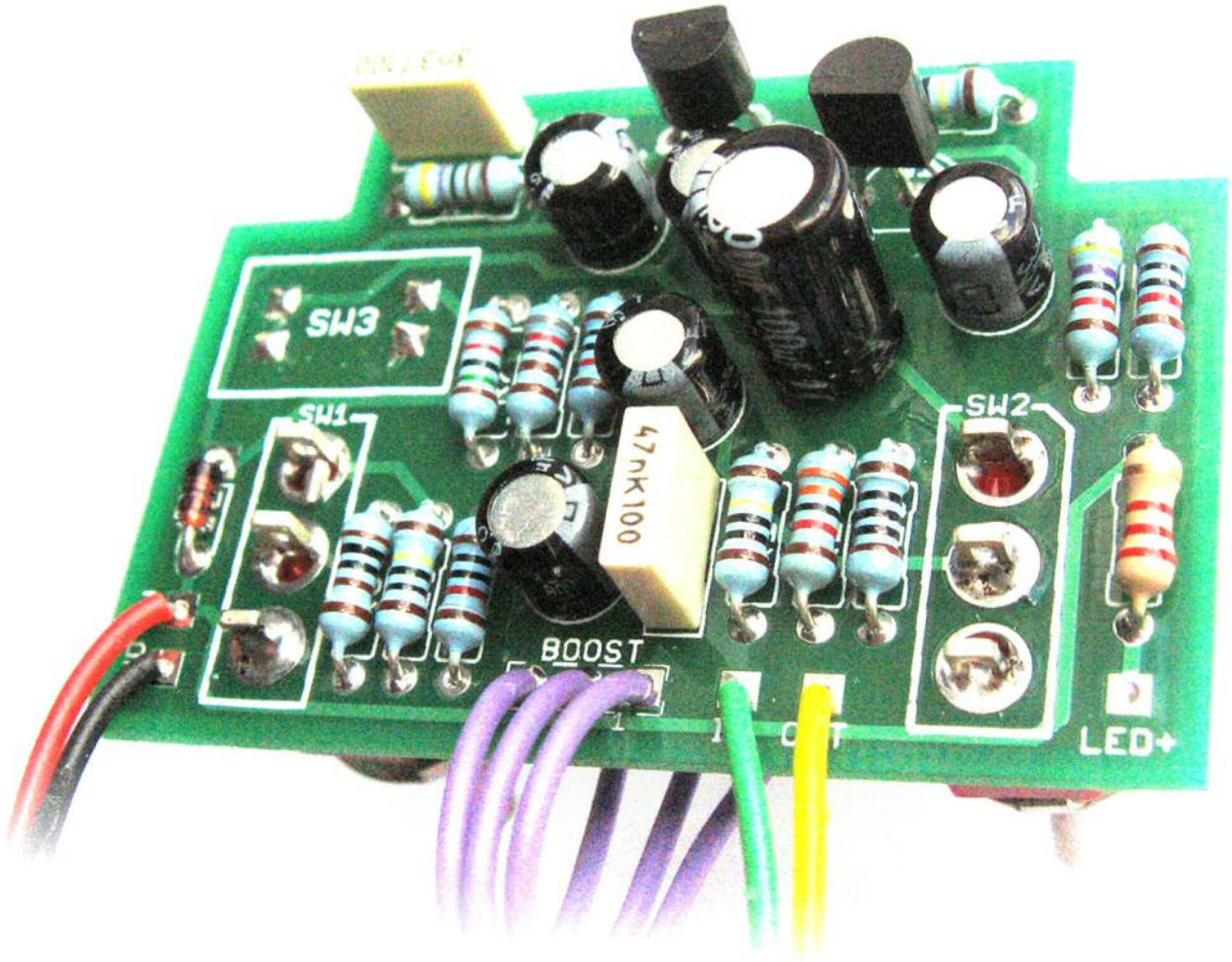

EPic Boost

Transparent boost -
that's it!

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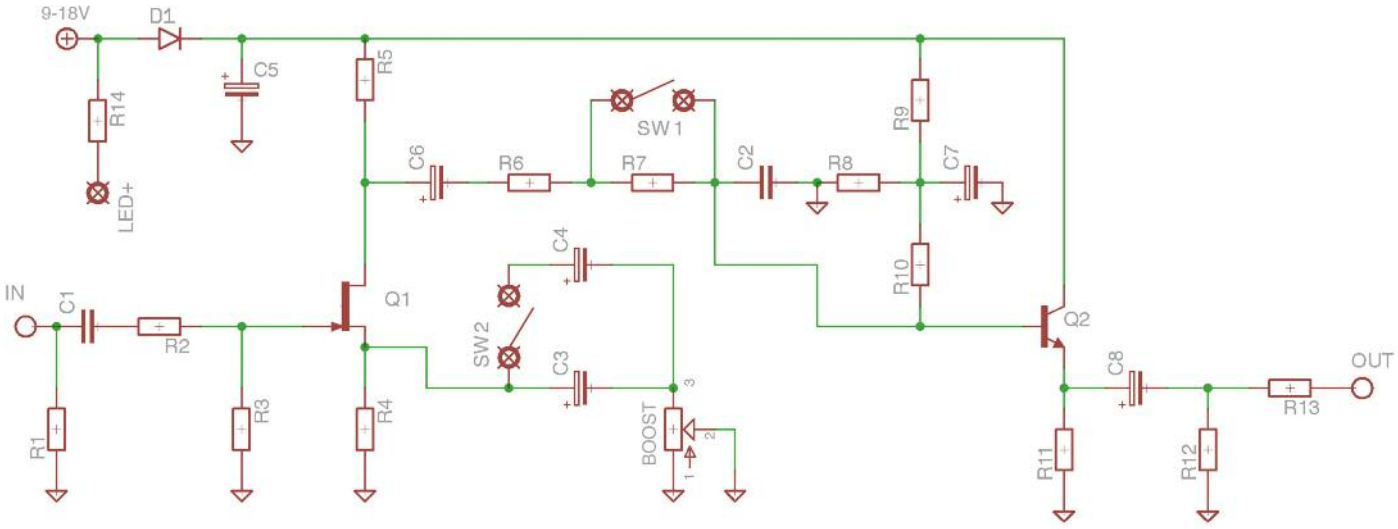
Schematic



* Increase R14 if using 18V supply - 4K7 will do it

** Original uses 2SC1815. Using the 2N3904 does not alter the tone. If using 2SC1815 note the different pinout.

*** 10KB will do, but the sweep is better with reverse-log.

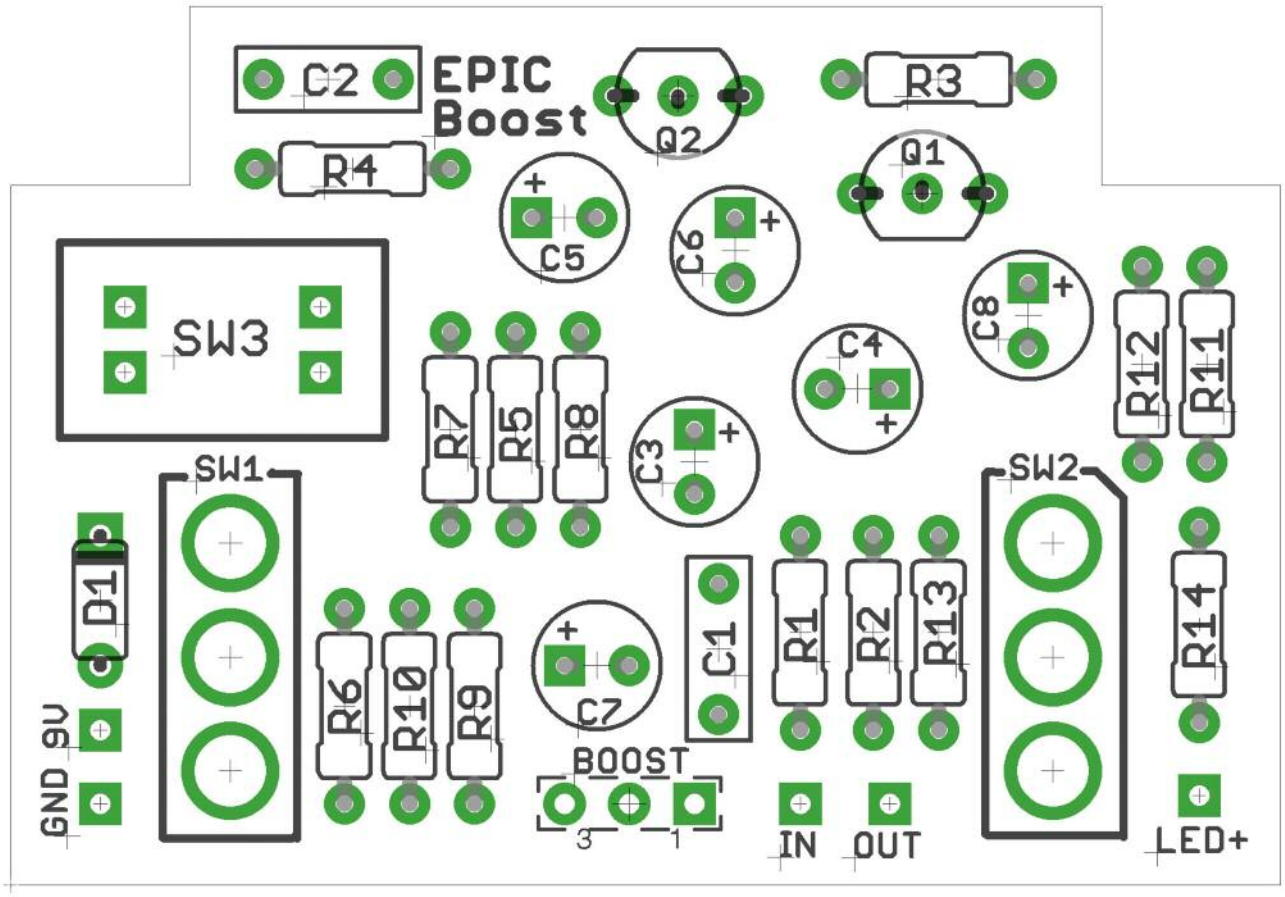
‡ Use EITHER SW1+SW2 or SW3. More overleaf.

BOM

R1	1M
R2	33K
R3	1M
R4	4K7
R5	8K2
R6	1K
R7	15K
R8	10K
R9	10K
R10	1M
R11	10K
R12	47K
R13	100R
R14	2K2 (CLR)*

C1	47n
C2	3n3
C3	10u elec
C4	100u elec
C5	47u elec
C6	10u elec
C7	10u elec
C8	10u elec

D1	1N4148
Q1	2N5457
Q2	2N3904**
BOOST	10KC***
SW1‡	SPDT (ON-ON)
SW2‡	SPDT (ON-ON)
SW3‡	4-PIN, 2 WAY DIL



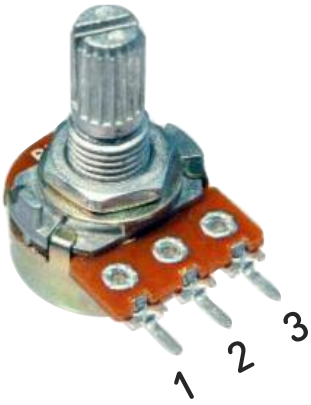
Wiring shown overleaf will disconnect the battery when you remove the jack plug from the input, and also when a DC plug is inserted.

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 diode and transistors 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. Be sure to increase it to 4K7 if using 18V.

DPDT switches mount on the underside of the board. This can be used to hold the PCB firmly in the enclosure. Neat huh?



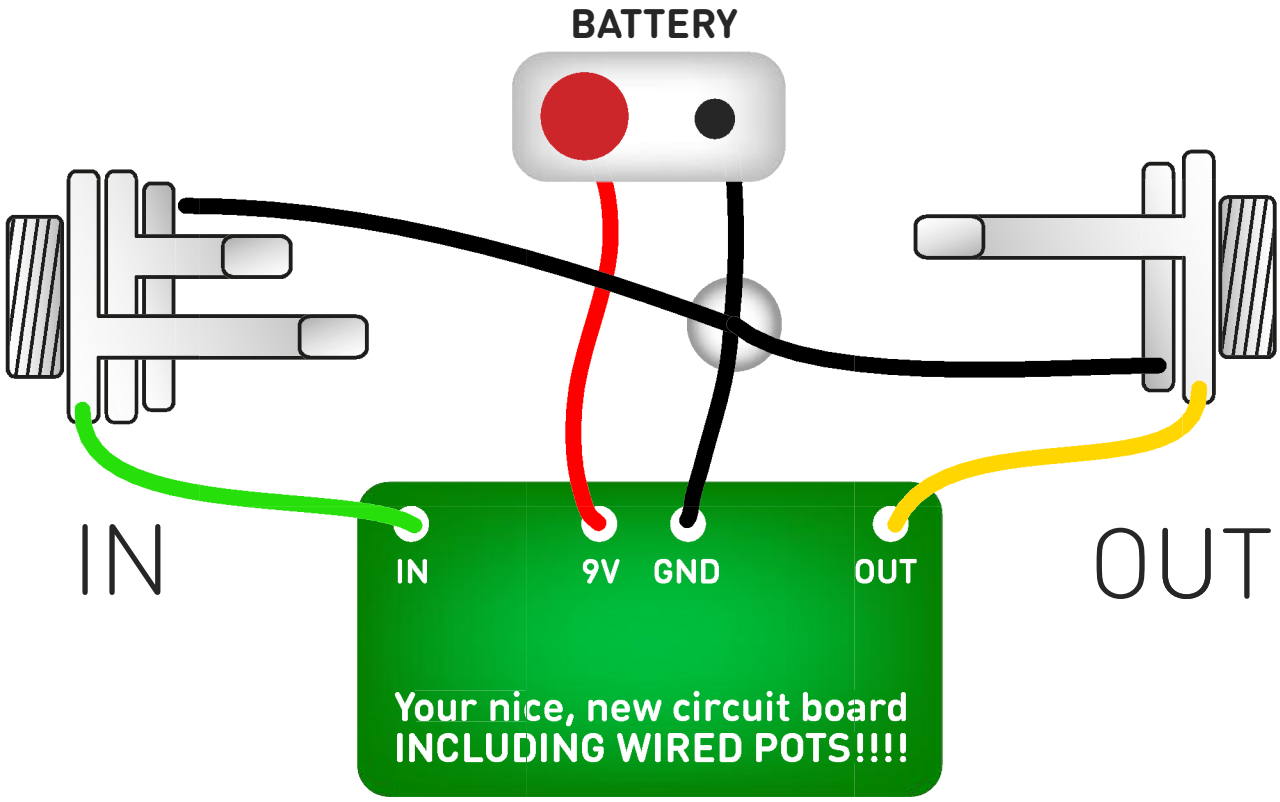
SWITCHES

You can use EITHER SW3, or any combination of SW1 and SW2. You can't use SW3 together with SW1 or SW2.

SW1 is "Bright". SW2 is "Fat".

NOTE: The effect of the switches is subtle. You may not notice much difference unless you have a cranked amp.

Test the board!

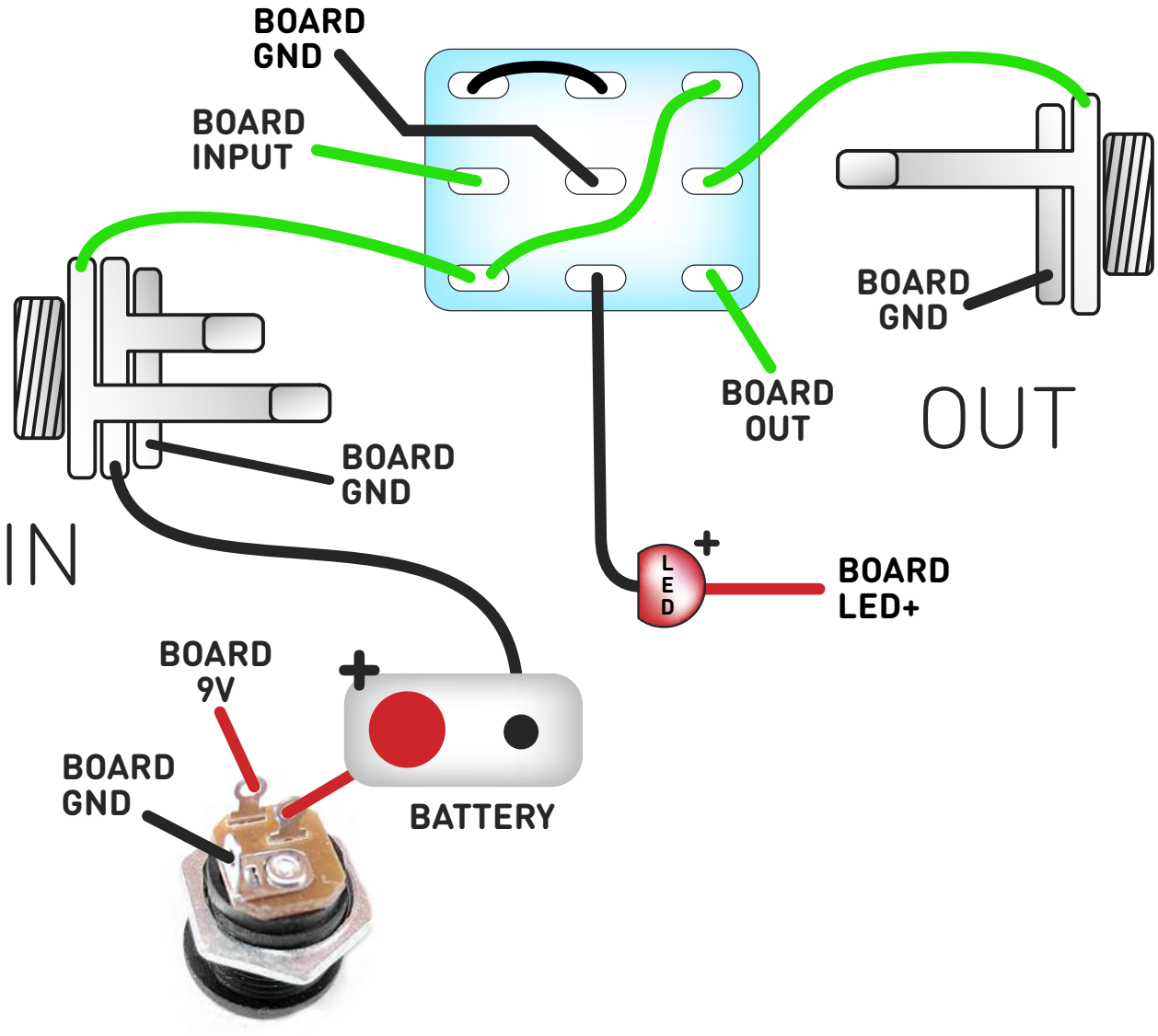


Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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



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... PUMP UP THE VOLUME.

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