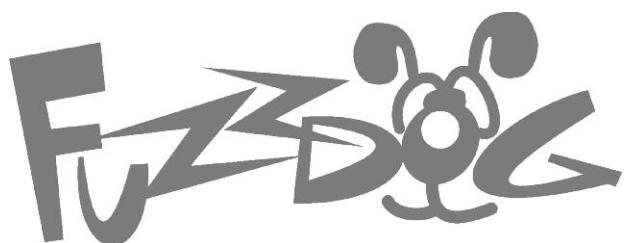


OctoFactory

8 knobs of filthy fuzzy fun



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:

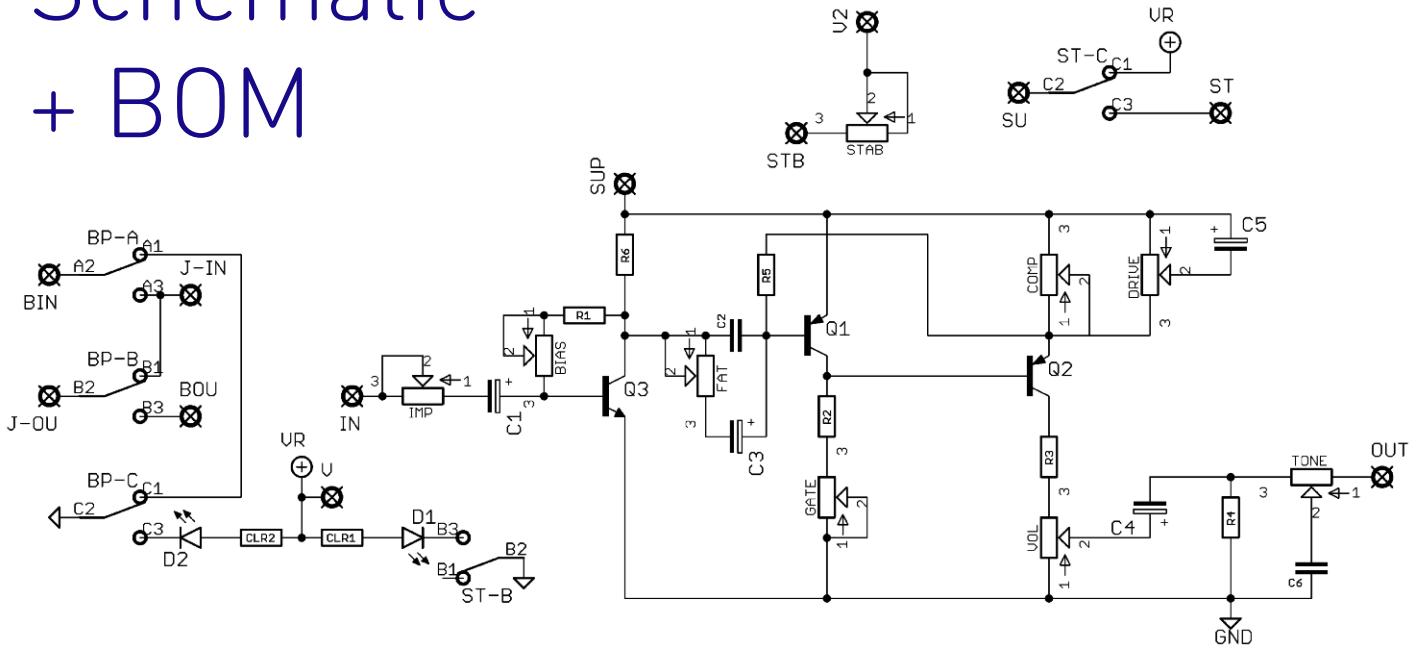
- Resistors should be 0.25W. You can use those with higher ratings but check the physical size of them.
- Electrolytics caps should be at least 25V for 9V circuits, 35V for 18V circuits. Again, check physical size if using higher ratings.

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



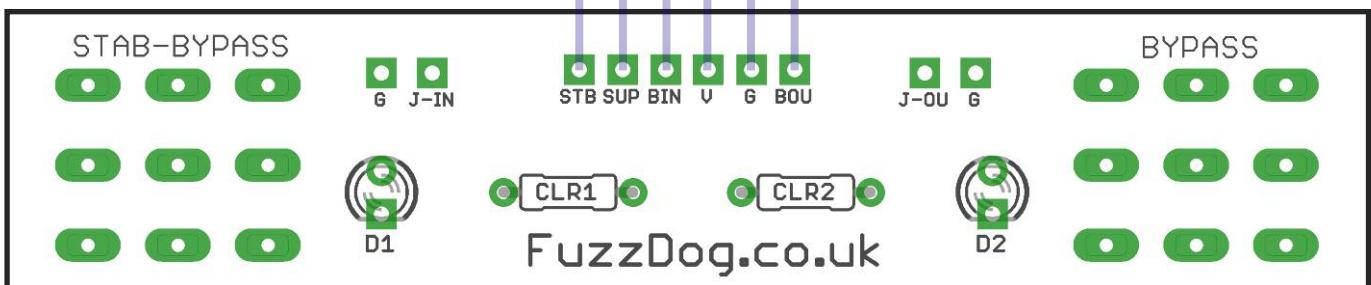
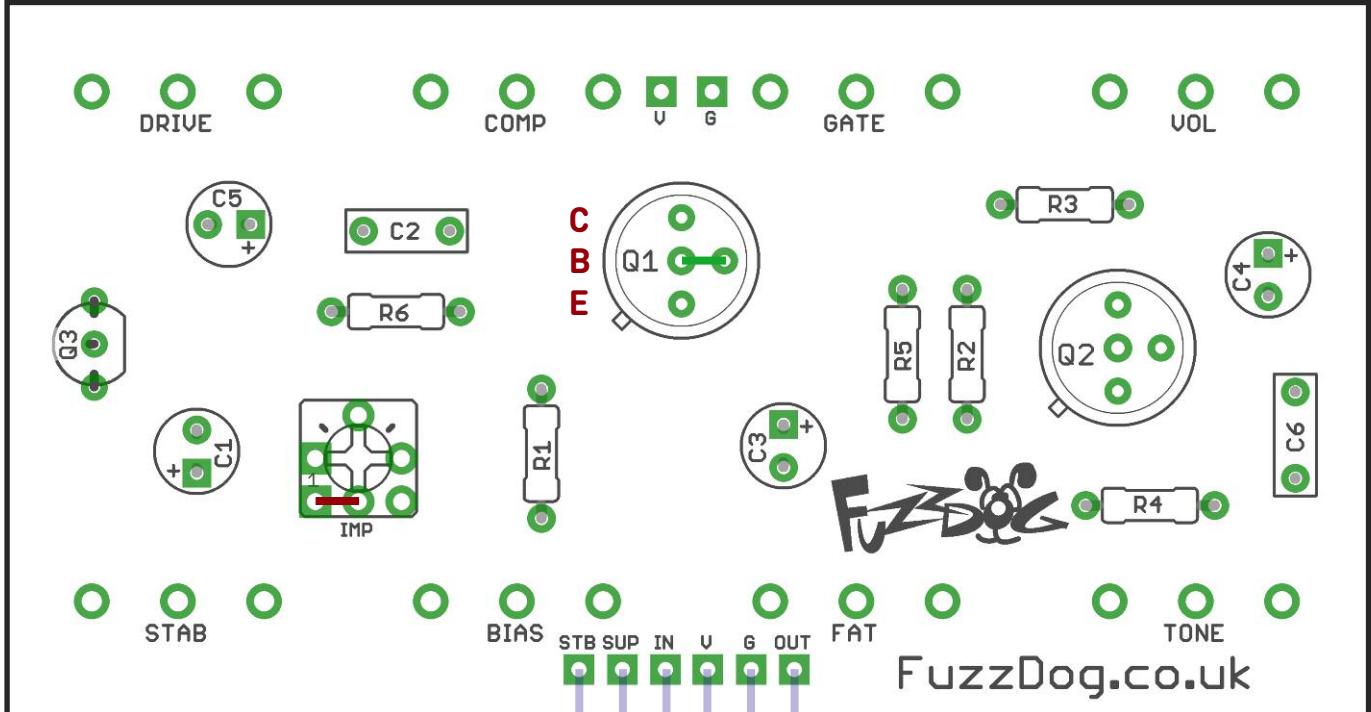
R1	150K	D1-2	LEDs
R2	470R	Q1	AC128**
R3	5K1	Q2	AC128**
R4	220K	Q3	2N3904
R5	47K	BIAS	100KB
R6	10K	FAT	100KB
CLR1	2K2*	COMP	10KB
CLR2	2K2*	DRIVE	10KB
C1	10u elec	VOL	5KB
C2	100n	TONE	10KB
C3	10u elec	STAB	5KC
C4	10u elec	GATE	10KB
C5	10u elec	IMP	100K trim***
C6	22n		

Though there's a lot going on in the schematic, all the parts that aren't in the section between IN and OUT are to do with the BYPASS and STAB switching.

*Or your choice depending how bright you want the LEDs to be.

**A typical fuzz face set is the norm (Q1 65-80, Q2 90-120), but there are no rules. Try other PNP germaniums. The circuit also works well with silicon PNP transistors which give a much tighter fuzz and different oscillations on the noisier settings. BC558B work very well.

***We've added the option of a trimmer on the input. Tweaking this can give you different results depending on your guitar output level. It's entirely optional and a little decadent.



There are two pads for the base pin on Q1 and Q2 to make it easier to mount different transistor types. The pins are marked above. The two centre pins are connected by a trace on the PCB as shown.

If you aren't using the IMP trimmer add a jumper as shown in red above.

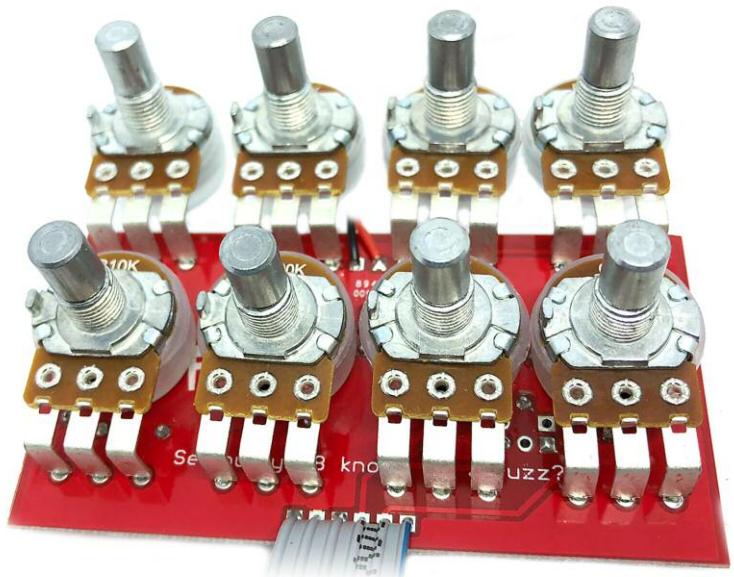
There are six corresponding pads on the main board and daughterboard. These should be connected. Ribbon cable is good, but individual wires are fine.

Your 9V and GND connections are on the top of the main PCB.

LEDs - Don't solder these in until you're mounting the finished build into your enclosure. Pop them into the holes on the daughterboard (long leg to round pad), and bend the legs out slightly to stop them falling out. Once you have your footswitches tightened into place, push the LEDs through the board and into their drilled holes in the enclosure. Solder.

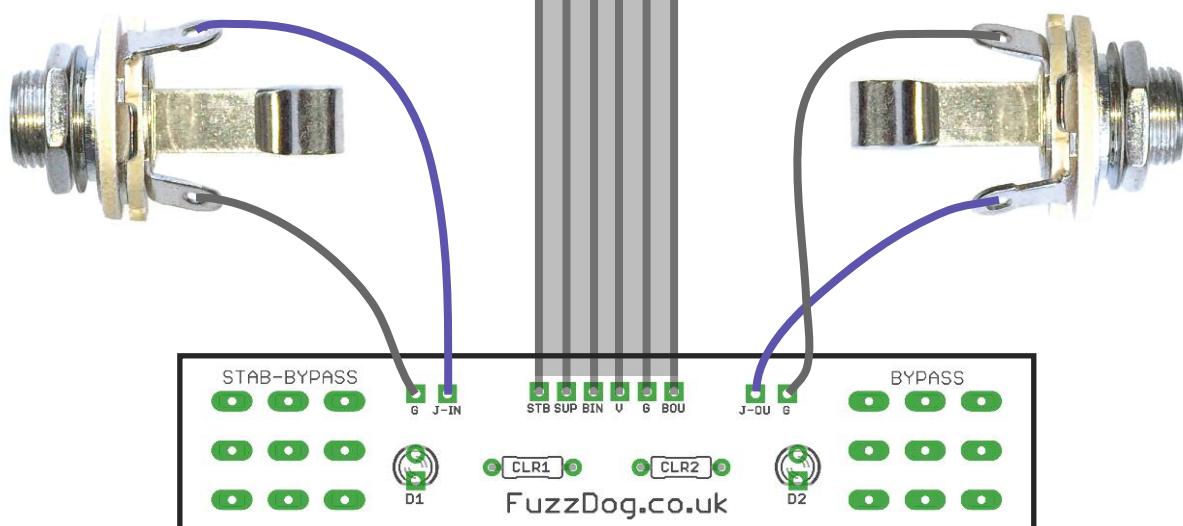
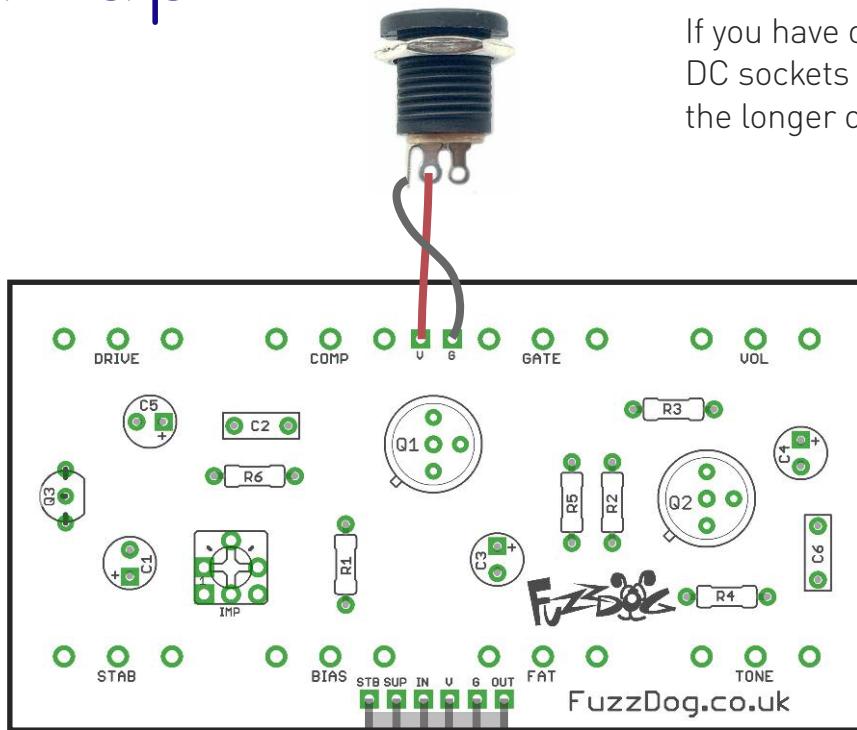
Snap the small metal tags off the pots so they can be mounted flush in the box.

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.



Wire it up

If you have one of the smaller DC sockets with only two pins, the longer one is the +V



There are some crazy labels on the boards. They are:

J-IN Jack In

J-OU Jack Out

STB Stab - This runs the stab control level between the two PCBs.

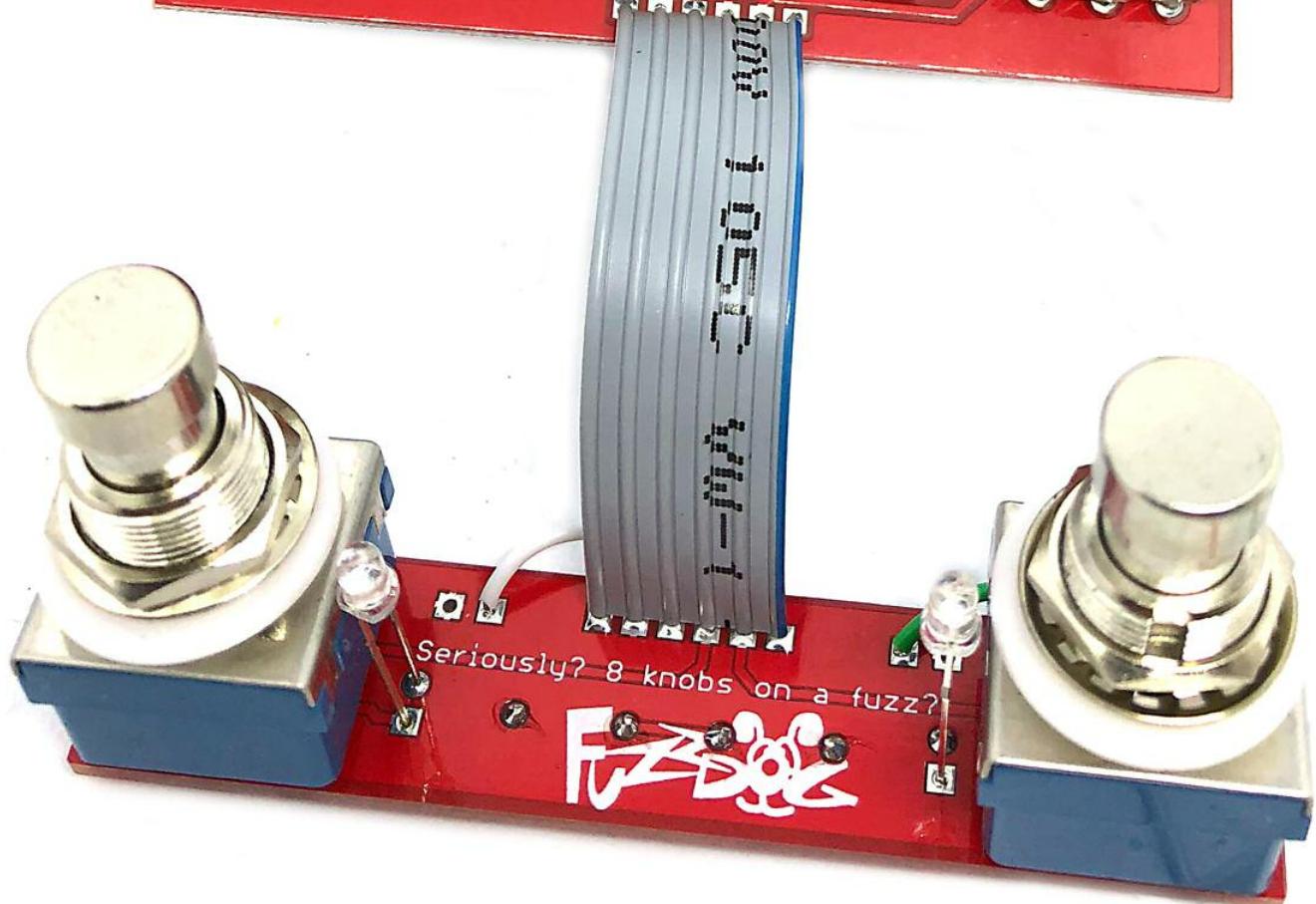
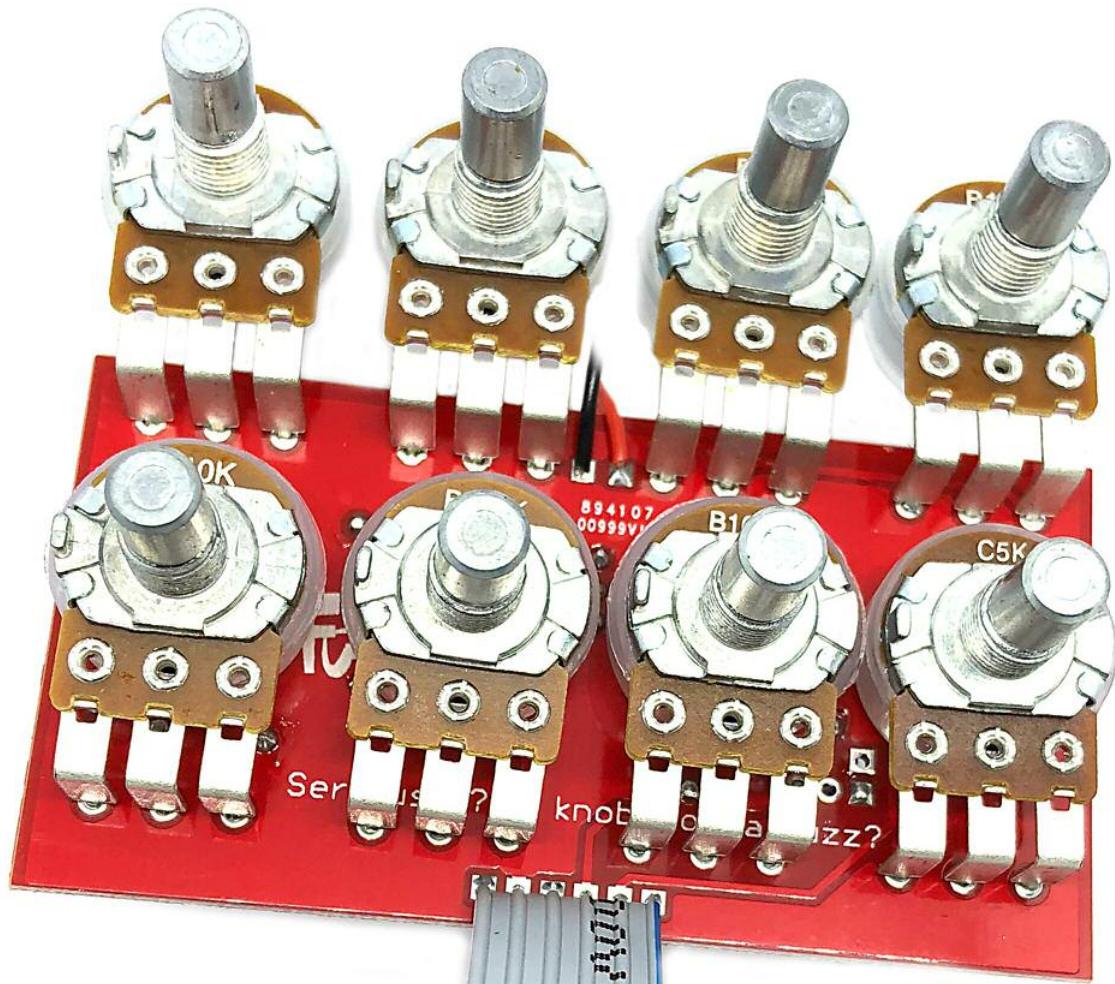
SUP Supply - This is the supply voltage to the fuzz circuit, determined by the stab bypass switch.
Either your full supply level or your stab level.

V Connects your supply voltage to the daughterboard for your LEDs

G Ground

BIN Board In - Sends your signal to the main PCB

BOU Board Out - main PCB signal back to the daughterboard, ready to get your amp excited.



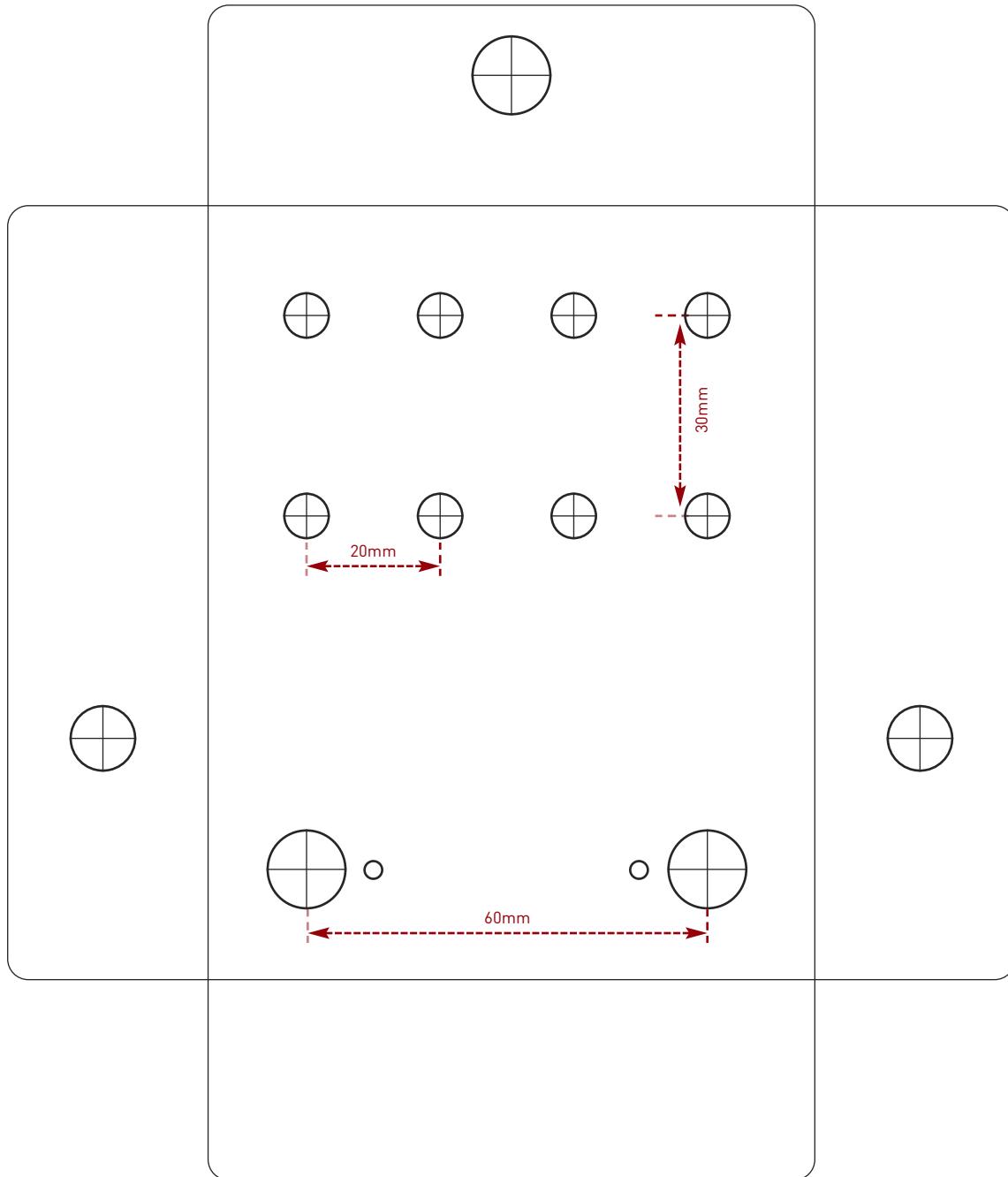
Drilling template

Hammond 1590BB
91 x 116 x 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 and footswitches 1mm bigger to give yourself some wiggle room.



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.