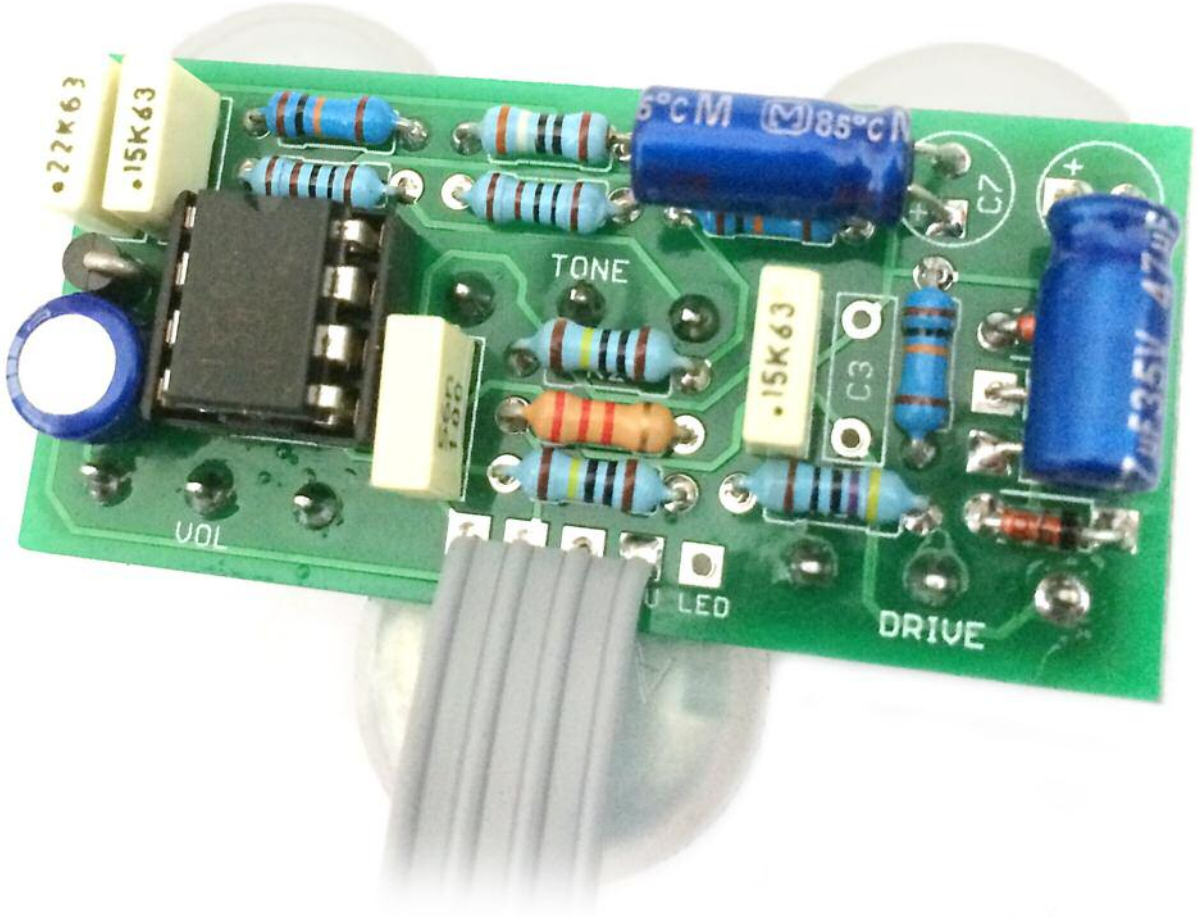
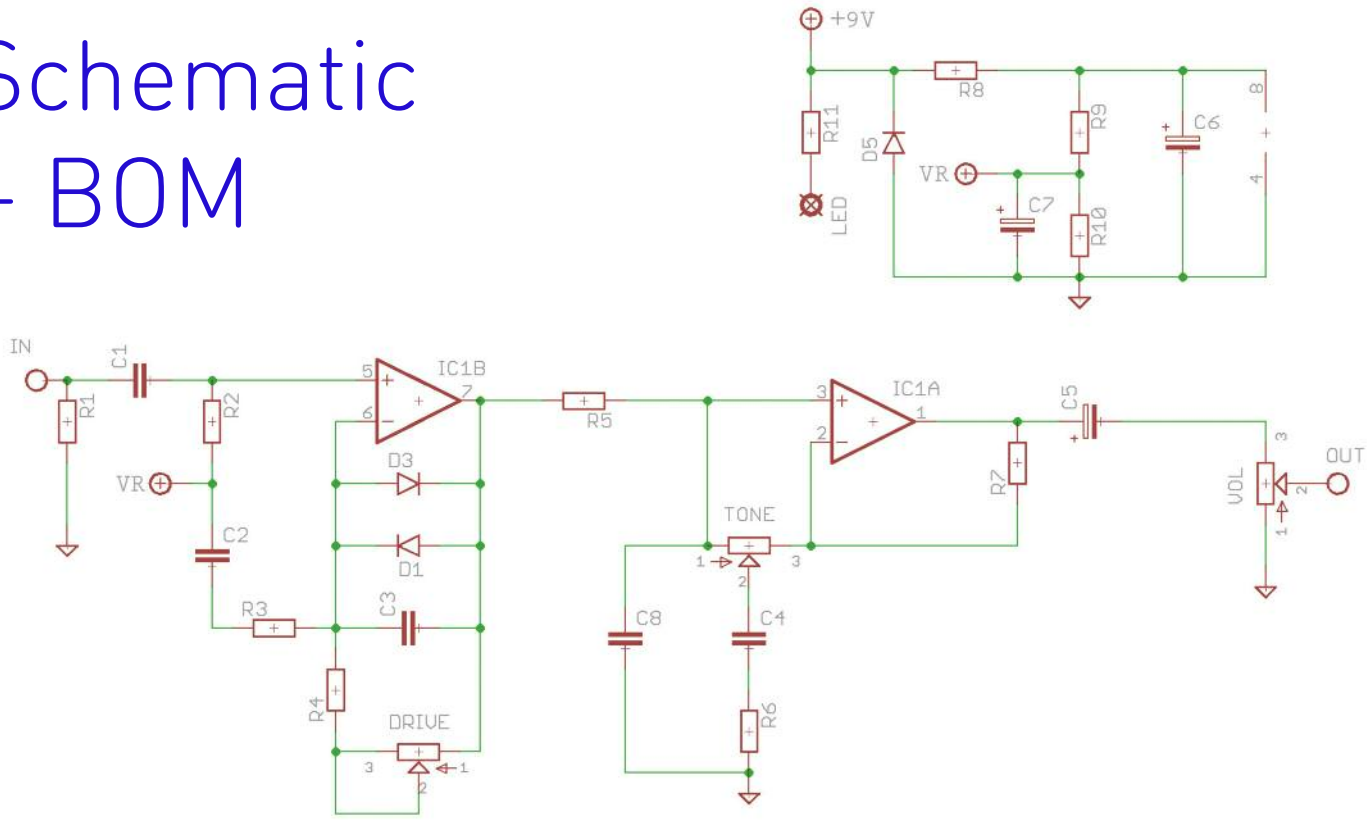


Little Screamer v2.0

Stripped-back, bufferless Tube Screamer

Image shows "Boutique Forever" variation.

Schematic + BOM



Schematic and BOM shown are for the stock version of Jack Orman's stripped back Tube Screamer circuit. Overleaf are BOMs and clipping variations used on a couple of boutique versions of the circuit.

BOM

R1	1M
R2	470K
R3	4K7
R4	47K
R5	1K
R6	220R
R7	1K
R8	390R
R9	10K
R10	10K
R11	2K2 (CLR)

C1	47n (470n)
C2	47n (220n)
C3	47p
C4	220n
C5	1u elec
C6	47u elec
C7	47 u elec
C8	220n

D1	1N4148/1N914
D2	Jumper*
D3	1N34A
D4	Jumper*
D5	1N4001
IC	4558 or similar
DRIVE	500KB
TONE	25KB
VOL	100KB

C1-3 values shown in blue are mods to make the circuit more suitable for bass.

*D2 and D4 are there to accommodate alternative clipping options as shown on the boutique versions overleaf.

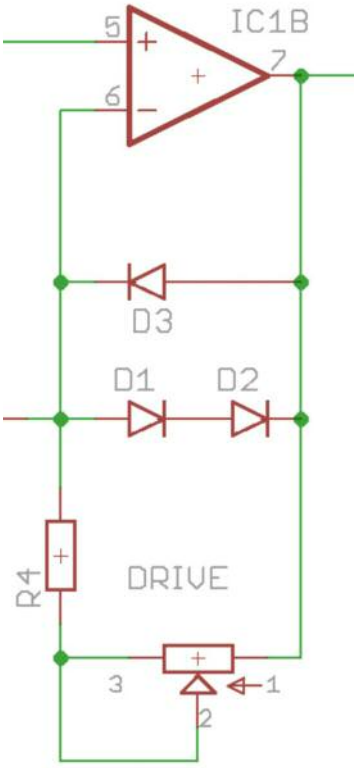
Boutique variations

Different component values and slightly different clipping sections as shown.

Boutique "Forever"

R1	1M
R2	1M
R3	1K
R4	10K
R5	1K
R6	470R
R7	1K
R8	390R
R9	10K
R10	10K
R11	2K2 (CLR)
DRIVE	100KB
TONE	5KB
VOL	100KB

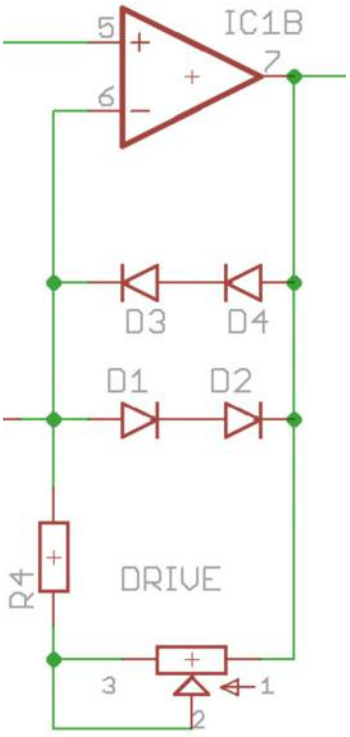
C1	56n
C2	220n
C3	empty
C4	150n
C5	22u elec
C6	47u elec
C7	47 u elec
C8	150n
IC	4558 or similar
D1	1N4148/1N914
D2	1N4148/1N914
D3	1N4148/1N914
D4	Jumper
D5	1N4001

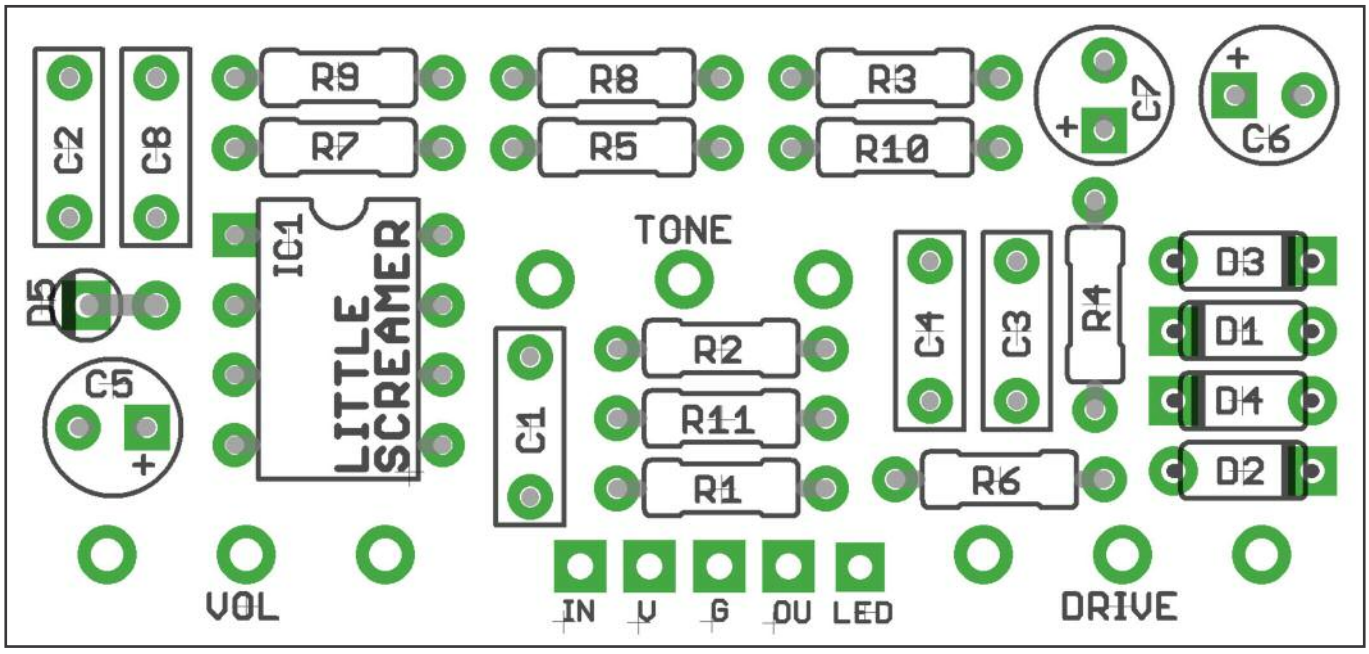


Boutique "Forever Explosion"

R1	1M
R2	1M
R3	1K
R4	10K
R5	1K
R6	330R
R7	1K
R8	390R
R9	10K
R10	10K
R11	2K2 (CLR)
DRIVE	500KB
TONE	5KB
VOL	500KB

C1	47n
C2	220n
C3	empty
C4	220n
C5	10u elec
C6	47u elec
C7	47 u elec
C8	150n
IC	4558 or similar
D1	1N4148/1N914
D2	1N4148/1N914
D3	1N4148/1N914
D4	1N4148/1N914
D5	1N4001





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. Check the separate daughterboard document for details.

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). Use a socket for IC1, or be super careful. If you're building the stock circuit you'll have to have the 1N34A diode upright. Be careful when bending the legs - the glass case is very brittle and can easily break. You should hold the leg you're bending with some needle-nosed pliers right up against the glass body to take the strain, then bend the leg with your fingers.

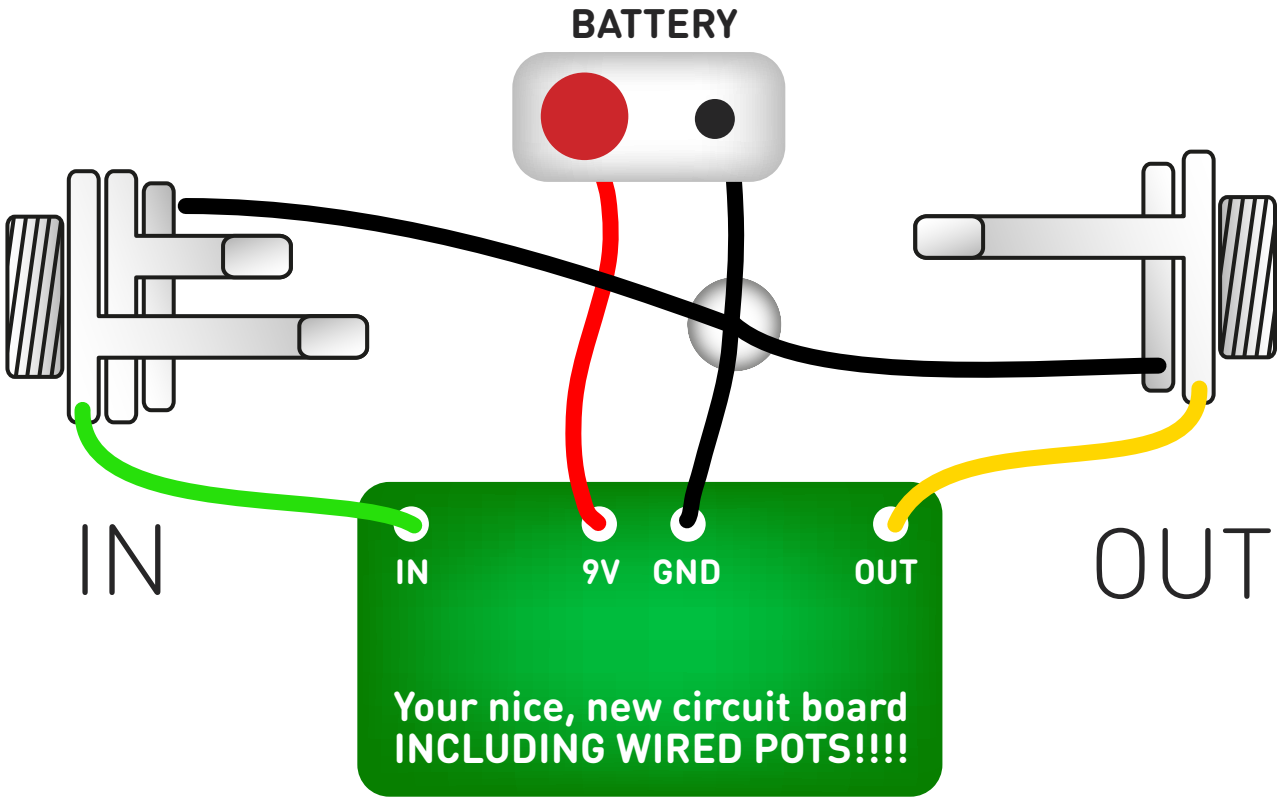
Snap the small metal tag off the pots so they can be mounted flush in the box.

Positive (anode) legs of the electrolytic caps go to the square pads. C6 and C7 can be laid flat as shown in the cover image to give you extra clearance in the enclosure.

Negative (cathode) legs of the diodes go to the square pads.

You should solder all other board-mounted components before you solder the pots. Once they're in place you'll have no access to much of the board. Make sure your pots all line up nicely. The best way to do that is to solder a single pin of each pot in place then melt and adjust if necessary before soldering in the other two pins. If your pots don't have protective plastic jackets ensure you leave a decent gap between the pot body and the PCB otherwise you risk shorting out the circuit.

Test the board!



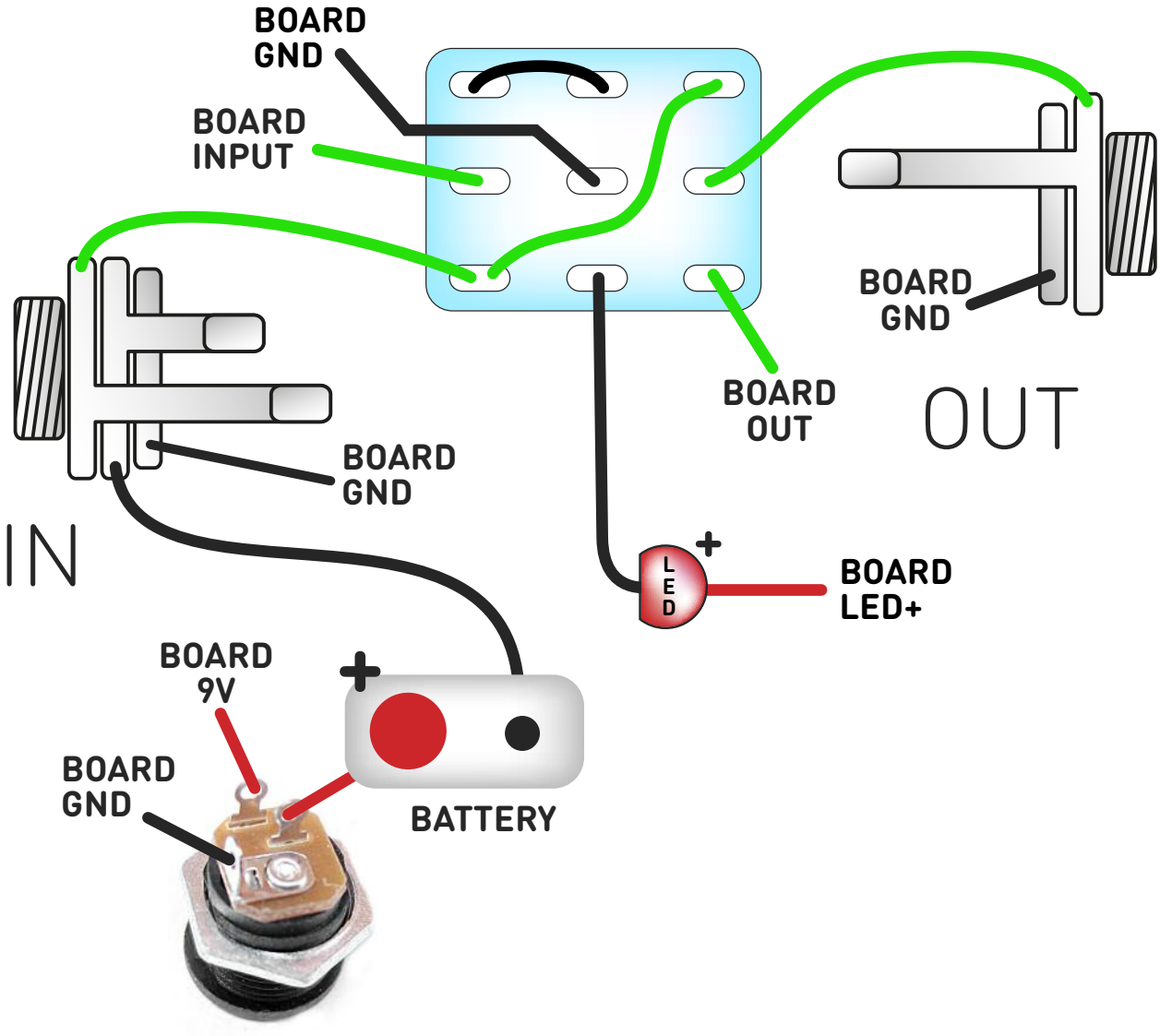
UNDER NO CIRCUMSTANCES will troubleshooting help be offered if you have skipped this stage. No exceptions.

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.

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.

Drilling template

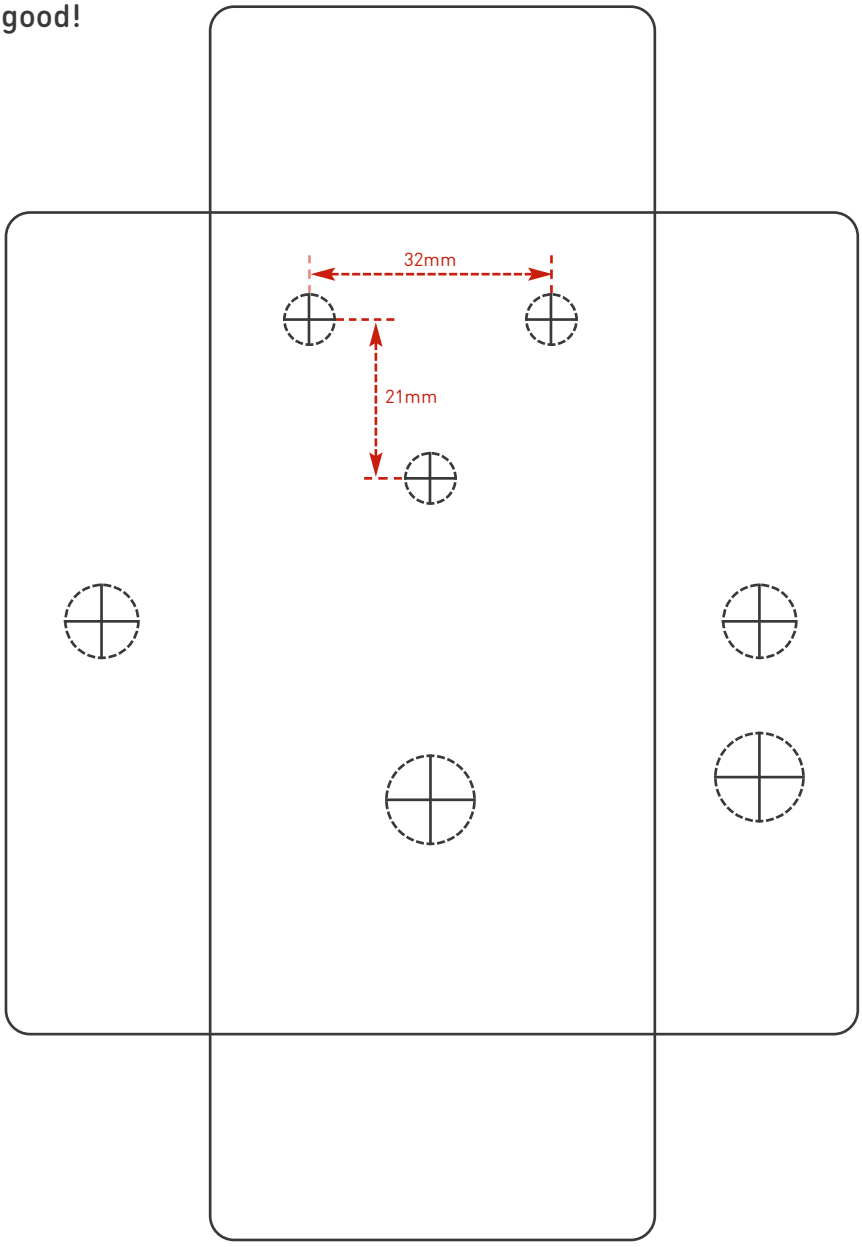
Hammond 1590B

60 x 111 x 31mm

It's a good idea to drill the pot holes 1mm bigger if you're board-mounting them. Wiggle room = good!

Recommended drill sizes:

Pots	7mm
Jacks	10mm
Footswitch	12mm
DC Socket	12mm



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.

PedalParts.co.uk