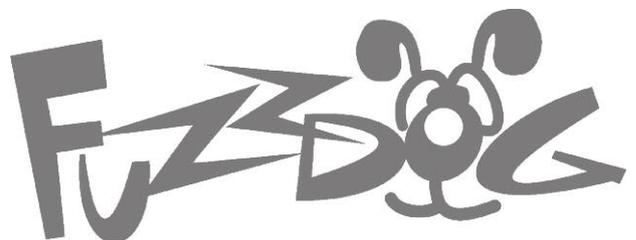
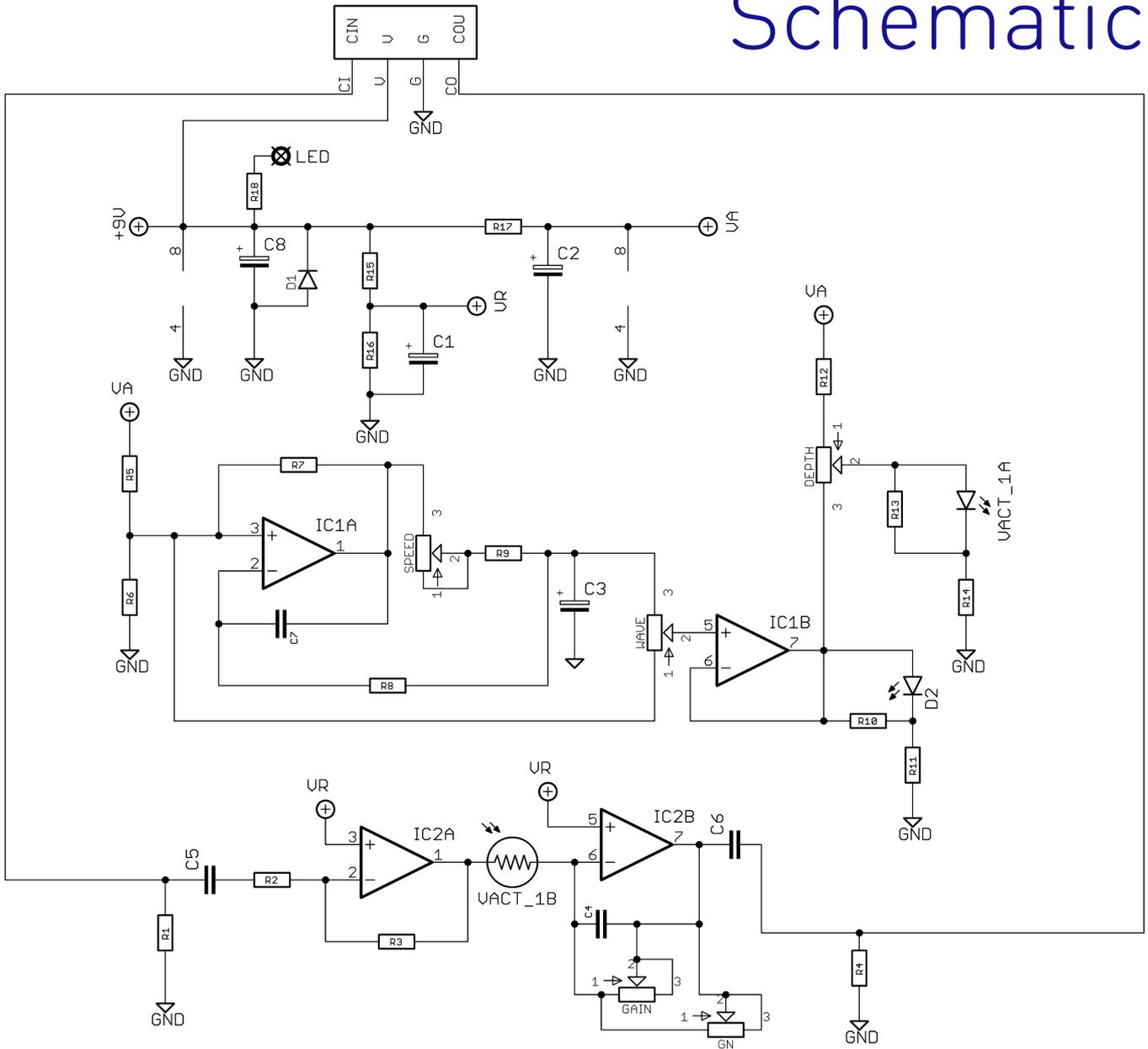


Lunar Shot Trem

CultureJam's Shoot The Moon -
a stripped back Tremulus Lune



Schematic



R1 1M
 R2 220K
 R3 220K
 R4 1M
 R5 220K
 R6 220K
 R7 220K
 R8 220K
 R9 2K2
 R10 1K
 R11 1K
 R12 470R
 R13 1K
 R14 1K
 R15 100K
 R16 100K

R17 100R
 R18 2K2 (CLR)
 C1 47u elec
 C2 47u elec
 C3 10u elec
 C4 330p
 C5 1u
 C6 1u
 C7 10n
 C8 100u elec
 D1 1N4001
 D2 LED (rate)

IC1 4558
 IC2 TL072
 VACT_1A 5MM RED LED
 VACT_1B LDR*
 SPEED 100KB
 DEPTH 1KB
 GAIN 10KB**
 WAVE 500KB

*Tayda's standard LDR works fine (20M dark - 1K light)

**Can be internal trimmer.

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 LEDs and 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).

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

The cathode (striped end) of D1 goes into the square pad. Long leg of D2 goes into the round pad. The long leg of the LED placed in VACT_1A goes into the square pad.

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

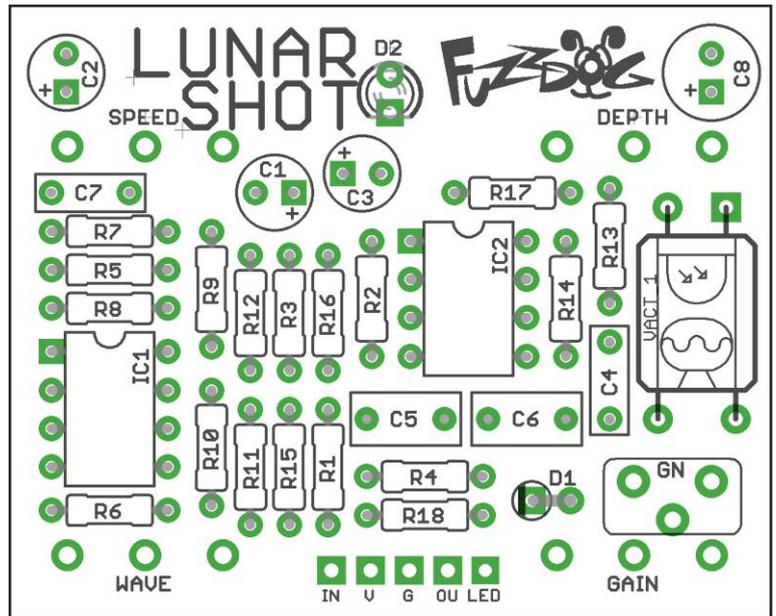
There's plenty of space on the PCB to lay your tall electrolytic caps flat to ensure they'll fit into the enclosure.

Pots mounts on the back side of the board. You can use vertical-mount pots or just wire up 'normal' ones.

Use EITHER a pot or trimmer for GAIN (GN for trimmer). An external pot is useful if you use different guitars.

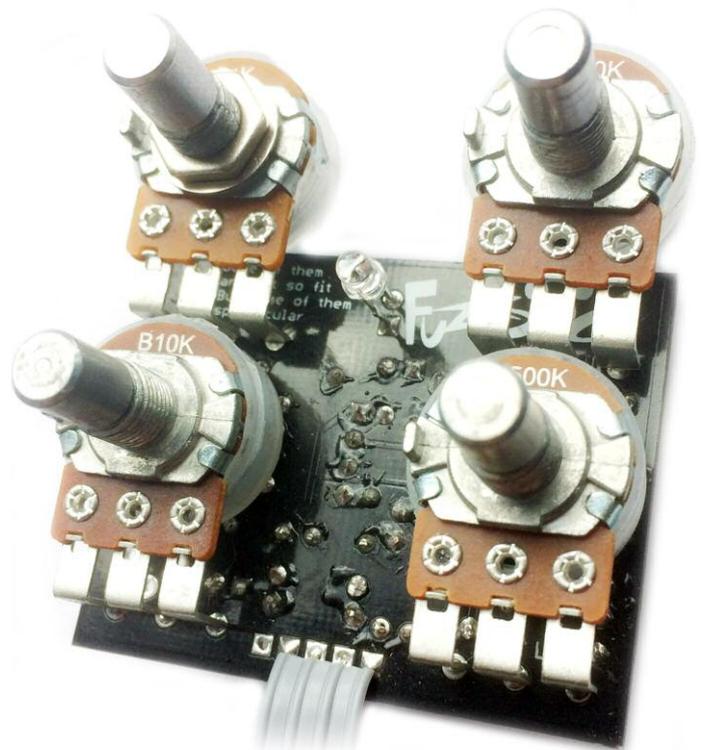
You should solder all components before you solder the pots. Once they're in place you'll have no access to much of the underside of the board.

It's useful to place the pots in the holes in the enclosure when soldering to make sure you get them all the right height and position. Solder one leg of each pot first, then check them for position. Melt and adjust if necessary. Get them all even before soldering the other two pins of each.



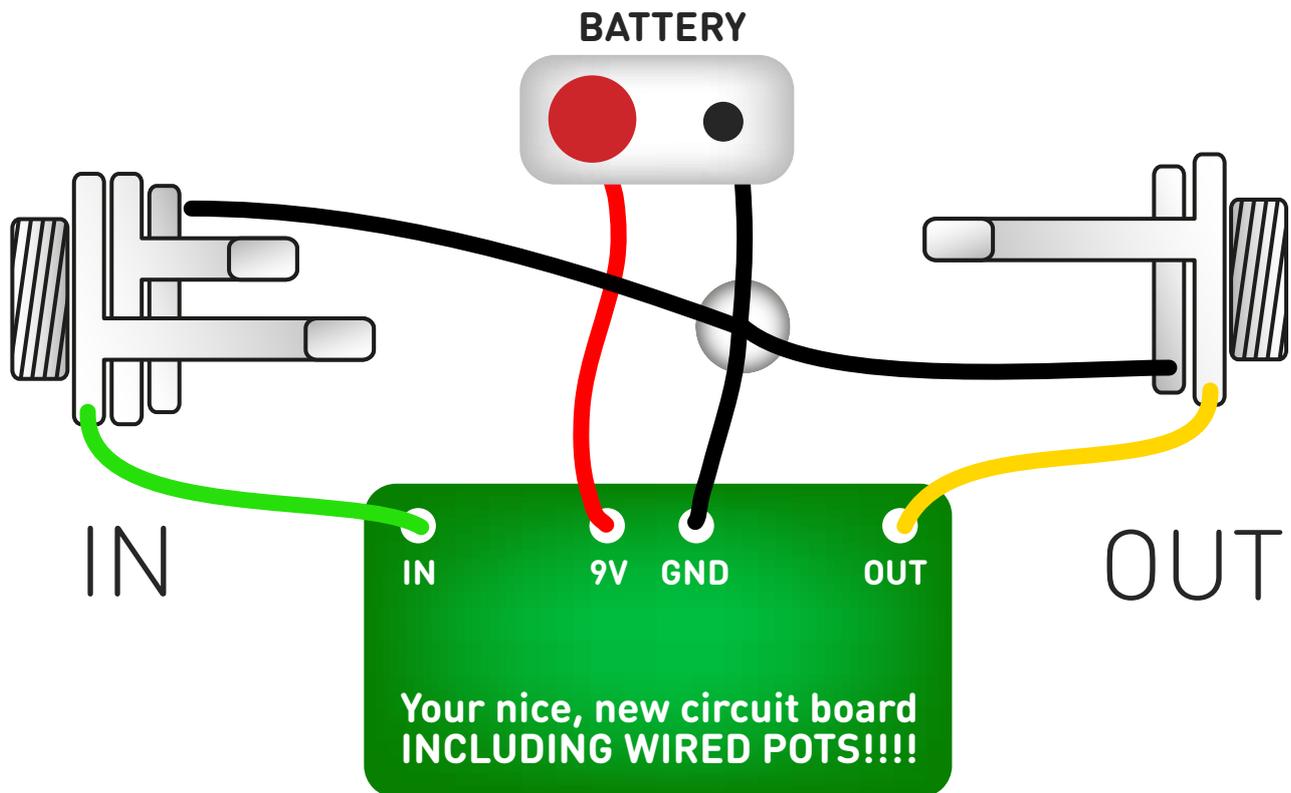
If your pots have plastic covers, sweet. If not, be careful to keep the bases away from the PCB pads. Slip some thick card between the pots and the PCB while you solder them in to space them nicely.

You should use your enclosure to get the height correct for your rate LED too. Get the pots soldered in place, then drop the LED into it's spot and place the whole circuit into your enclosure. Push the LED down into place and solder. The rate LED will always be on, so if you don't want that distraction just solder it close the PCB and have it inside the box out of harm's way.



Test the board!

Check the 3PDT Daughterboard document for details if you're using one.



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

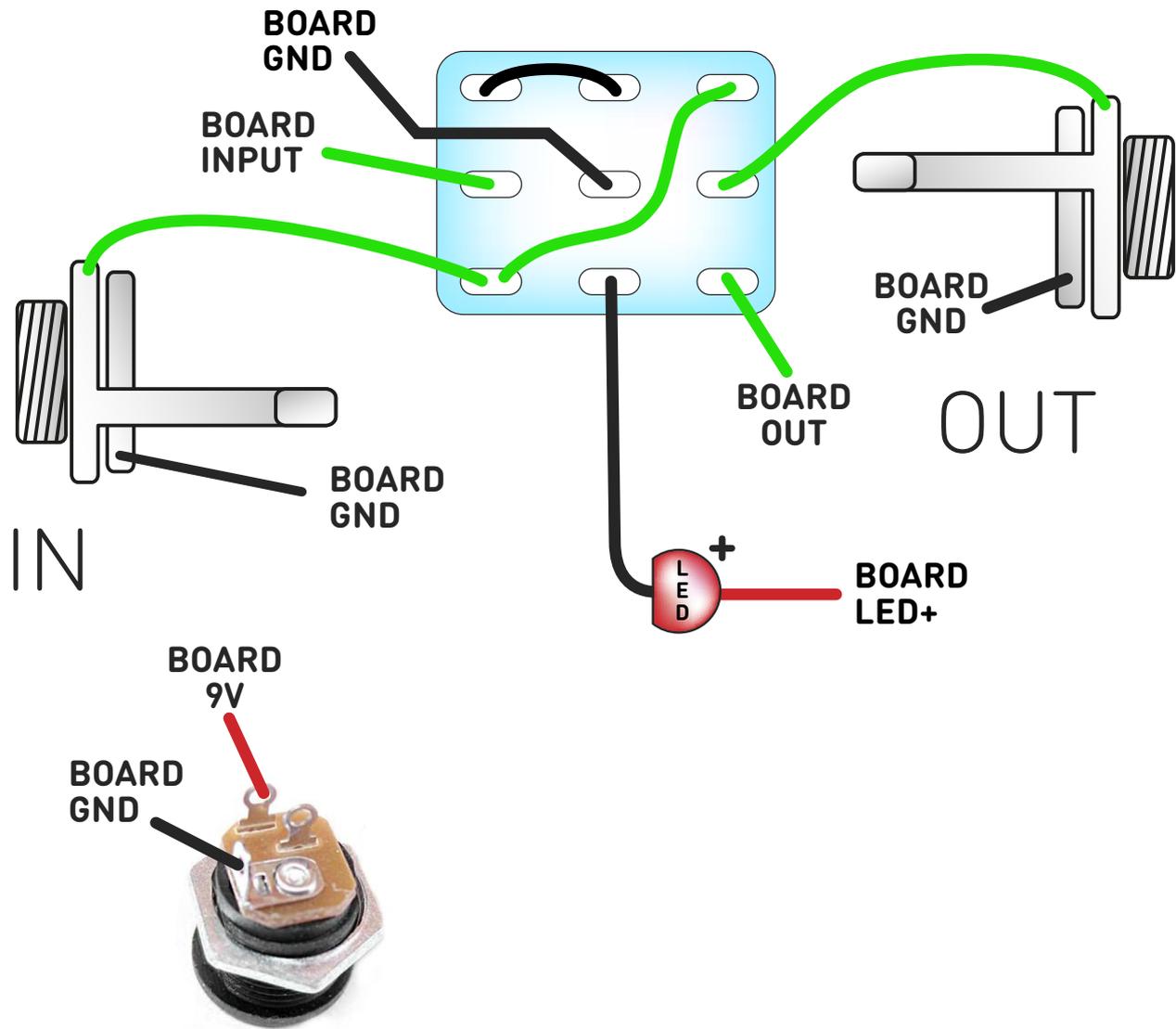
Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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 - DC only version

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

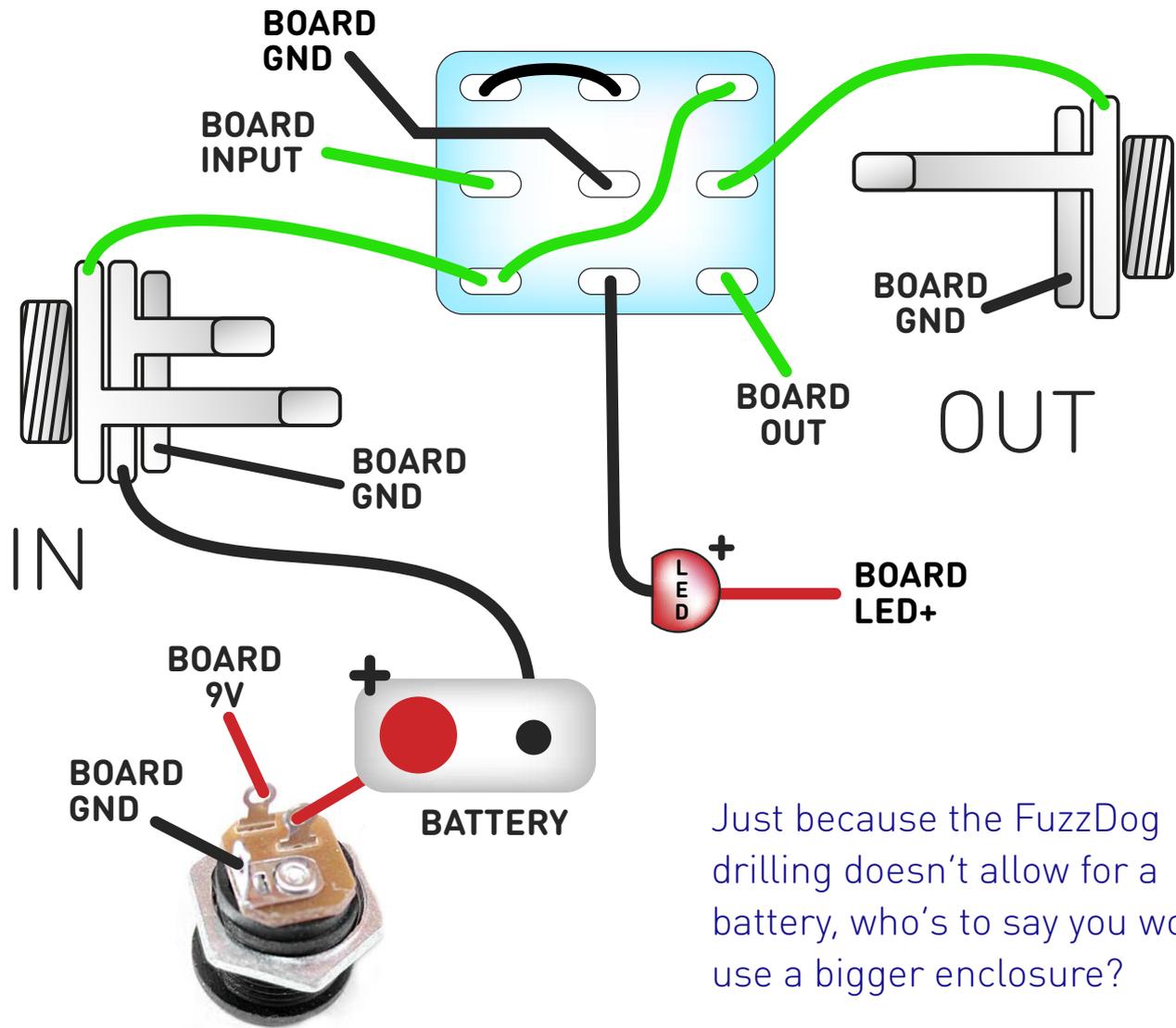


This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

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 drilling doesn't allow for a battery, who's to say you won't use a bigger enclosure?

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.

PedalParts.co.uk

Drilling template

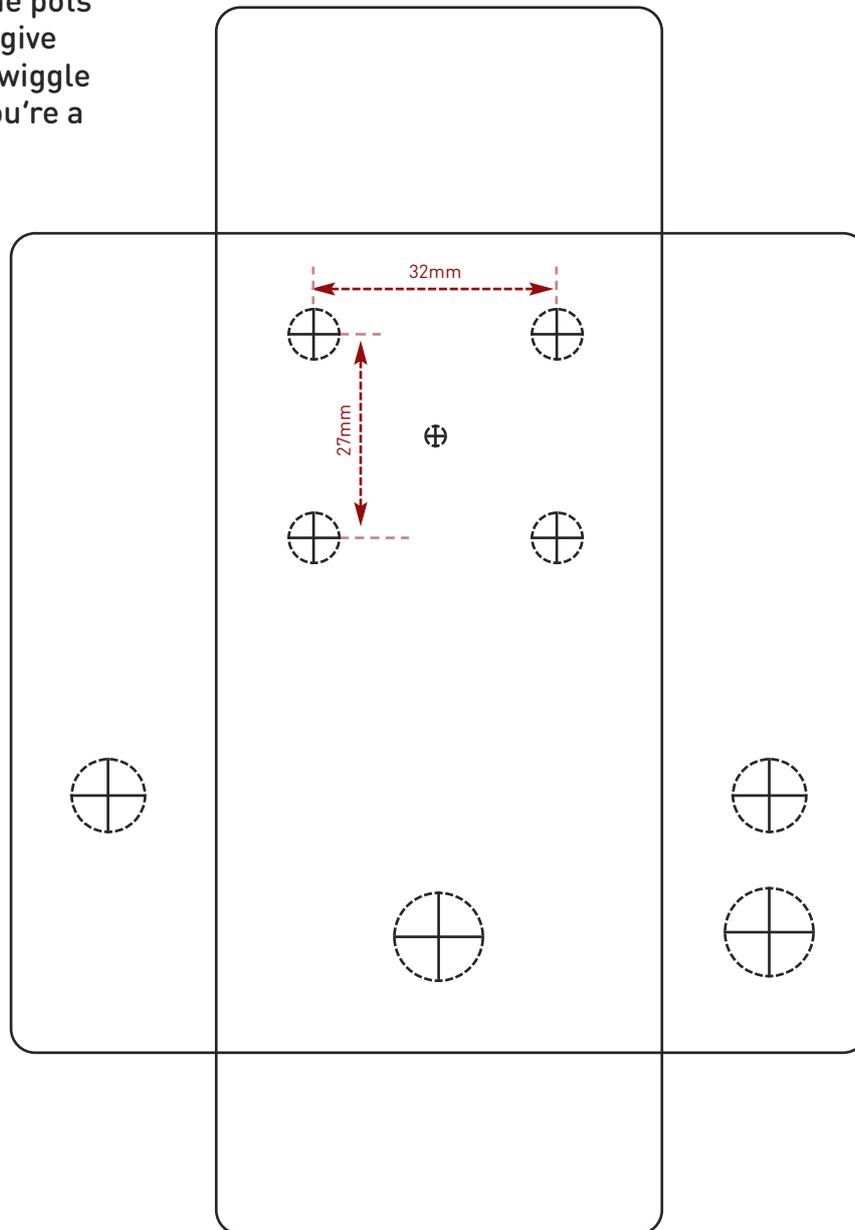
Hammond 1590B

60 x 111 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 1mm larger 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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