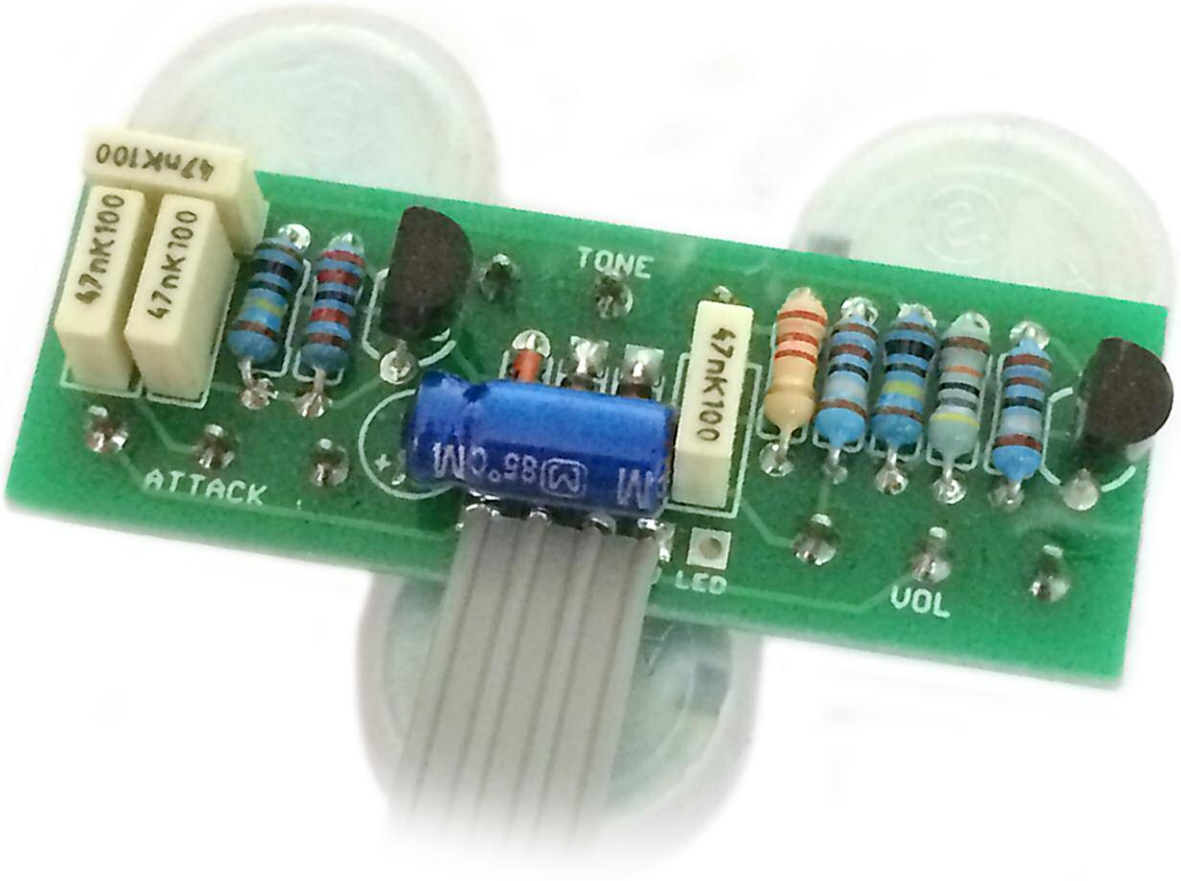
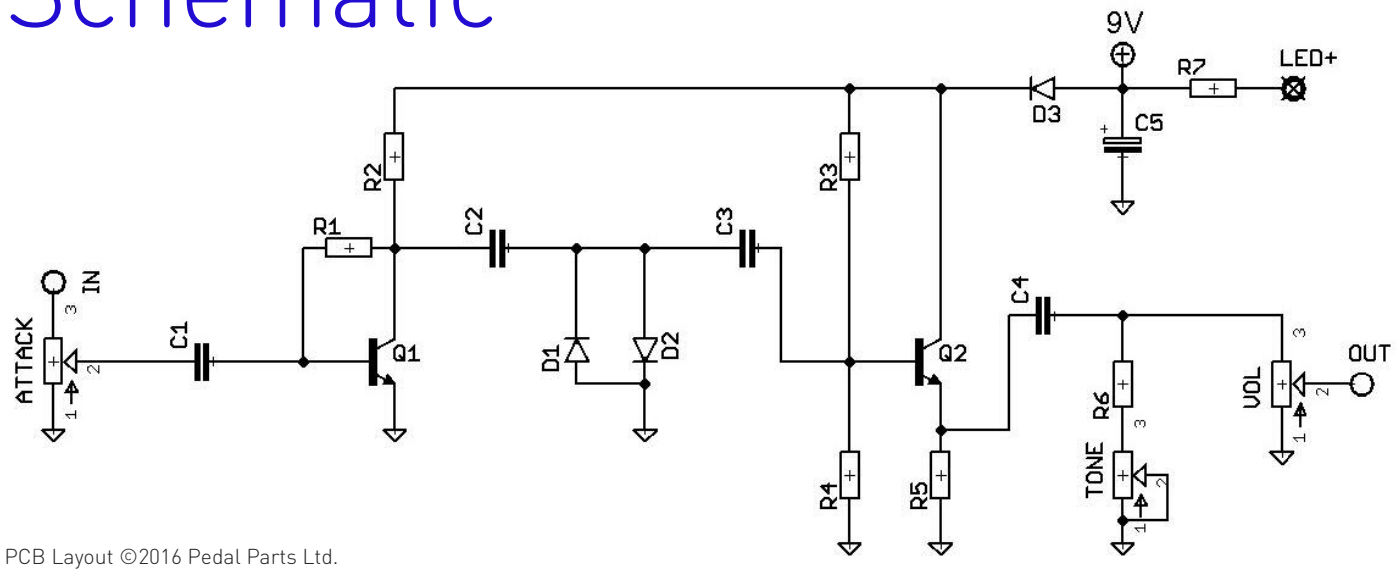
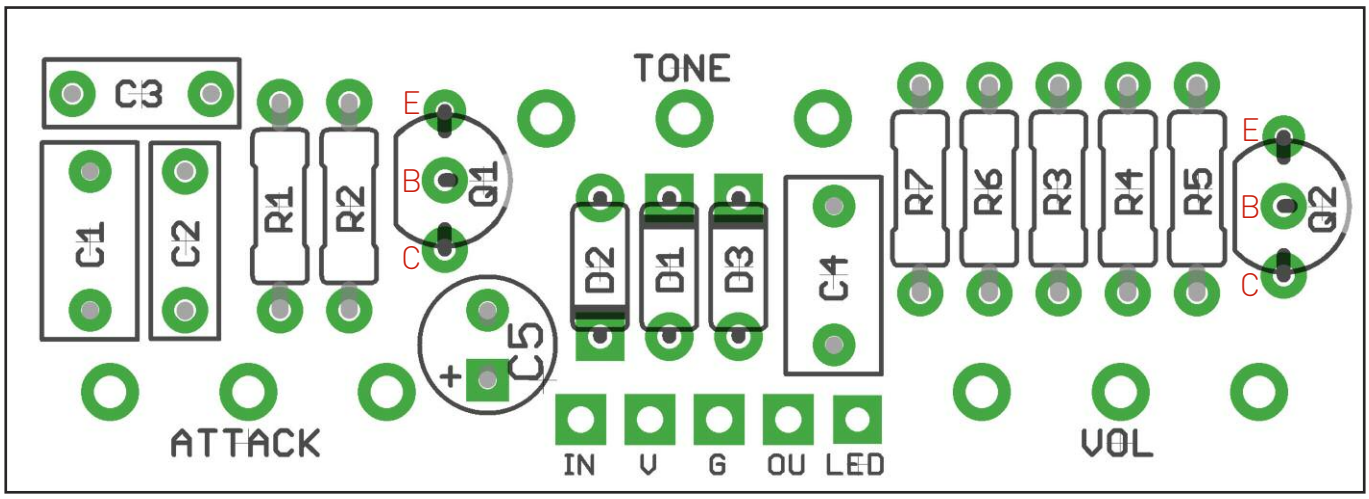


AstroTone

Clone of the Astro Tone Fuzz / Sam Ash Fuzzz Boxx

Schematic





BOM

Components listed in blue are for a 'boutique' version.

R1	1M	C1	47n (470n)		
R2	22K	C2	47n	D1-2	1N4148
R3	1M	C3	47n	D3**	1N4148
R4	470K	C4	47n (470n)		
R5	1K8	C5	47u elec	ATTACK	100KB
R6	1K8 (470R)			TONE	10KB
R7	CLR (2K2)	Q1,2	2N2222*	VOL	10KA

*any low-ish gain NPN silicon transistors could be tried, for instance 2N3904, 2N5088, BC109, though we can't vouch for the results. Note the pinouts though.
SEE NOTE OVERLEAF BEFORE PLACING!

**D3 was in Sam Ash version, but not original. Can be replaced with a jumper wire.

TRANSISTOR PINOUTS

Manufacturers can be very unhelpful sometimes. Different versions of 2N2222 may have different pinouts. Check your datasheet if sourcing your own parts.

If you're building a FuzzDog kit, your transistors will be one of the following:

PN2222 - these should be mounted as per the component silkscreen.

P2N2222 - these have the opposite pinout, and should be reversed.

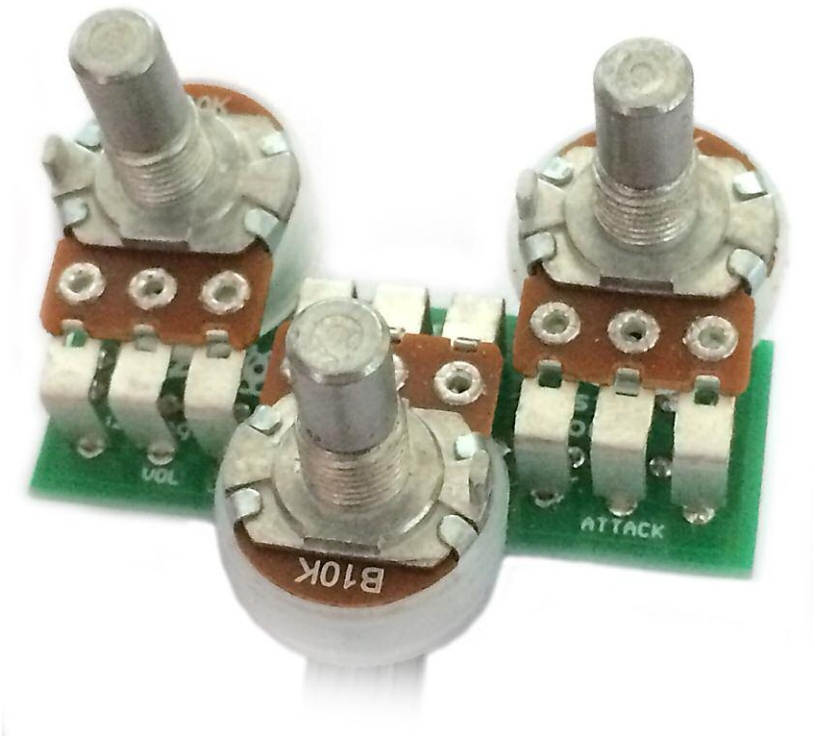
The power and signal pads on the PCB conform to the FuzzDog Direct Connection format, so can be paired with the appropriate daughterboard for quick and easy offboard wiring.

Be very careful when soldering the transistors, LED and 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).

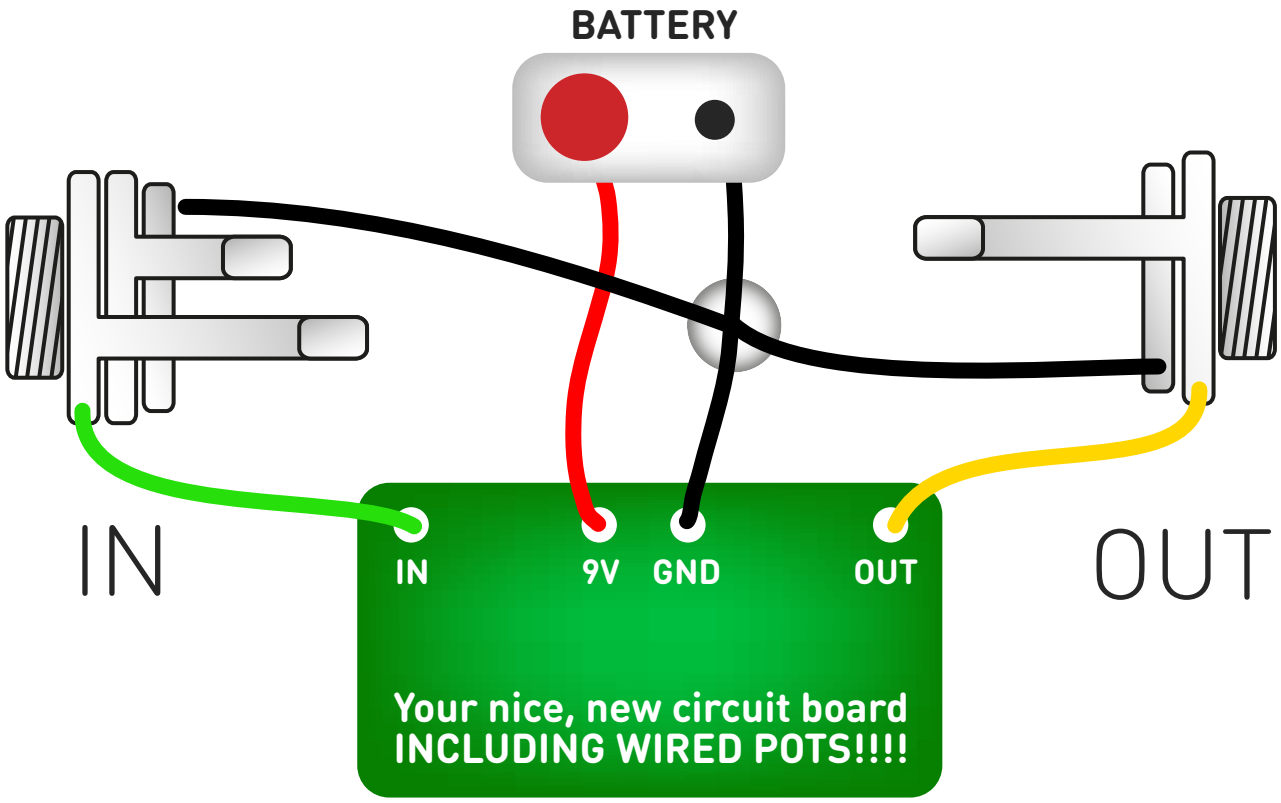
The cathode (striped end) of the diodes go into the square pads. The anode (long leg) of electrolytic capacitor goes into the square pad.

Snap the small metal tag off the pot so it can be mounted flush in the enclosure.

If you're using a footswitch daugherboard don't bother soldering R7. You'll use that on the daughterboard instead.



Test the board!



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

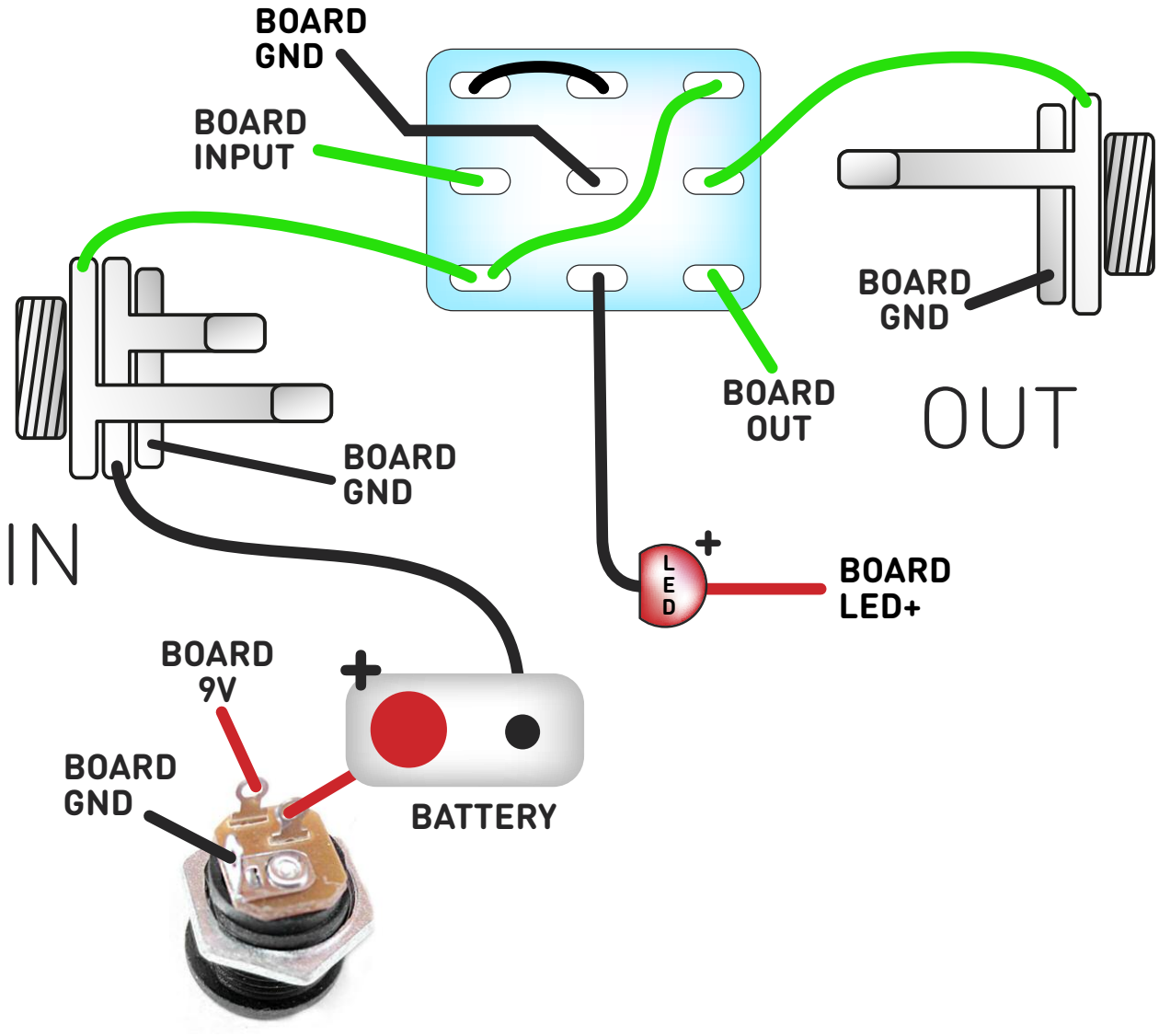
Once you've finished the circuit it makes sense to test is before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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 - with battery

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

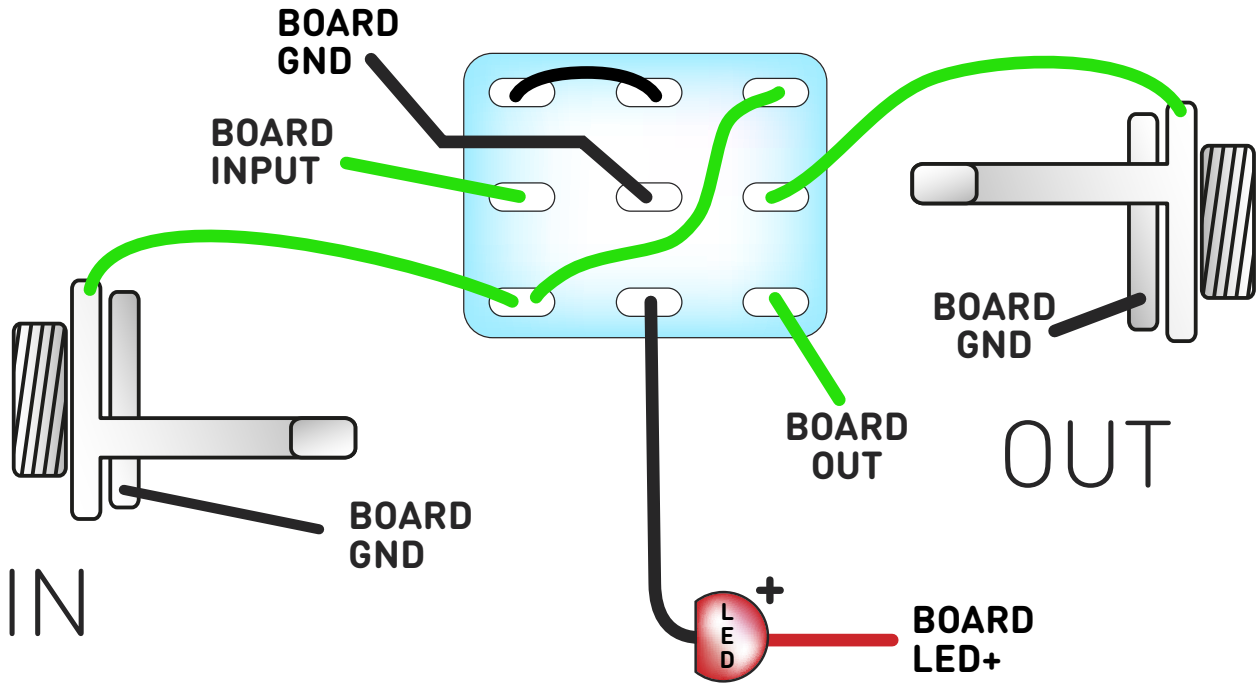


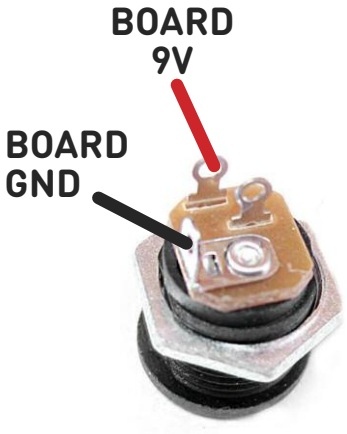
This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

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 - 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.

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PedalParts.co.uk

Drilling template

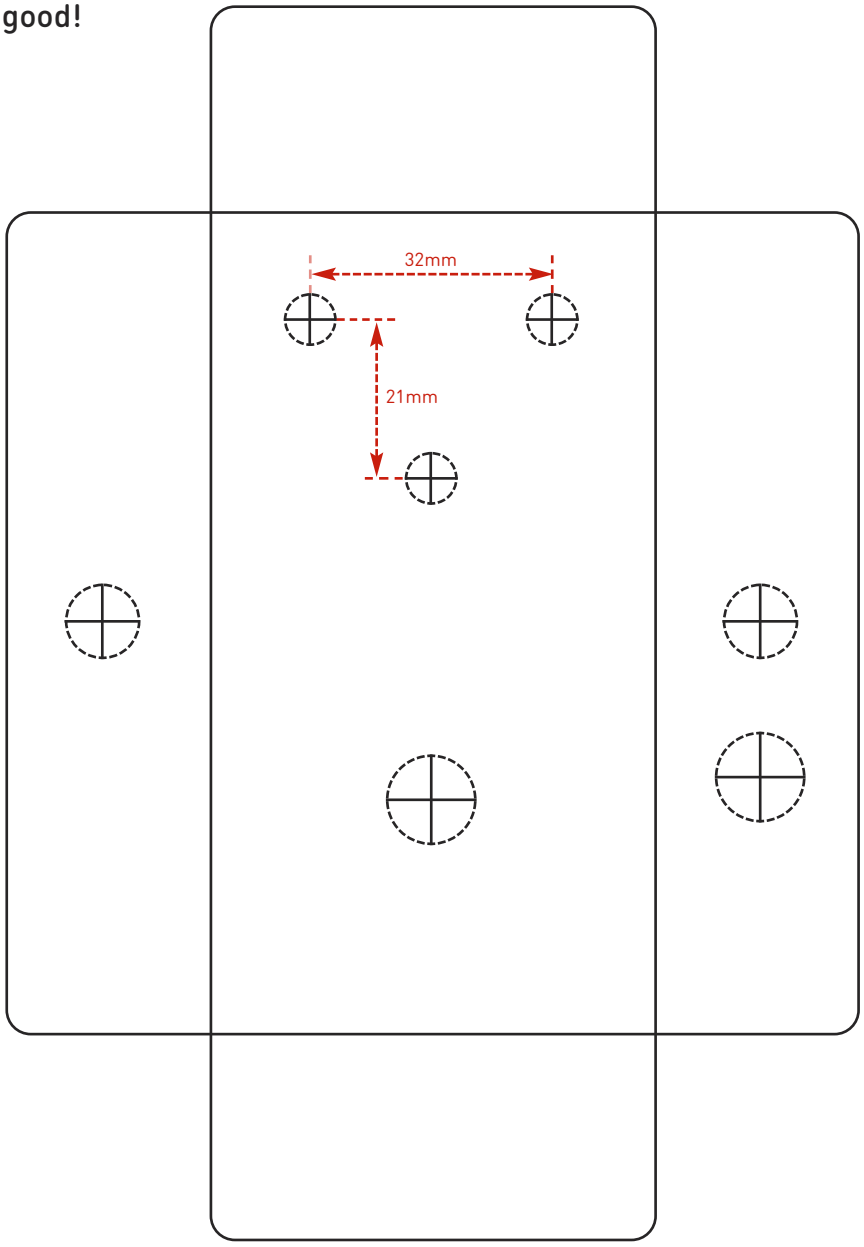
Hammond 1590B

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.

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