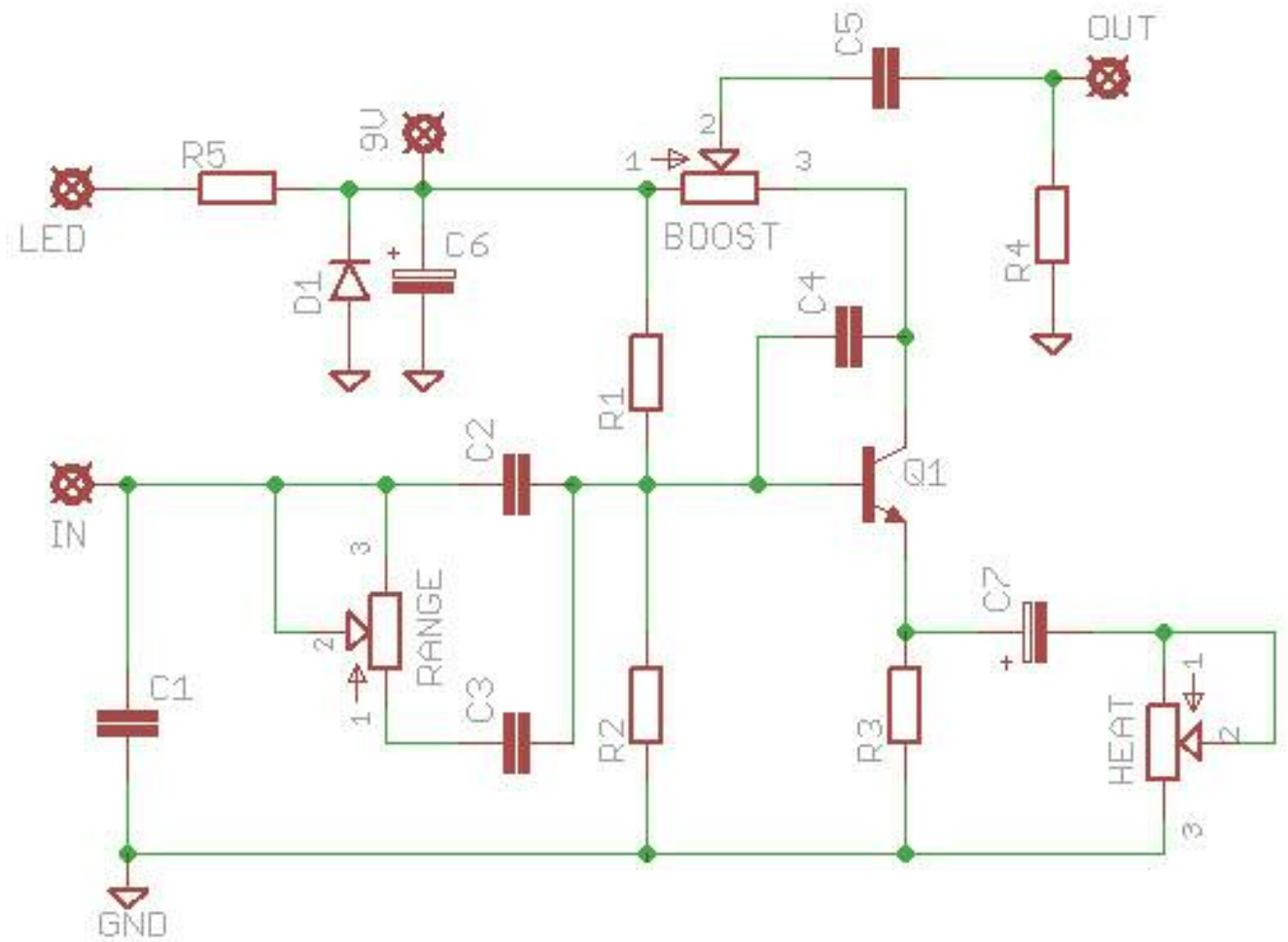


HOT SNAKE

Red Hot Treble Boost



Schematic

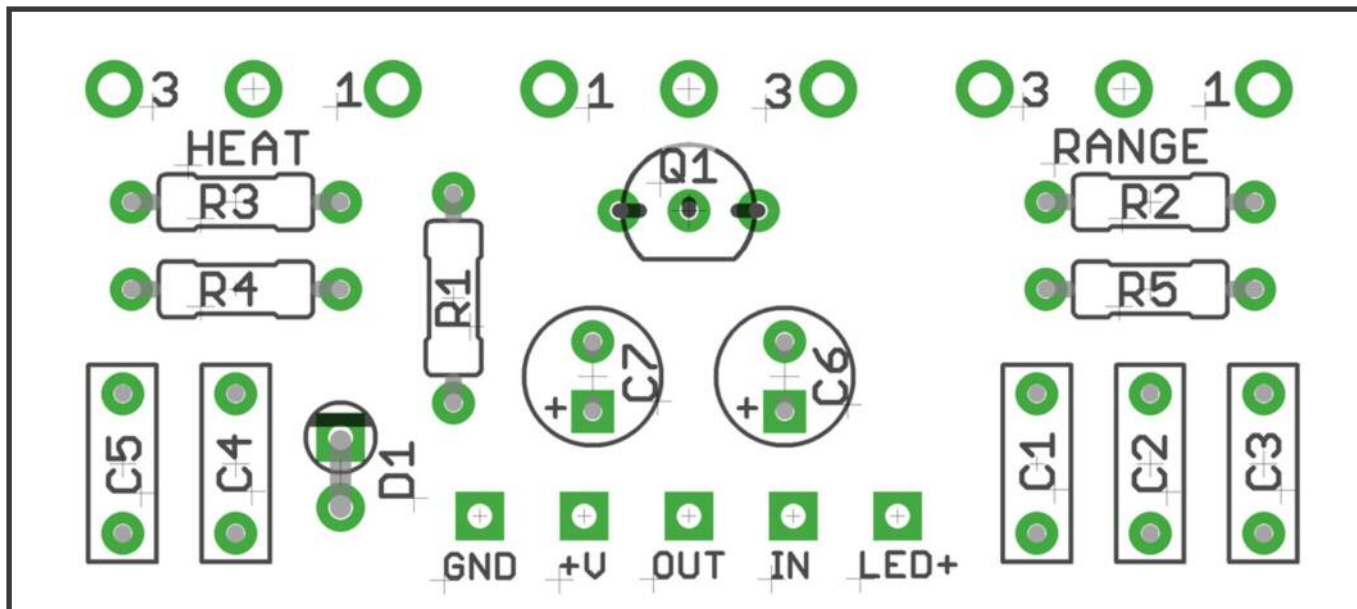


BOM

	C1	1n	D1	1N4001	
	C2	3n3			
R1	220K	C3	68n	Q1	2N2222**
R2	68K	C4	47p		
R3	8K2	C5	10n	BOOST	10KB
R4	1M*	C6	47u elec	HEAT	1KB
R5	2K2 (CLR)	C7	47u elec	RANGE	500KA

*R4 is an optional anti-pop resistor.

** See notes overleaf regarding pinout/orientation before placing.



PCB Layout ©2014 Pedal Parts Ltd.

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 on the PCB, i.e. flat side of Q1 to bottom of board.

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

Be very careful when soldering the diodes and transistors. 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).

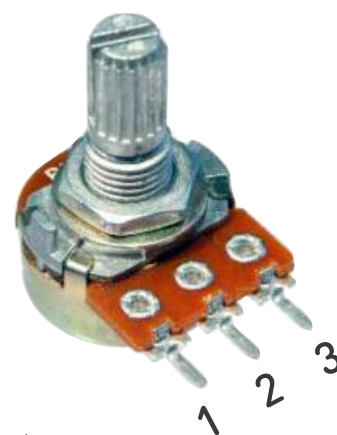
Snap the small metal tag off the pots so they can be mounted flush in the box.

Heat and Range Pots mount on the same side of the board as the other components, Boost pot on the other side.

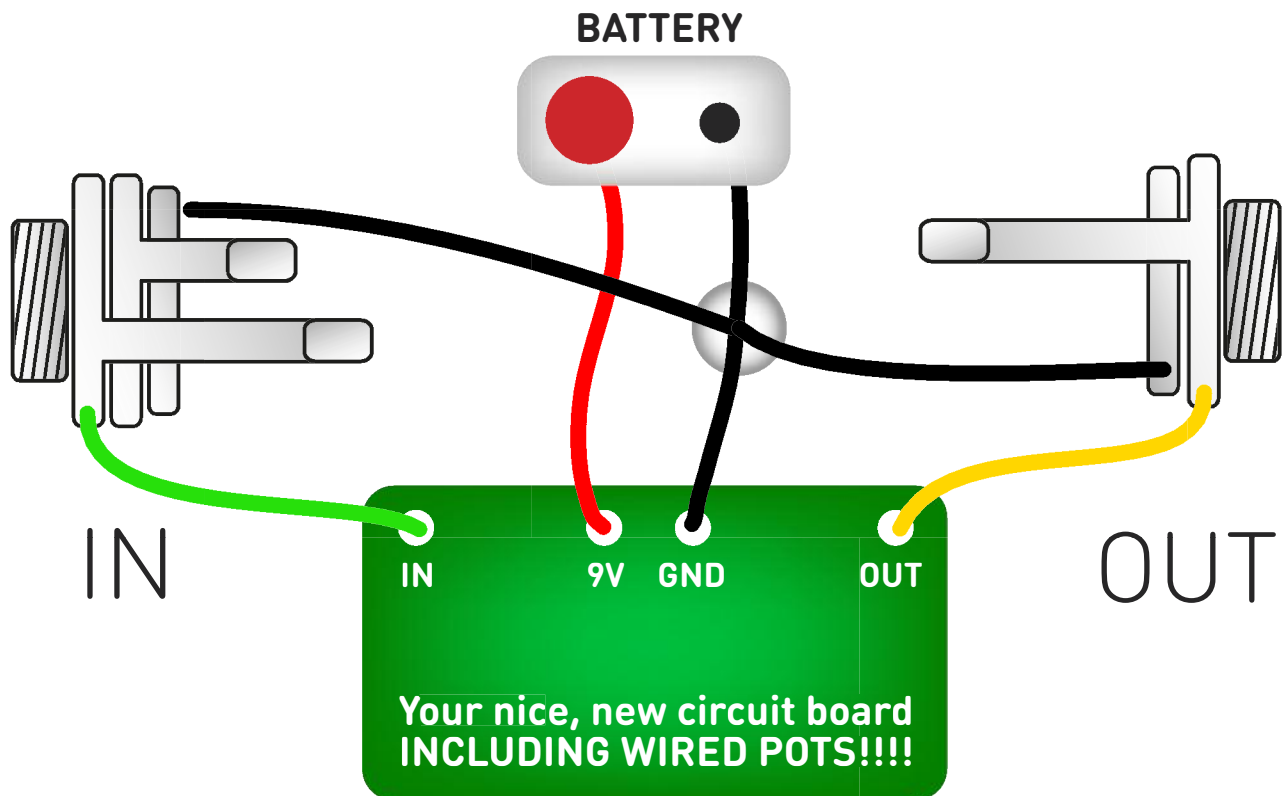
The striped leg (cathode) of the diode goes into the square pad.

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

The controls on this circuit are very interactive. A tweak here requires a further tweak there to compensate.



Test the board!



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

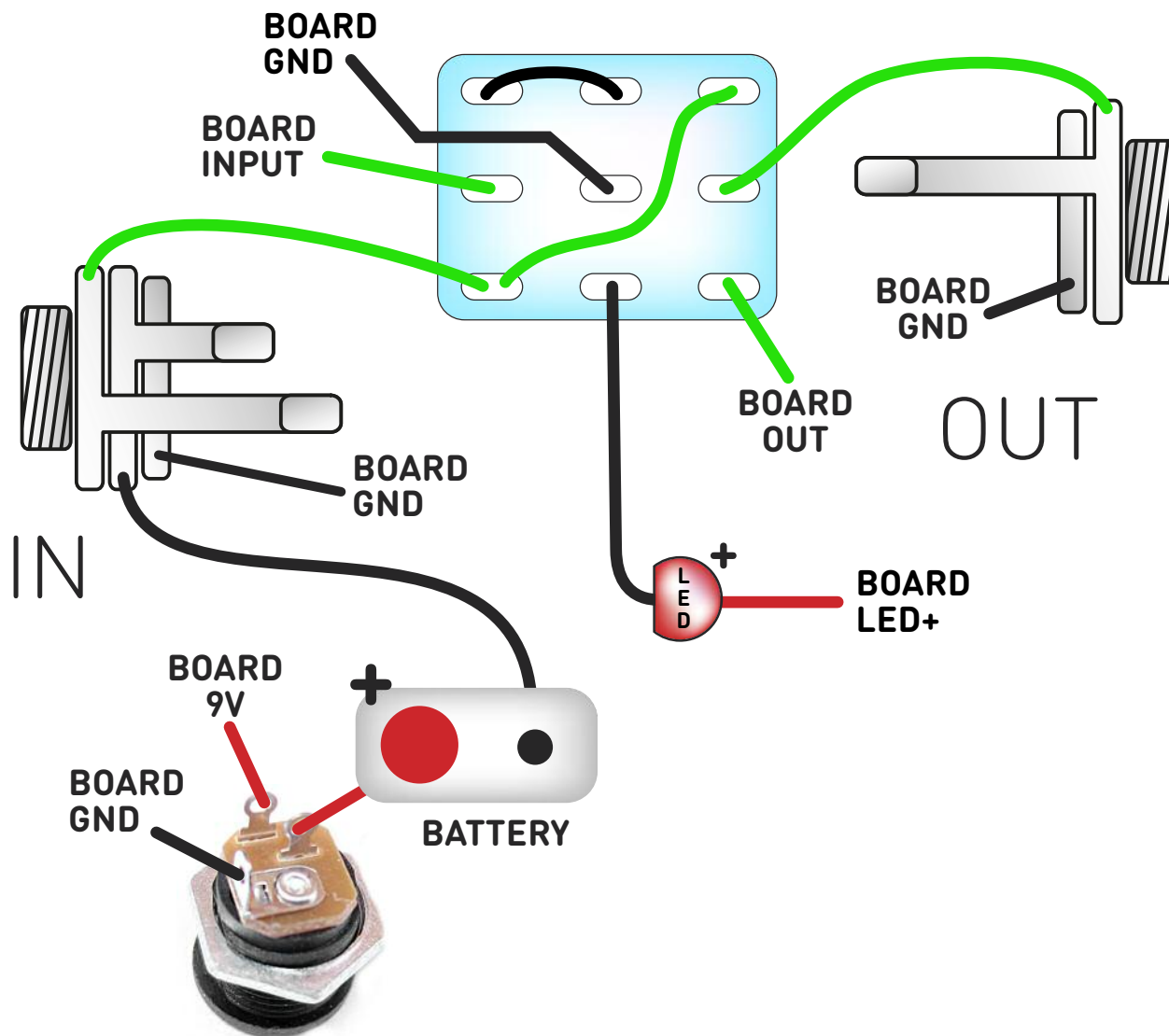
Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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)

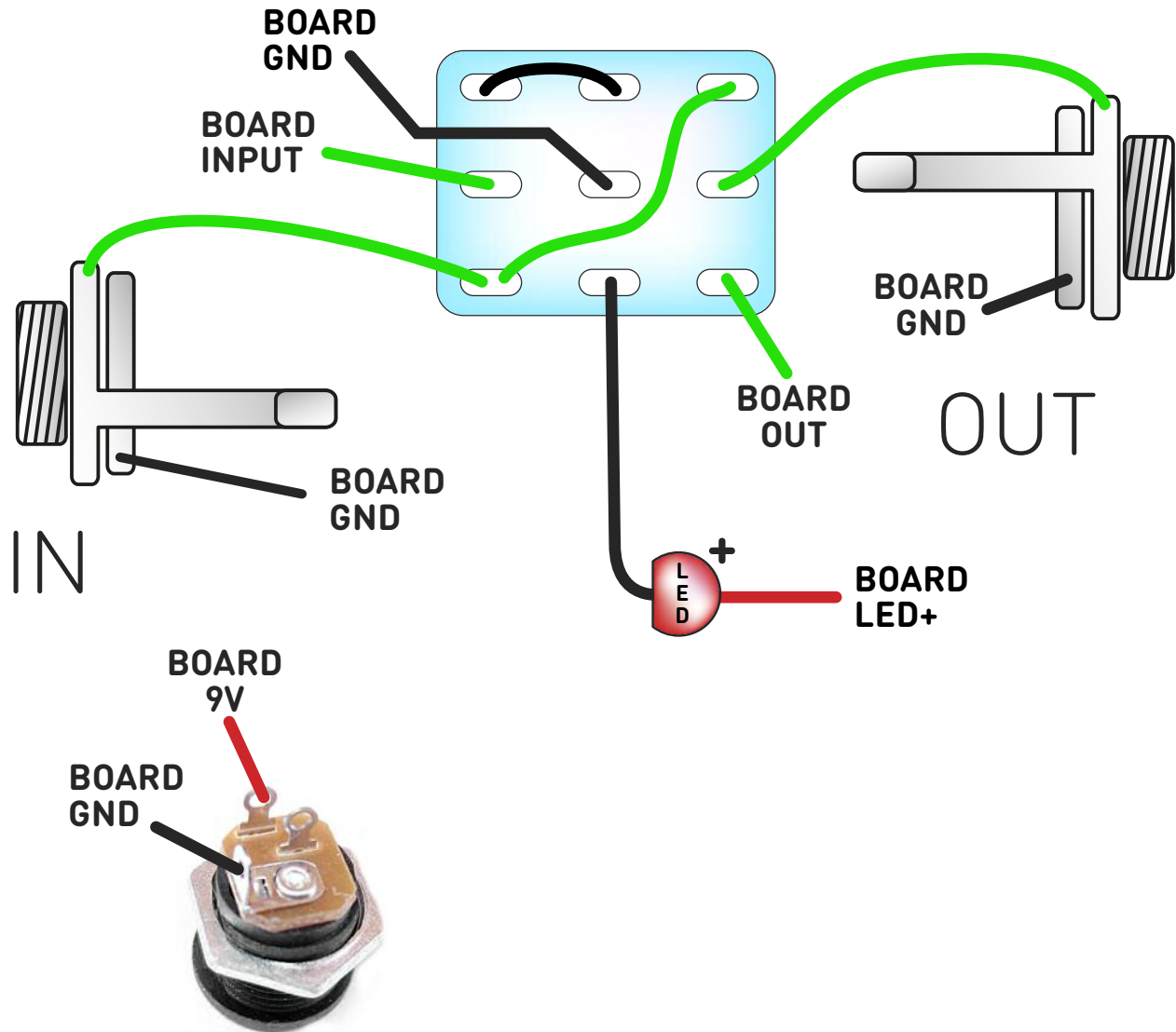


This circuit is standard, Negative GND. Your power supply should be Tip Negative / Sleeve Positive. That's the same as your standard pedals (Boss etc), and you can safely daisy-chain your supply to this pedal.

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.

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.

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Drilling template

3 Knob Board-mount pots with Battery

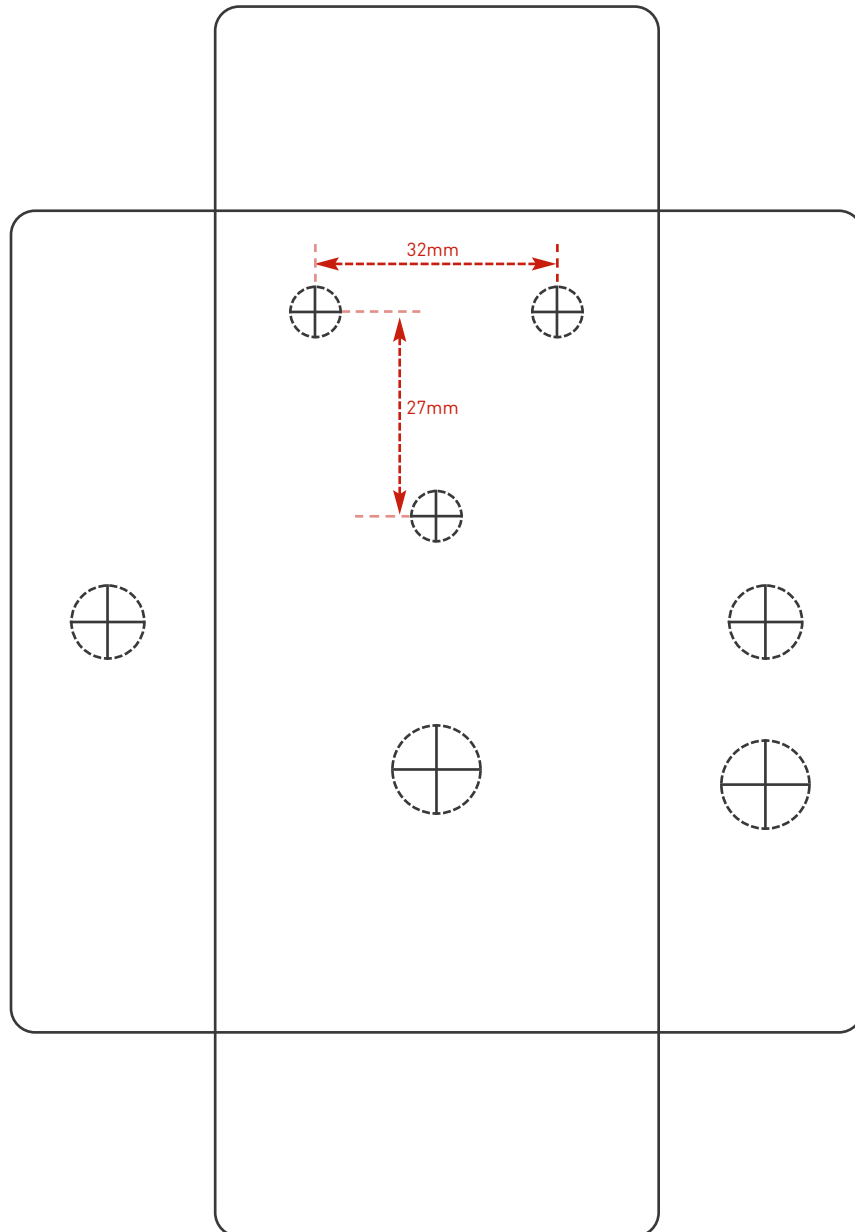
Eddystone 27134PSLA / Hammond 1590B

60 x 111 x 31mm

Note: top face of enclosure is slightly smaller on Eddystone version as it tapers out towards the lid.

Recommended drill sizes:

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



This template is a 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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