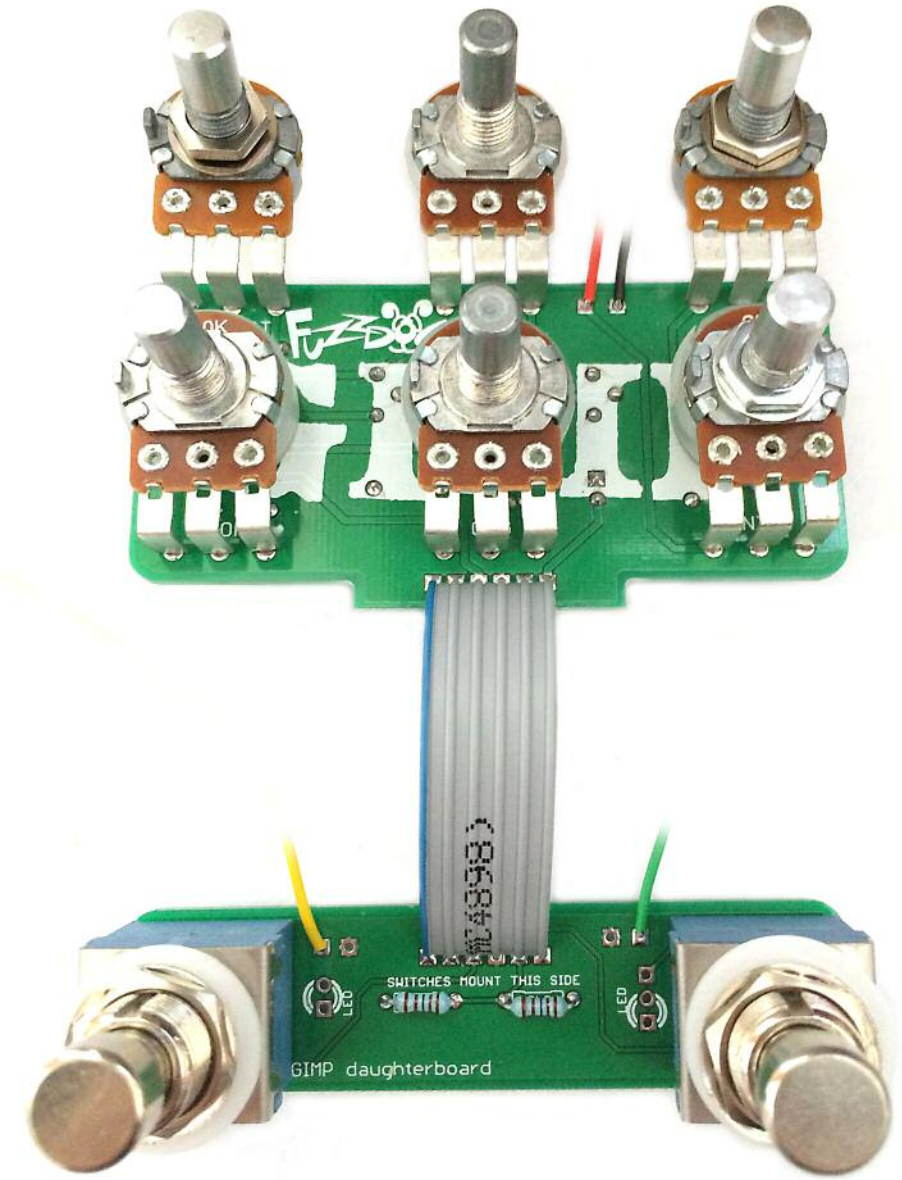
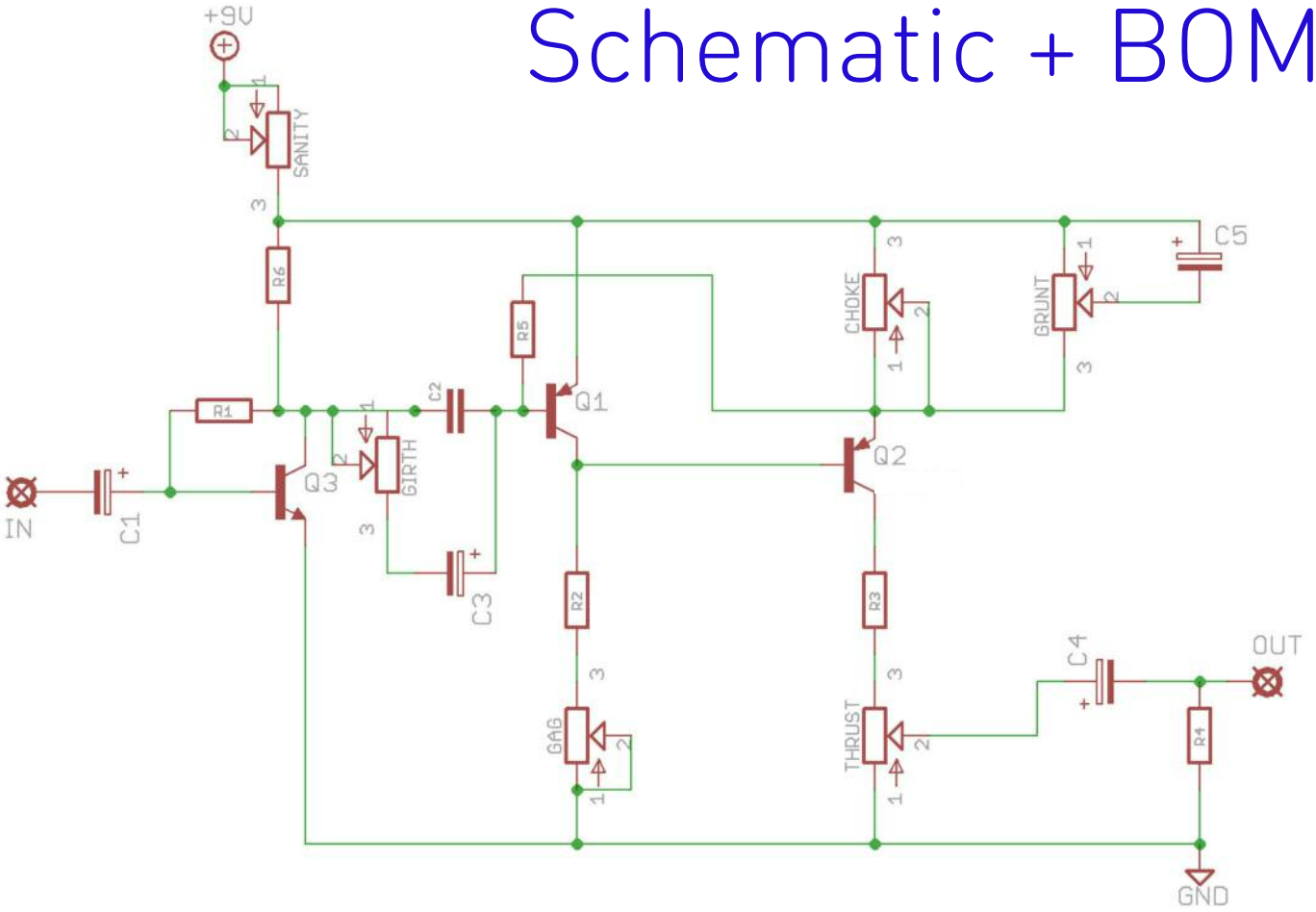


The Gimp

Germanium fuzz +++

Schematic + BOM



R1	220K
R2	470R
R3	5K1
R4	220K
R5	47K
R6	10K
CLR	2K2*

C1	10 elec
C2	100n
C3	2u2 elec**
C4	10u elec
C5	10u elec
Q1,2	PNP Ge***
Q3	2N3904

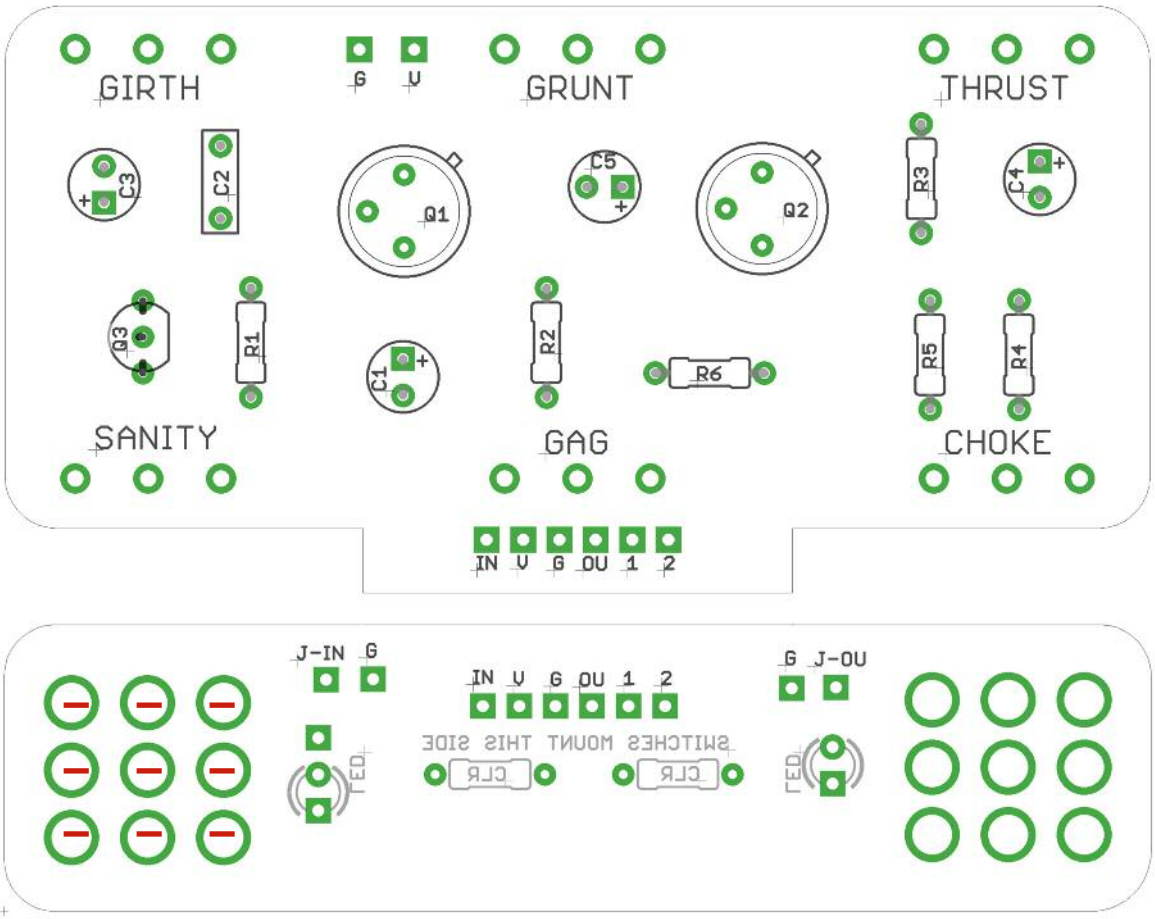
SANITY	5KC
GIRTH	500KC‡
CHOKE	10KB
GAG	10KB
THRUST	5KB
GRUNT	10KB

*2 x CLRs are required on the daughterboard. Use whatever you prefer as your normal LED current limiter.

**Adjust to taste. Can be bigger or smaller.

***Typical Fuzz Face pair with hFE of ~70(Q1) / ~120(Q2). You can get good results with a huge range of gains either side of those values. Normally AC128 or 2N404.

‡Can be 500KB, but the reverse log taper gives a better sweep.



Be very careful when soldering the diodes, 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).

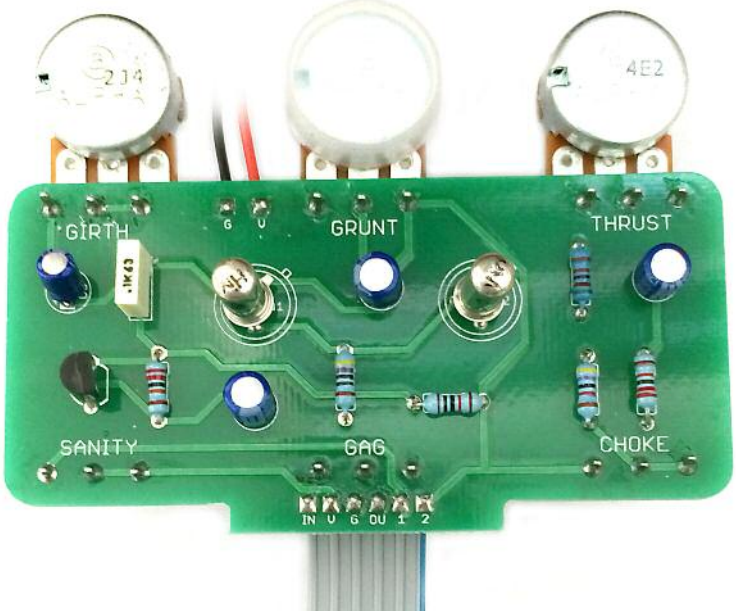
The long leg (anode) of the electrolytic capacitors go into the square pads.

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

Pot mounts 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 all sitting at the same height. If not, melt the joints and re-adjust any that are off.

If your pots don't have protective plastic covers you should place a strip of thick card between them and the board when soldering to keep them a good distance from the pcb to avoid shorting other components.

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 underside of the board.
Make sure your footswtich lugs are horizontal as shown in red above when soldering into the daugherboard. It's a good idea to place them in the holes in the enclosure when doing this to ensure they line up ok.



Ensure you mount the footswitches on the right side of the daughterboard. It's clearly marked. Otherwise your ribbon cable connections won't line up.

The boards are designed for a 6-way ribbon cable connection between them, but you can use any wire you want. just make sure you connect the correct pads.

LEDs

You should leave these until you're actually boxing up the circuit. They don't need to be in place for the circuit to work, so plug it in and test it before you add them.

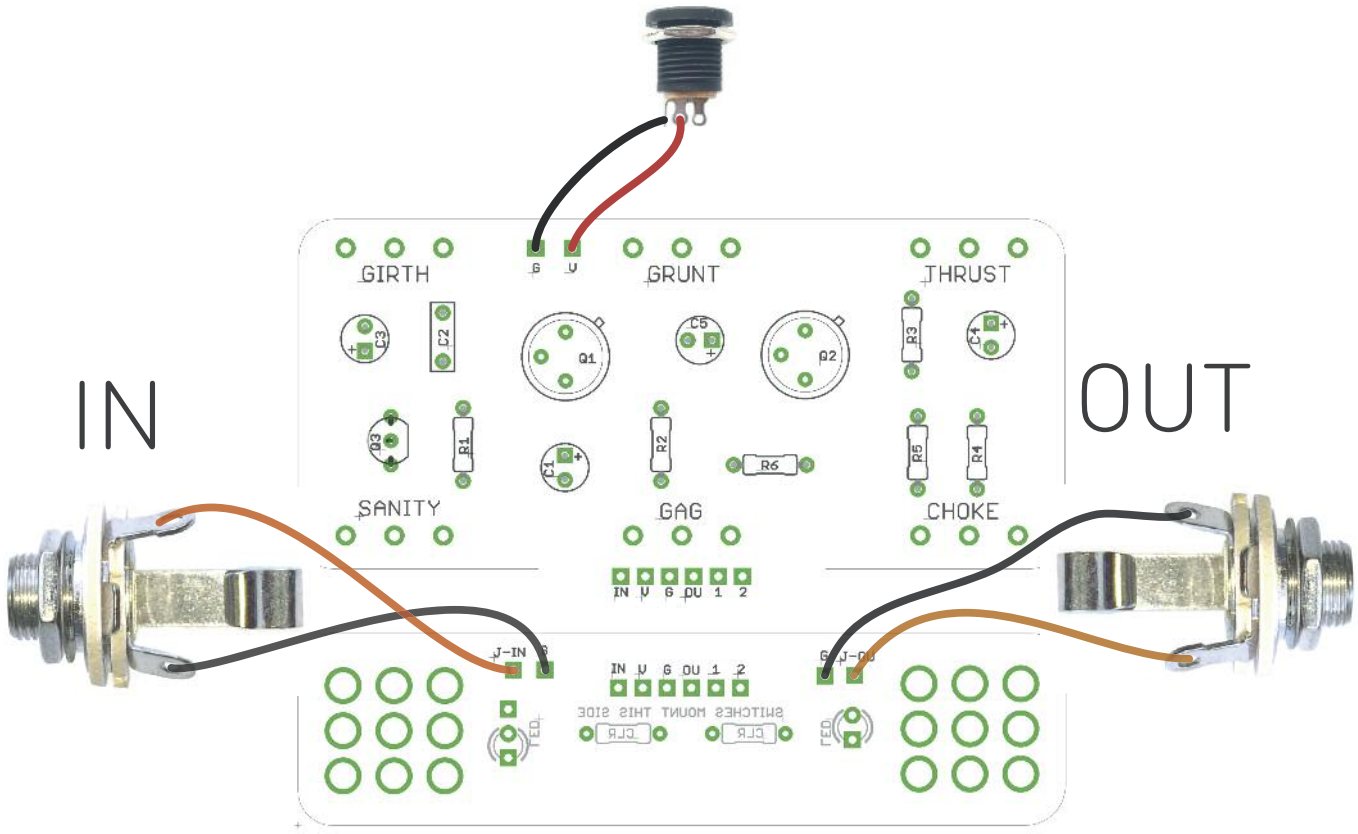
Pull them up through the PCB (short leg to square pad), and slightly bend the legs out so they don't fall back through. Position your daughterboard into the enclosure and lightly secure the footswitches. You should now push the LEDs down through the PCB and located them into their holes in the enclosure. Once done, tighten the footswitches, check the LEDs are still in place, then solder them in.

WHY IS THERE AN EXTRA PAD FOR THE SANITY BYPASS FOOTSWITCH LED...?

Yes. You can use a bi-colour LED in there if you want, i.e. green for normal, red for MORE.
Use a common-anode LED.

WIRING

Couldn't be much easier really. Once you have the daughterboard and main circuit connected (hopefully you've used a 6-way ribbon cable for extra simplicity and neatness), there are only six wires to connect as shown below.



Drilling template

The Gimp

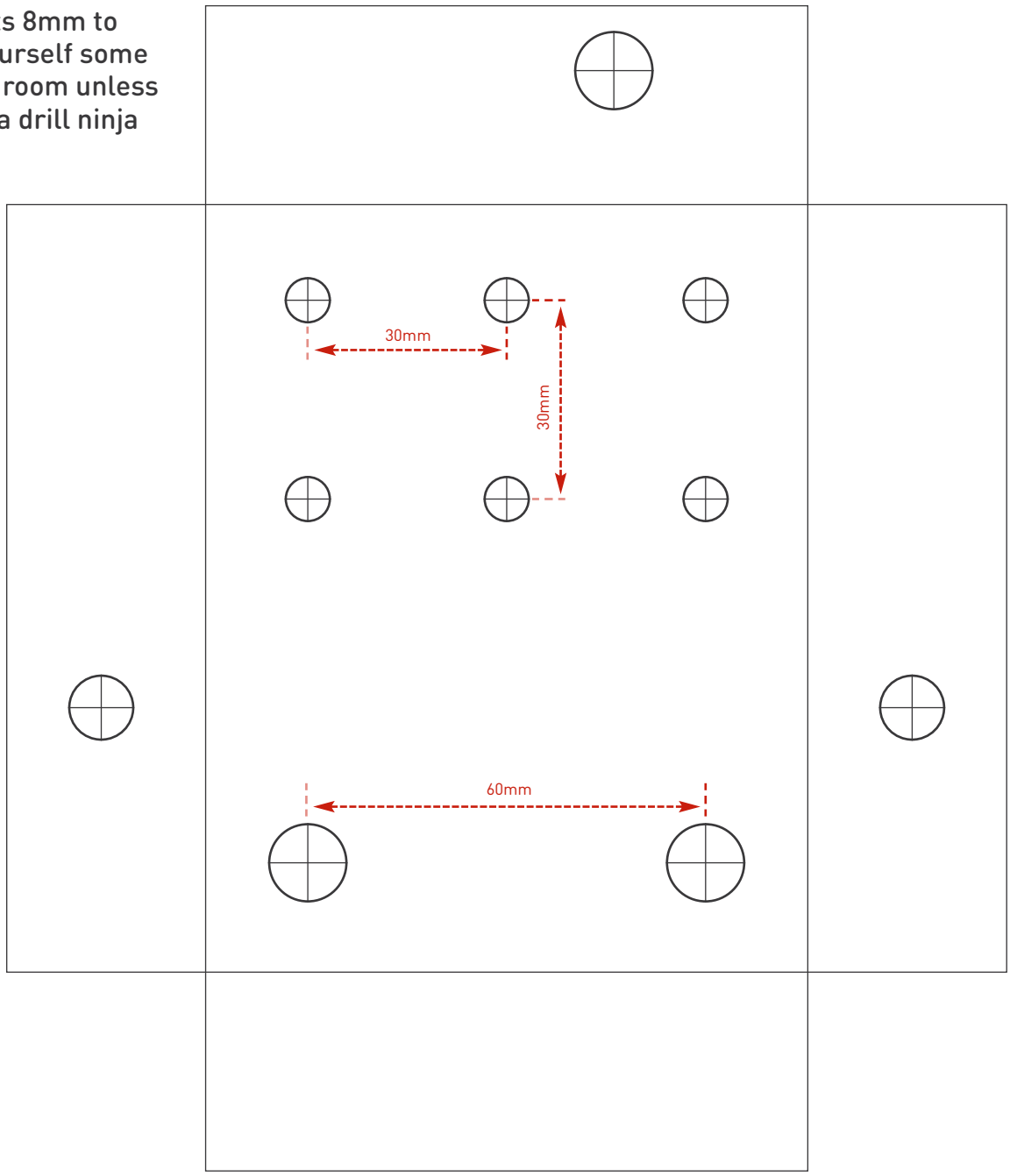
Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm
Toggle Switch	6-7mm

Hammond 1590BB

91 x 116 x x 31mm

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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