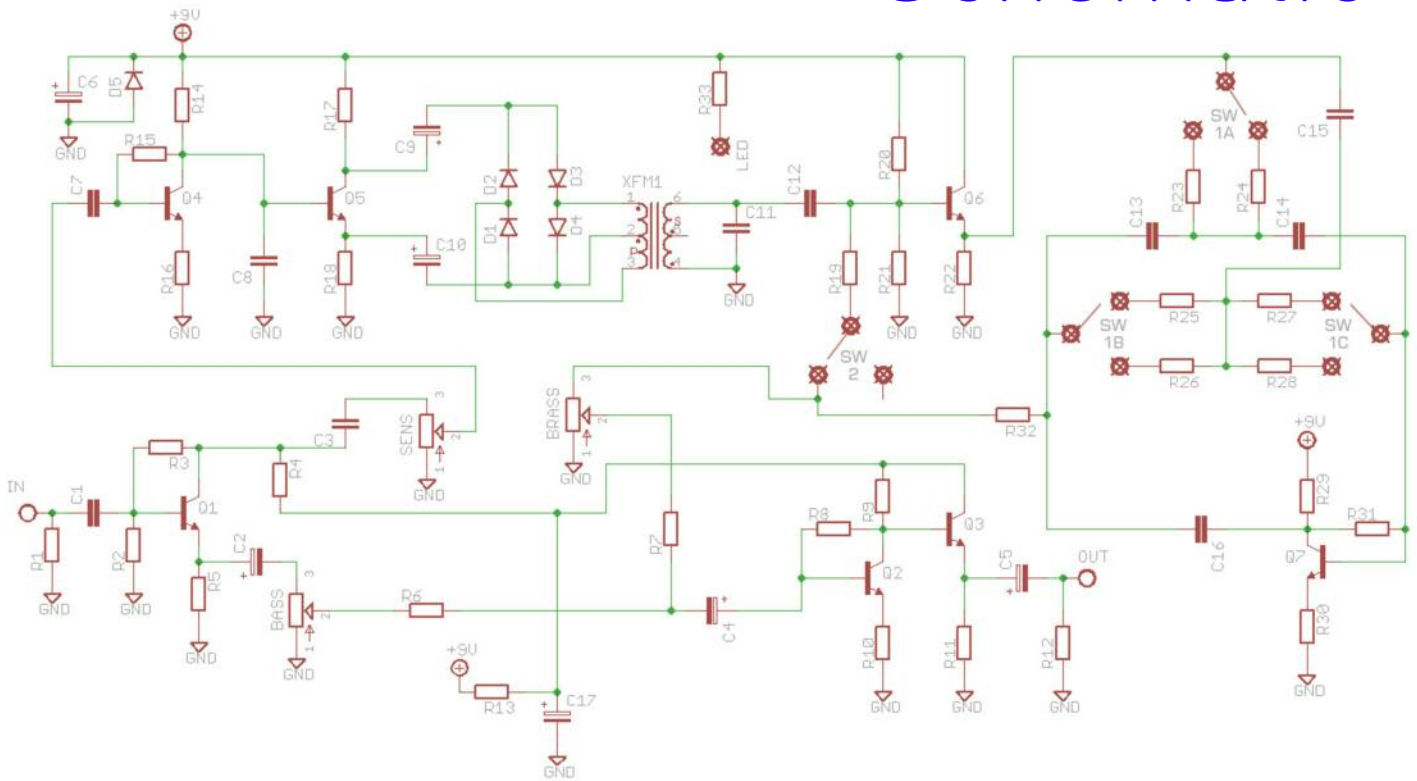


# BrassMaster

Bass Octave Fuzz Fun

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# Schematic

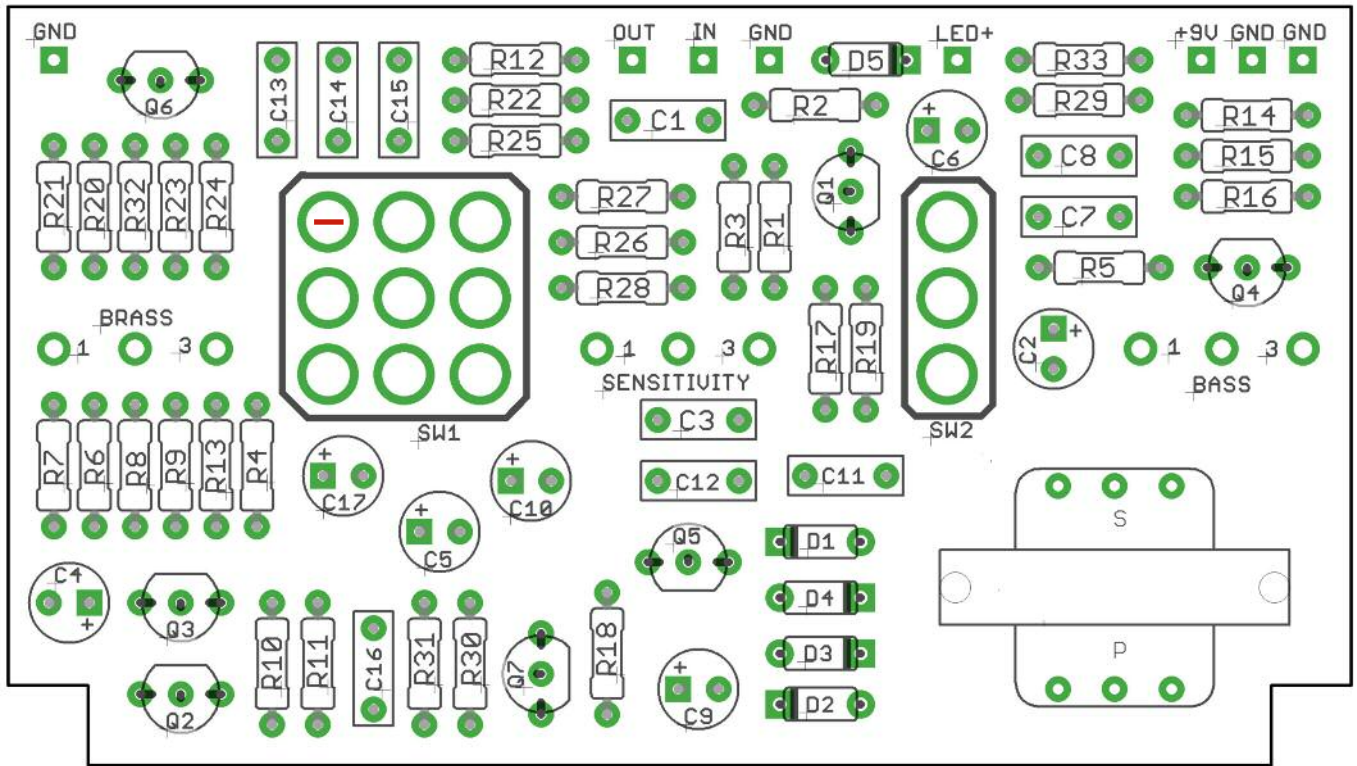


It may be possible to substitute other transistors or transformer. Please don't ask for advice on this as I haven't tested any others, though 2N3391 will work fine for Q1-6.

## BOM

R1	1M5	R18	2K2	C1	100n	D1-5	1N4148
R2	150K	R19	82K	C2	1u elec	Q1-6	2N3392
R3	150K	R20	220K	C3	100n	Q7	2N5308
R4	12K	R21	220K	C4	1u elec	POTS	10KB
R5	390R	R22	2K2	C5	1u elec	SW1	3PDT
R6	10K	R23	22K	C6	22u elec	SW2	SPDT
R7	10K	R24	3K3	C7	100n	XFM1	42TM018
R8	470K	R25	6K8	C8	47n		
R9	10K	R26	47K	C9	1u elec		
R10	470R	R27	6K8	C10	1u elec		
R11	4K7	R28	47K	C11	10n		
R12	1M5	R29	47K	C12	100n		
R13	820R	R30	1K	C13	4n7		
R14	12K	R31	1M5	C14	4n7		
R15	1M5	R32	150K	C15	10n		
R16	150R	R33	2K2 (CLR)	C16	47n		
R17	2K2			C17	10u elec		

Note:  
all the transistors have non-standard pinouts.



Snap the little metal tag off the pots to mount them flush in the box.

You should use some kind of heat sink on the legs of the diodes when soldering. They aren't keen on heat. Any more than 3-4 seconds of iron and they're toast.

I've incorporated the Current Limiting Resistor for the LED into the board for your pleasure.

Extra GND pads are placed on the board for easy wiring of jacks and footswitch.

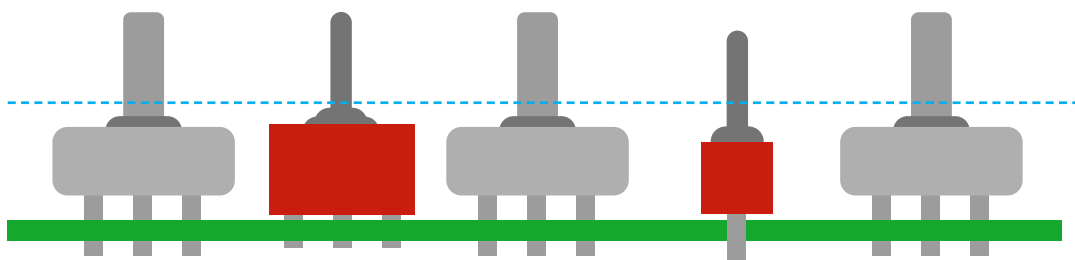
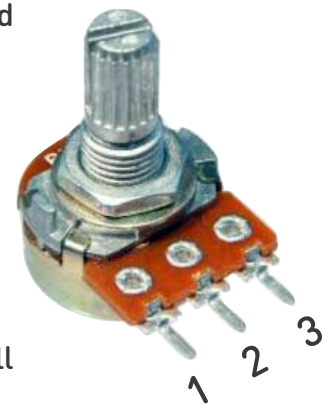
SW1, SW2 and the Pots all mount on the bottom of the board. Everything else on the top.

Switch lugs should be oriented horizontally as shown in red above.

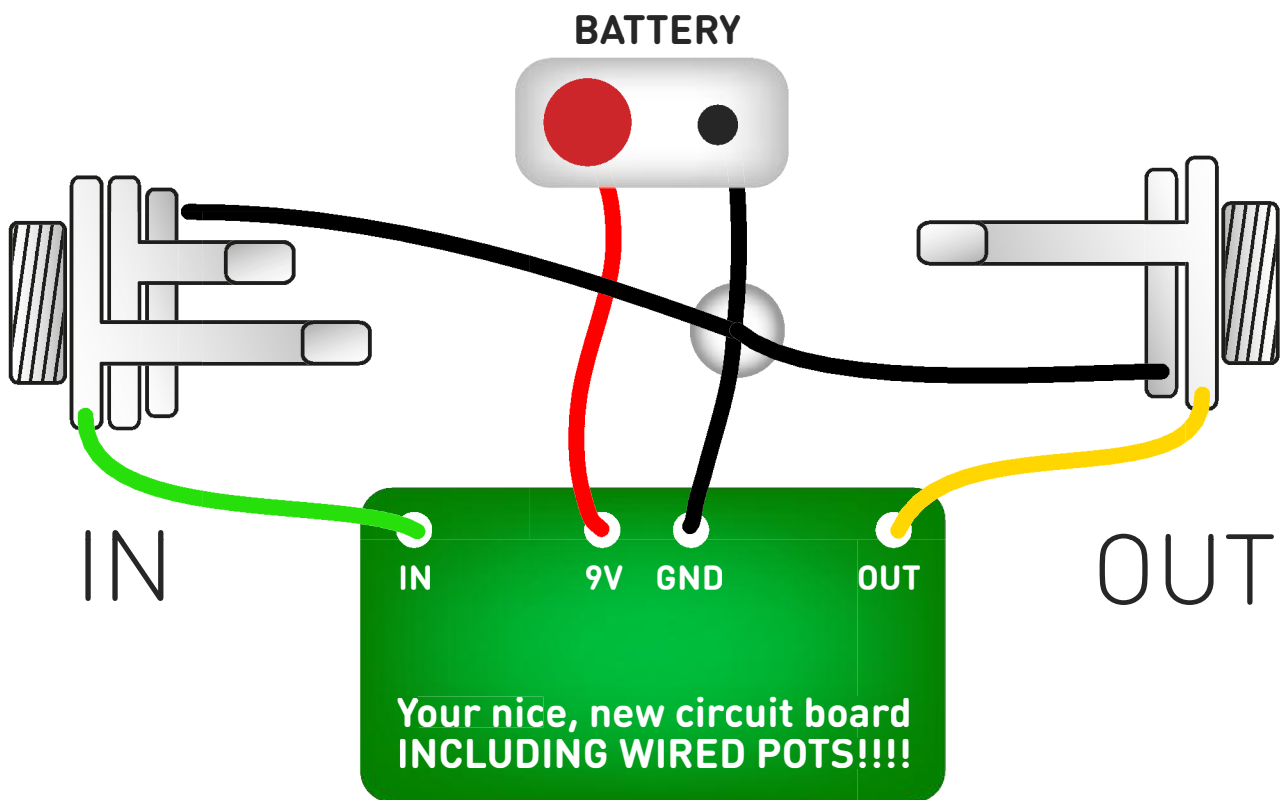
If using board-mounted pots these will have to be placed last, as they will cover some pads of other components.

The transformer will be marked as P (Primary) and S (Secondary), or perhaps only one of these. Ensure you match it up correctly on the PCB. Bend the outer casing metal lugs under the board to hold it firmly in place.

Ensure your switches and pots (if using board-mount) all line up before mounting the whole kit in your enclosure. If you've purchased board-mount pots, extra thick washers are provided to make this easier. You may need to leave the bottom nut off the 3PDT toggle switch.



# Test the board!

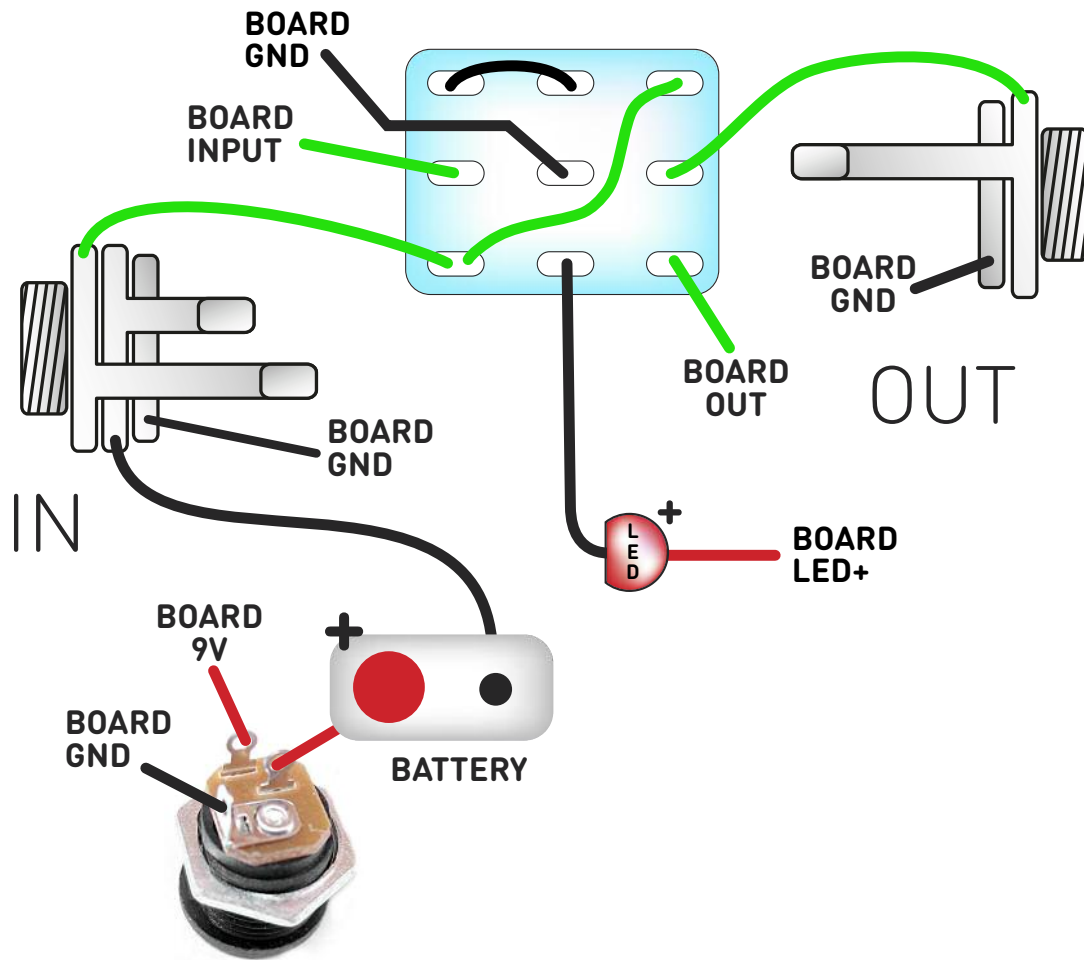


Once you've finished the circuit it makes sense to test it before starting on the switch and LED wiring. It'll cut down troubleshooting time in the long run. If the circuit works at this stage, but it doesn't once you wire up the switch - guess what? You've probably made a mistake with the switch.

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



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.

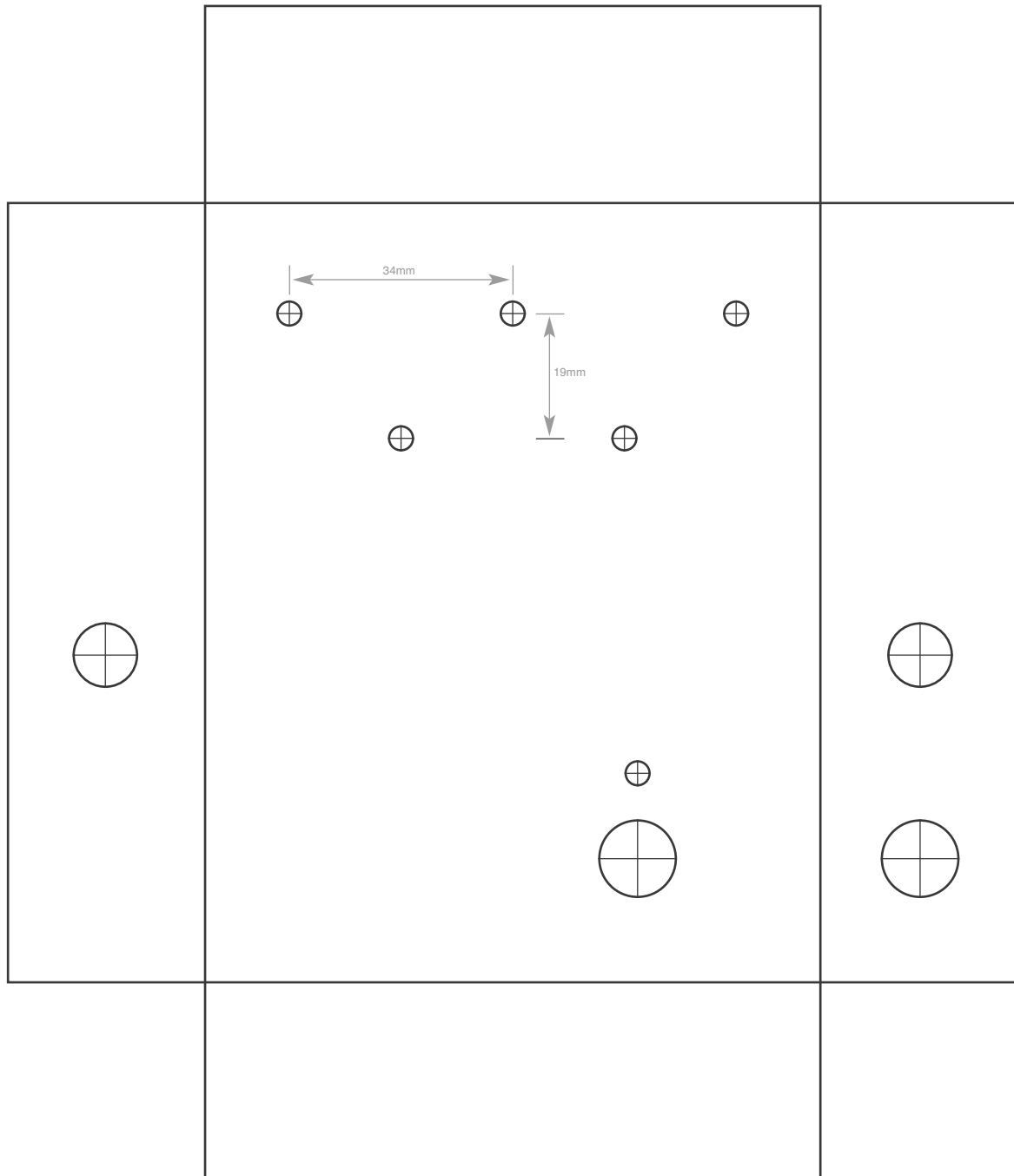
It doesn't matter how they all connect, as long as they do.

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.

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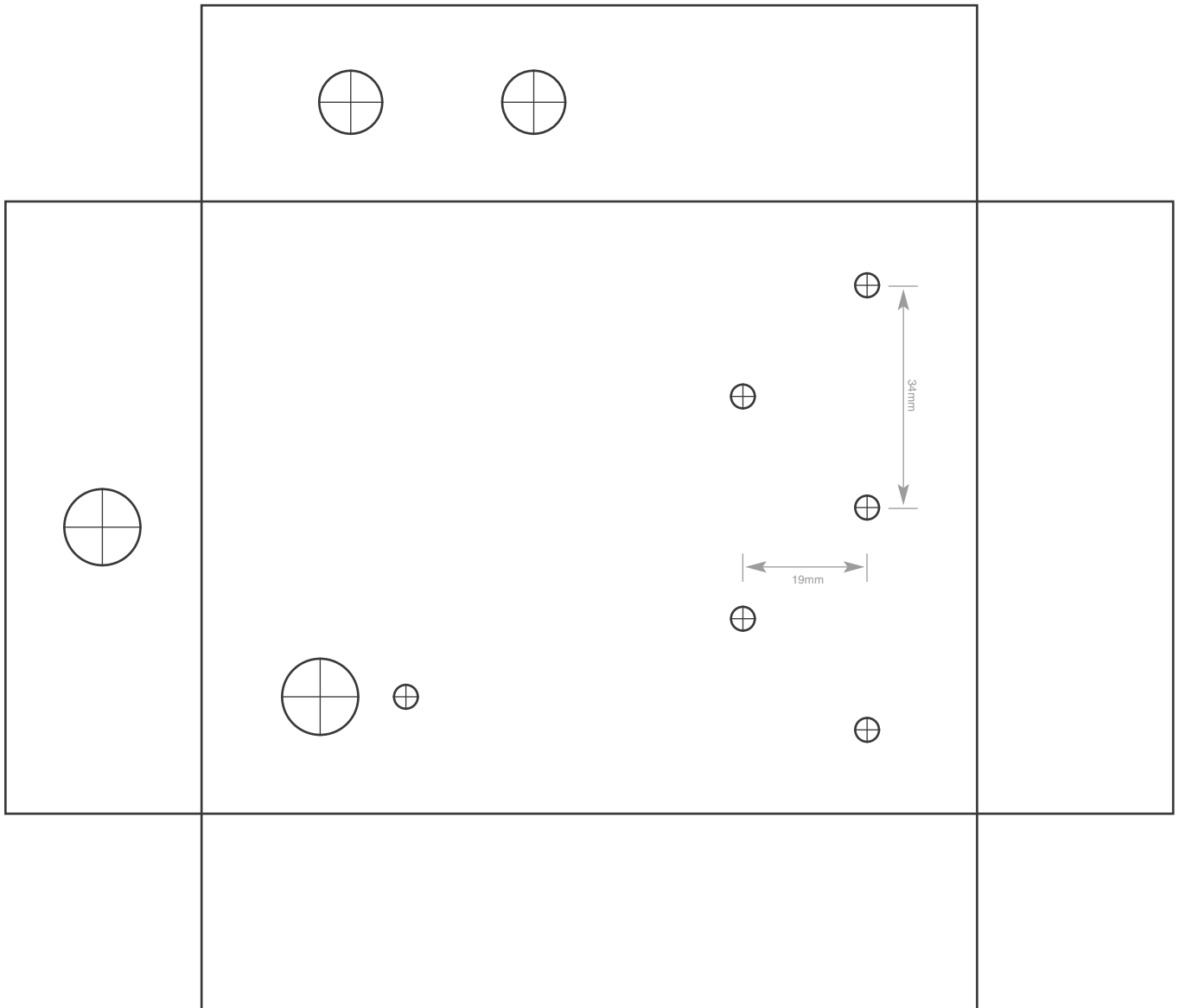


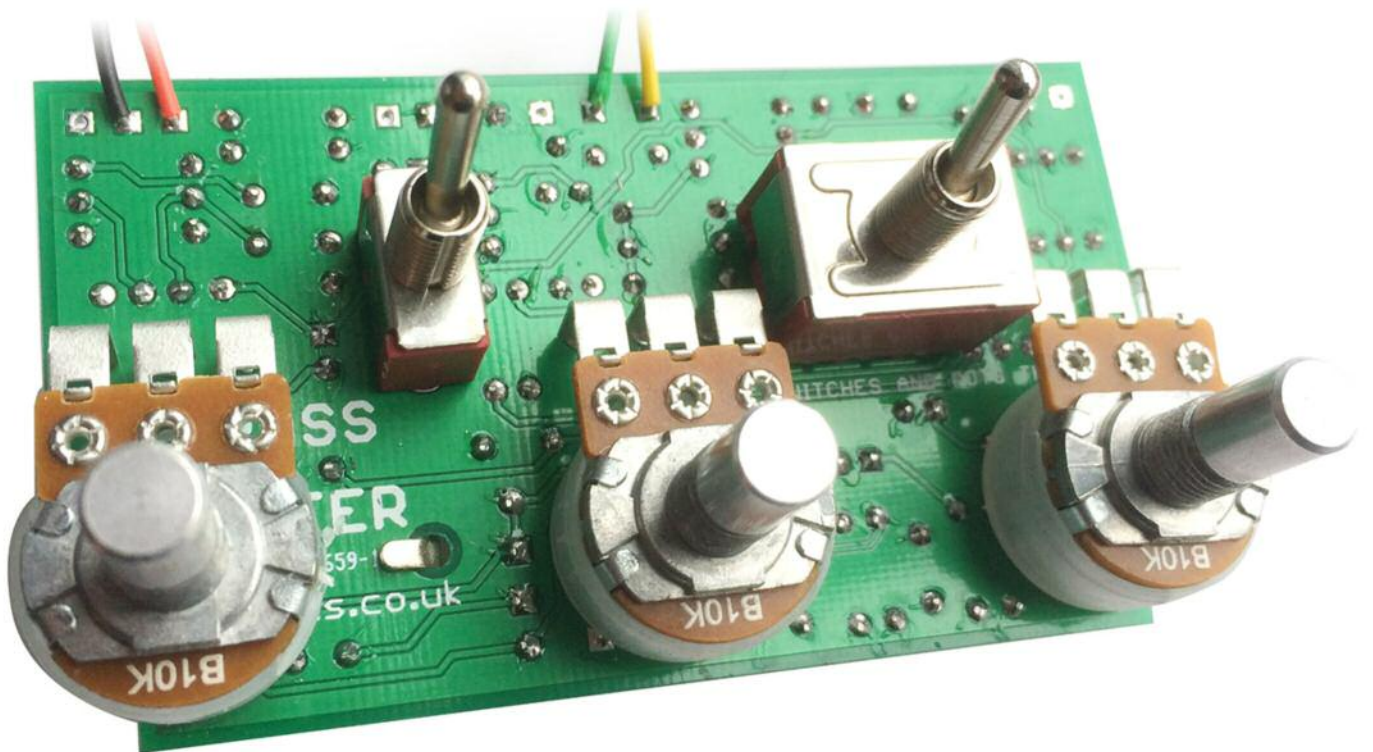
# Drill template - vertical



These are based on a 1590BB, though that won't be deep enough to accommodate the circuit due to the depth of the 3PDT toggle and the transformer. The top layouts can remain the same, but the jack and DC socket positions will need adjusting depending on the depth of your enclosure. Please check positioning before drilling - those holes are your responsibility and these templates are just a guide.

# Drill template - horizontal





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