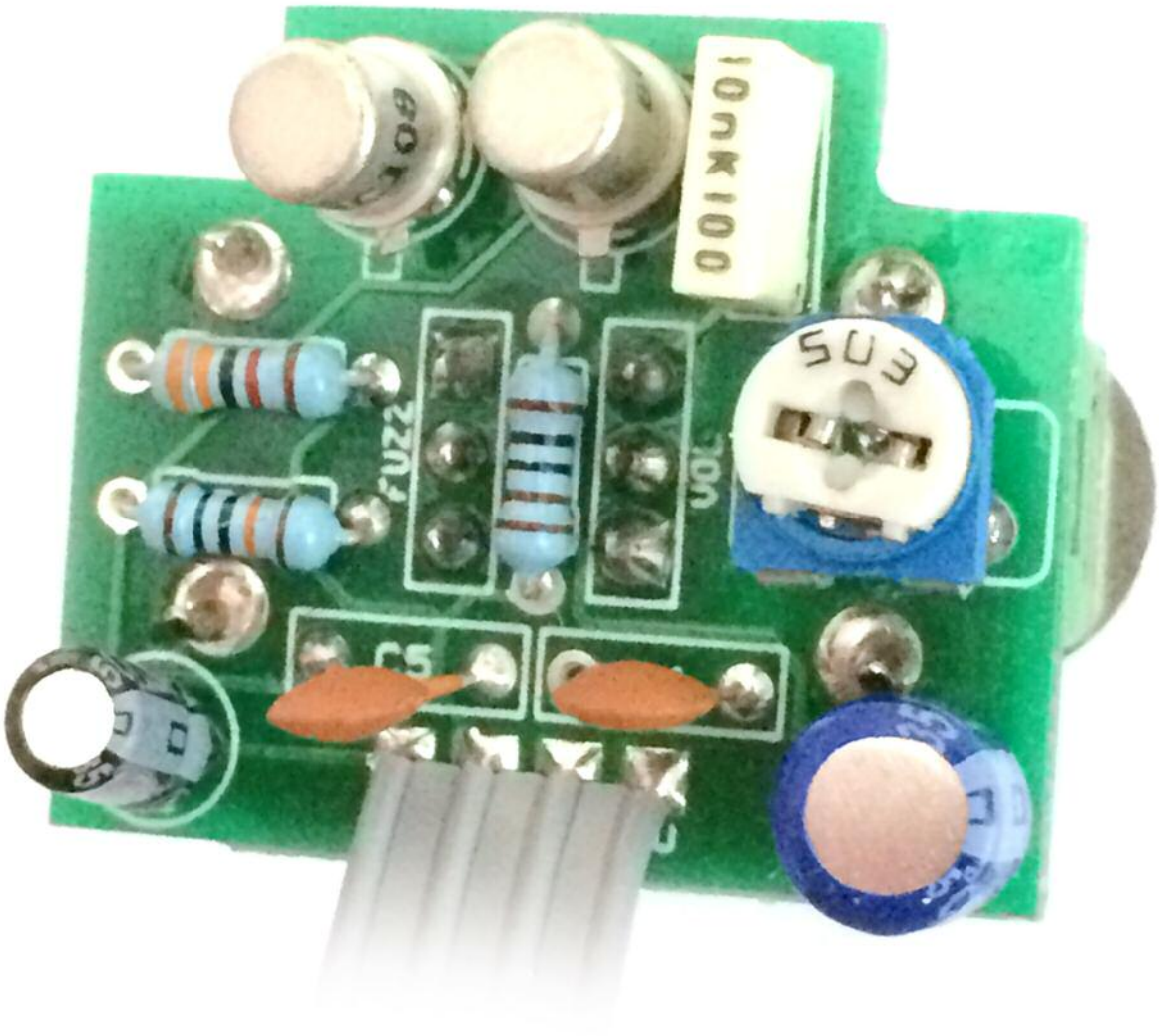


Mini Fuzz Face

Vintage fuzz in a neat little package

IMPORTANT STUFF

Go no further until you've read this page.

TRANSISTORS

The PCB is designed for NPN transistors, i.e. standard negative-ground configuration. You can use PNP transistors. See notes on capacitor orientation and power supply.

You can experiment with any amount of different transistors. BC108 are supplied with the kit if you've chosen a Silicon NPN build. AC128 will be supplied for Germanium PNP versions.

If you're building a classic germanium version, Transistor hFE values should be approx:

Q1 - 70
Q3 - 100-120

To be honest, you'll probably get satisfactory or even excellent results with different values, but these are the generally accepted standard.

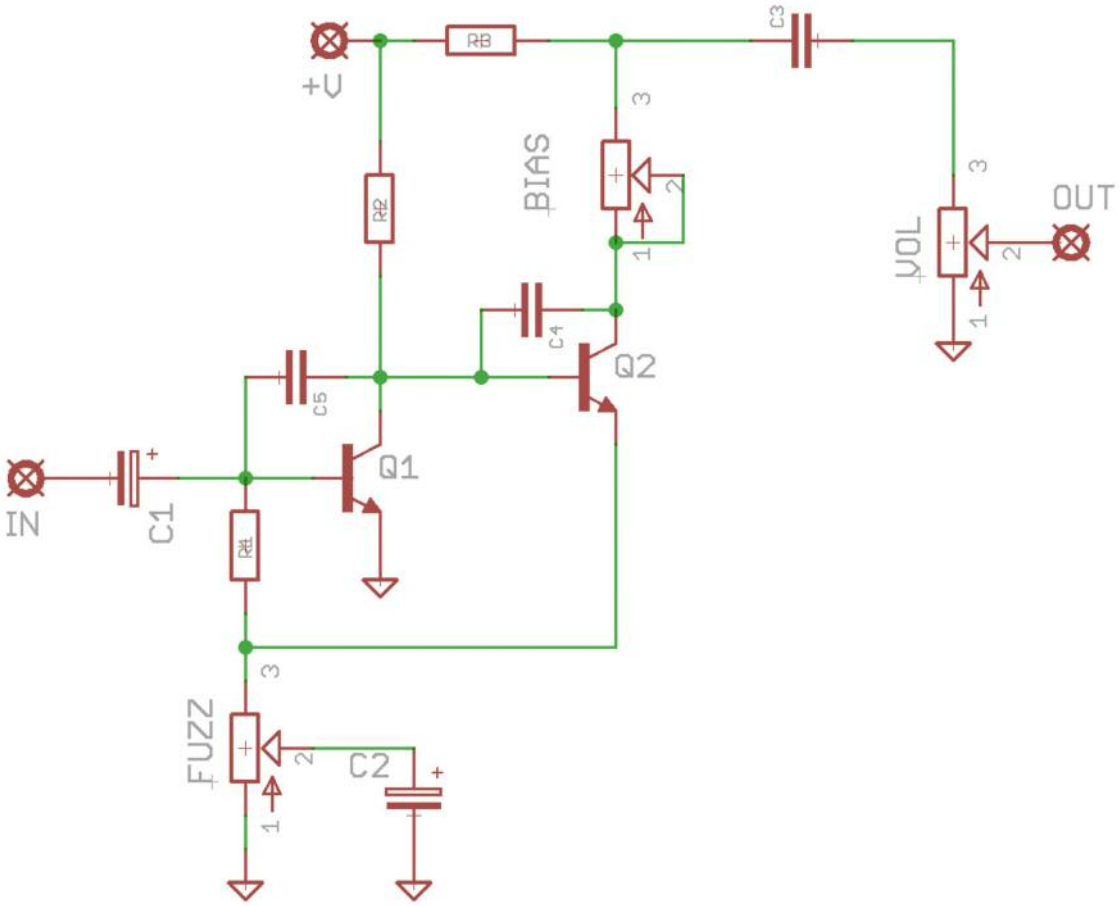
CAPACITOR ORIENTATION

C1 and C2 are oriented for NPN builds. If you're building a PNP version you must reverse these, i.e. long leg (+) in round pad.

SMOOTHING CAPACITORS

There are spots on the PCB for two extra caps - C4 and C5. These are optional smoothing caps to tame the very high end of the signal and prevent potential squeal and oscillation. They're only really necessary when building the silicon version of the circuit, but you can add them to a germanium build if you want to calm things down a little. Values are down to personal taste. The higher the value, the more of the top end frequency range you'll cut out. Experiment with anything from 47p - 470p. For BC108 builds our values would normally be 47p in C4, 220p in C5. Socket and experiment.

Schematic NPN configuration shown



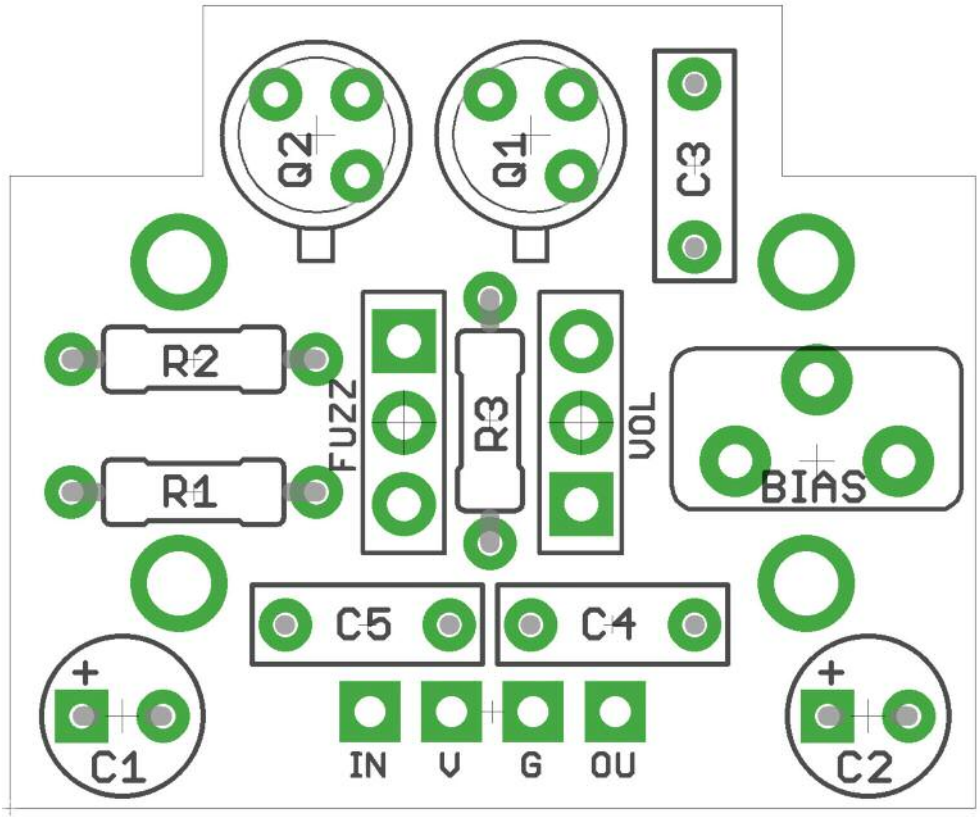
BOM

(Hendrix/Mayer changes shown in blue)

R1	100K
R2	33K
R3	470R (1K)
C1	2u2 electrolytic
C2	22 electrolytic
C3	10n
C4-5	See notes on previous page
BIAS	47K-50K Trimmer
Q1-2	See notes on previous page
FUZZ	1KB/1KC (2KB)
VOL	500KA

Adjust Q2 BIAS until it sounds sweet. Q2 collector should be around 4.5V, but trust your ears over numbers.

If you want to use PNP transistors reverse the polarity of C1 and C2.



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. If you're building a PNP version be sure to check the notes on the daughterboard document for reversing the polarity.

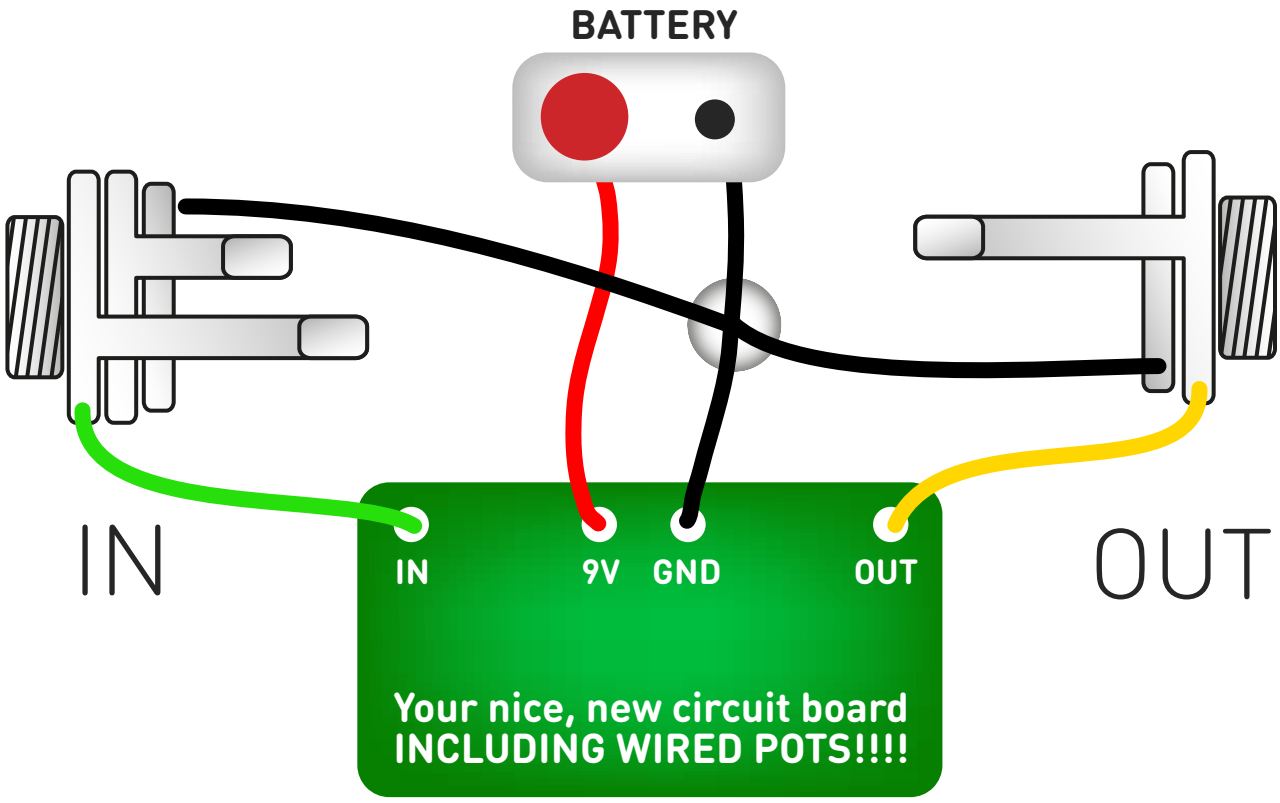
Ensure you keep your component leads trimmed tight to the PCB where they're located beneath the board-mounted pots, otherwise you may cause shorts.

The large locator tabs on the side of the pots don't have to be used. They'll be sturdy enough with just the three front pins. Simply snip off the locator tabs if you prefer not to use them.

Leave the pots until last, otherwise you'll have no access to other component pads.

Test the board!

NPN builds



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

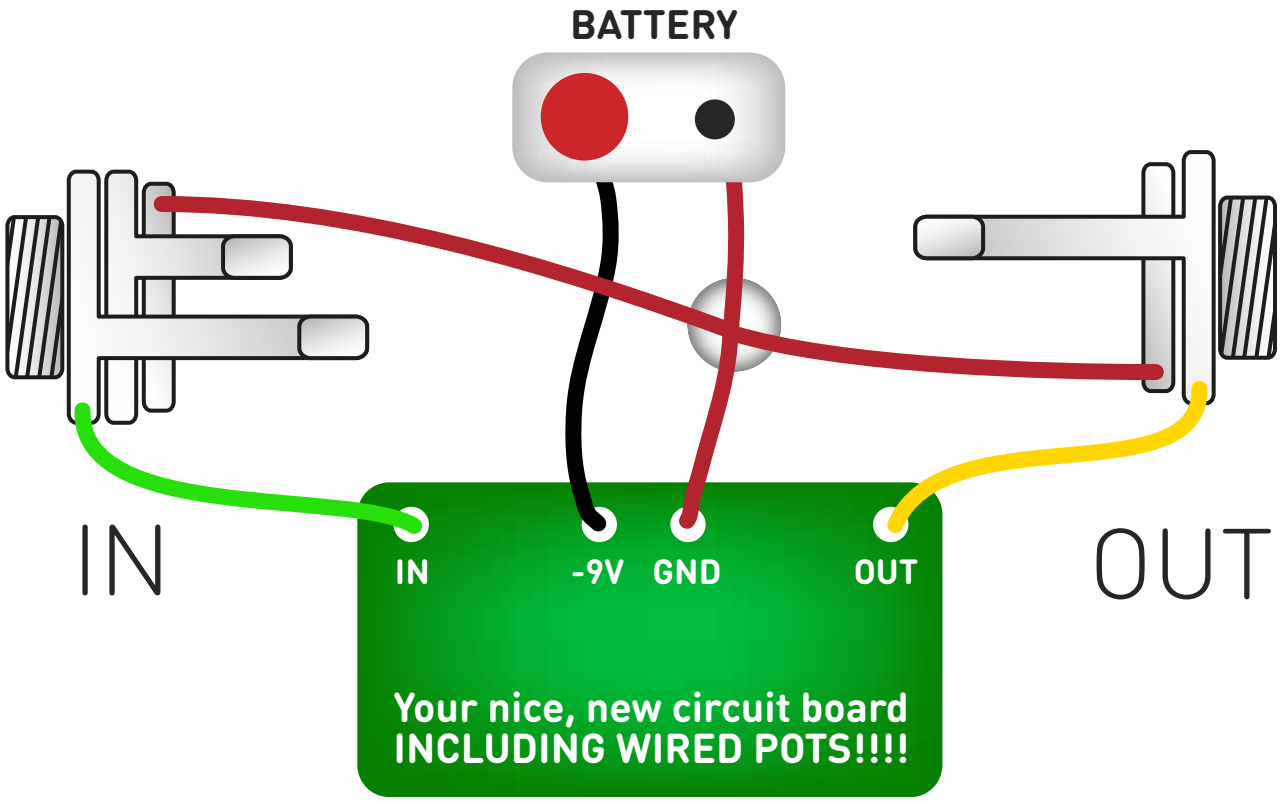
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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 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.

Test the board!

PNP builds



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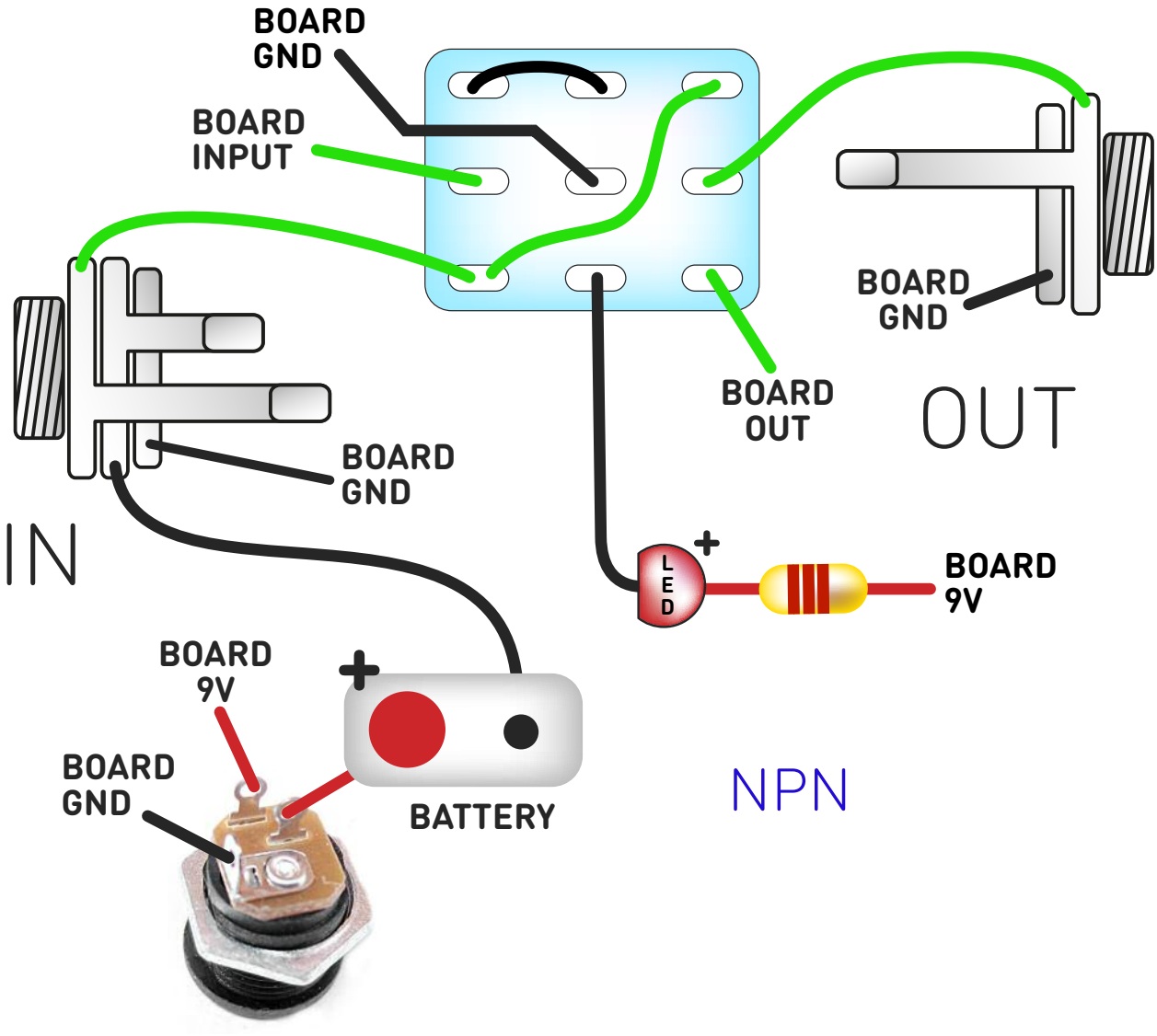
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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 (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.

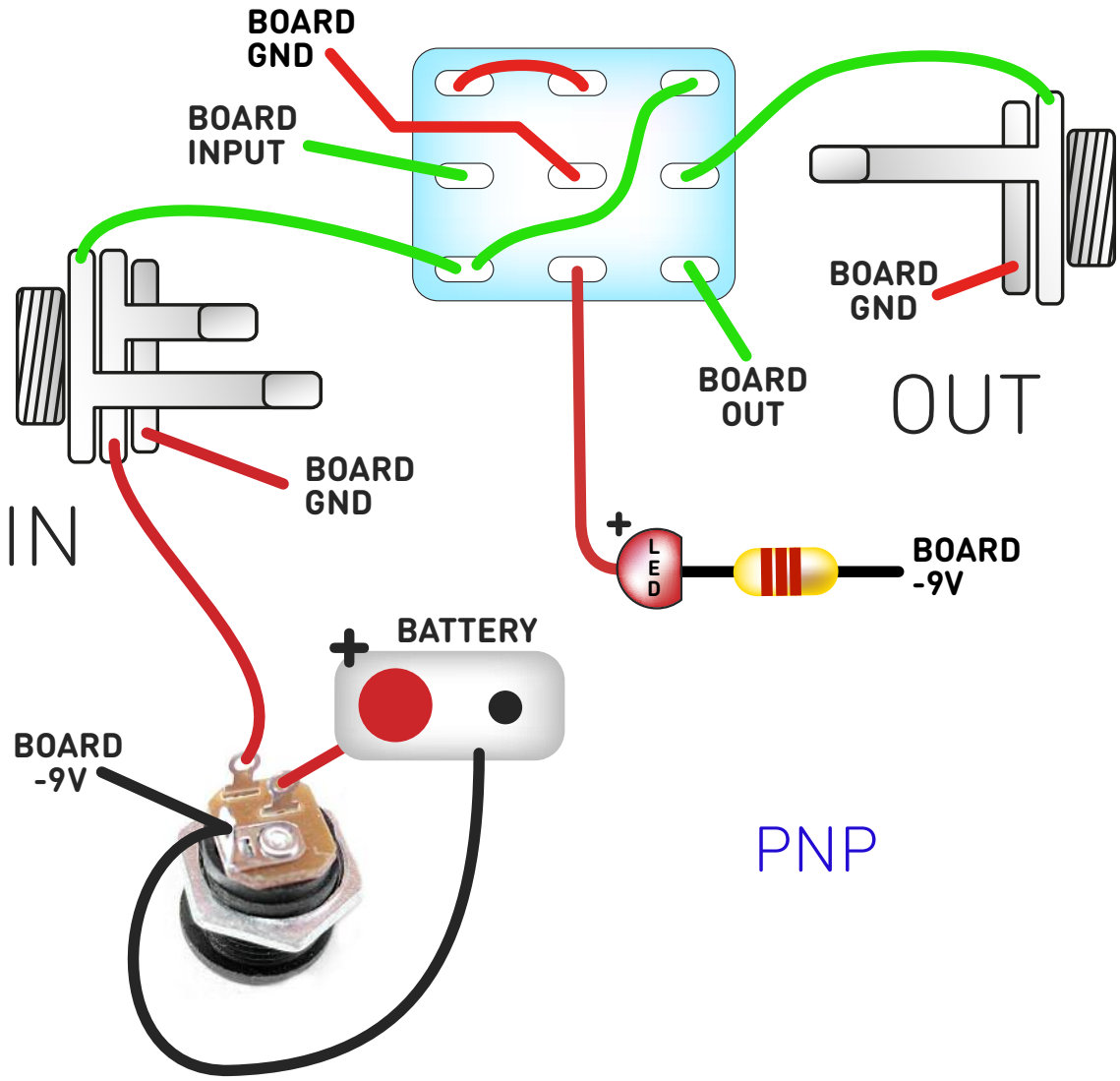
The Board GND connections don't all have to directly attach to the board. You can run a couple of wires from the DC connector, one to the board, another to the IN jack, then daisy chain that over to the OUT jack.

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.

PedalParts.co.uk

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



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