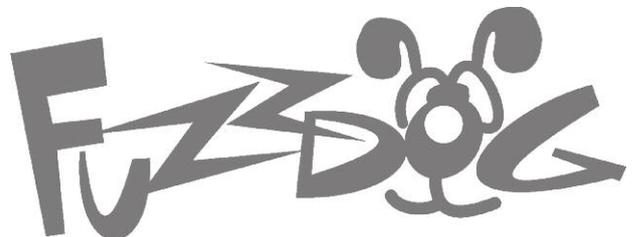
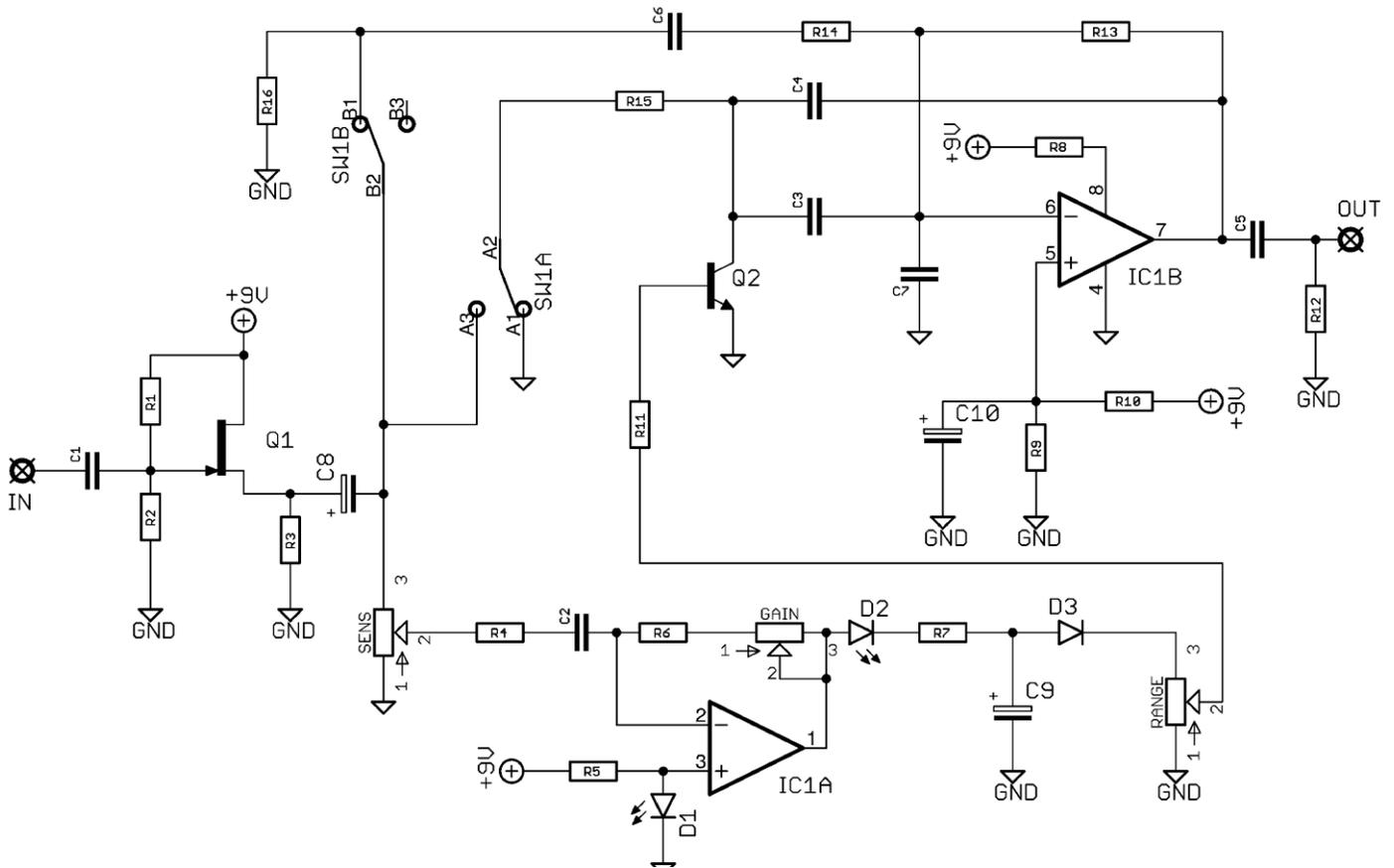


Quack Machine

Dr Quack
Auto Envelope Filter



Schematic + BOM

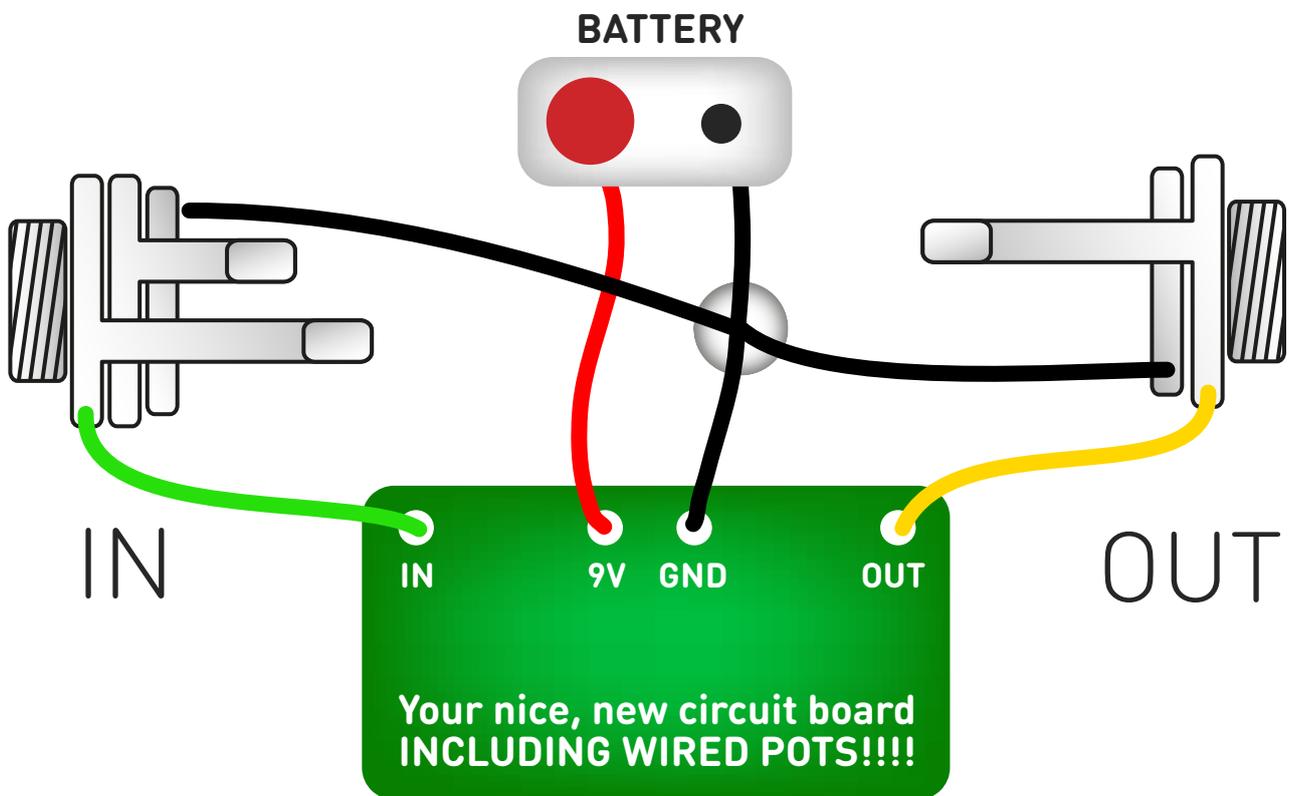


R1	1M	C1	47n	D1,2	Red 3mm LED
R2	1M	C2	47n	D3	1N4148
R3	10K	C3	4n7	Q1	2N5457
R4	47K	C4	4n7	Q2	2N3904
R5	10K	C5	47n	IC	TL072
R6	2.2M*	C6	10n	RANGE	20/25KB**
R7	100R	C7	1n	SENS	100KB
R8	47R	C8	10u		
R9	47K	C9	10u		
R10	47K	C10	10u		
R11	22K				
R12	470K				
R13	470K				
R14	470K				
R15	47K				
R16	47K				

*In most cases R6 will be good for the gain setting. If you prefer you can use a smaller value and add a trimmer in the GAIN spot to adjust to taste.

**Range can be an internal trimmer or external pot. If you like to fiddle, use a pot. If you like set and forget you know what to do.

Test the board!



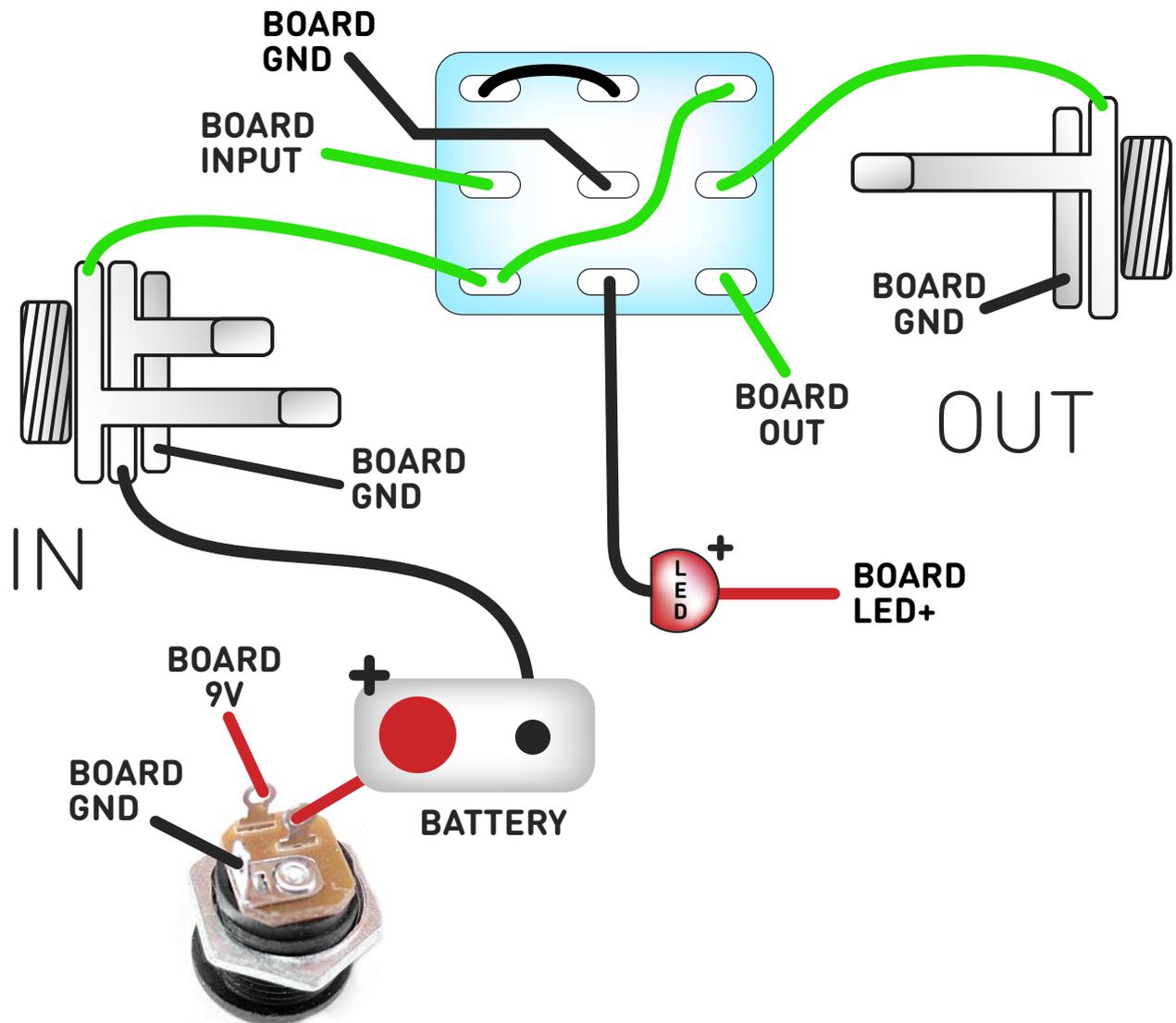
UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

Once you've finished the circuit it makes sense to test it 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 (if using a daughterboard please refer to the relevant document)



NOTE: Chances are you're using a 1590B enclosure and can't fit a battery in there. If so, just ignore the battery and Ring of the IN jack shown.

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.

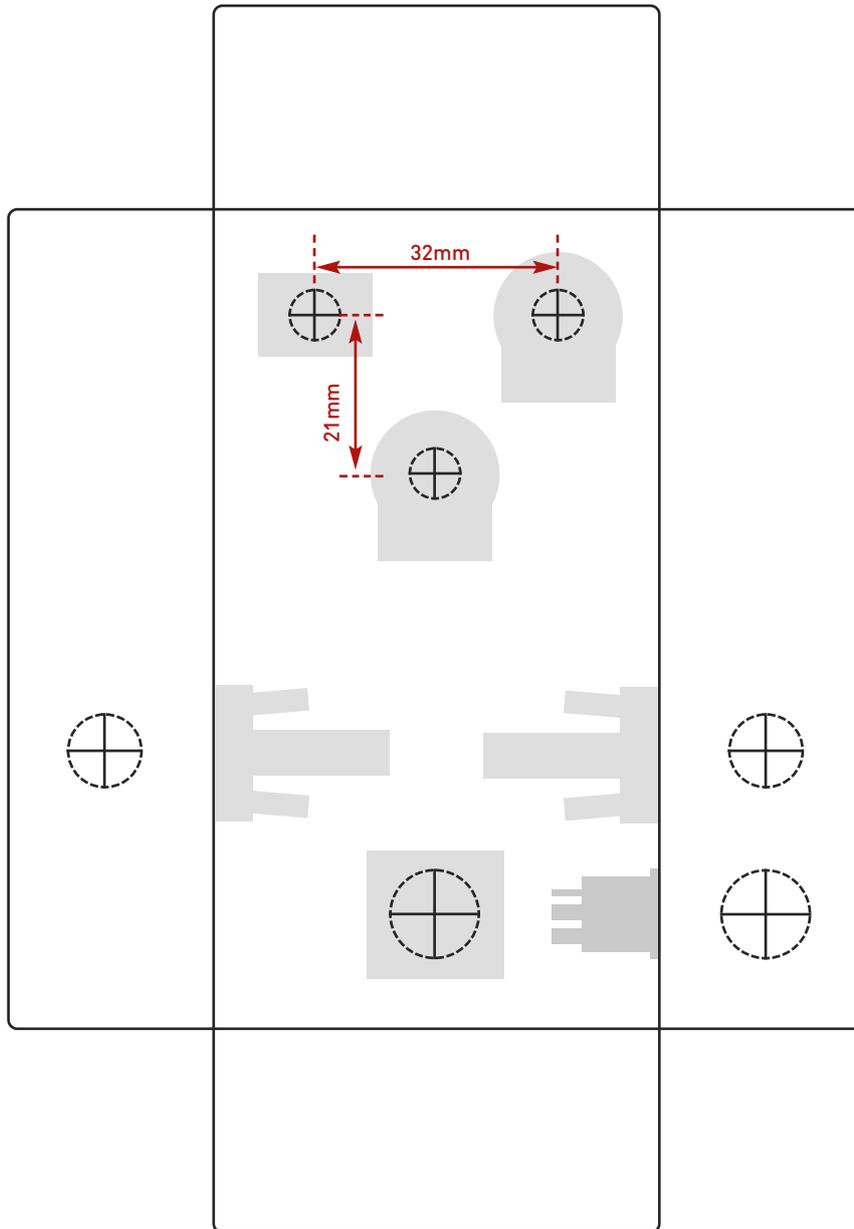
Drilling template

Hammond 1590B
60 x 111 x 31mm

Recommended drill sizes:

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

An extra mm on the drill size for the pots and switch will make life easier.



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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