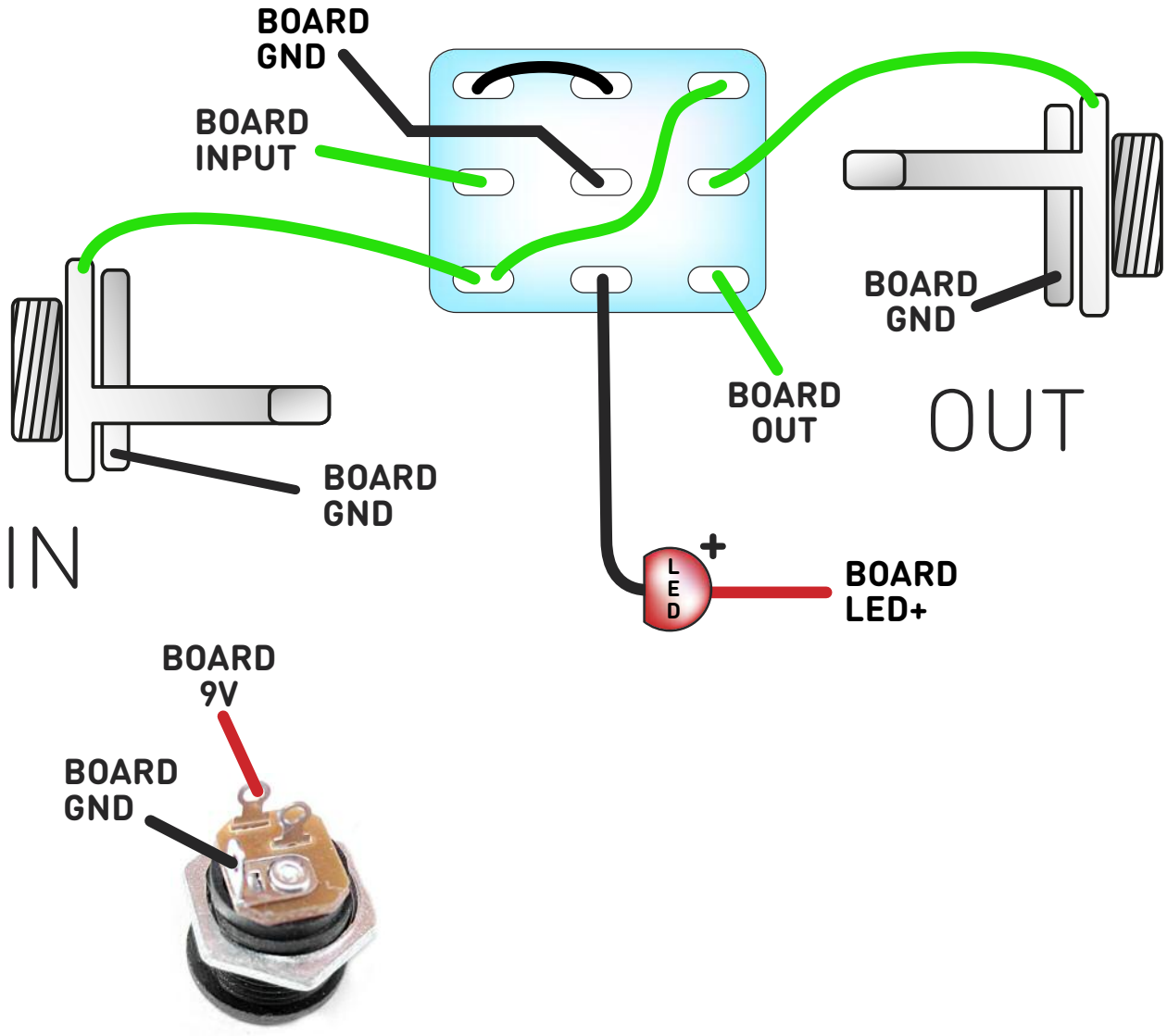


This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

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

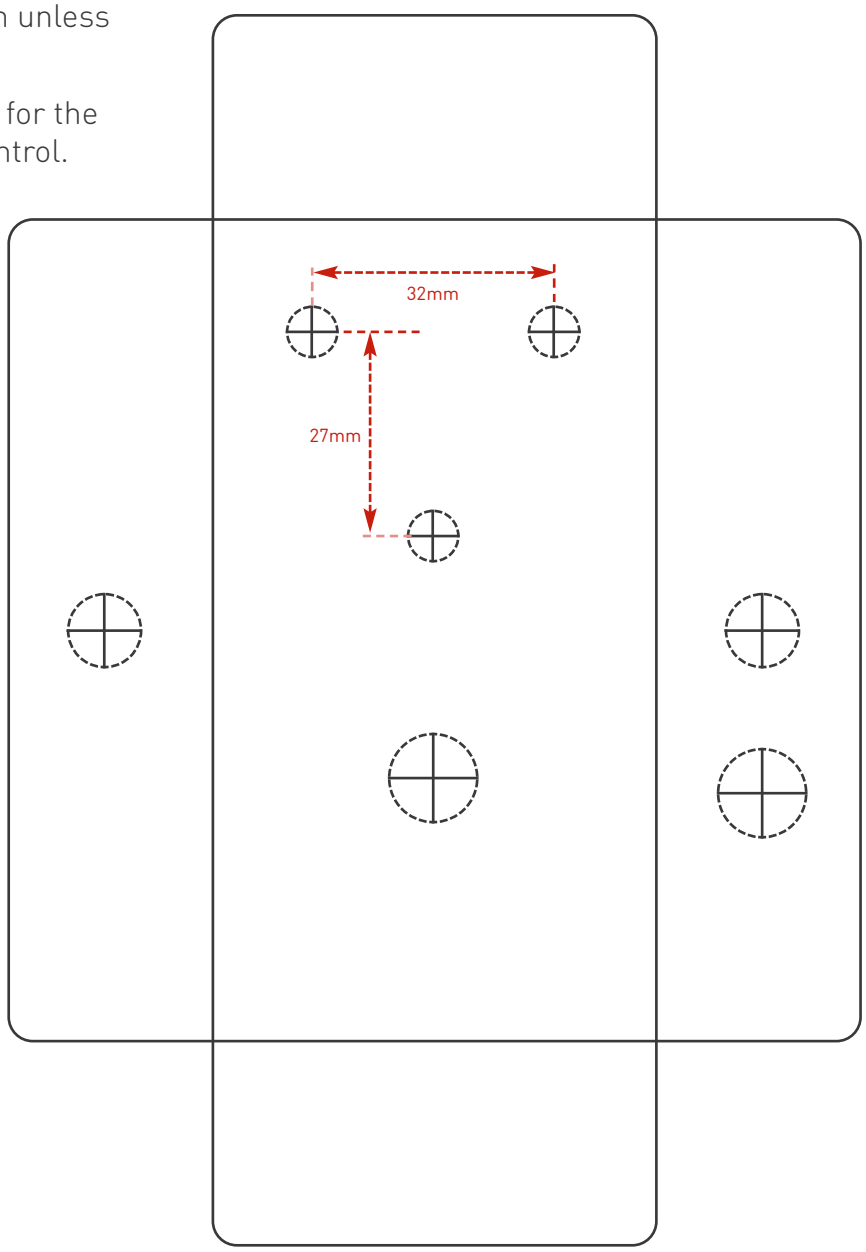
60 x 111 x 31mm

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm

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

Centre pot hole is for the optional scoop control.



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.

PedalParts.co.uk