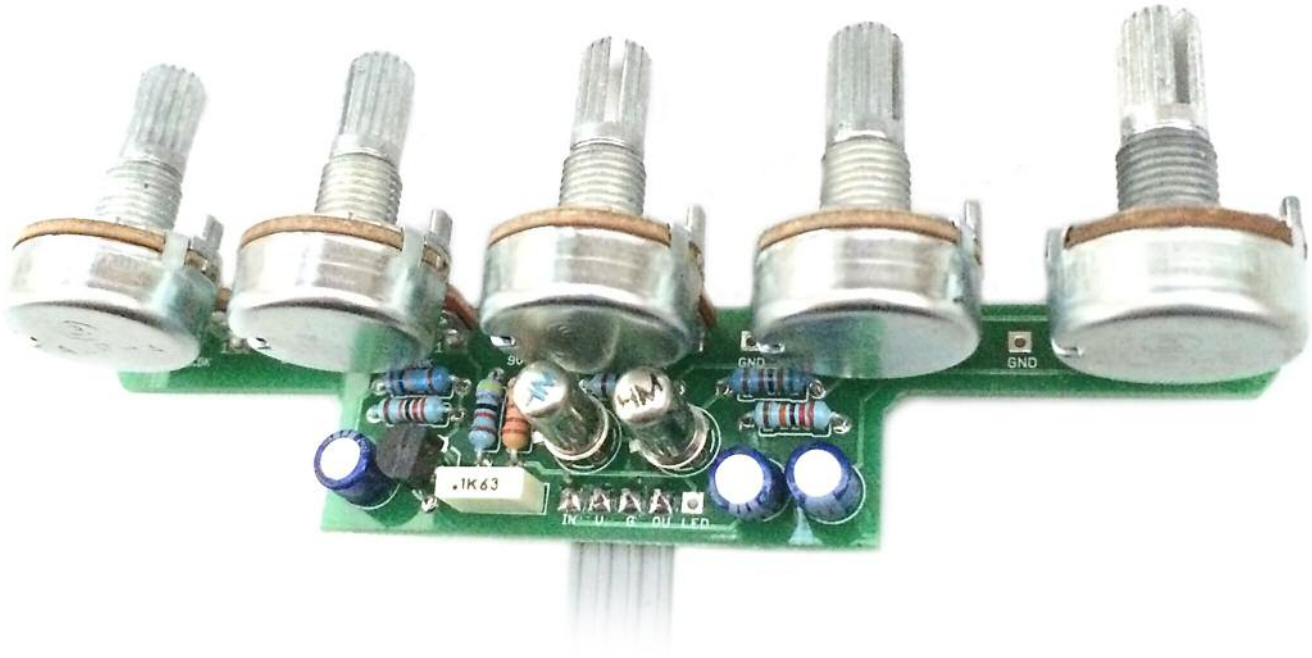
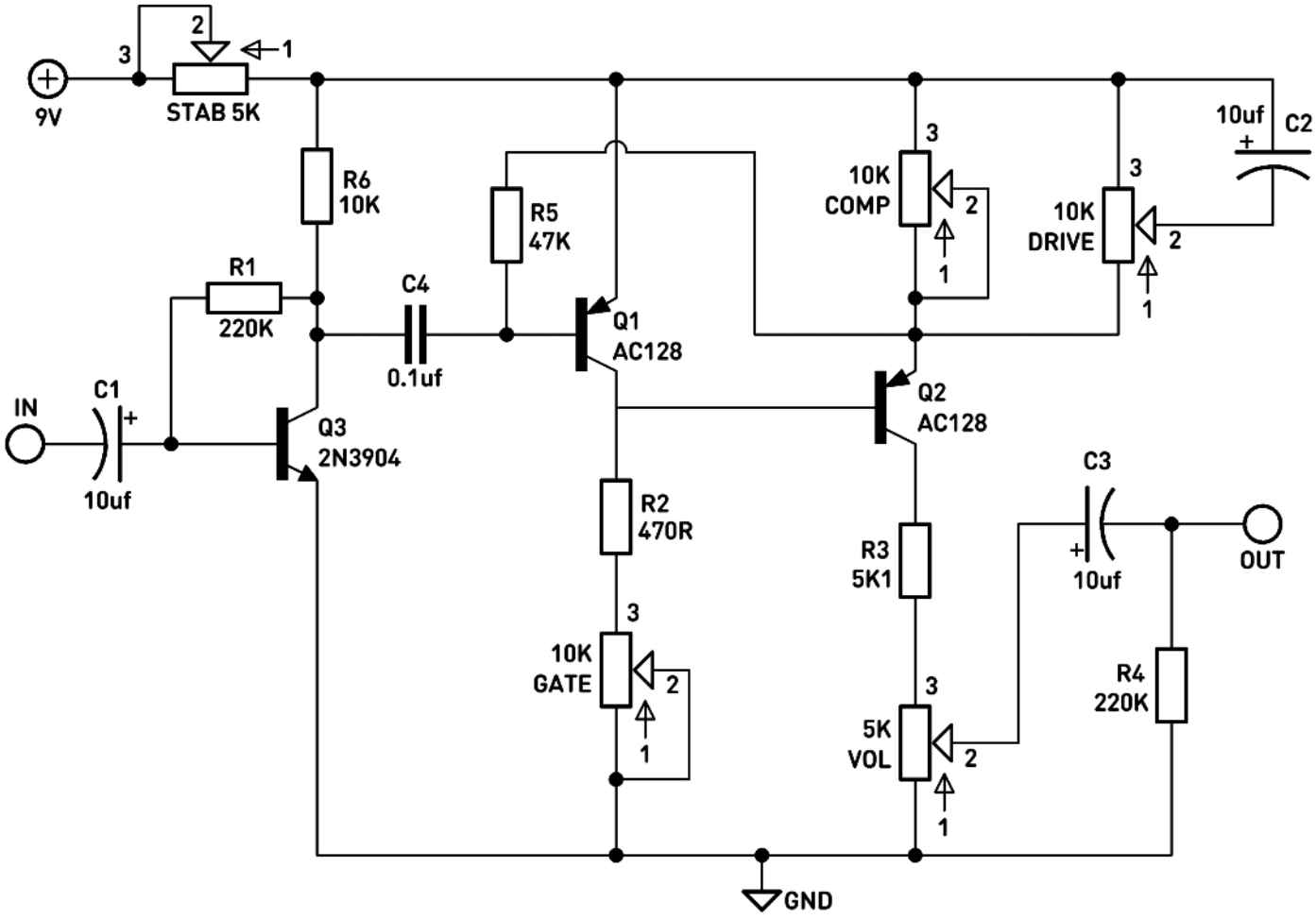


Filthy Fack!

Famous germanium 5-knobbed fuzz clone

Schematic

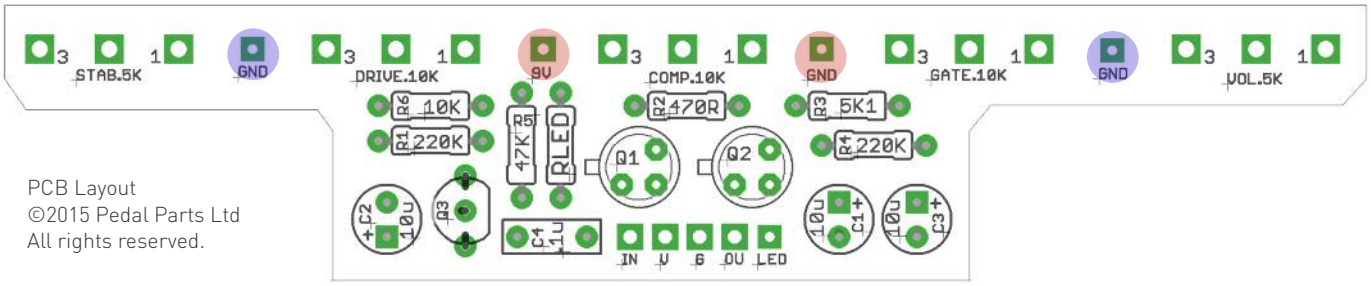


BOM

R1	220K	
R2	470R	
R3	5K1	
R4	220K	
R5	47K	
R6	10K	
RLED	2K2 (CLR)	
C1,2,3	10u	
C4	0.1u	

Q1,2	AC128/2N404 or other PNP Germs
Q3	2N3904
STAB	5kC (B will work)
DRIVE	10kB
COMP	10kB
GATE	10kB
VOL	5kB

RLED not shown on the schematic - it connects directly to the 9V supply.



General Notes

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 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).

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

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

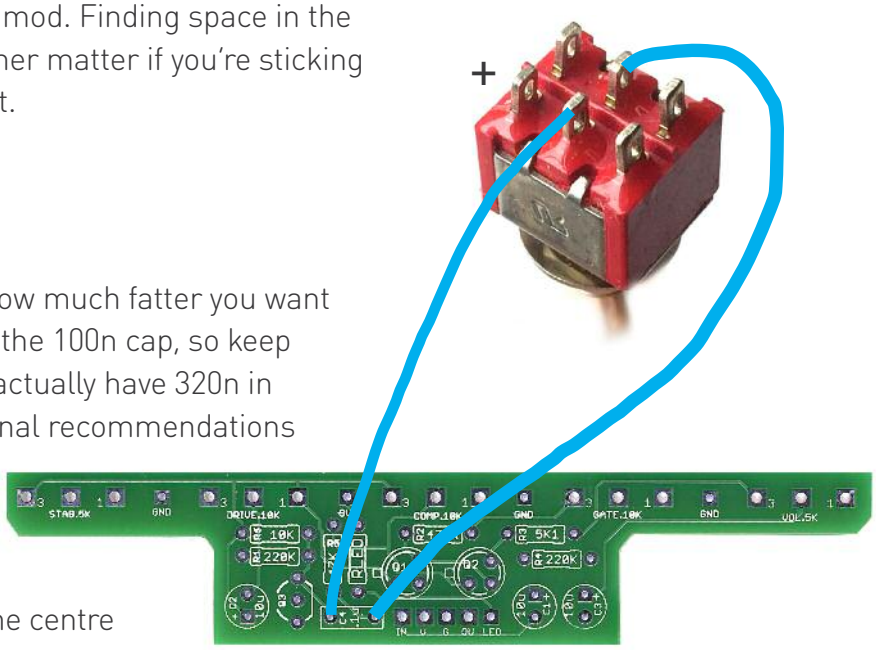
Pots mount on the same side of the board as the other components. Leave them until last otherwise you'll find it difficult to get in to the other parts.

The board has extra pads for the jack GND connections to make wiring easier (marked in blue above). Give some thought to where the wires will be connected before soldering them to the PCB. The 9V and GND pads marked above in red should be on the same side as the components, as they'll attach to the DC socket located on that side in the enclosure. The IN and OUT wires should go on the opposite side as they'll be heading to the footswitch.

NOTE: The V and G pads on the Direct Connect strip (marked in yellow above) only need to be used if you're using a daughterboard. You can of course use the G pad as your main GND connection for the switch wiring shown later in the document, but the V pad is redundant.

Not FAT enough for ya?

Turning the Filthy Fack! into a FAT Filthy Fack!
is pretty easy, though it's an offboard mod. Finding space in the enclosure to accommodate it is another matter if you're sticking with a 1590B. Top edge is the best bet.



You'll need:

- A DPDT ON-OFF-ON toggle switch

- Two extra caps, value depends on how much fatter you want it to be. These will be in parallel with the 100n cap, so keep that in mind. If you add a 220n you'll actually have 320n in play when selected. FuzzDog's personal recommendations are 220n and 2u2.

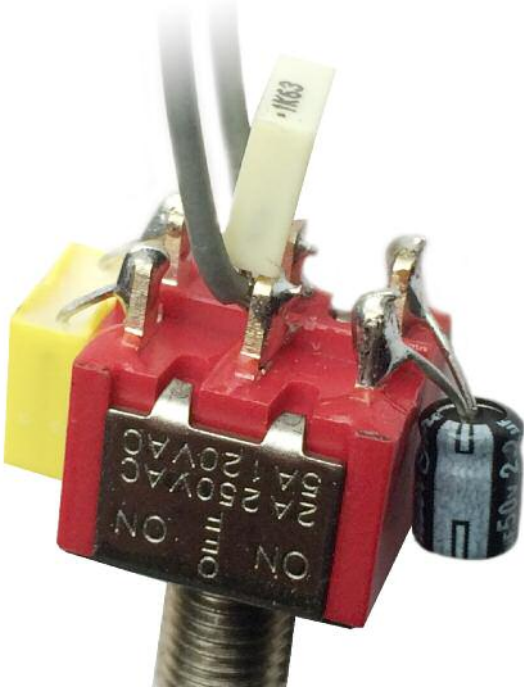
Solder two lengths of wire to the pads where the 100n cap would normally go. Take the other ends to the centre lugs of the DPDT switch but don't solder them yet.

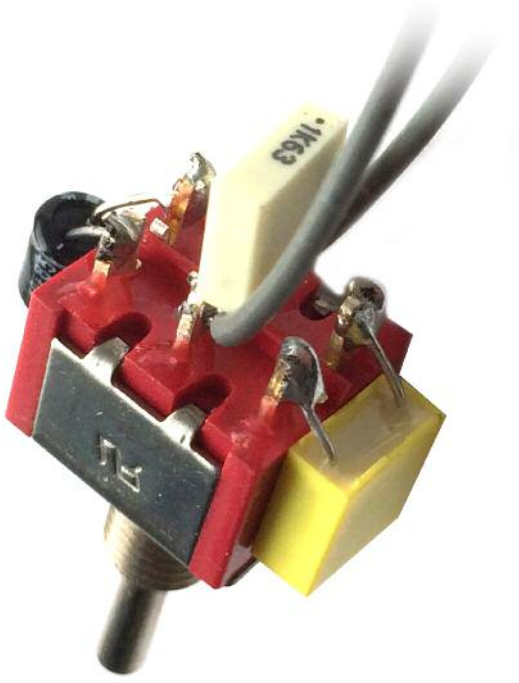
Get the legs of your 100n cap into the centre lugs along with your wires and solder them in.

Now get your other caps in place across the outer lugs of the switch as shown. If you've gone for an electrolytic its best to put the + leg into the lug that goes to the bottom pad on the PCB as shown above.

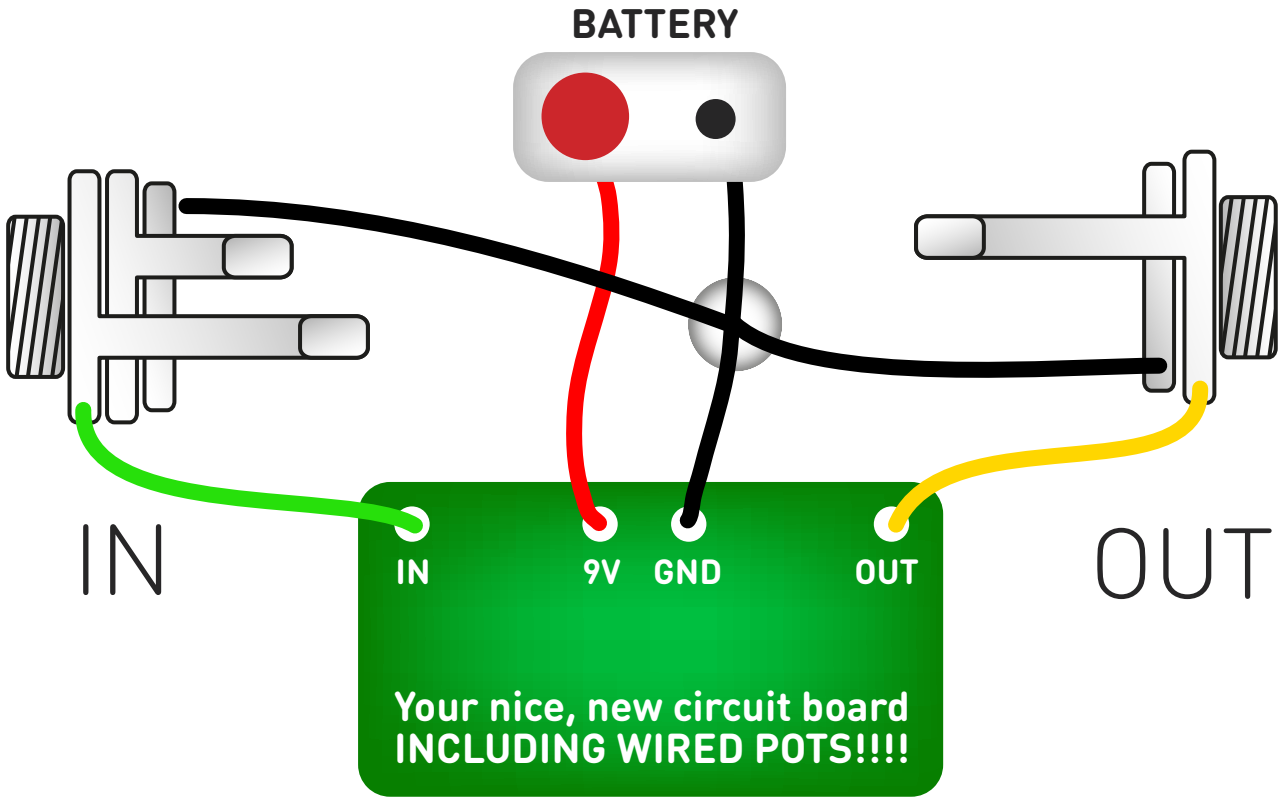
If you want to modify an existing build you can try to attach the wires to the solder side of the board where the 100n cap is, and forget about putting it across the middle switch lugs.

That's it. Centre position = standard FF, one side is 320n, one side is 2u3. Enjoy!





Test the board!



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

Battery clip is supplied to test the circuit. Power supply is recommended when using the finished delay as it will EAT batteries.

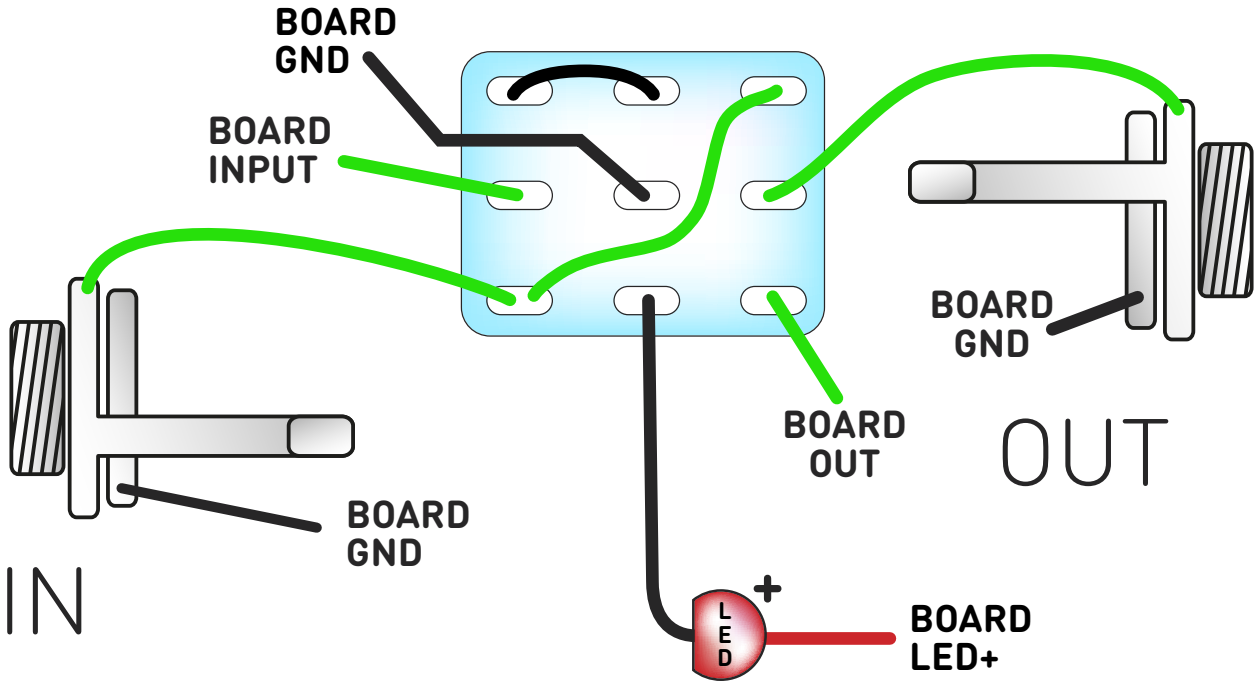
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

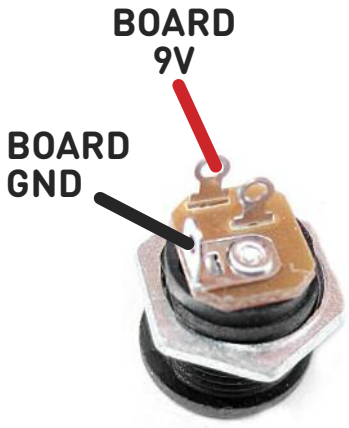
Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

If 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)





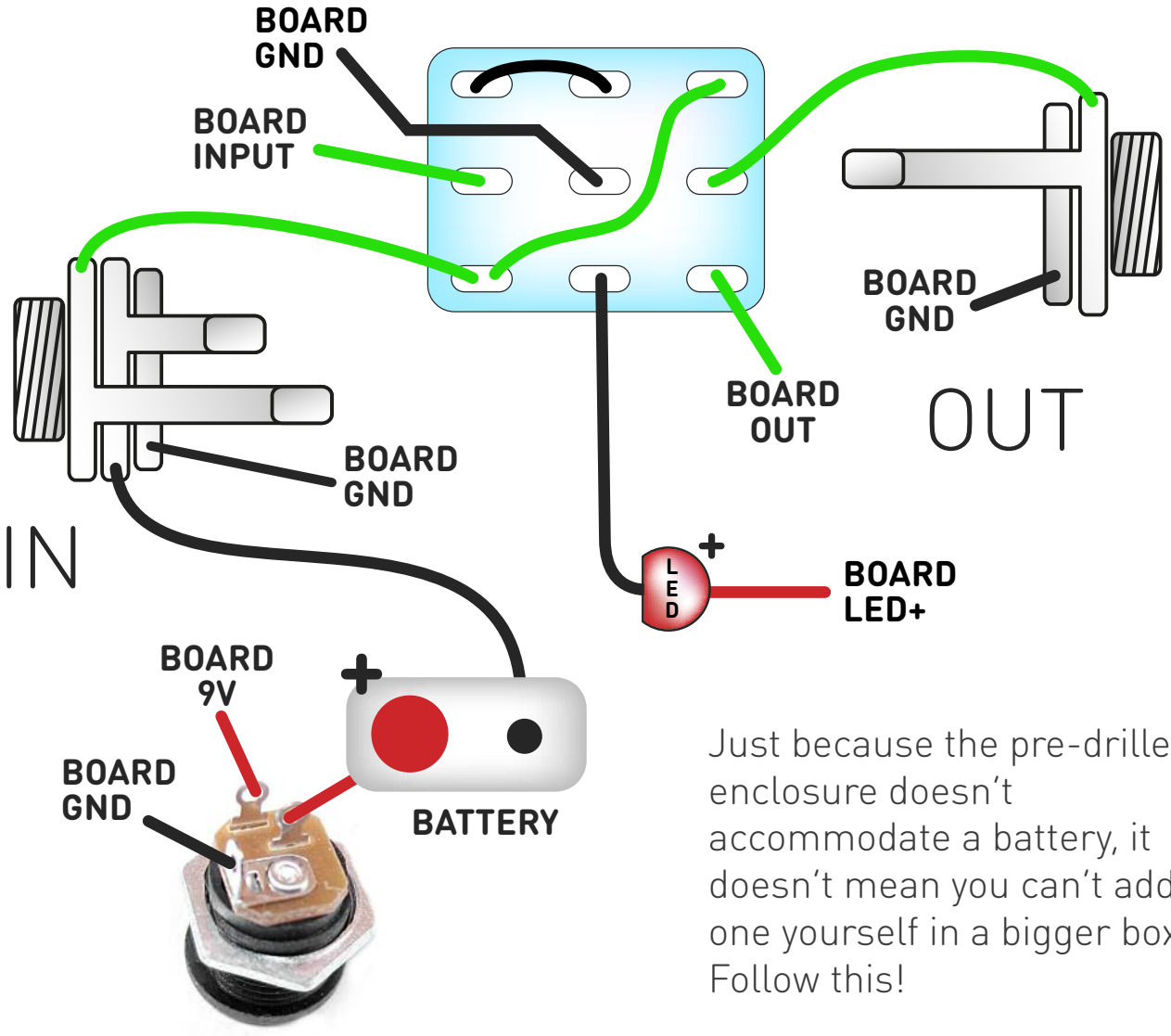
There are GND connections for both jacks at either end of the board.

All the GND pads are connected to each other in the traces on the PCB, and all of them are connected to both sides of the board.

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.

Wire it up - with battery

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



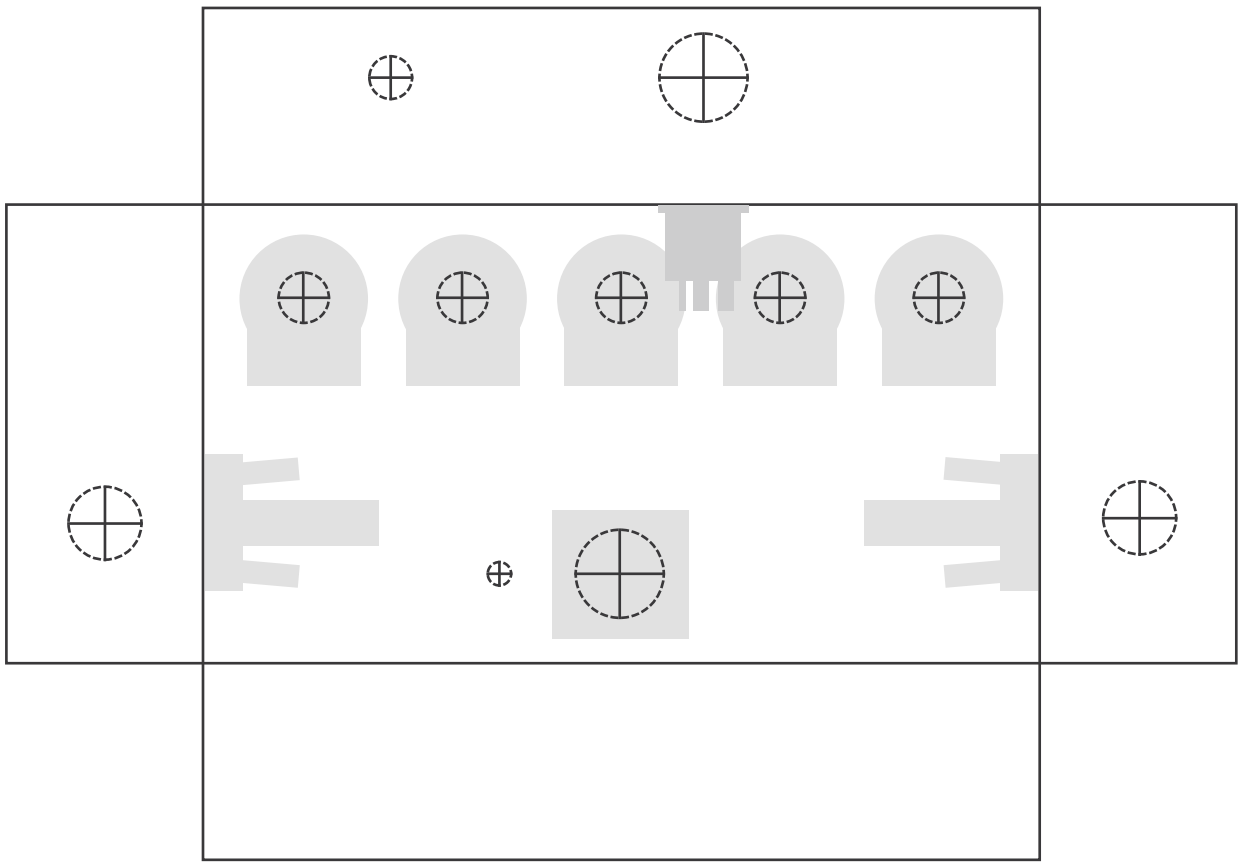
Just because the pre-drilled enclosure doesn't accommodate a battery, it doesn't mean you can't add one yourself in a bigger box. Follow this!

There are GND connections for both jacks at either end of the board.

All the GND pads are connected to each other in the traces on the PCB, and all of them are connected to both sides of the board.

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.

Drill template



Please check positioning before drilling - those holes are your responsibility and these templates are just a guide.

The best way to mark holes for the pots is to lay the PCB on the box before you start soldering anything and mark at the centre pad of each.

The DC socket needs to be quite close to the edge of the box so it comfortably clears the pots.

Recommended drill sizes:

Footswitch, DC	12mm
Jack sockets	9.5-10mm
Pots	7mm
Toggle switch	6mm

PedalParts.co.uk