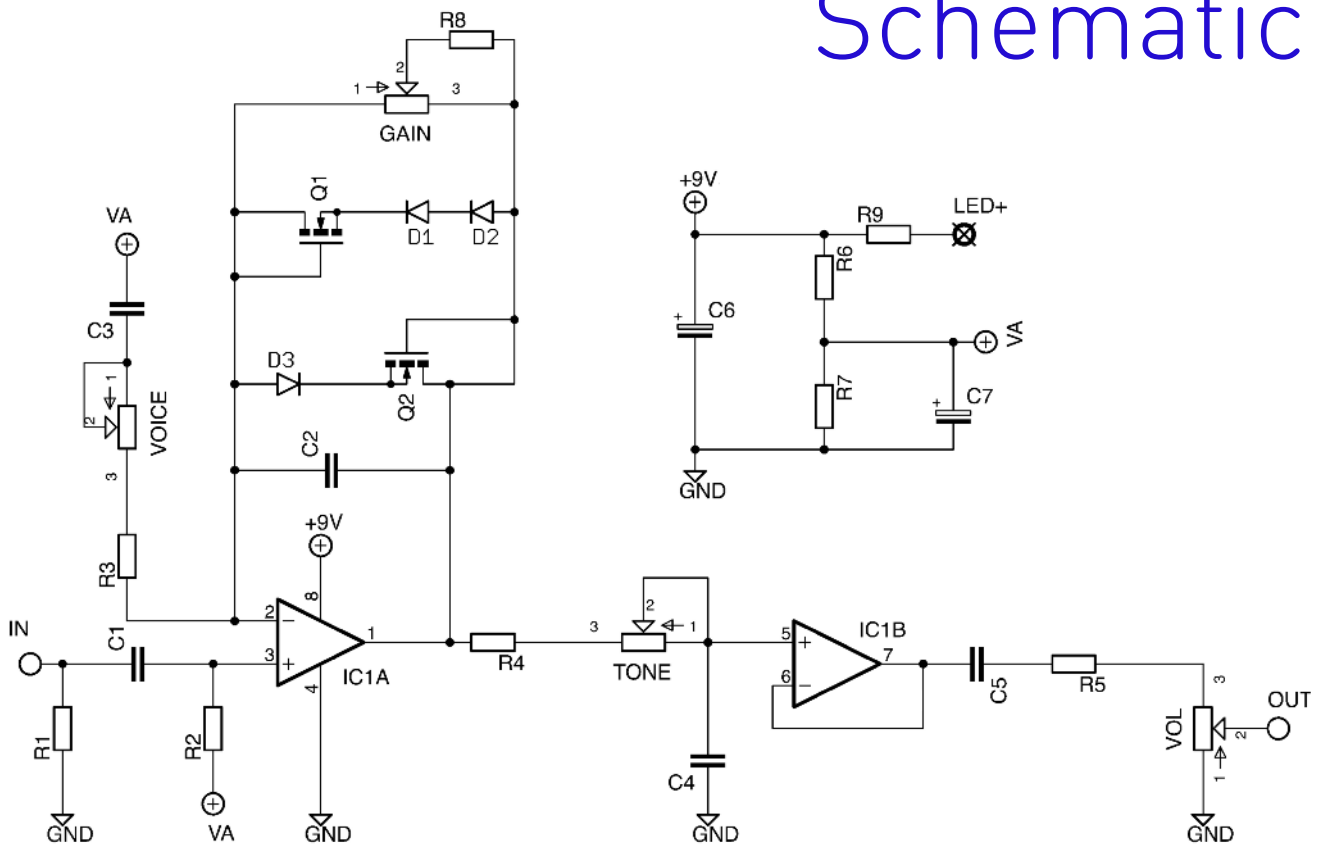


Enlightened Drive

Highly Responsing Overdrive
"Dumble-in-a-Box"!

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Schematic



BOM

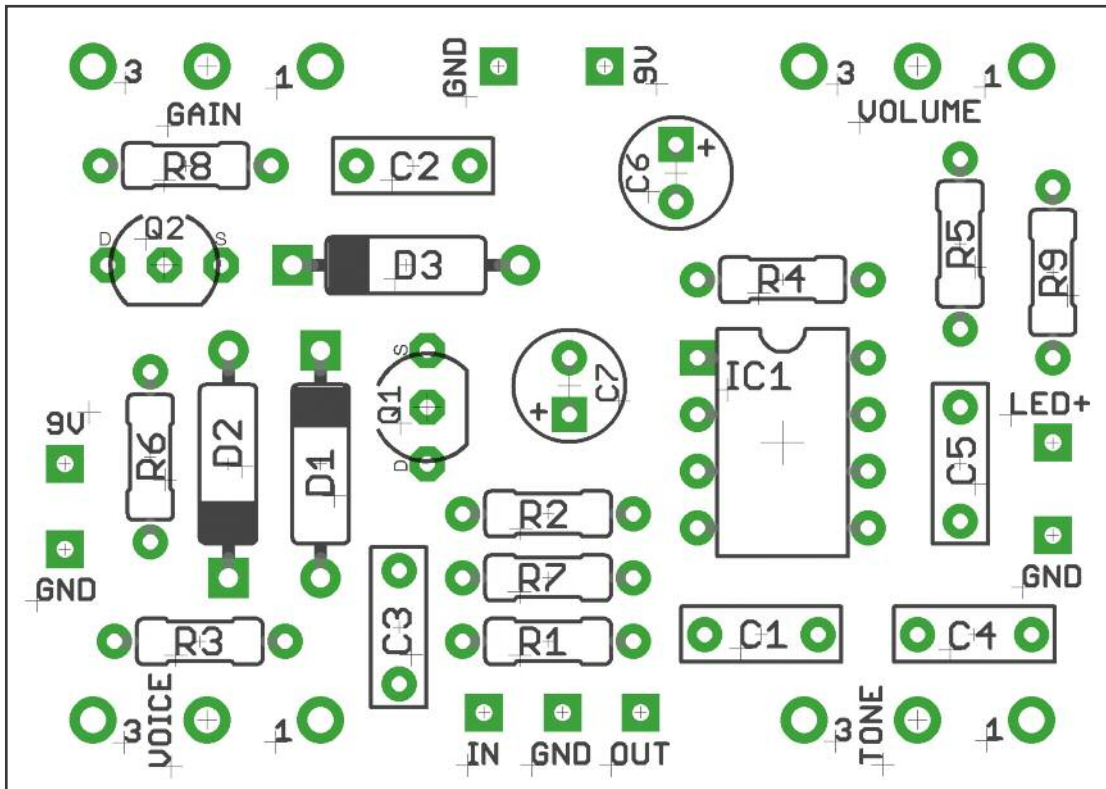
R1 2M2
 R2 470K
 R3 1K
 R4 10K
 R5 1K
 R6 10K
 R7 10K
 R8 1K
 R9 2K2 (CLR)

C1 470n
 C2 100p
 C3 100n
 C4 3n3
 C5 470n
 C6 100u elec
 C7 47 u elec

D1-3 BAT 41
 Q1-2 2N7000**
 IC OPA2604*
 GAIN 500KB
 VOICE 10KB
 TONE 50KB
 VOL 100KA

*Original uses AD712. General concensus in the DIY world is that the OPA2604 gives better results. Why not try other op-amps - 4558, 5532, etc. You may hit gold!

**Other FETs may work well, but original uses these.



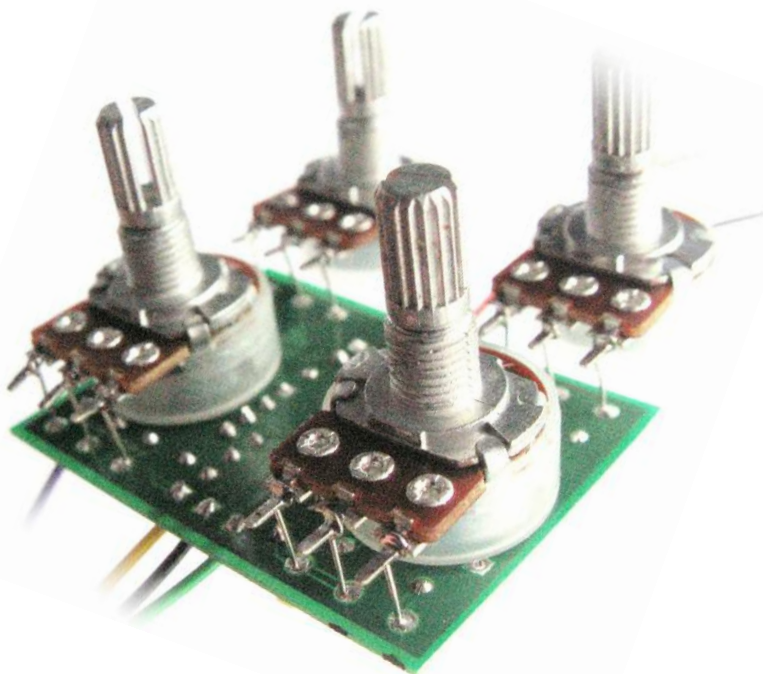
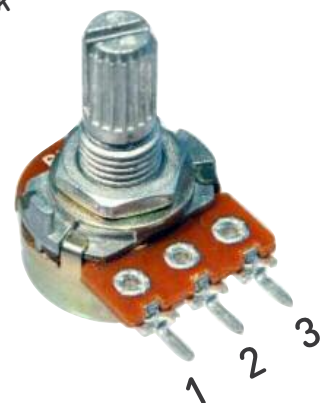
Wiring shown overleaf will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

Snap the little metal tag off the pots to mount them flush in the box.

You should use some kind of heat sink on the legs of the diodes when soldering. They aren't keen on heat. Any more than 3-4 seconds of iron and they're toast.

I've incorporated the Current Limiting Resistor for the LED into the board for your pleasure.

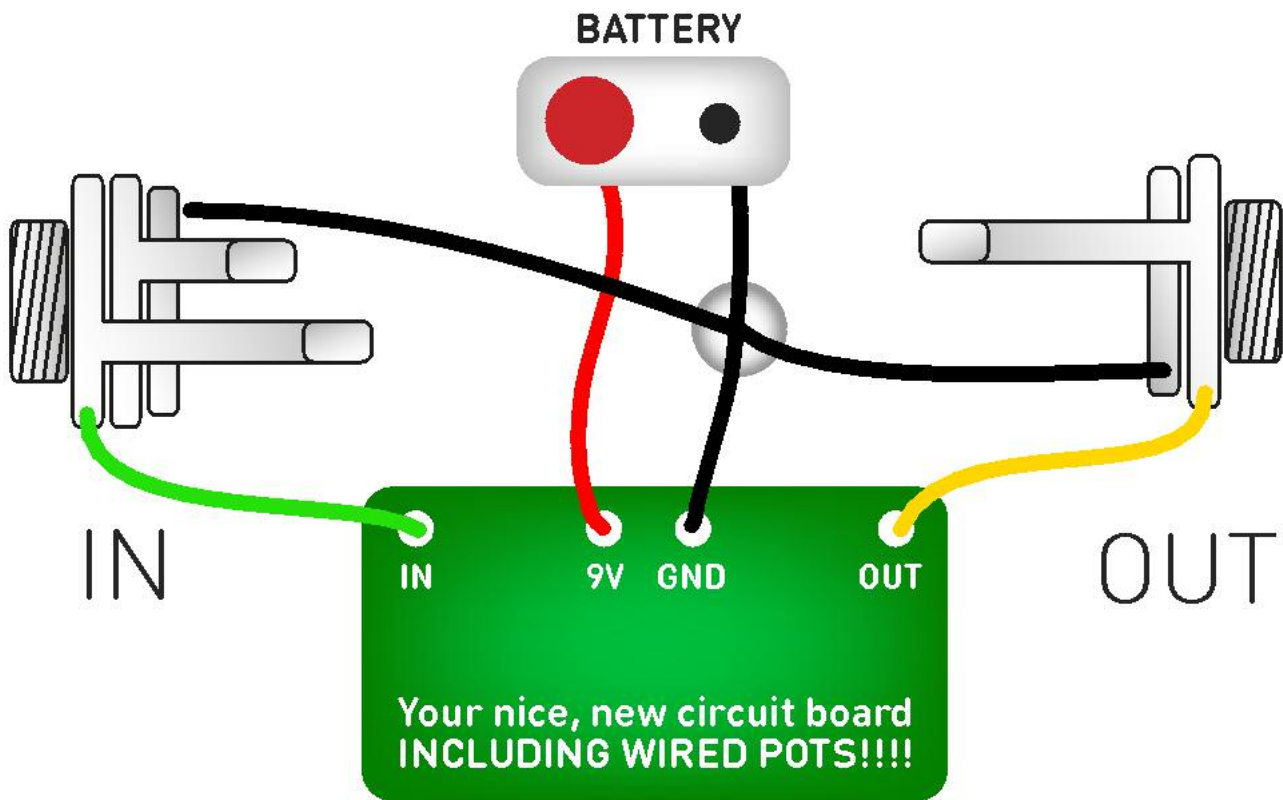
There are multiple pads for both 9V and GND. These are all connected (not to each other, silly! All the GNDs, and all the 9Vs). Use whichever you like depending on your box layout. You can use multiple GND connections, but only use one 9V.



The pads for the pots are spaced so you can use vertical pots if you wish. Why not try "Cheating Verticals" by soldering snipped component legs to the pots as shown left. You can just wire them normally though.

NOTE: Check your pinout for Q1-2. The 2N7000 supplied with the kit need to be reversed compared to the print on the board.

Test the board!

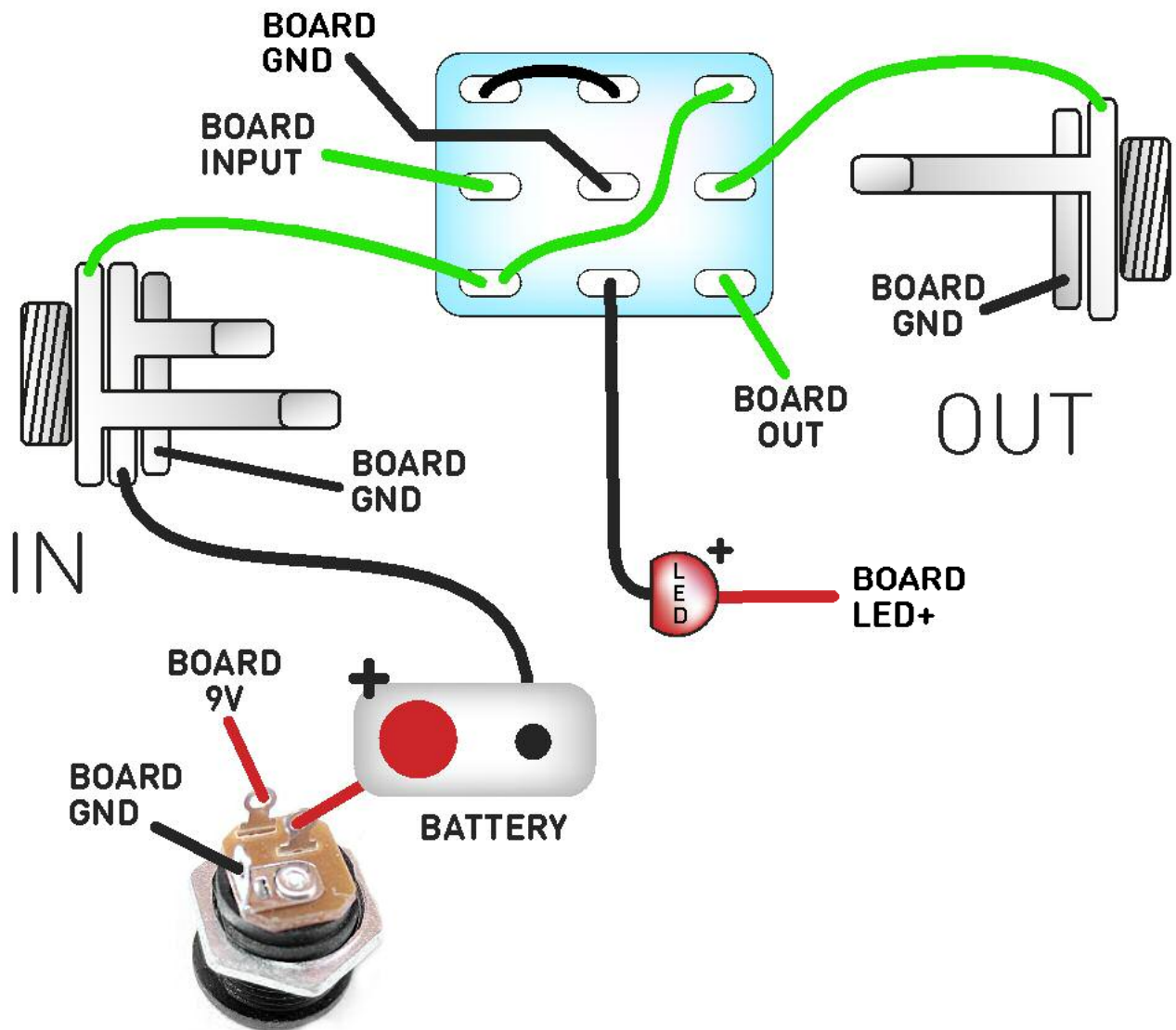


Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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



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. Now... do some overdriven meditation!

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