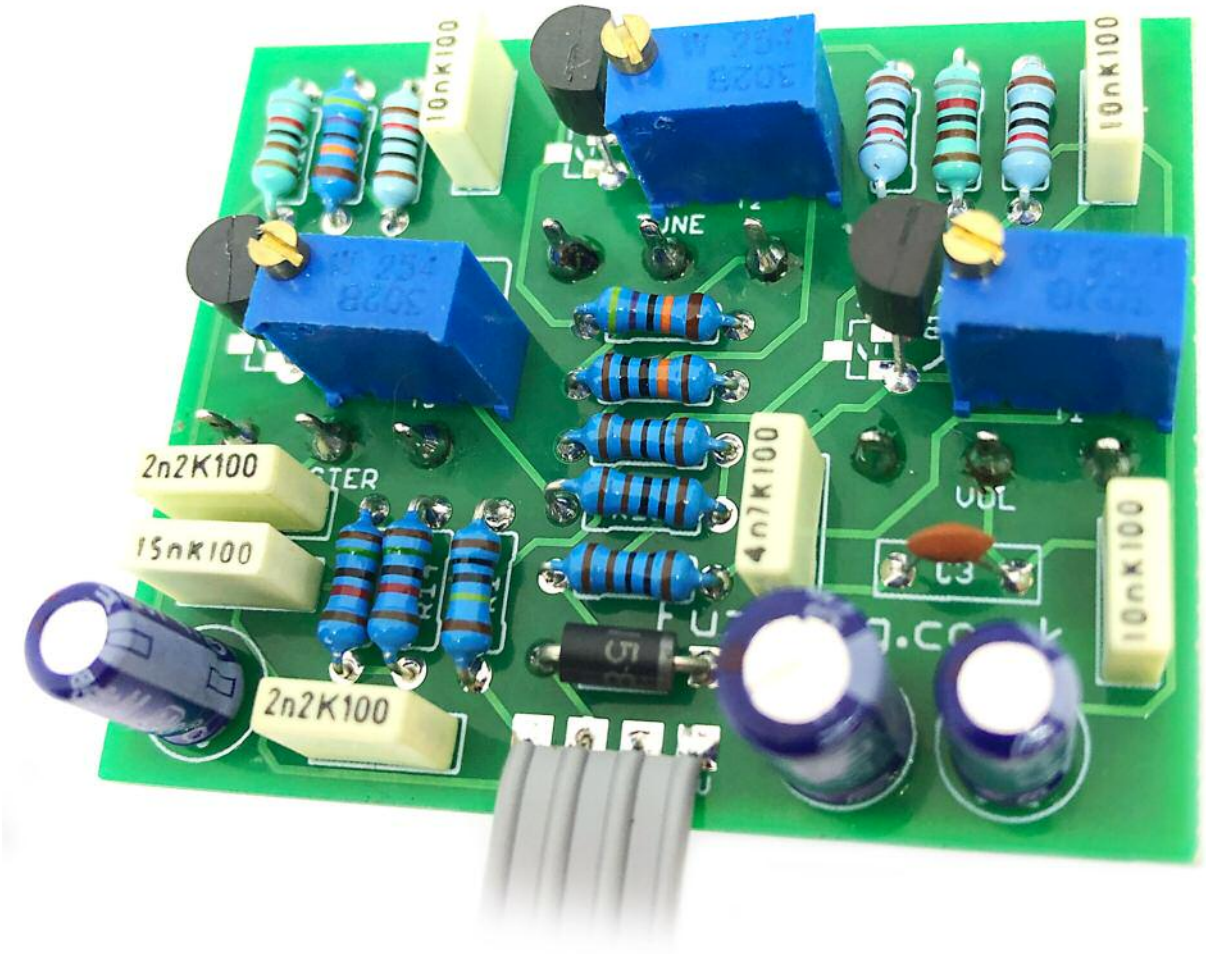
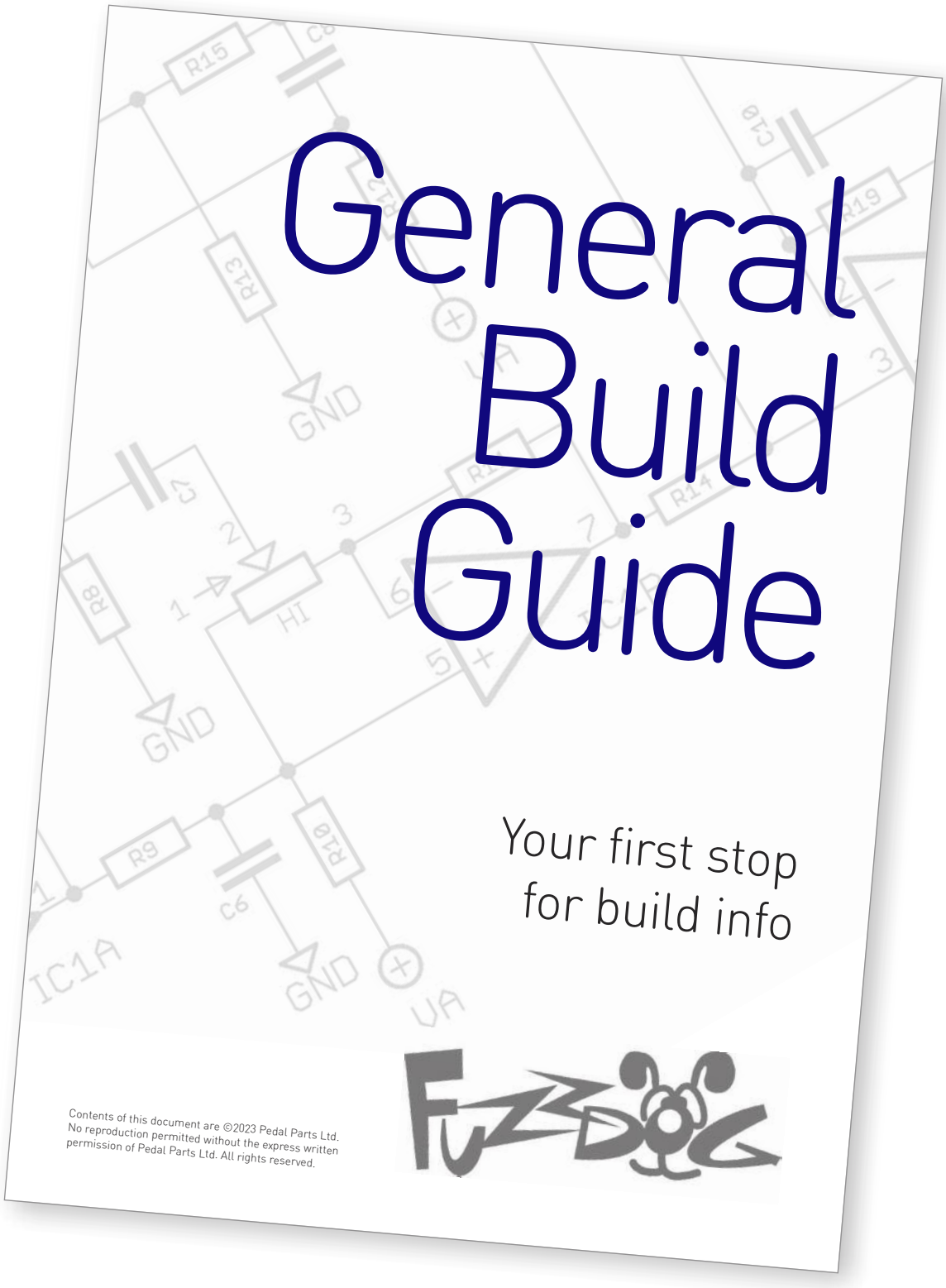


18 Watt

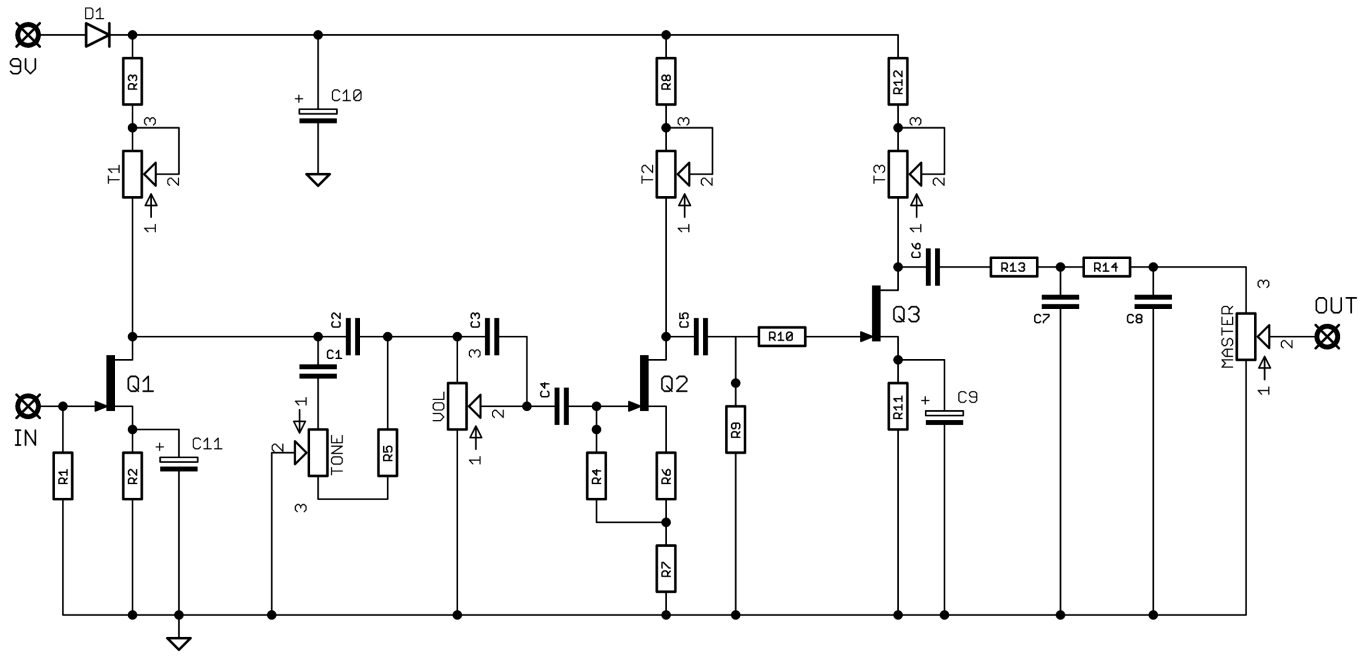
RunOffGroove Eighteen - Marshall 18 Watt-in-a-box

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



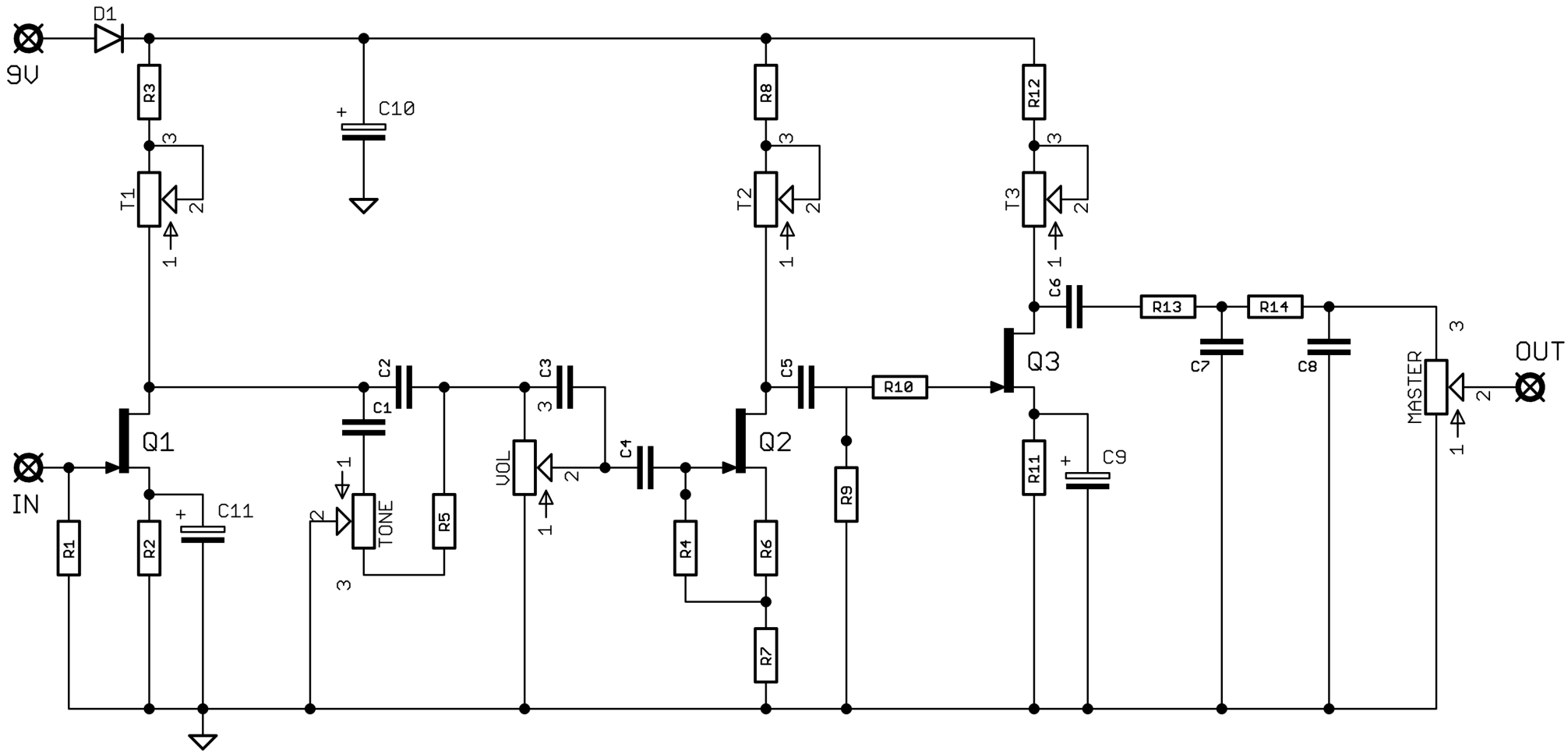
R1	1M
R2	820R
R3	1K
R4	470K
R5	100K
R6	820R
R7	8K2
R8	1K
R9	470K
R10	8K2
R11	120R
R12	1K
R13	15K
R14	15K

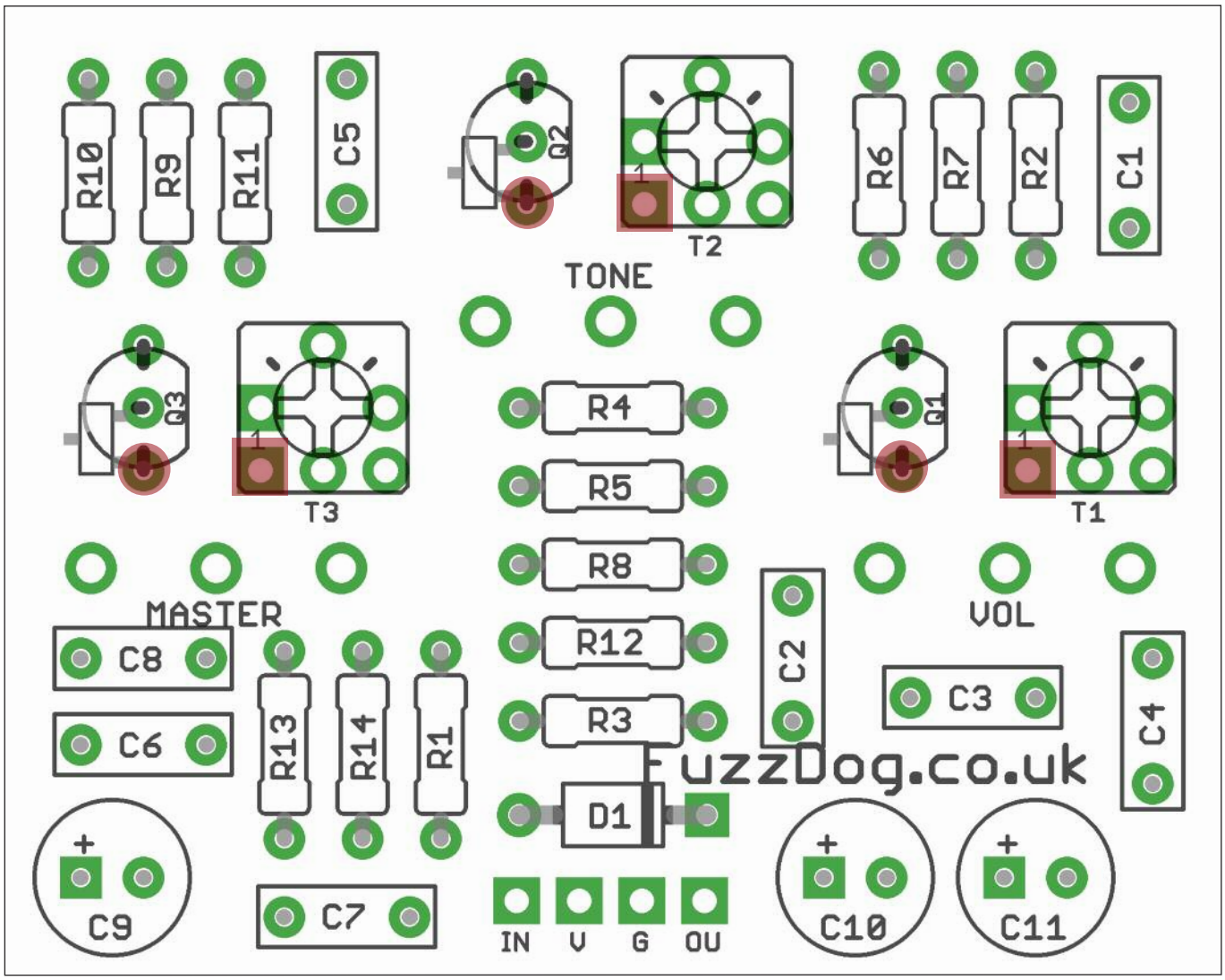
C1	10n
C2	4n7
C3	220p
C4	10n
C5	10n
C6	15n
C7	2n2
C8	2n2
C9	47u elec
C10	100u elec
C11	47u elec

D1	1N5817
Q1-3	J201*
VOL	500KA
TONE	500KA
MAST	100KA
T1-3	100K+** multiturn trimmer

*Through hole or the SMT version can be used.
For J201 the equivalent is MMBFJ201. Will also work well with other FETs, such as 2N5457.

**Multiturn trimmers are recommended as very small tweaks of the bias will make a big difference. As these have 13 turns of adjustment it's fine to use a larger value than 100K.


9V
D1
R3
T1
C10
R8
T2
R12
T3
C6
R13
R14
C7
C8
MASTER
OUT
C2
C1
C3
C5
R10
Q3
Q1
Q2
IN
C11
TONE
R5
VOL
C4
R4
R6
R9
R11
C9
R1
R2
R7



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.

BIASING

Adjust your trimmers to get around 4.5V on the drain of Q1 and Q3, 7V on Q2.

Once you get there you can tweak to taste.

To do this set your multimeter to DC Voltage. Place the common (-) lead on the ground pad, the + lead on the drain of the FET being tweaked, or the leg of the trimmer in each case, marked in red above.

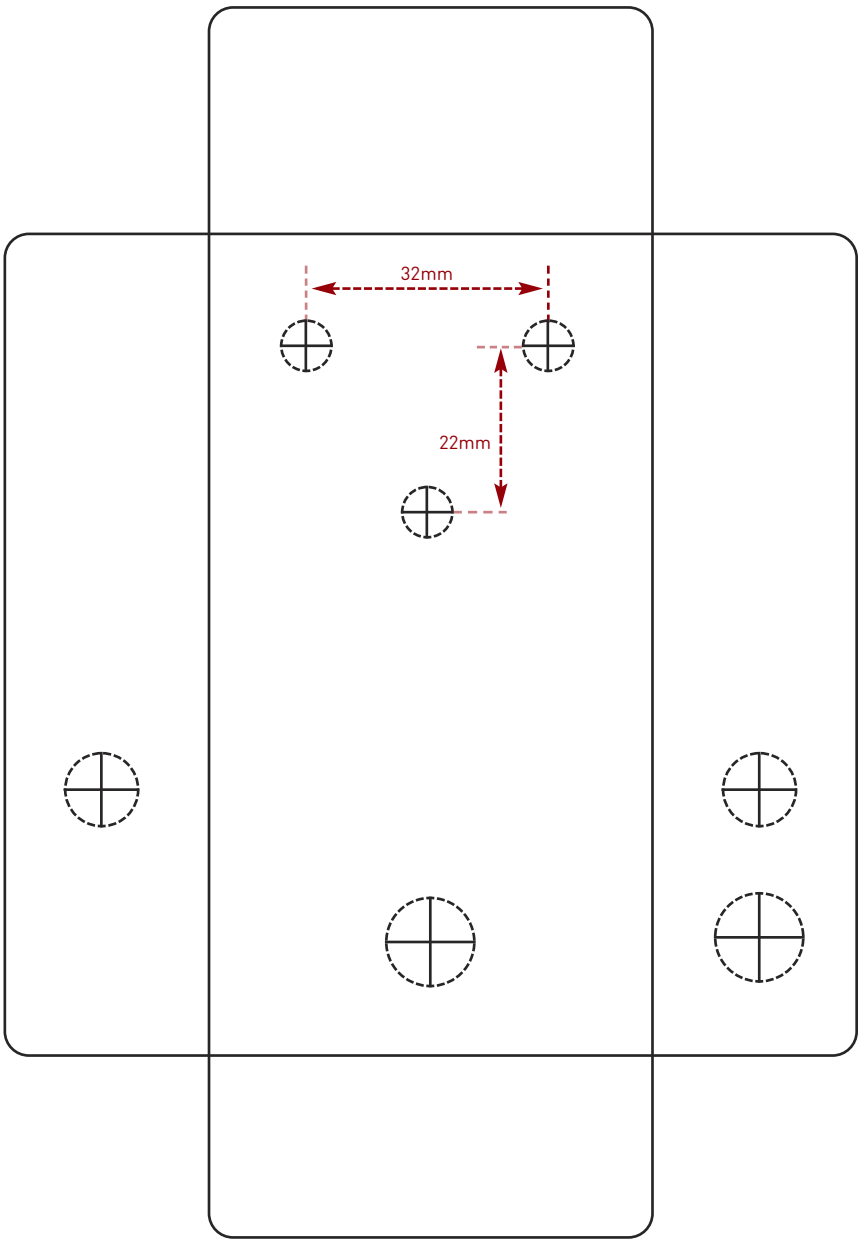
Drilling template

Hammond 1590B - 60 x 111 x 31mm

Drill sizes listed are minimum.
It's a good idea to add 1mm to anything mounted on the PCB that'll poke through the front of the enclosure.

Drill sizes:

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



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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