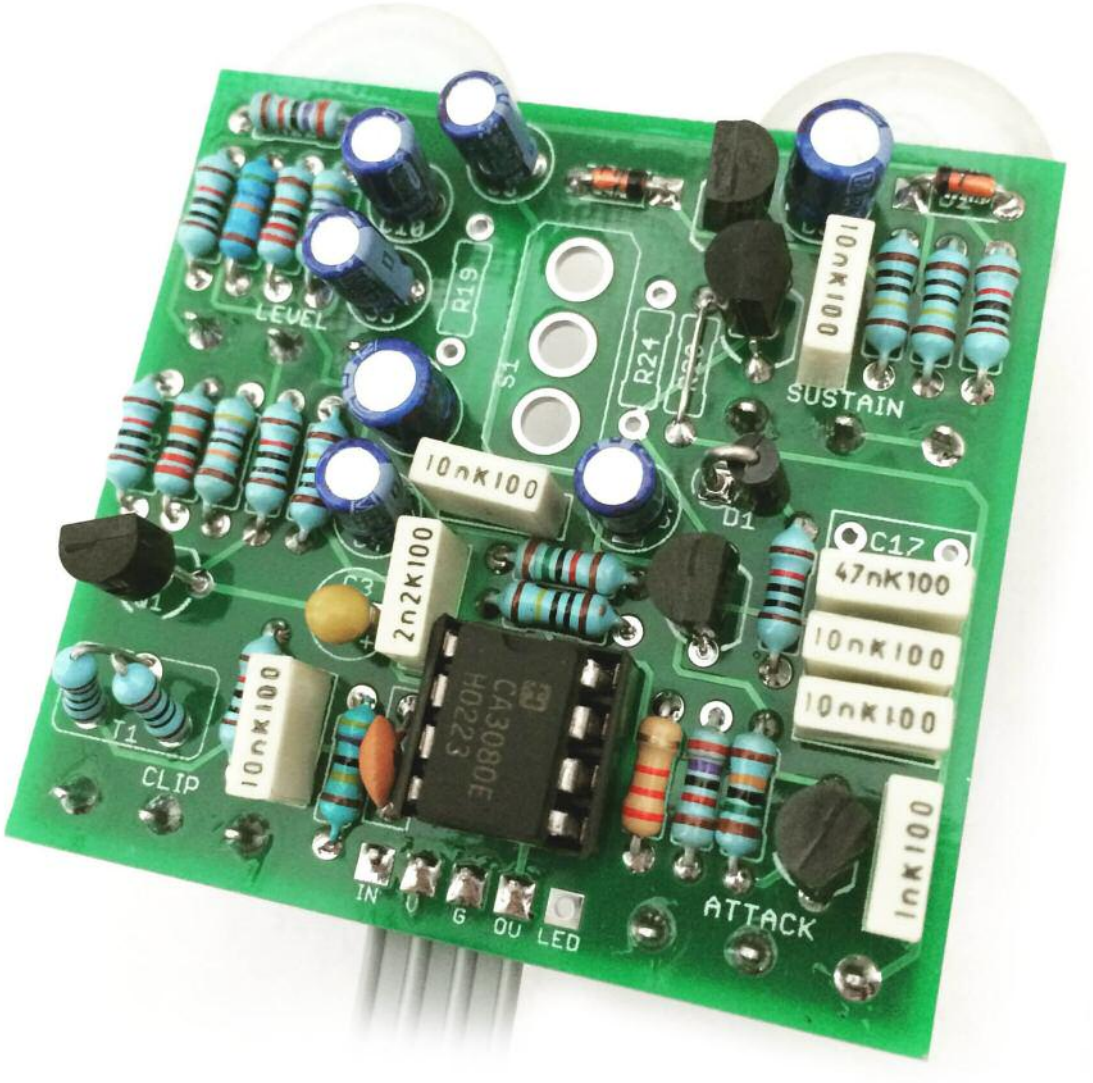
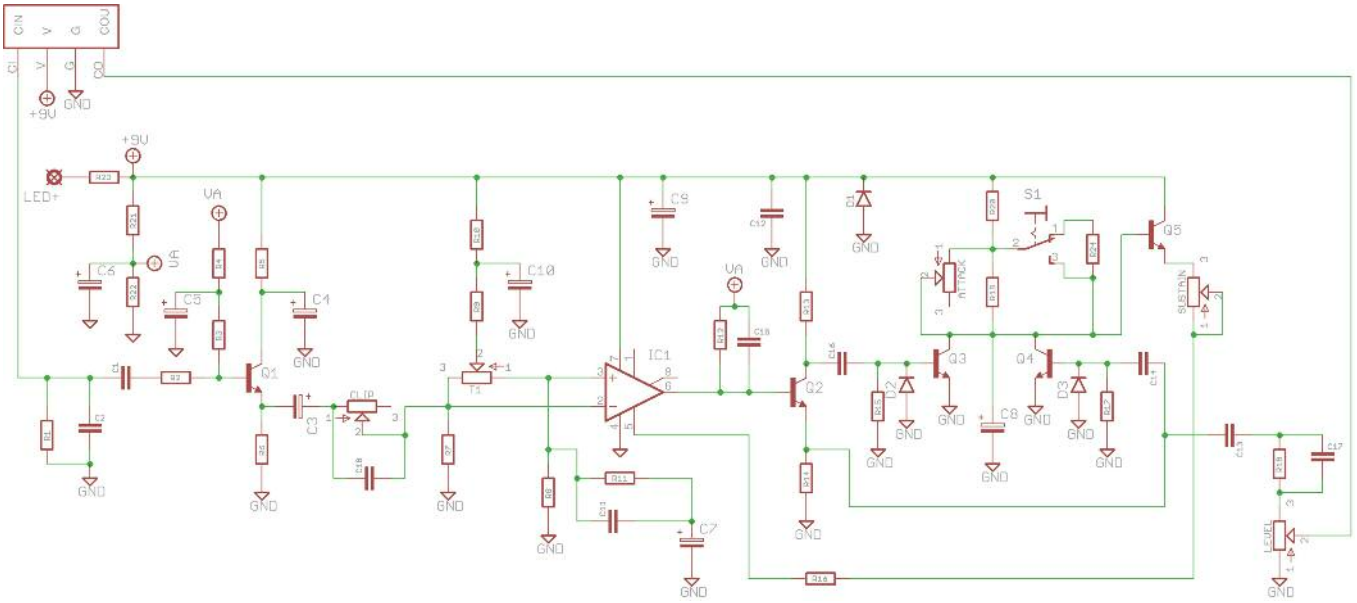


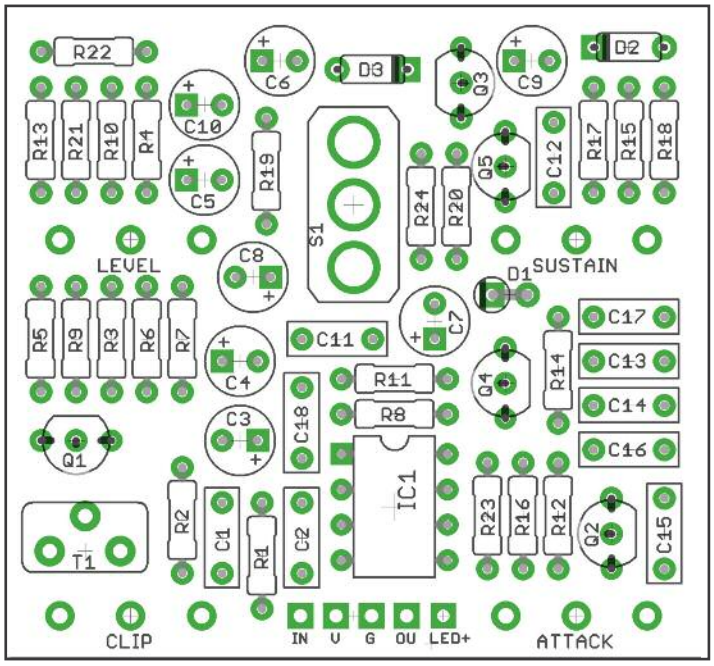
Super Skwisher

Ross Compressor +++

Schematic - full board



The schematic above shows everything that is on the PCB. Since the board is designed for several different builds, not everything is used on each build. The following pages will show only the parts of the schematic relevant to each particular build, though components not shown will still be referenced in the BOM where a jumper is required or it is left empty.



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.

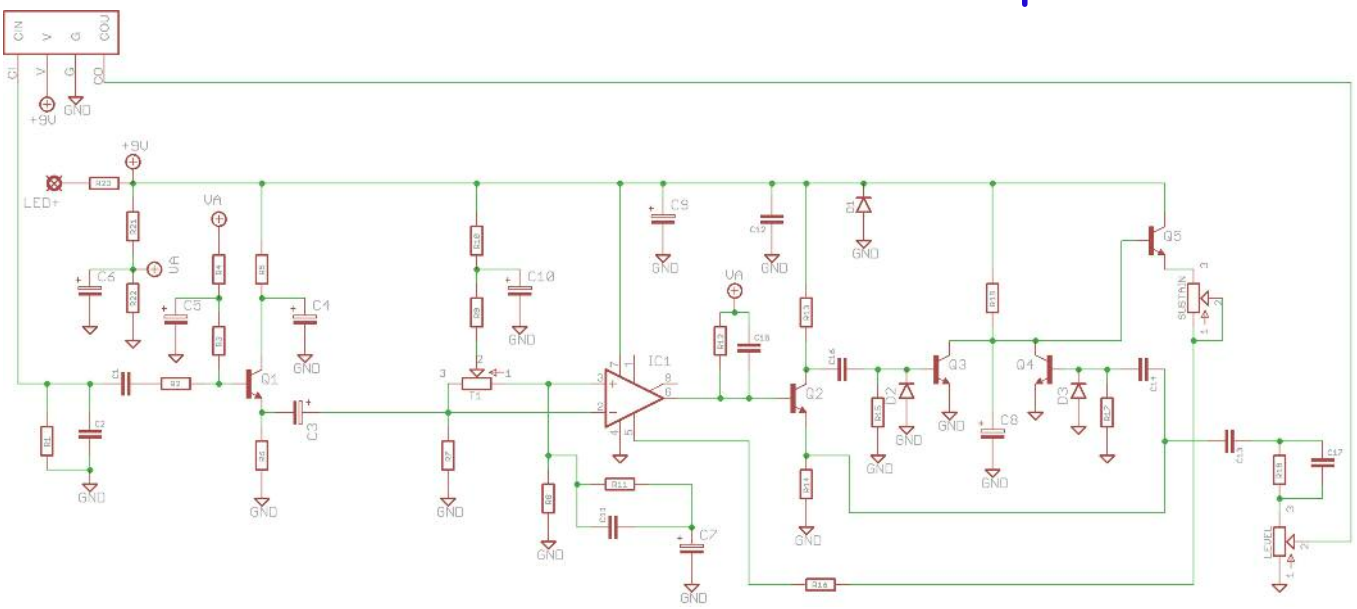
Be very careful when soldering the diodes. They're very sensitive to heat. You should use some kind of heat sink (crocodile clip or reverse action tweezers) on each leg as you solder them. Keep exposure to heat to a minimum (under 2 seconds). You should use a socket for the IC, or be super careful not to overheat. Take your time.

The striped leg (cathode) of the diodes go into the square pads. Long leg (anode) of the LEDs go into the round pads.

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

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

Stock Ross Compressor



*100p will remove less treble than stock.
**Originally linear (B), but reverse-log (C) is better.

Put a jumper wire between pads 1+2 of CLIP.

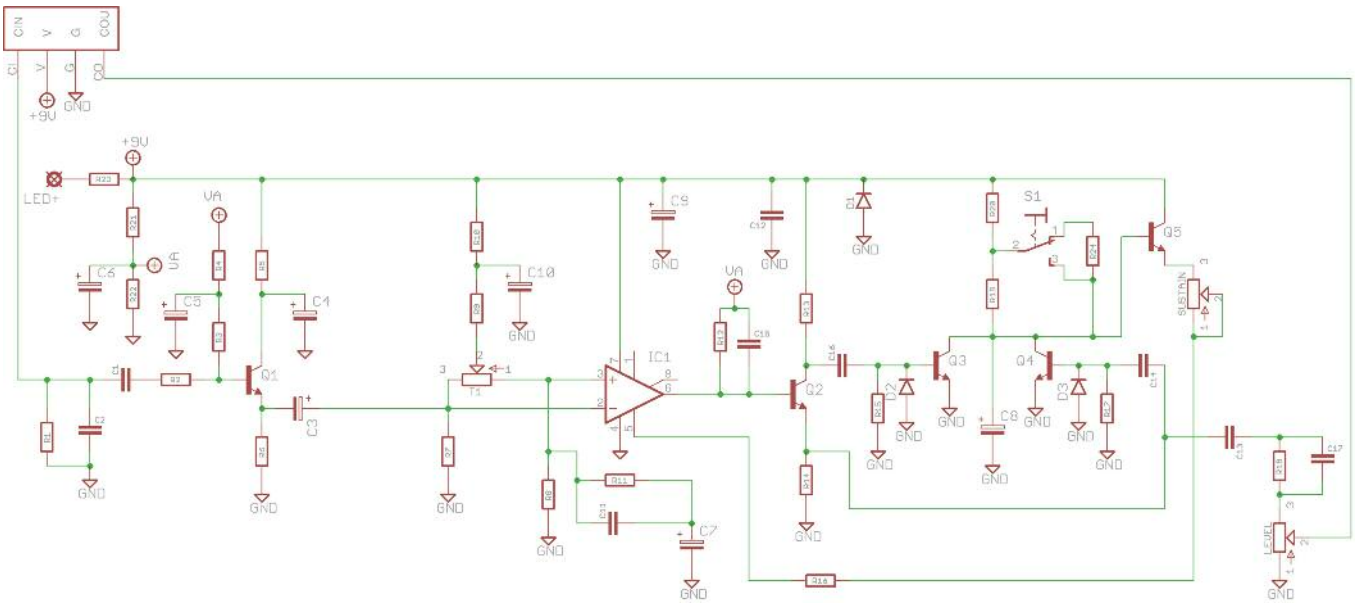
To set the trimmer turn the Sustain pot up to full and adjust trim for maximum sustain with no distortion.

R1	2M2
R2	10K
R3	470K
R4	470K
R5	10K
R6	10K
R7	1M
R8	1M
R9	220K
R10	220K
R11	15K
R12	150K
R13	10K
R14	10K
R15	1M
R16	27K
R17	1M
R18	10K
R19	150K
R20	Jumper
R21	56K
R22	27K
R23	2K2 (CLR)
R24	Empty

C1	10n
C2	220p*
C3	1u
C4	1u
C5	1u
C6	10u
C7	1u
C8	10u
C9	10u
C10	1u
C11	10n
C12	10n
C13	47n
C14	10n
C15	1n
C16	10n
C17	Empty
C18	Empty

D1	1N4001
D2,3	1N4148
Q1-5	2N5089
IC	CA3080
T1	2K2
SUST	500KB/C**
LEVEL	50KA
CLIP	Jumper 1+2
ATTACK	Empty
S1	Empty

Mark Hammer Mods



See notes from previous page.

The SPDT switch will give you three different recovery settings.

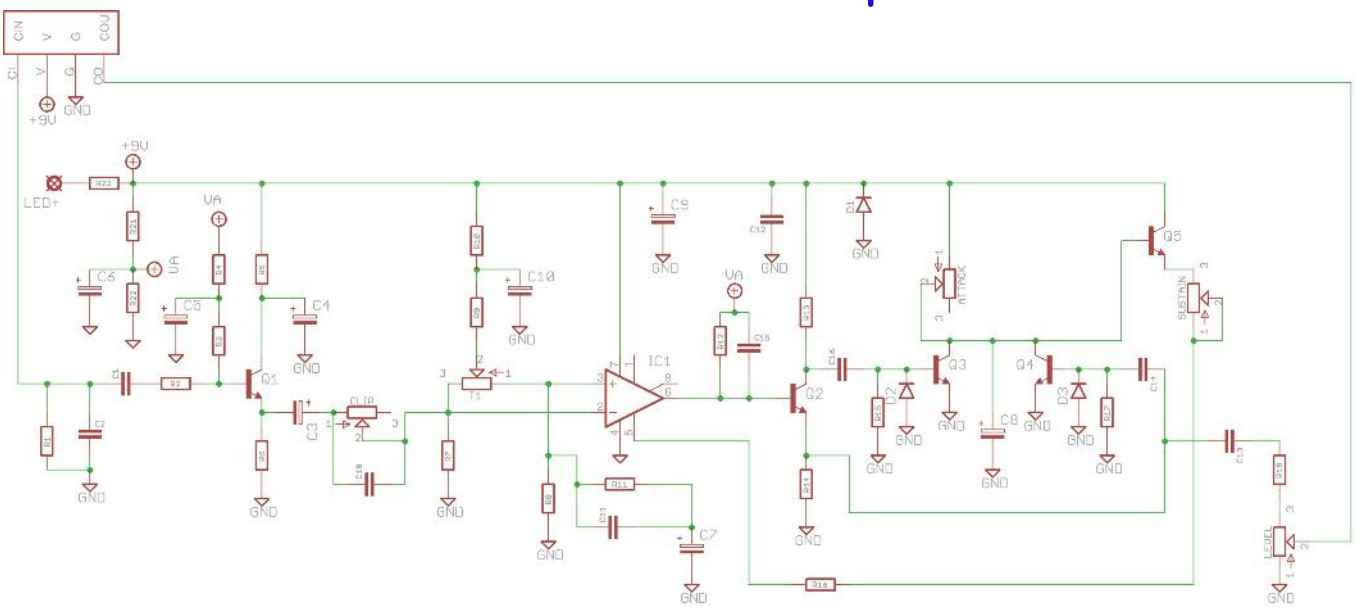
C17 will give more treble response.

R1	2M2
R2	10K
R3	470K
R4	470K
R5	10K
R6	10K
R7	1M
R8	1M
R9	220K
R10	220K
R11	15K
R12	150K
R13	10K
R14	10K
R15	1M
R16	27K
R17	1M
R18	10K
R19	150K
R20	10K
R21	56K
R22	27K
R23	2K2 (CLR)
R24	39K

C1	10n
C2	220p
C3	1u
C4	1u
C5	1u
C6	10u
C7	1u
C8	10u
C9	10u
C10	1u
C11	10n
C12	10n
C13	47n
C14	10n
C15	1n
C16	10n
C17	1n5
C18	Empty

D1	1N4001
D2,3	1N4148
Q1-5	2N5089
IC	CA3080
T1	2K2
SUST	500KB/C
LEVEL	50KA
CLIP	Jumper 1+2
ATTACK	Empty
S1	SPDT ON-OFF-ON

Boutique 4-Knob



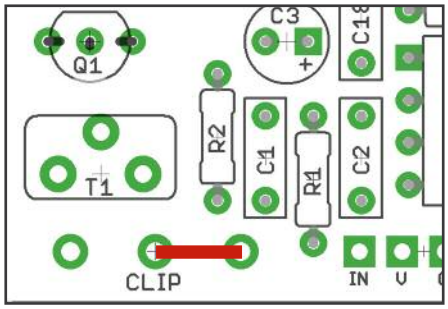
*In the original unit T1 is replaced by two 1K resistors. A 2K2 trimmer set in the middle position will give the same result and allow extra adjustment.

**150KB will be hard to source. See notes on next page.

R1	4M7
R2	10K
R3	470K
R4	470K
R5	10K
R6	10K
R7	1M
R8	1M
R9	220K
R10	220K
R11	15K
R12	150K
R13	10K
R14	10K
R15	1M
R16	27K
R17	1M
R18	10K
R19	Empty
R20	Jumper
R21	56K
R22	27K
R23	2K2 (CLR)
R24	Empty

C1	10n
C2	150p
C3	1u tant
C4	1u
C5	1u
C6	1u
C7	1u
C8	10u
C9	10u
C10	1u
C11	10n
C12	10n
C13	47n
C14	10n
C15	1n
C16	10n
C17	Empty
C18	2n2

D1	1N4001
D2,3	1N4148
Q1-5	2N3904
IC	CA3080
T1	2K2*
SUST	500KC
LEVEL	50KB
CLIP	150KB**
ATTACK	150KB**
S1	Empty



These are the CLIP pads that need jumpering on the Stock and Hammer builds.

Those awkward 150KB Pots...

Not something that's on every supplier's stock list, so will be difficult to source. You have couple of options here:

- **Use 250KB and live with it.** You get extra adjustment range that you may or may not find useful. It's not the end of the world.

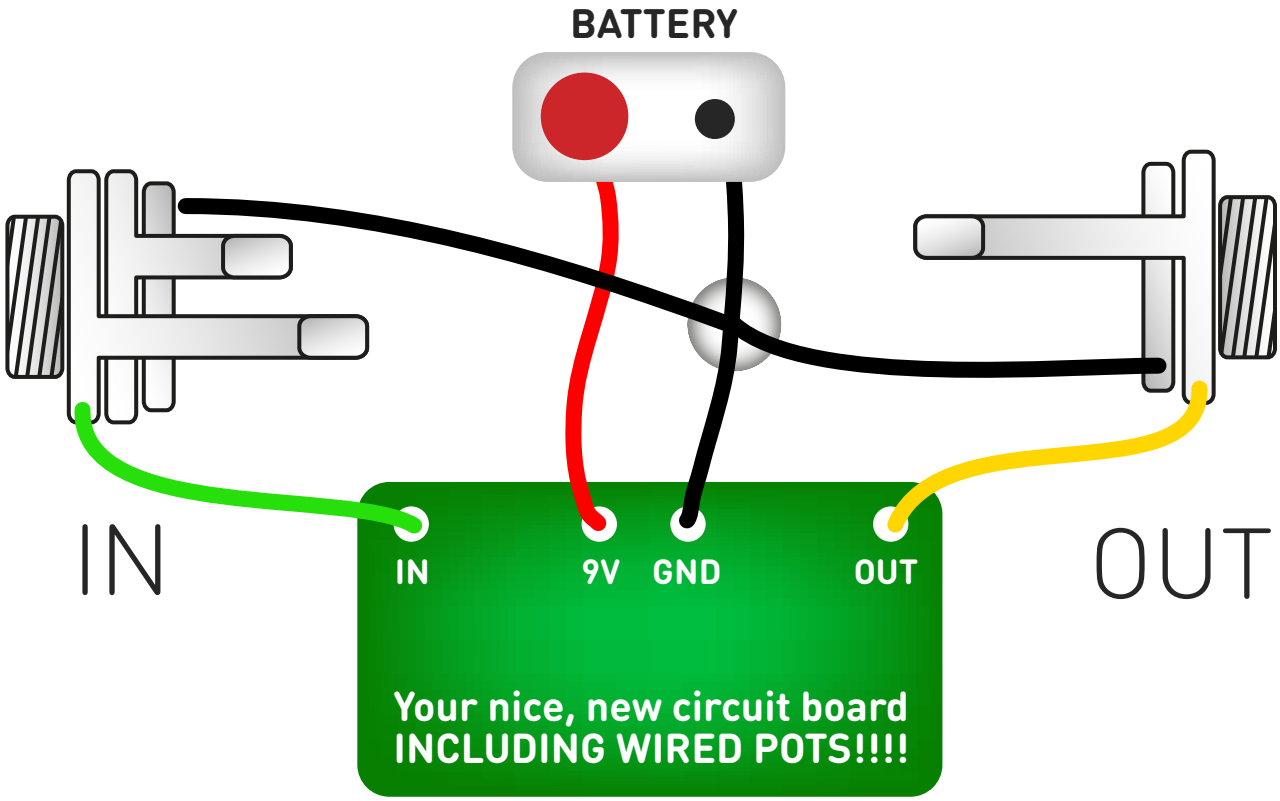
- **Use 250KB and add resistors in parallel to get closer to 150KB.** This will, unfortunately, change the sweep of the pot which may make it less useable than the extra range given by the first option. The good thing is, you can try option 1, add the resistors and see how it works, then simply snip them back off if you don't like it.

  To add the resistors, just solder them across pads 1 & 3 of both pots as shown.
  A 250K pot in parallel with a 390K resistor will give you 152K. Close enough!

Replace the trimmer

Place the two 1K resistors for the 4-knob version like this>>>

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.

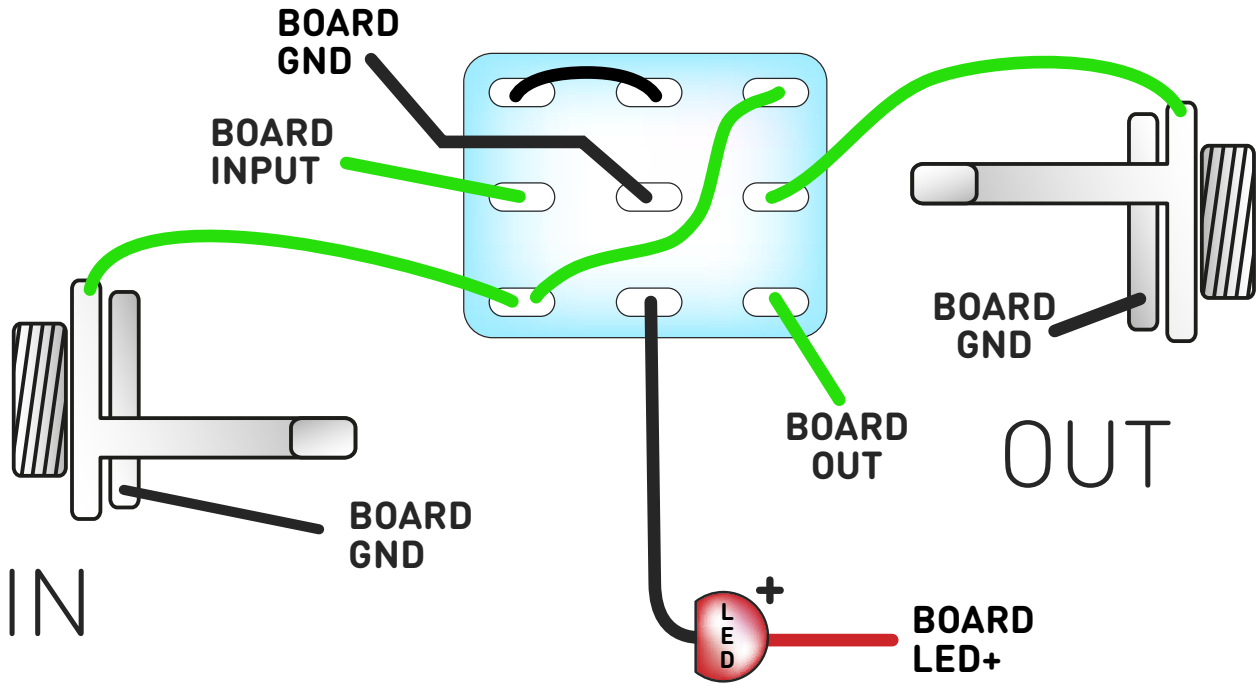
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

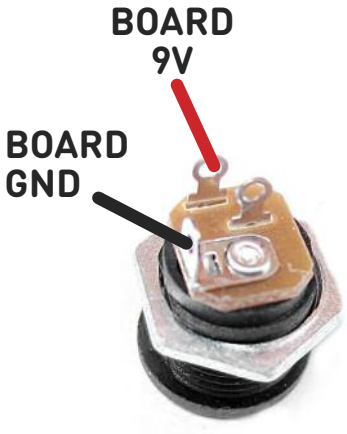
Solder some nice, long lengths of wire to the board connections for 9V, GND, IN and OUT. Connect IN and OUT to the jacks as shown. Connect all the GNDs together (twist them up and add a small amount of solder to tack it). Connect the battery + lead to the 9V wire, same method. Plug in. Go!

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)



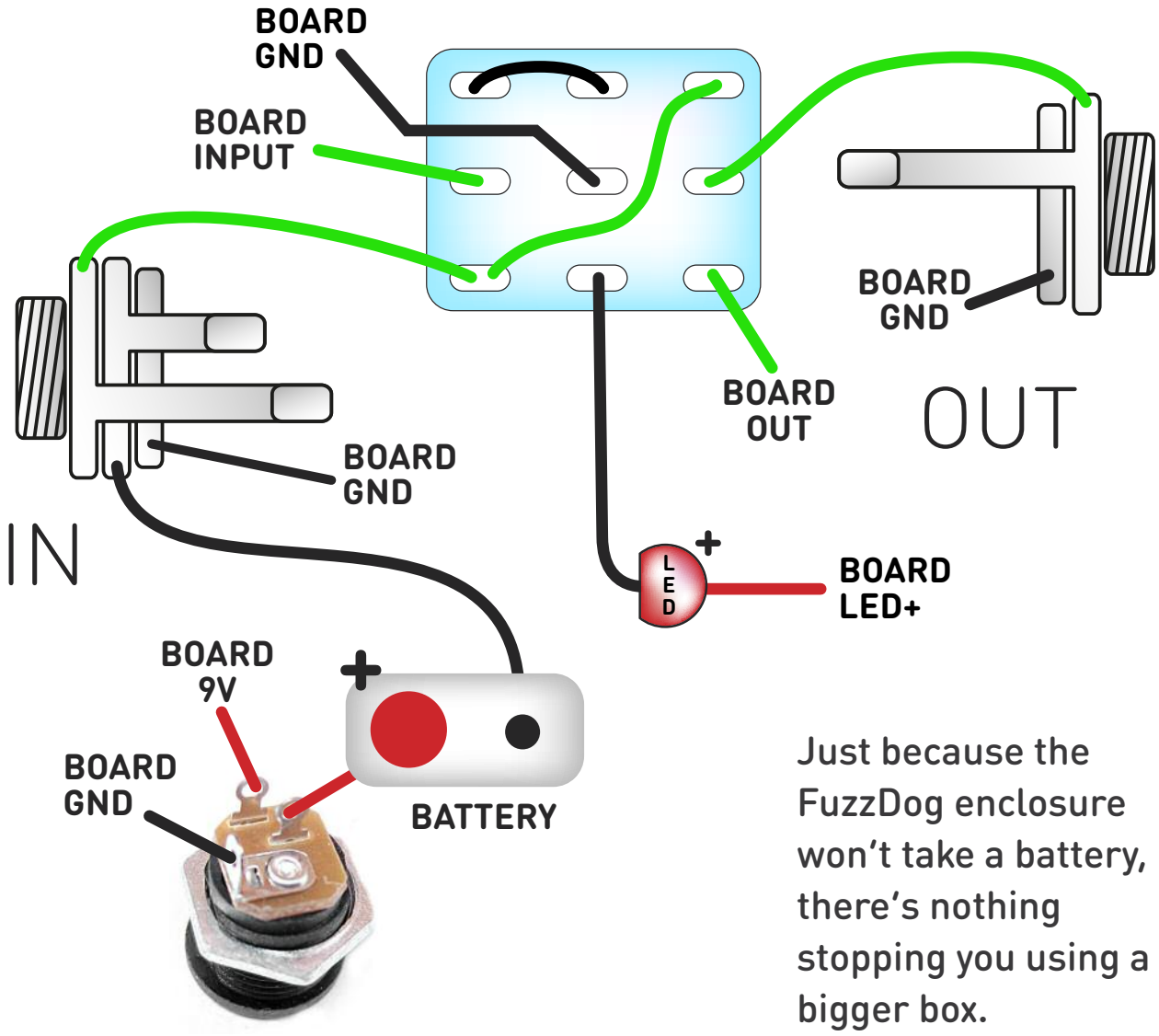


This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

The BOARD GND connections don't all have to connect to one point. They can be daisy-chained around the circuit, using larger connection points (such as jack socket lugs) for multiple connections. As long as they all connect together in some way.

Wire it up - with battery

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



Just because the FuzzDog enclosure won't take a battery, there's nothing stopping you using a bigger box.

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.

The BOARD GND connections don't all have to connect to one point. They can be daisy-chained around the circuit, using larger connection points (such as jack socket lugs) for multiple connections. As long as they all connect together in some way.

PedalParts.co.uk

Drilling template

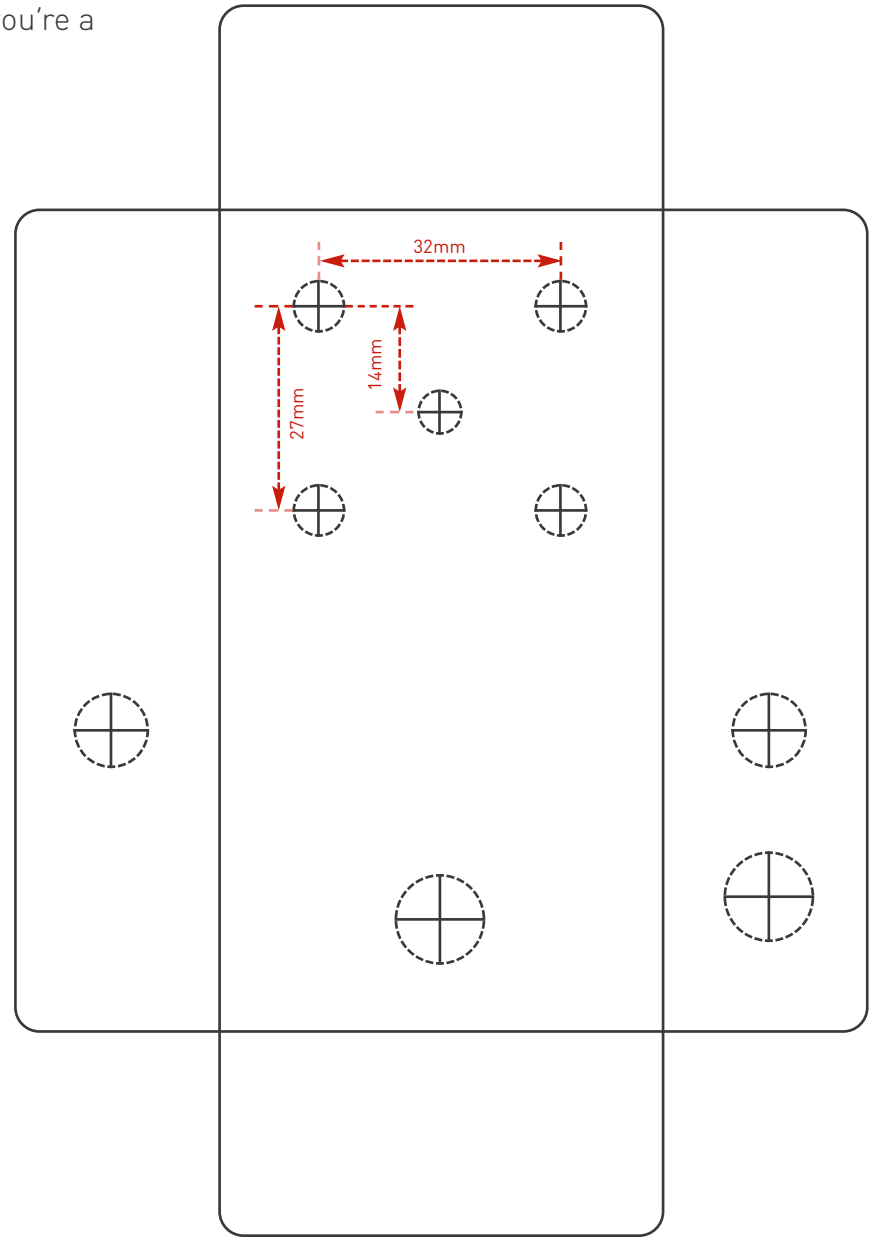
Hammond 1590B

60 x 111 x 31mm

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm
Toggle Switch	6mm

It's a good idea to drill the holes for the pots 1mm bigger to give yourself some wiggle room, unless you're a drill ninja.



This template is a rough guide only. You should ensure correct marking of your enclosure before drilling. You use this template at your own risk.
Pedal Parts Ltd can accept no responsibility for incorrect drilling of enclosures.

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