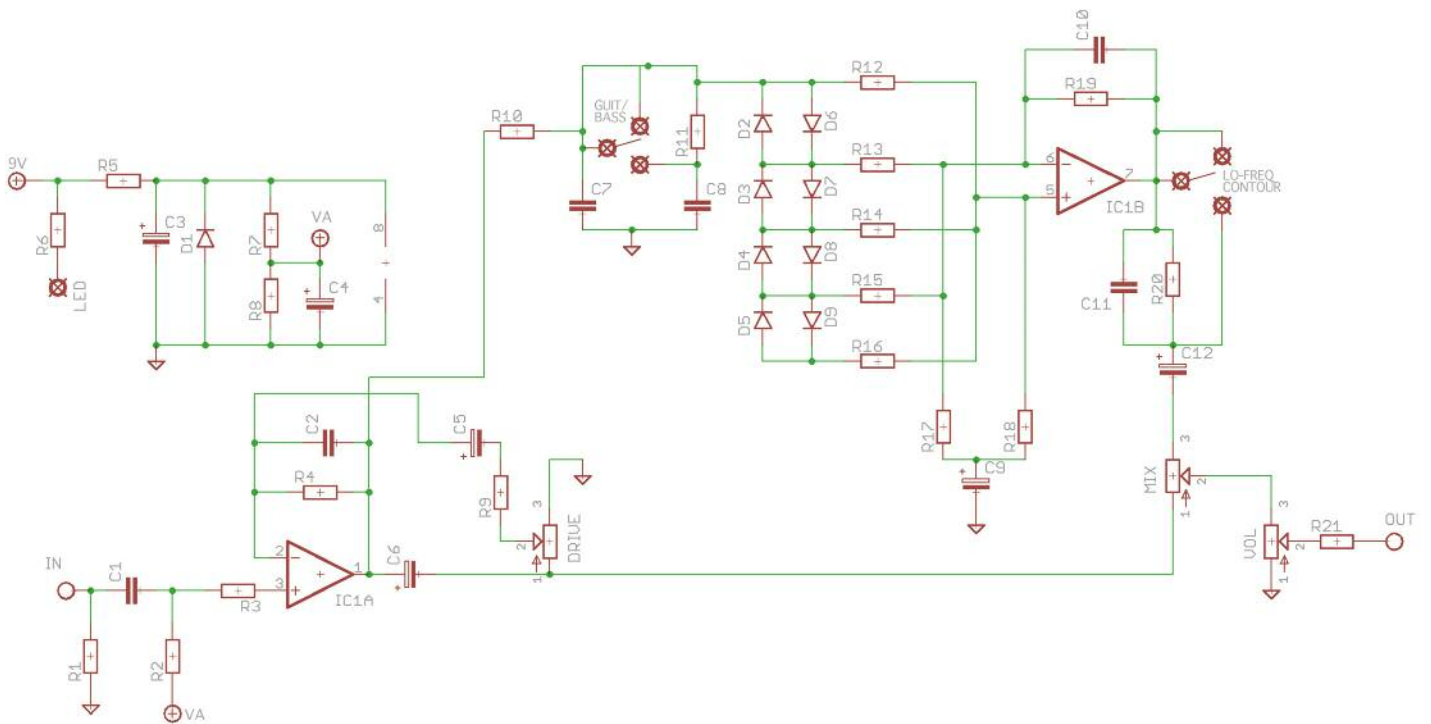


# Dirt Dessert v2

Harmonic Intermodulation  
Generator dirtbox



# Schematic + BOM



|     |           |     |           |       |              |
|-----|-----------|-----|-----------|-------|--------------|
| R1  | 1M        | C1  | 10n       | IC1   | TL072        |
| R2  | 1M        | C2  | 10p       | D1    | 1N4001       |
| R3  | 2K7       | C3  | 10u elec  | D2-9  | 1N4148       |
| R4  | 100K      | C4  | 100u elec | MIX   | 50KB         |
| R5  | 220R      | C5  | 10u elec  | DRIVE | 50KC         |
| R6  | 2K2 (CLR) | C6  | 10u elec  | VOL   | 50KA         |
| R7  | 22K       | C7  | 47n       | SW1+2 | SPDT (ON-ON) |
| R8  | 27K       | C8  | 220n      |       |              |
| R9  | 1K        | C9  | 10u elec  |       |              |
| R10 | 2K        | C10 | 10p       |       |              |
| R11 | 100K      | C11 | 22n       |       |              |
| R12 | 56K       | C12 | 10u elec  |       |              |
| R13 | 20K       |     |           |       |              |
| R14 | 16K       |     |           |       |              |
| R15 | 15K       |     |           |       |              |
| R16 | 16K       |     |           |       |              |
| R17 | 10K       |     |           |       |              |
| R18 | 10K       |     |           |       |              |
| R19 | 390K      |     |           |       |              |
| R20 | 100K      |     |           |       |              |
| R21 | 10K       |     |           |       |              |

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 diodes. 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 (why not..??).

The striped leg (cathode) of the diodes go into the square pads. D1 is shown above in red. The label was missed off the board. Oops.

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

There's room to lay C4 flat as shown in the cover image. This will give you plenty of clearance in the enclosure.

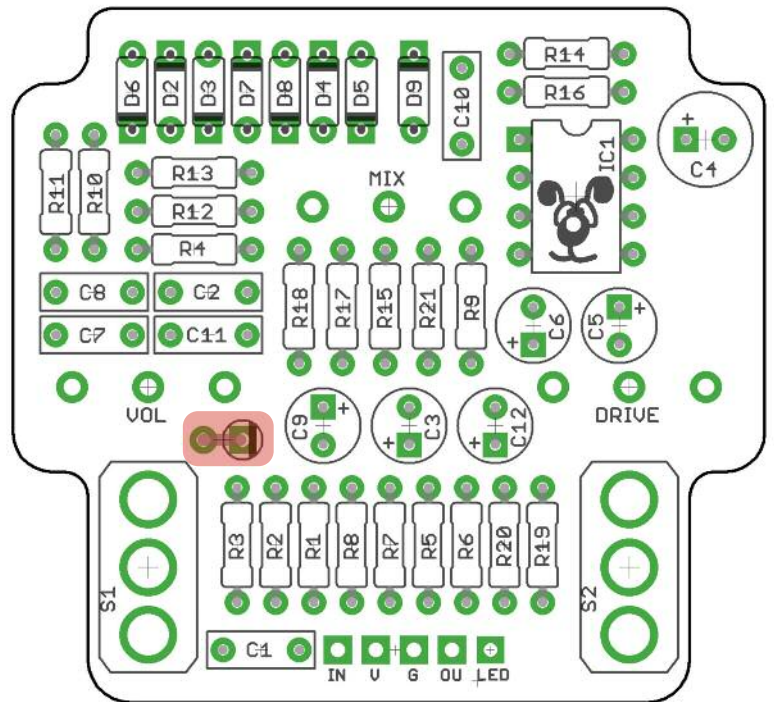
Snap the small metal tag off the pots so they can be mounted flush in the box.

Pots mount on the back side of the board. You can use vertical-mount pots or just wire up 'normal' ones. Ensure you get them all at the same height, and if there are no plastic covers on them make sure you have plenty of clearance between the pot body and the solder side of the PCB, otherwise you'll short out components. Best way to do this is get some thick cardboard and put it between the pots and the board when soldering. Remove it once they're in place.

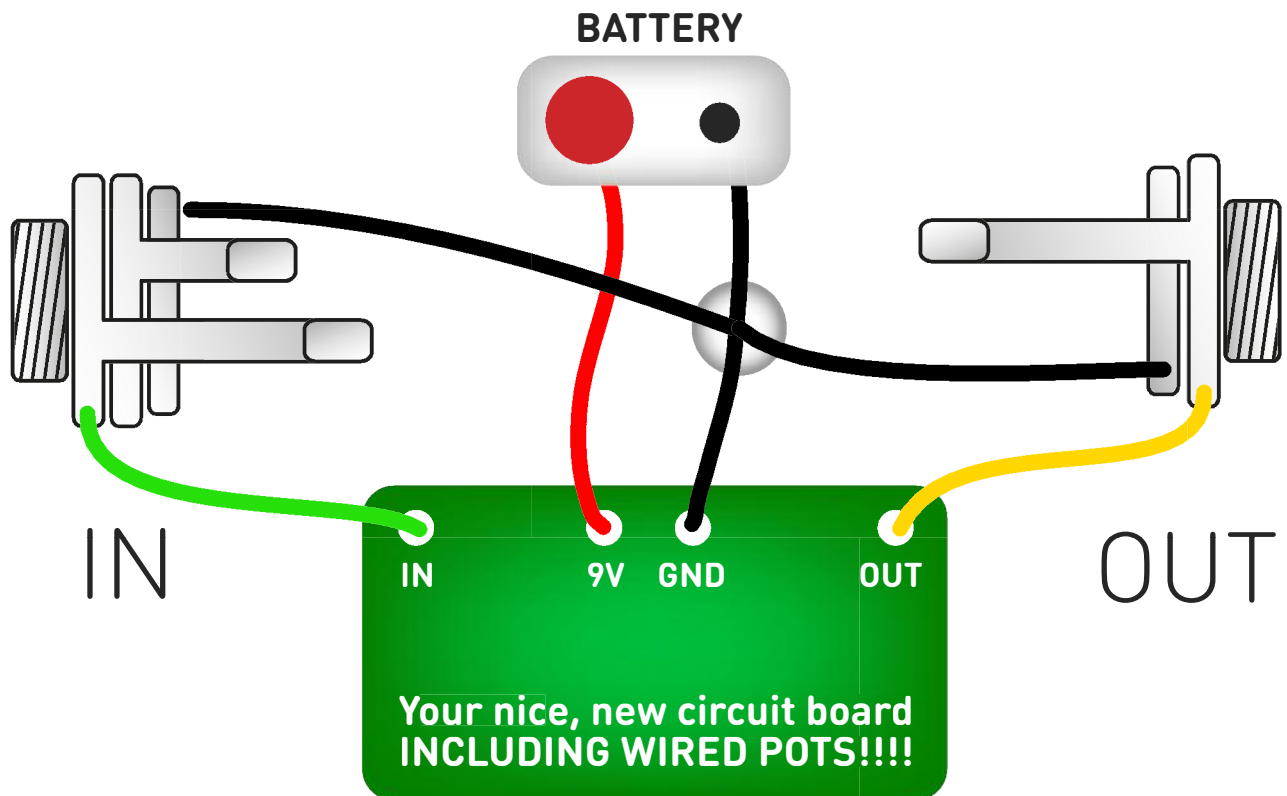
To get them all the same height its best to solder a single pin of each so you have all three pots in place. See if they all line up ok. If not, simply melt the connection of any that aren't right and adjust. Much easier than trying to do it if all three pints are soldered. Once they're aligned, solder the other two pins of each pot.

Do something similar for the switches - solder in one tag, then melt and adjust until straight. Then solder the other two tags.

Favourite technique at FDHQ is to put the pots and switches into the holes on the top side of the enclosure to get everything lined up nicely while soldering.



# 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!

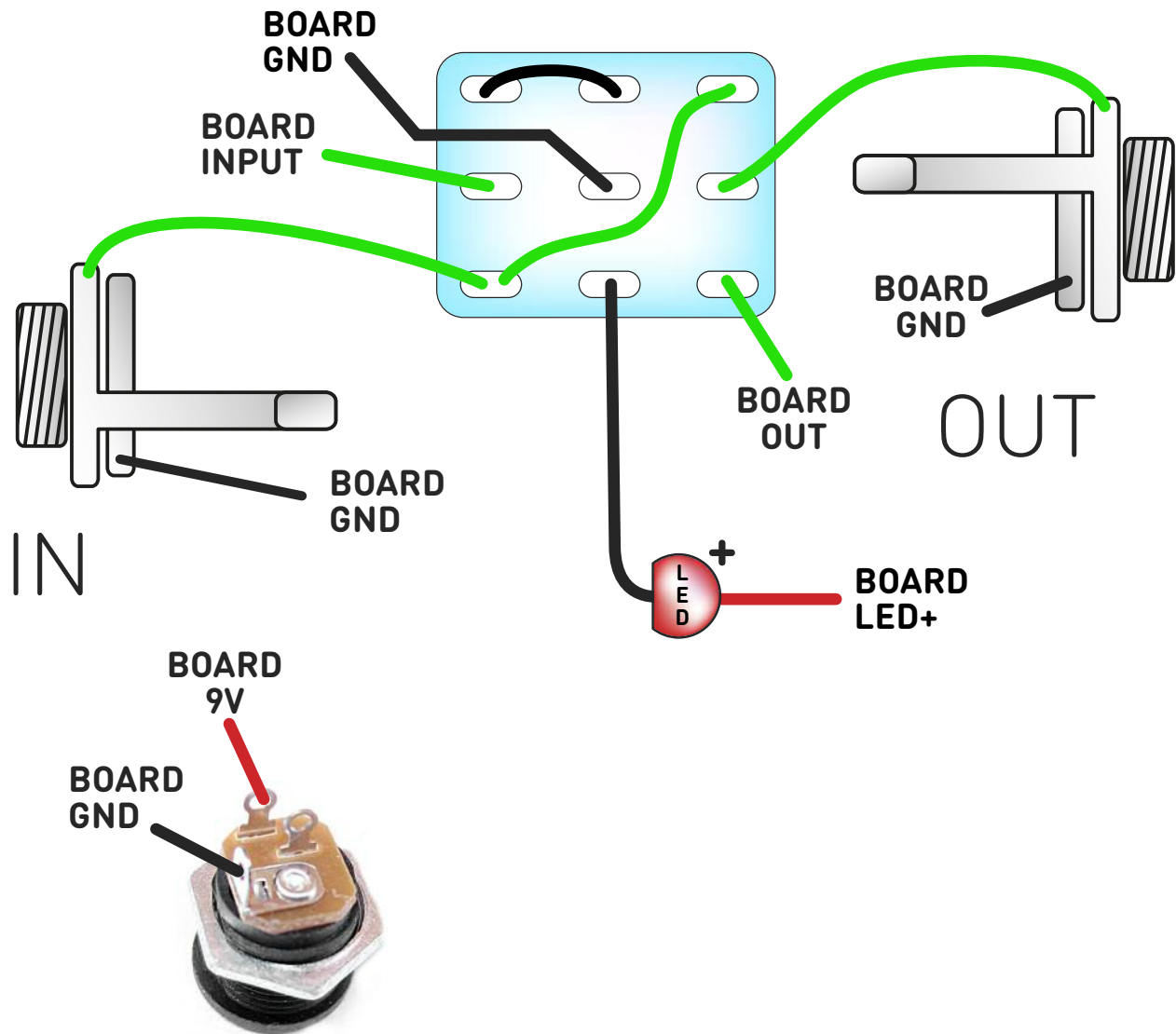
If it works, crack on and do your switch wiring. If not... aw man.

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 - DC only version

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

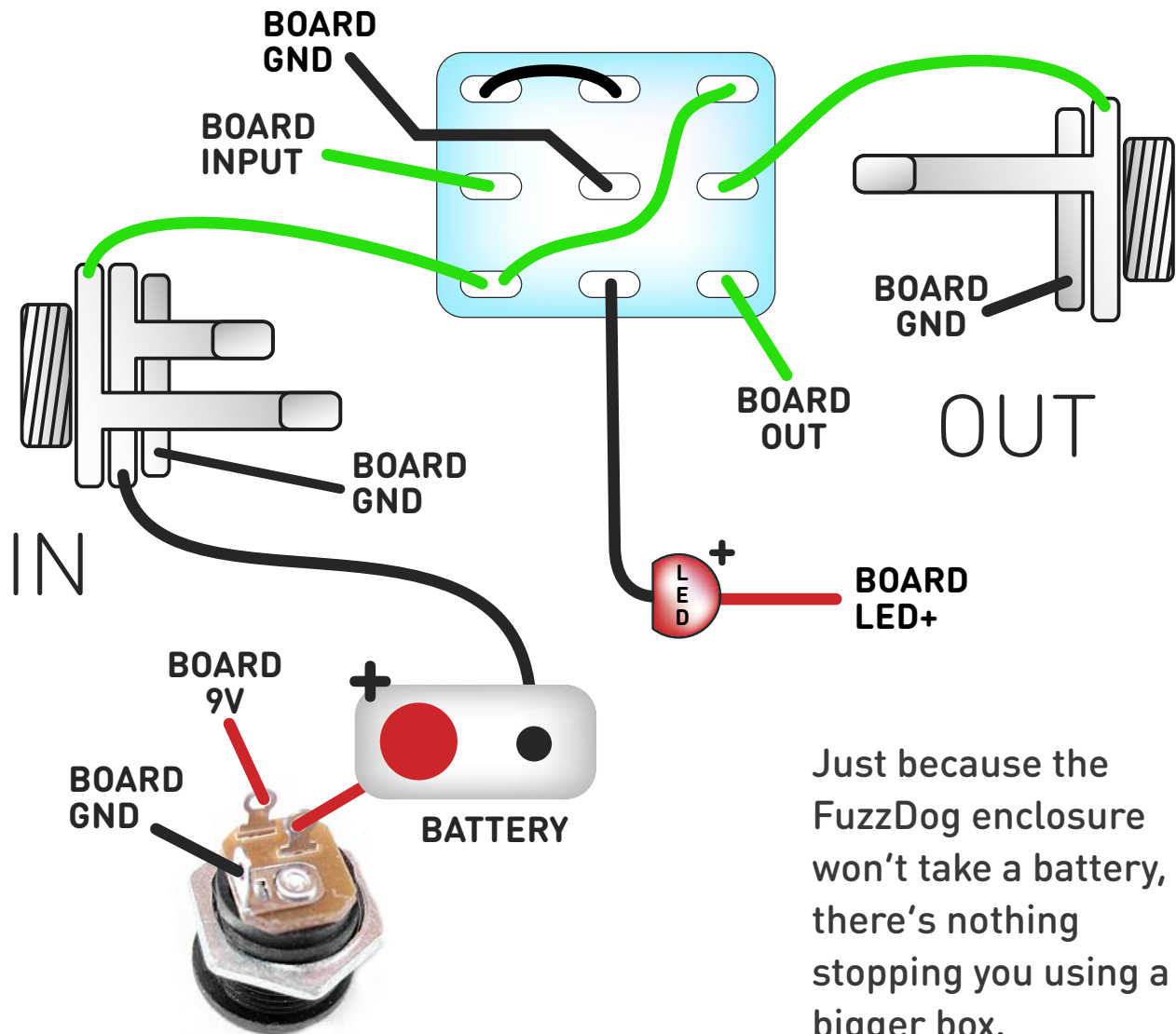


This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

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.

# Wire it up - with battery

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



Just because the FuzzDog enclosure won't take a battery, there's nothing stopping you using a bigger box.

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.

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# Drilling template

Dirt Dessert

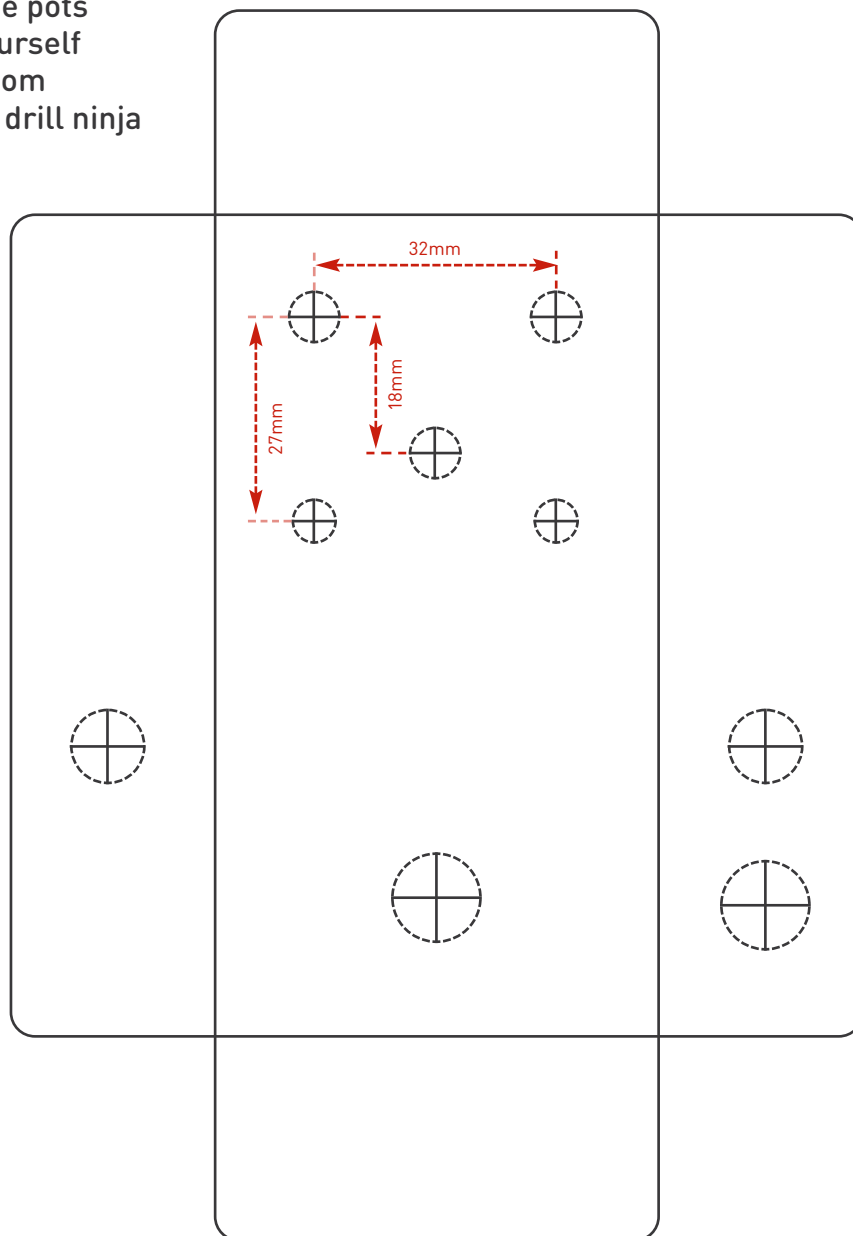
Hammond 1590B

60 x 111 x 31mm

Recommended drill sizes:

|            |      |
|------------|------|
| Pots       | 7mm  |
| Jacks      | 10mm |
| Footswitch | 12mm |
| DC Socket  | 12mm |
| Toggles    | 6mm  |

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



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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