

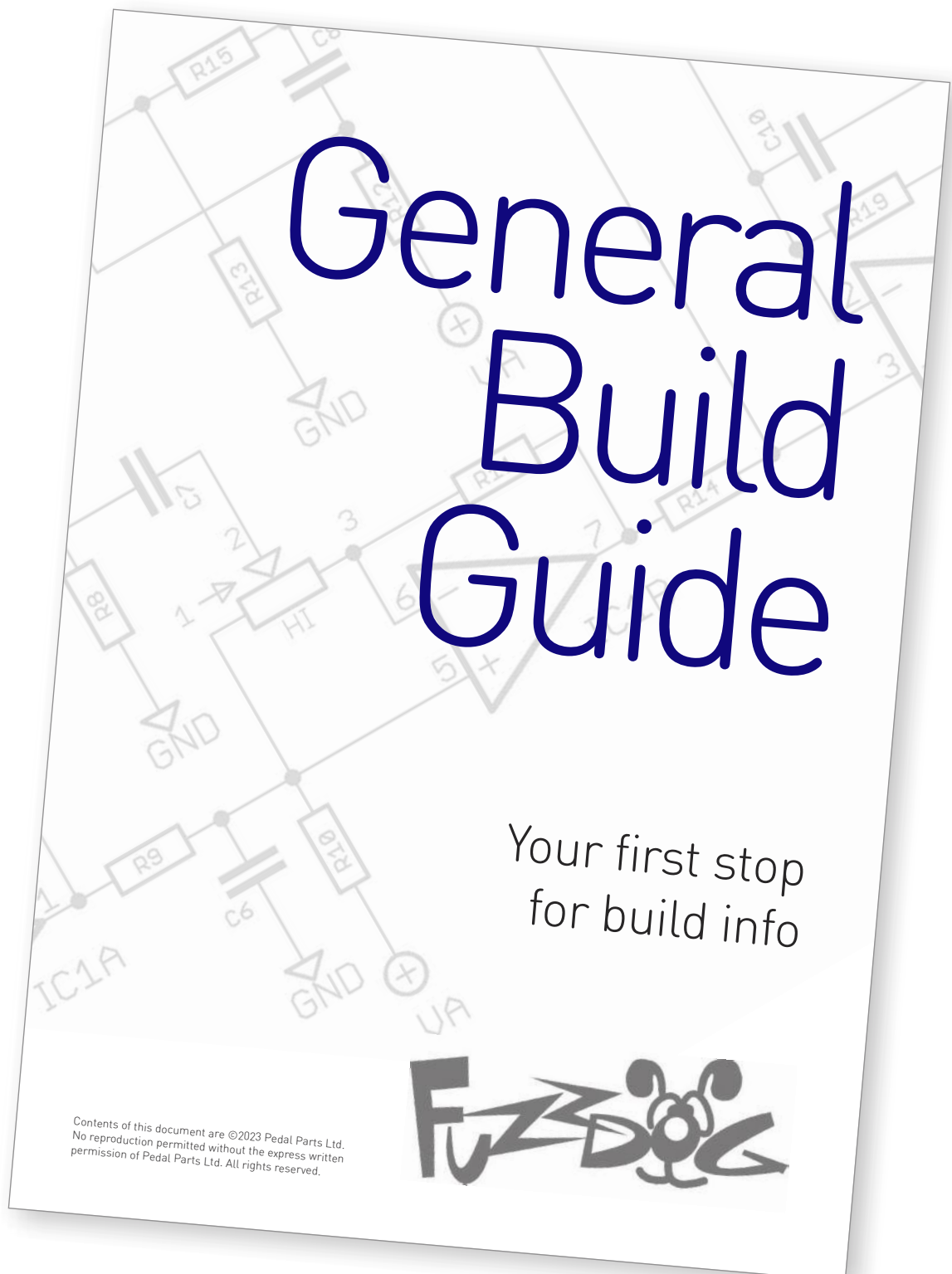
Billowing (and Bellowing) Smoke Drive(s)

Sweet Tube-Screamer Stylings
with big 18V headroom

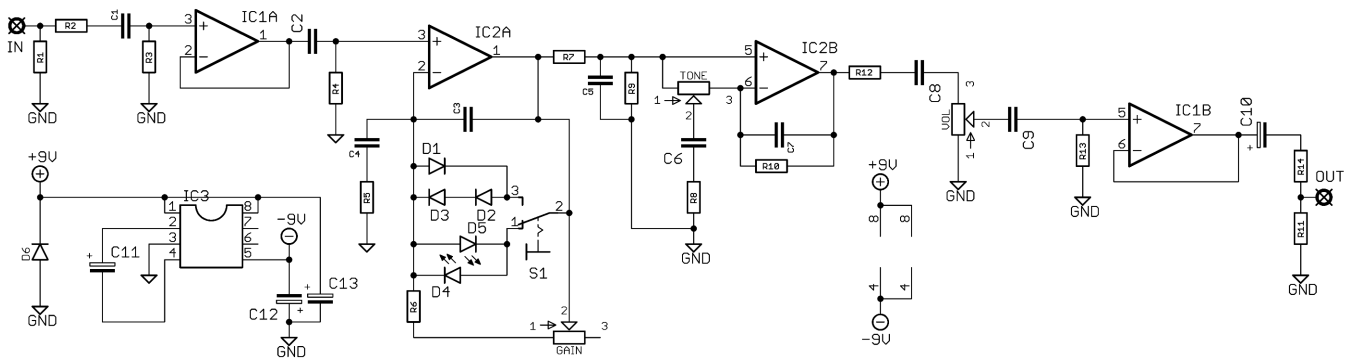


Before you dig in, ensure you download and read the **General Build Guide**.

It contains all the information you need for a successful outcome.



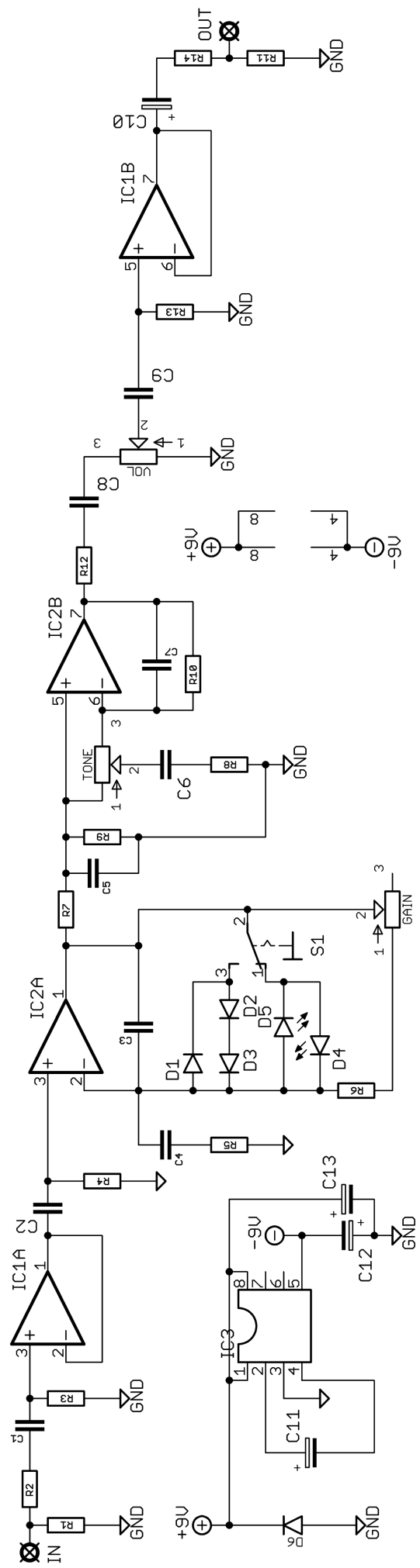
Schematic + BOM

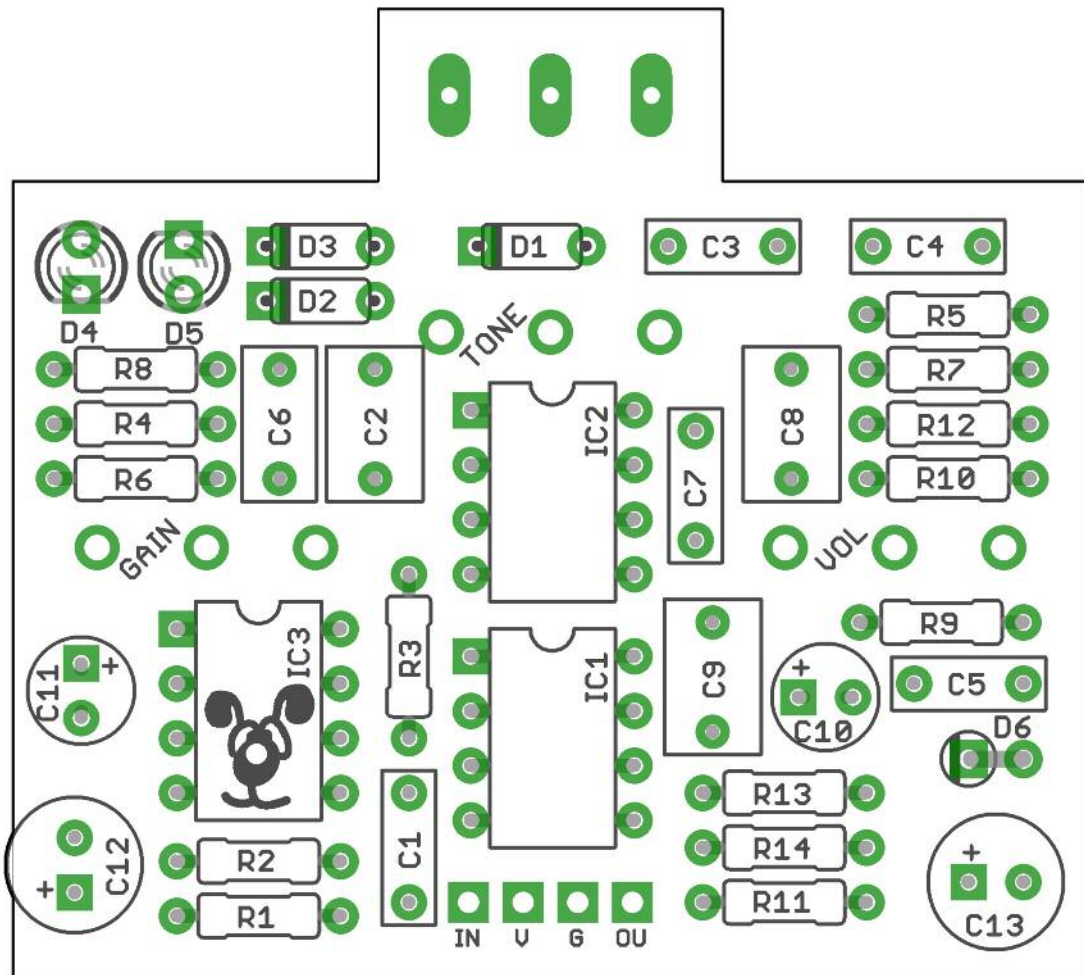


R1	1M	C1	33n (22n)	D1-3	1N4148
R2	1K (jumper)	C2	1u	D4-5	3mm red LED
R3	10M	C3	56p	D6	1N4001
R4	10K	C4	100n (1u)	IC1-2	TL072
R5	4K7 (2K7)	C5	47n (22n)	IC3	7660*
R6	47K	C6	470n (560n)	S1	SPDT ON-OFF-ON
R7	1K	C7	56p		
R8	330R	C8	1u		
R9	10K	C9	1u		
R10	1K	C10	10u elec	GAIN	1MB (1MA)
R11	100K	C11	100u elec	TONE	20KW
R12	1K	C11	100u elec	VOL	100KB
R13	1M				
R14	100R				

*Use a charge pump with an 'S' suffix. We exclusively use MicroChip TC7660SEPA and never have any issues with whining.

The Bellowing version actually has an extra resistor not included here, between VOL pin 2 and C9. If you think that'll make any significant difference we have some excellent magic beans to sell you.





PCB layout ©2020 Pedal Parts Ltd.

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.

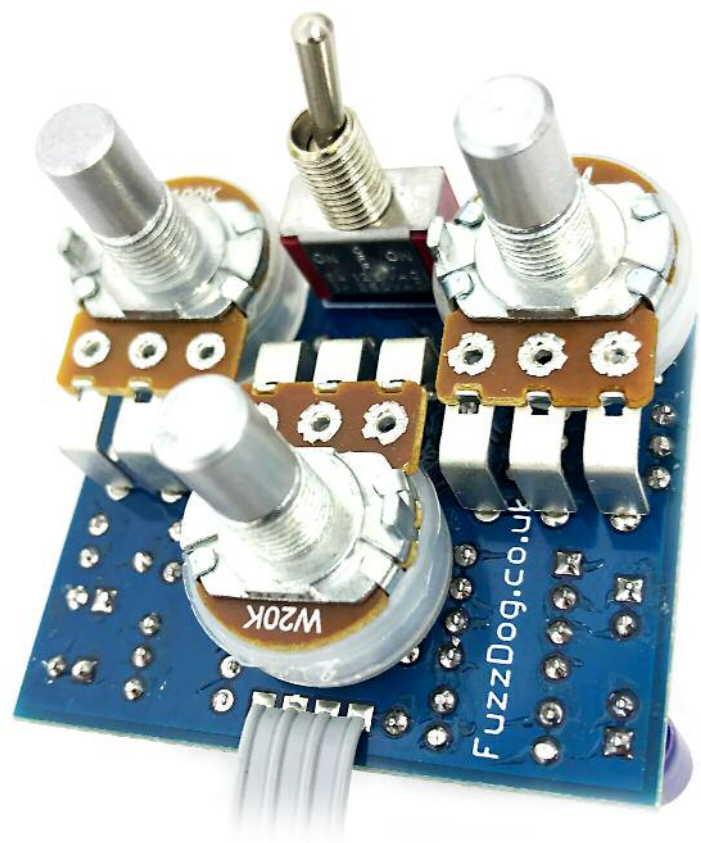
Be very careful when soldering the diodes. They're very sensitive to heat. You should use some kind of heat sink (crocodile clip or reverse action tweezers) on each leg as you solder them. Keep exposure to heat to a minimum (under 2 seconds). Same goes for the ICs if you aren't using sockets.

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

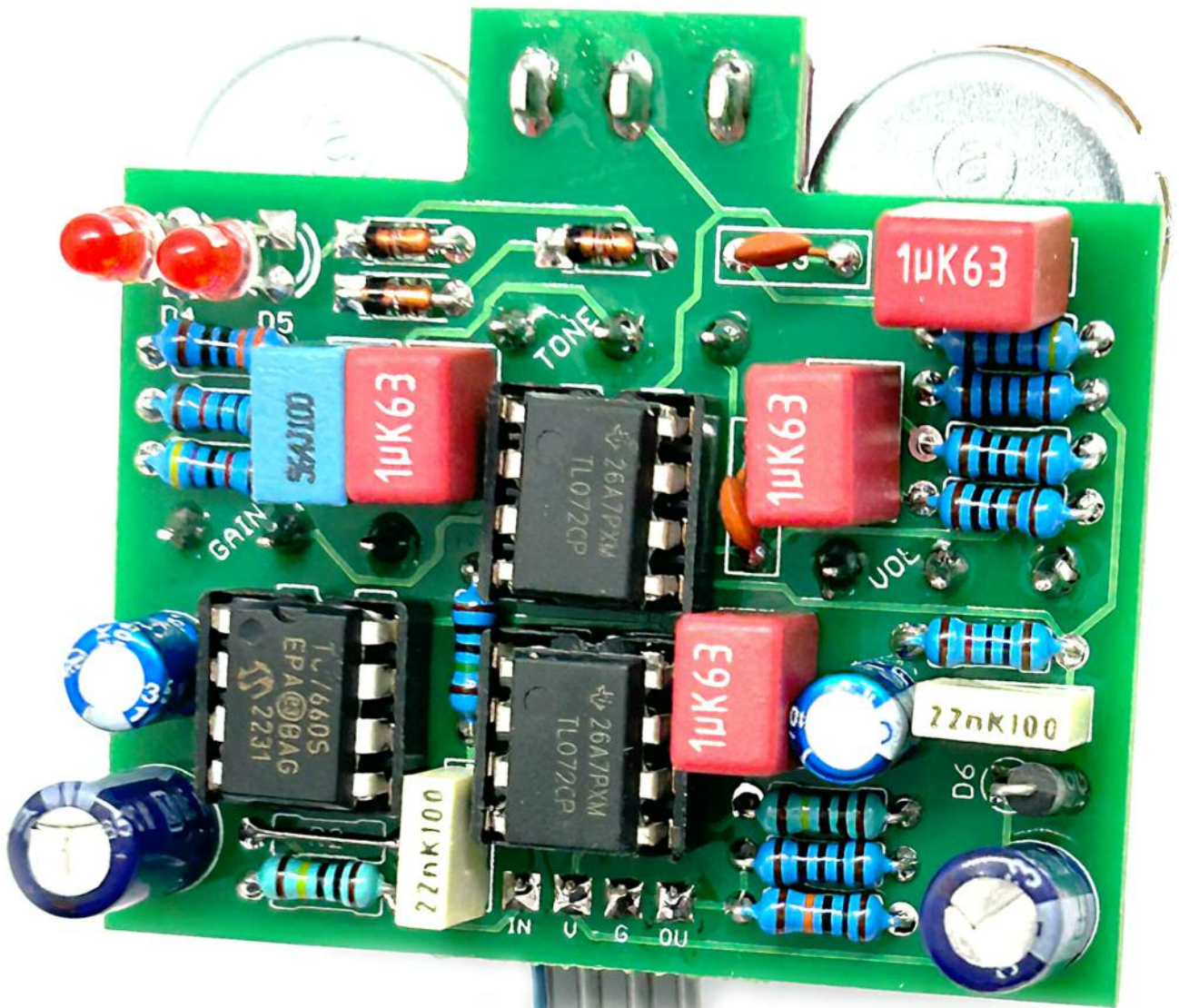
You should solder all other board-mounted components before you solder the pots. Once they're in place you'll have no access to much of the board. Make sure your pots all line up nicely.

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.

Same goes for the toggle switch. One lug soldered, then melted and straightened before soldering in the other two.



Here's one we made earlier...
in **Bellowing** configuration. Sounds great.



Drilling template

Hammond 1590B

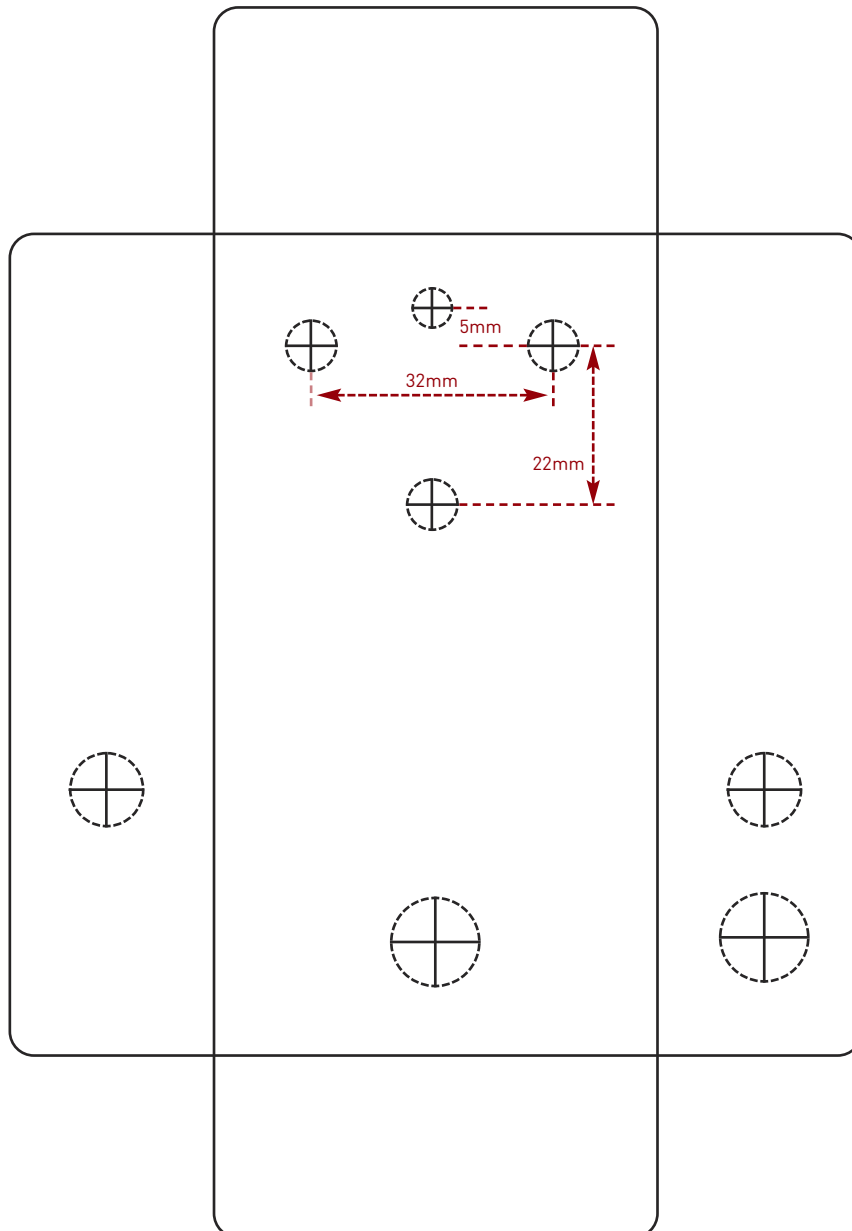
60 x 111 x 31mm

Recommended drill sizes:

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

It's a good idea to drill the pot and toggle switch holes 1mm bigger if you're board-mounting them.

Wiggle room = good!



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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