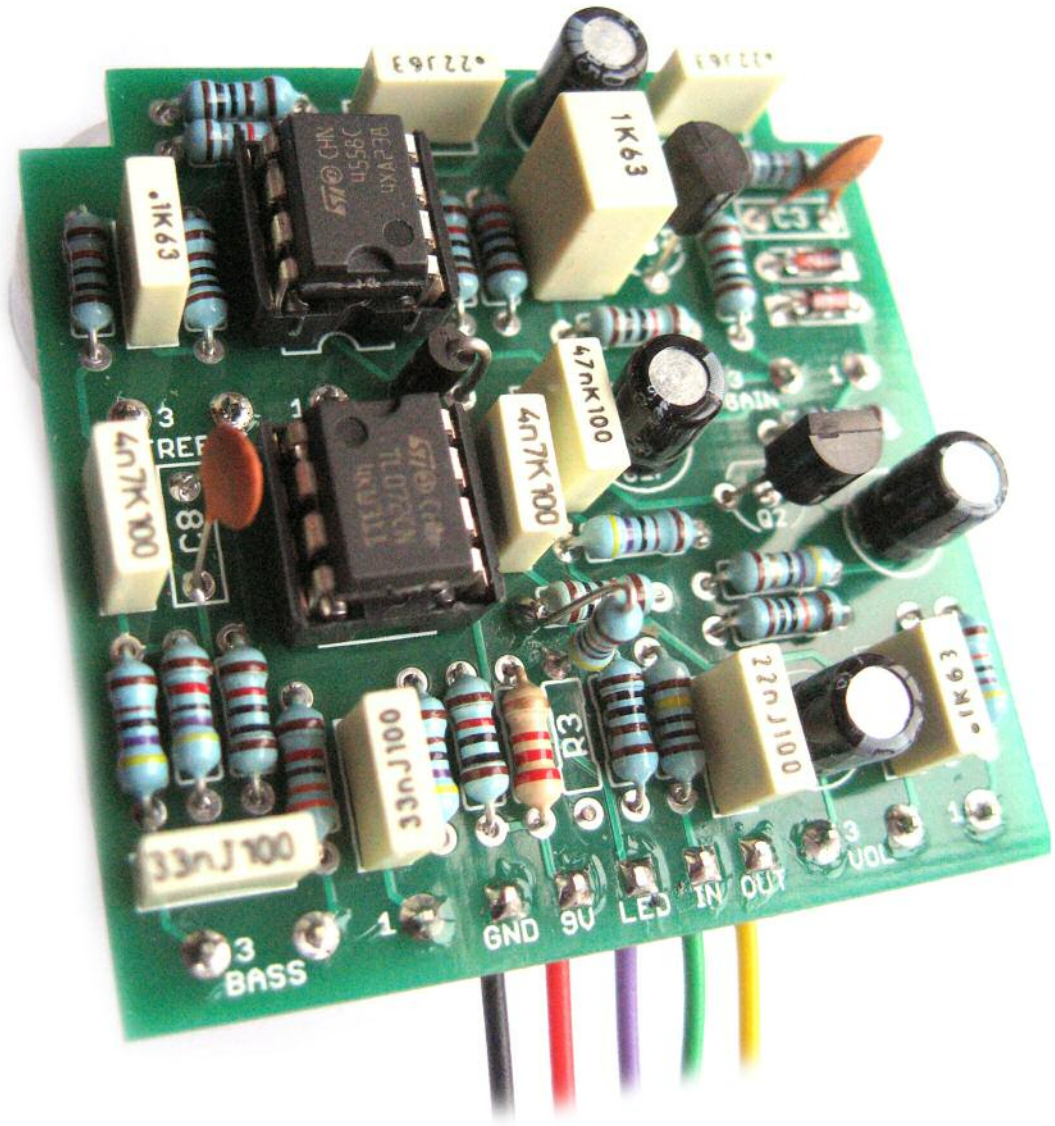

Big Beefy Preamp

Clean boost or overdrive
with Baxanbdall active EQ

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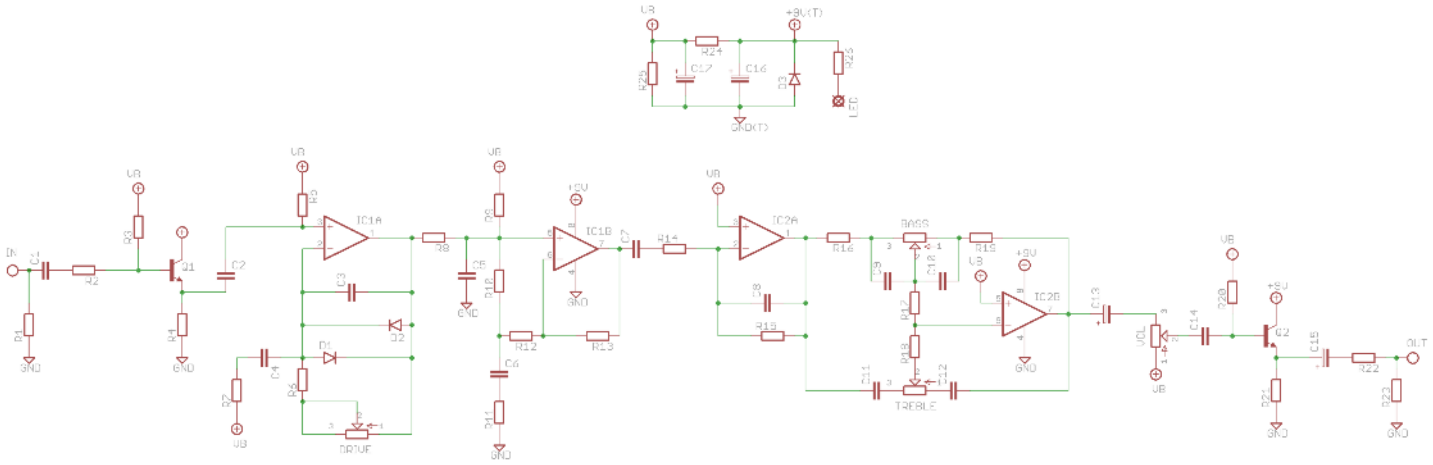
Schematic



BOM

R1	1M				
R2	1K	R21	10K		
R3	470K	R22	47R		
R4	10K	R23	100K	C1	22n (220n)
R5	10K	R24	10K	C2	1u
R6	10K	R25	10K	C3	50p
R7	4K7	R26	2K2 (CLR)	C4	47n
R8	1K			C5	220n
R9	10K	D1-2	1N4148	C6	220n
R10	1K	D3	1N4001	C7	100n
R11	220R			C8	150p
R12	18K	Q1-2	2N5088	C9	33n (68n)
R13	1K			C10	33n (68n)
R14	10K	IC1	4558	C11	4n7 (10n)
R15	47K	IC2	TL072	C12	4n7 (10n)
R16	4K7			C13	10u elec*
R17	33K	BASS	50KB	C14	100n
R18	10K	TREB	50KB	C15	10u elec
R19	4K7	DRIVE	1MB	C16	10u elec
R20	470K	VOL	100KB	C17	10u elec

*C13 has been mislabelled C18 on the PCB

Bass-friendly values shown in BLUE

NOTE:
C13 has been mislabelled C18 on the PCB.

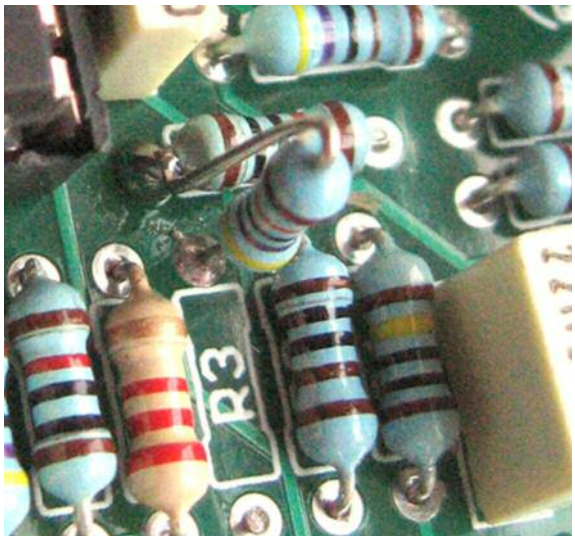
IMPORTANT

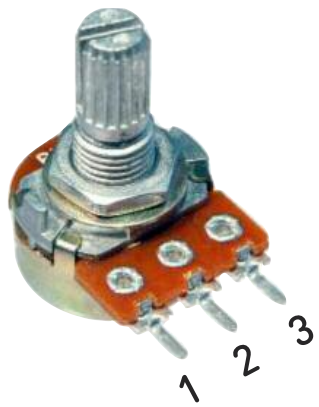
Do not insert R3 into its place as shown on the PCB. Put one leg into the top pad, position the resistor vertically, and solder the other leg to the left leg of R25 as shown below.

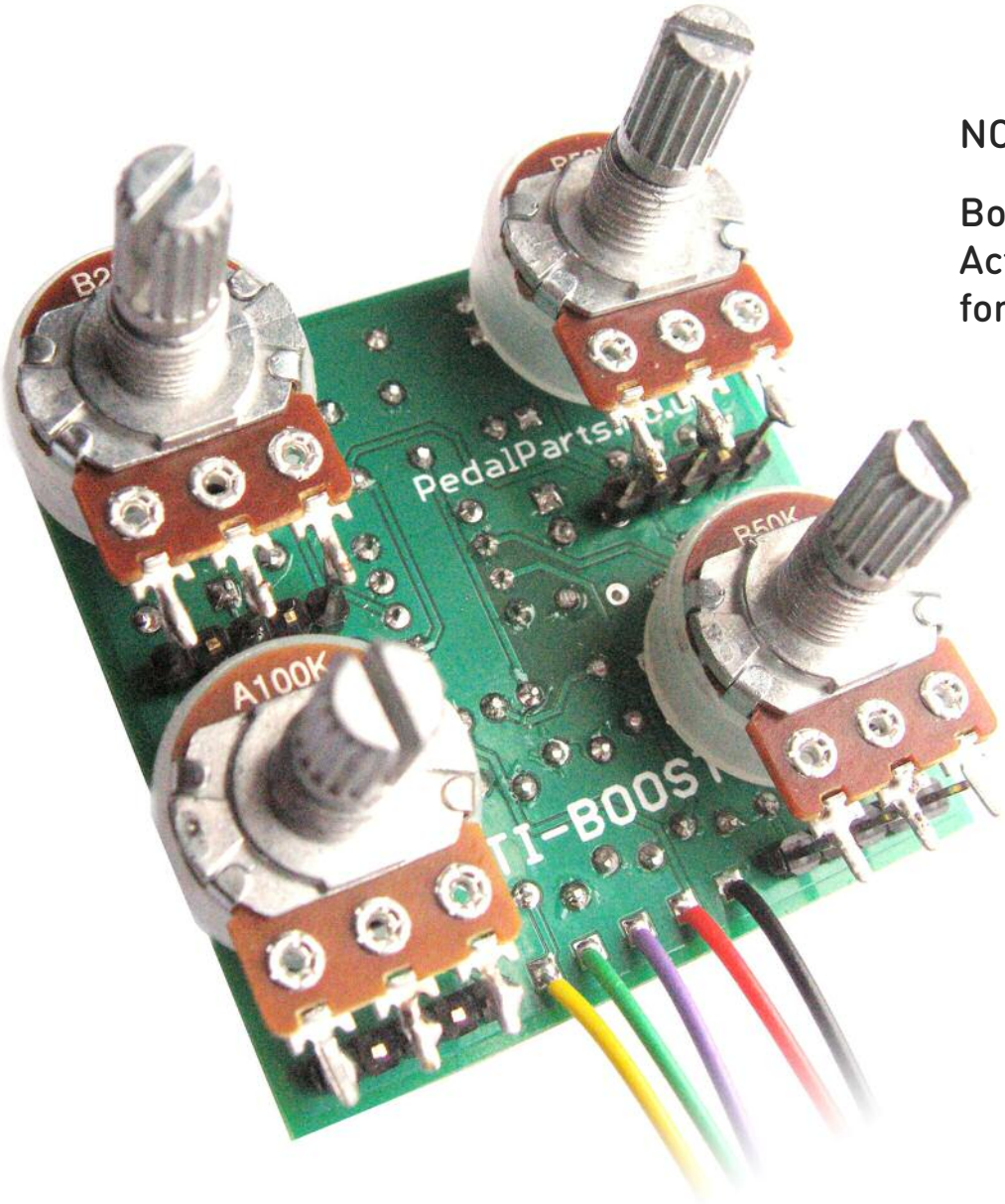
Snap the little metal tag off the pots to mount them flush in the box.

You should use some kind of heat sink on the legs of the diodes 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.







NOTE:

Board shown is the Acti-Boost, but the format is the same.

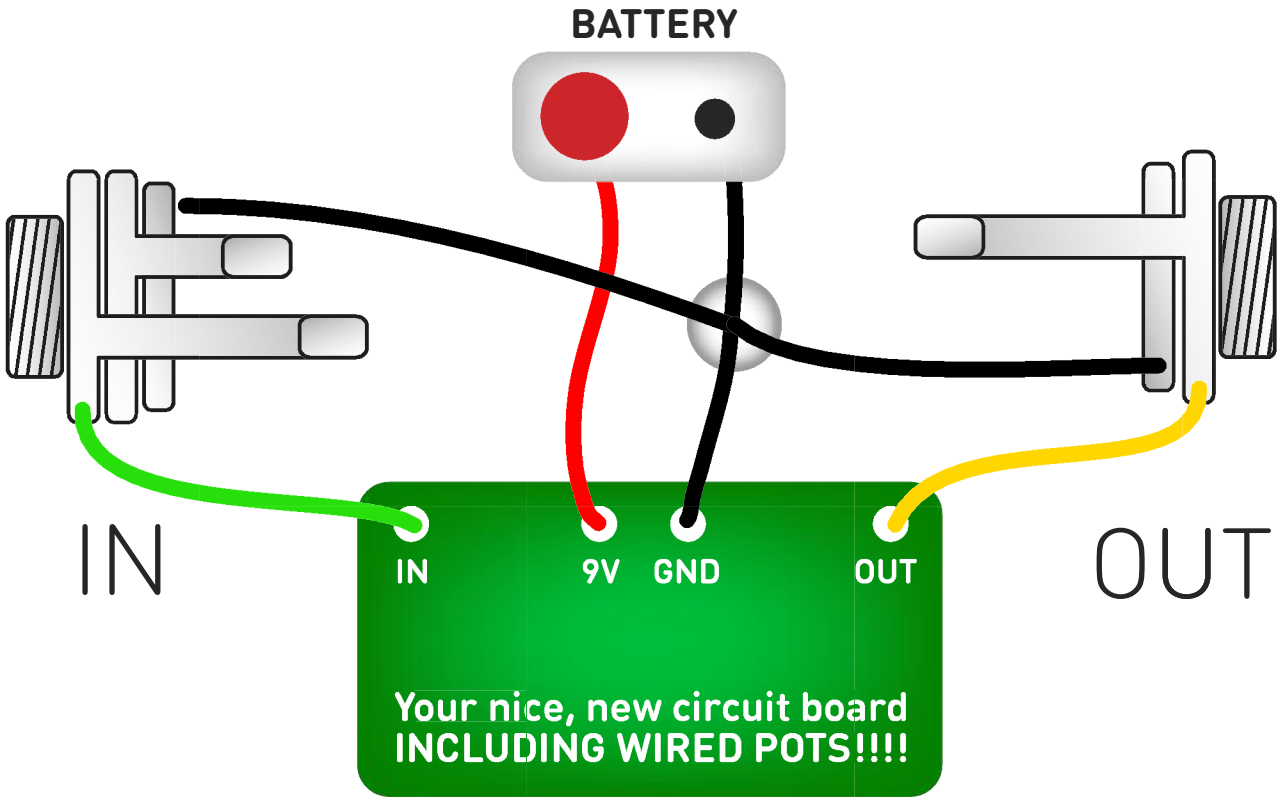
The pots can be wired conventionally, or you can neatly mount them on the back of the PCB using 2.54mm-pitch header pins. Simply snap off a 5-pin length, snip the 2nd and 4th pins out, and solder them into place.

For accurate postioning, get your pre-drilled enclosure (if you have one), and place it face-up on your workspace. Drop the pot shafts into the holes (having already snapped off the metal lugs), taking care to get the right pot in the right position - check against the PCB. Place the pcb down onto the pot legs and solder in place. You can place them directly on the pot pins as shown above, or you may wish to bend the pot pins 90° and solder against the header pins.

You can achieve the same results by simply using snipped component legs in place of the header pins.

If using pots without plastic covers, place a piece of thick card between the pots and PCB when soldering to keep some space between them.

Test the board!

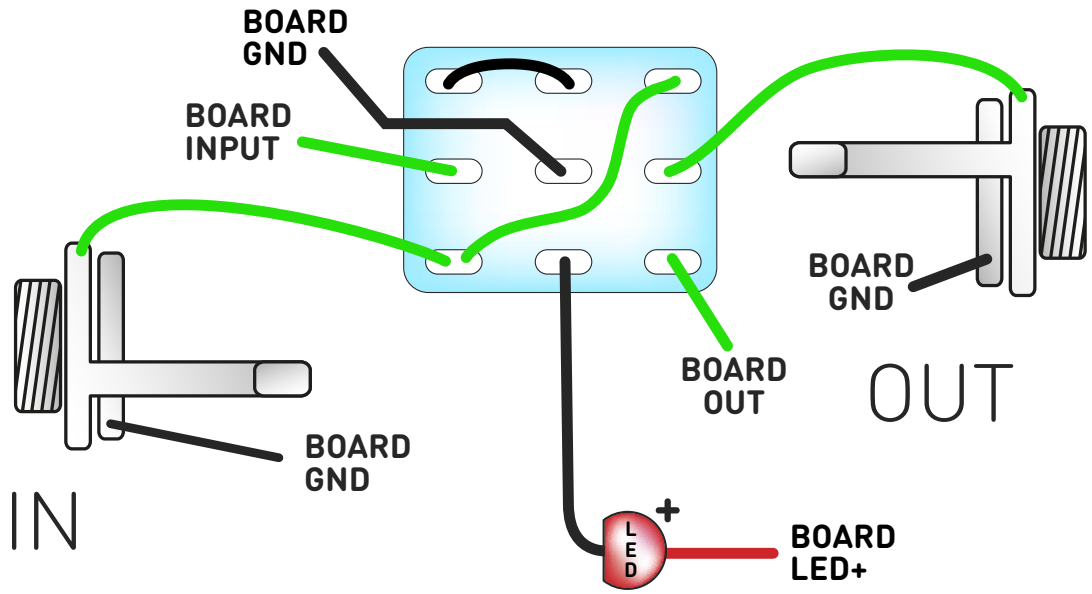


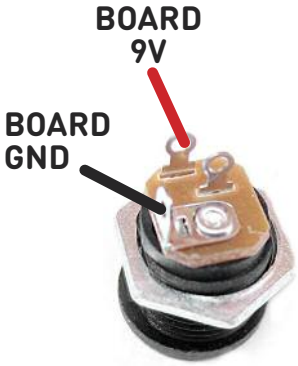
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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!

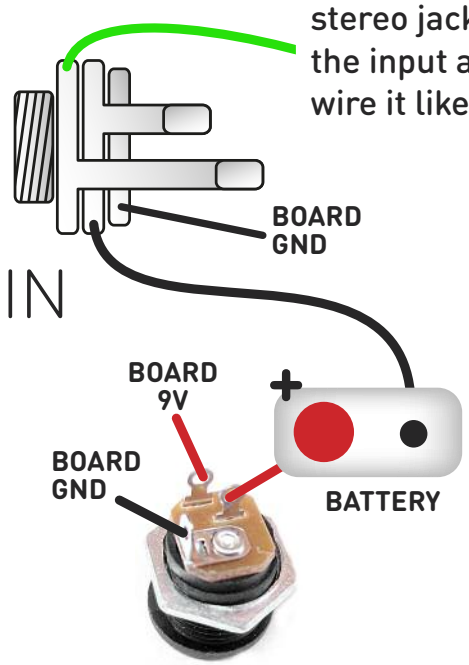
If it works, crack on and do your switch wiring. If not... aw man.
At least you know the problem is with the circuit. Find out why, get it working, THEN worry about the switch etc.

Wire it up





If you're adding a battery, use a stereo jack for the input and wire it like this



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... Boost your shizzle

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