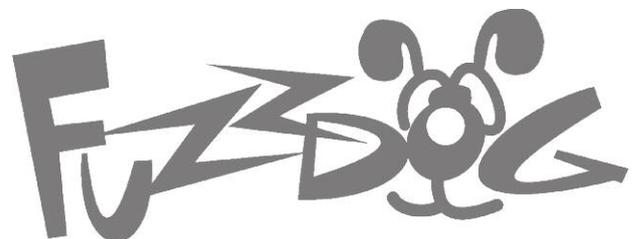


Super Fuzz

Shin-Ei's utterly uncompromising monster



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:

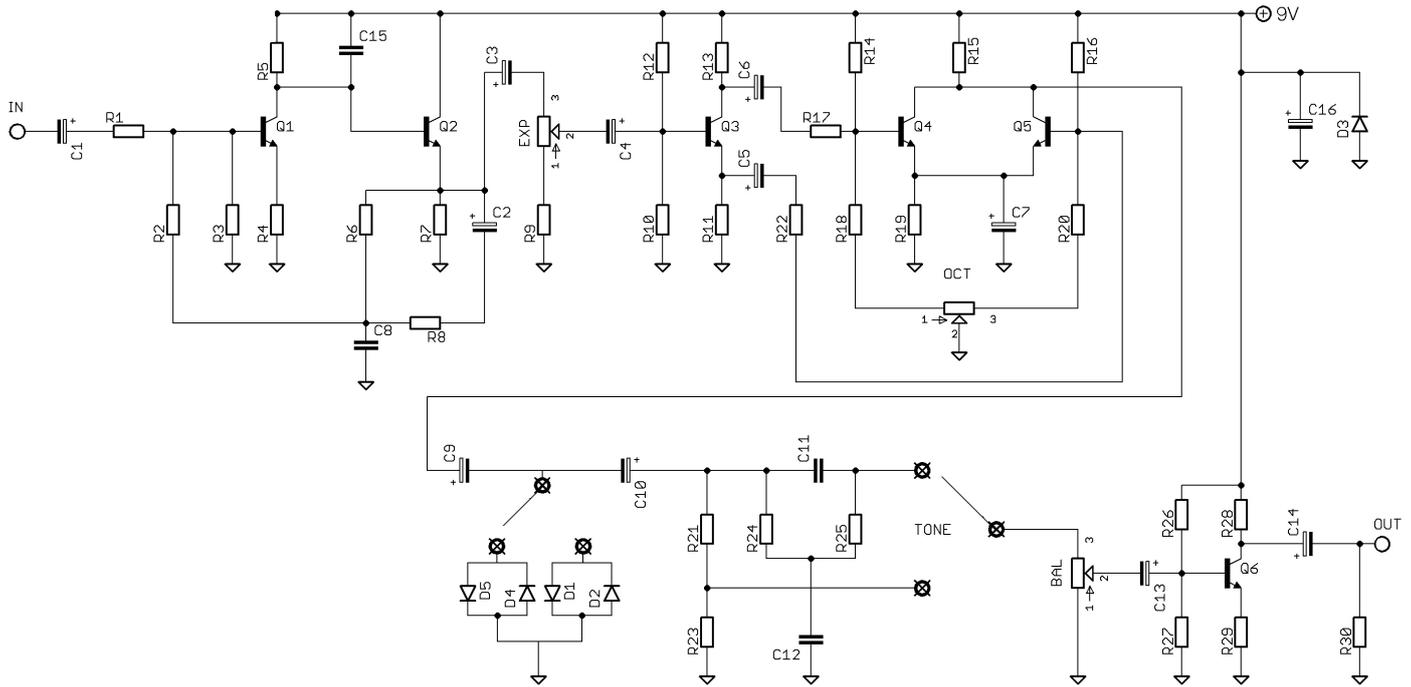
- Resistors should be 0.25W. You can use those with higher ratings but check the physical size of them.
- Electrolytics caps should be at least 25V for 9V circuits, 35V for 18V circuits. Again, check physical size if using higher ratings.

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	22K	R17	470R	C1	10u		
R2	100K	R18	22K	C2	10u		
R3	100K	R19	1K8	C3	10u		
R4	1K8	R20	22K	C4	10u		
R5	47K	R21	47K	C5	10u	Q1-6	2N5088**
R6	470K	R22	470R	C6	10u	D1,2	1N34A
R7	10K	R23	10K	C7	10u	D3	1N4001
R8	47K	R24	22K	C8	100n	D4,5	1N4148***
R9	3K3	R25	10K	C9	10u	OCT	10K TRIM
R10	150K	R26	100K (750K)	C10	10u	EXP	50KB
R11	10K	R27	15K (75K)	C11	1n	VOL	50KB
R12	220K	R28	10K (24K)	C12	100n	TONE	SPDT ON-ON
R13	10K	R29	1K (1K2)	C13	10u	DIODE	SPDT ON-ON
R14	100K	R30	100K	C14	10u		
R15	10K			C15	2n2*		
R16	100K			C16	100u		

Alternative values shown in blue are from the Wattson EFY-6 version of the Superfuzz, giving higher output.

*sometimes shown as 1n

**any low-ish gain NPN silicon transistors can be experimented with, i.e. 2N222A, 2N3904, BC107

***optional. Don't bother putting them in if you're not using the diode selection switch. Other diodes can be experimented with.

Test the board!

Check the relevant daughterboard document for more info before you undertake this stage.

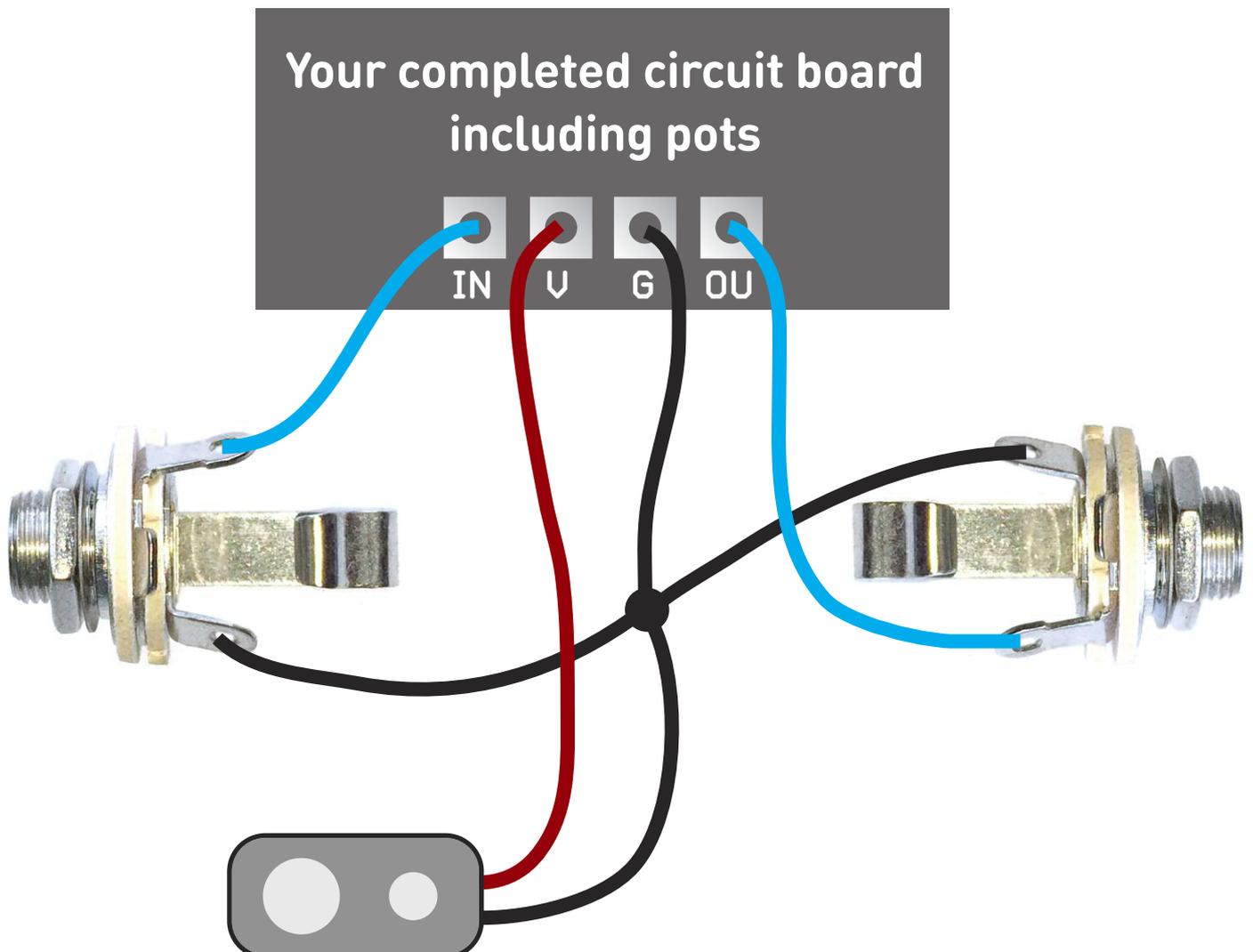
UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

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.

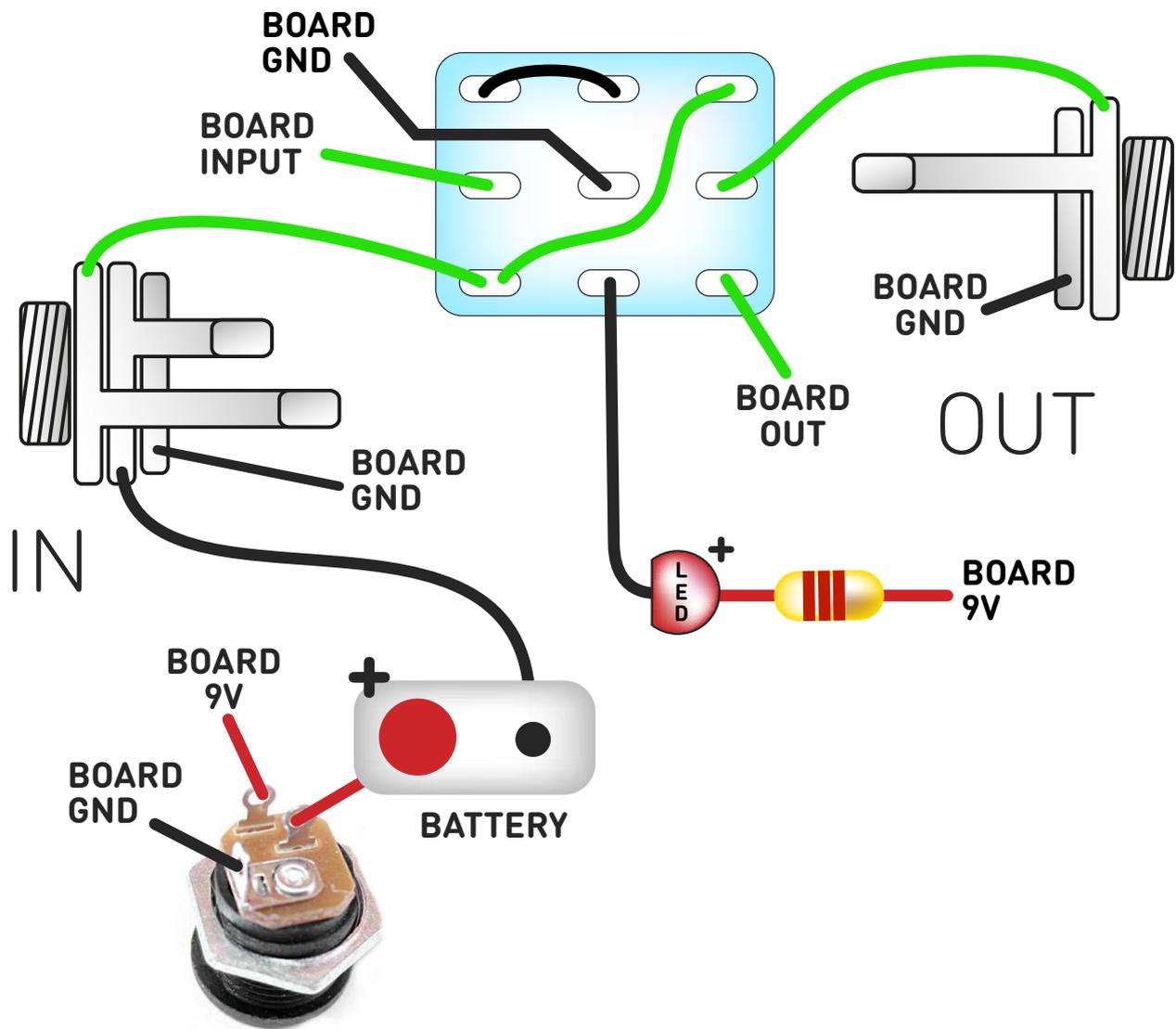
Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If you're using a ribbon cable you can tack the wires to the ends of that. It's a lot easier to take them off there than it is do desolder wires from the PCB pads.

If it works, carry 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 (if using a daughterboard please refer to the relevant document)



Wiring shown above will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

The Board GND connections don't all have to directly attach to the board. You can run a couple of wires from the DC connector, one to the board, another to the IN jack, then daisy chain that over to the OUT jack.

It doesn't matter how they all connect, as long as they do.

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.

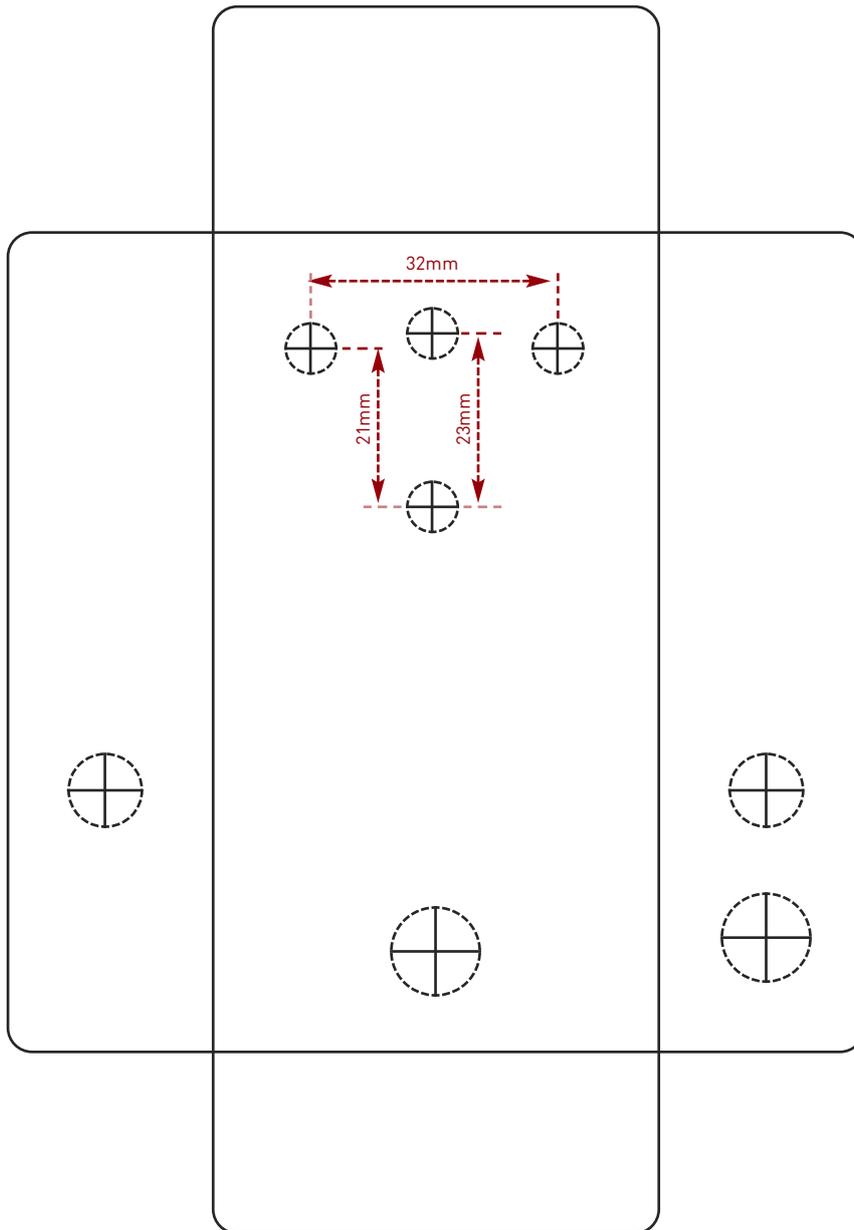
Drilling template

Hammond 1590B
60 x 111 x 31mm

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm
Toggle Switches	6mm

It's a good idea to drill the pot and toggle switch 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.

FuzzDog.co.uk