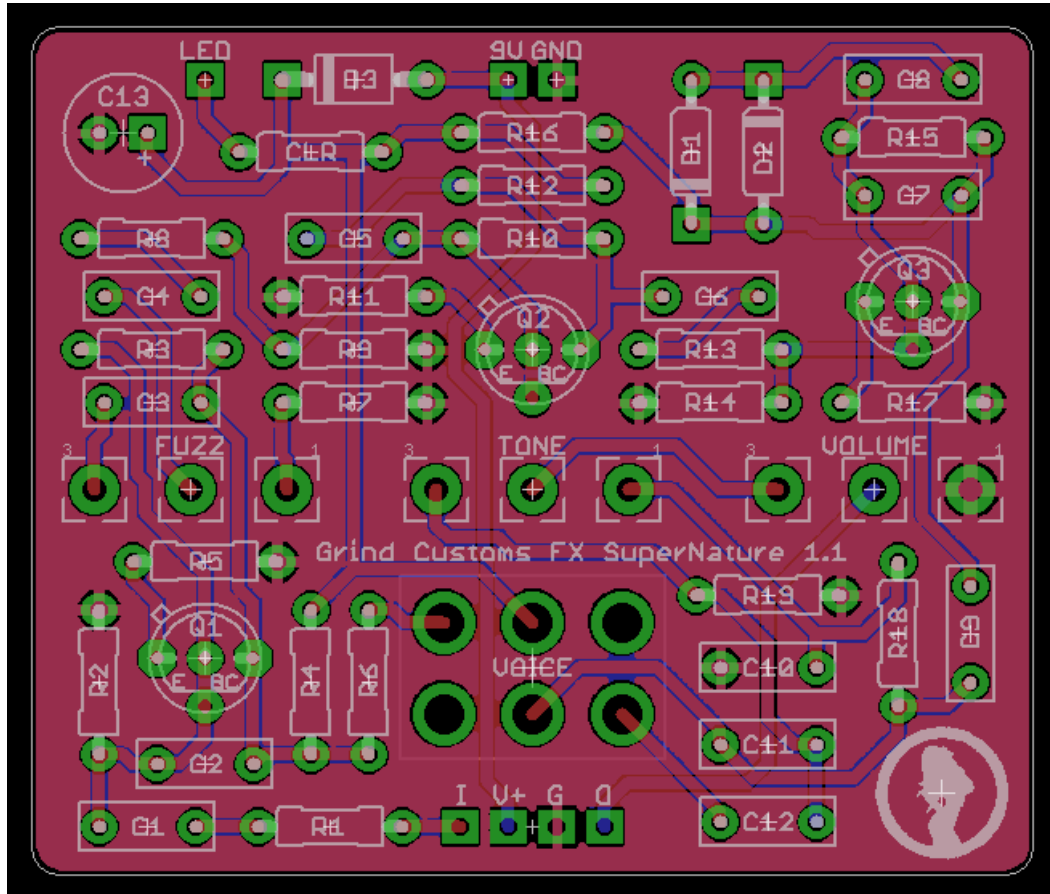


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SUPERNATURE



HISTORY

The story is thus: A friend of ours brought his 1976 Jumbo Tonebender over for us to have a go with, insisting it was the dogs bollocks. Having built things on this circuit before (it's essentially 3/4 of a muff) we were quite dubious about this claim. Long story short, we f**king loved it. The girth of a muff, but with that fizz of an older Tonebender. But, being mostly the same topology as a muff, none of the hang-ups of an old fuzz when it comes to playing nice with other things. So we took some photos and cloned it. Then found some transistors that were in the correct ranges and had the right sound then back-to-backed it with the original to make sure it was nailed on. It was.

On top of this we found that it was also only 2 components away from being a B&M Fuzz Unit... It'd be rude not to put them in a switch now wouldn't it? The FU was made famous by Edwyn Collins (used on A Girl Like You). It really just scoops it more like the muff it's based on.

PCB layout by the entity known as Chuckbuick

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BOM

R1	39K	C1	100N	Q1-3	BC149C
R2	100K	C2	470P		
R3	470K	C3	100N	D1-2	1N4148
R4	15K	C4	100N	D3	1N5817
R5	100R	C5	470P		
R6	30K	C6	100N	VOLUME	A100K
R7	1K	C7	470P	FUZZ	A100K
R8	10K	C8	100N	TONE	B100K
R9	100K	C9	100N	VOICE	DPDT
R10	470K	C10	10N		ON/ON
R11	100R	C11	3N3		
R12	10K	C12	1N5		
R13	10K	C13	33U		
R14	100K				
R15	470K				
R16	15K				
R17	100R				
R18	39K				
R19	39K				
CLR	4K7				

BUILD NOTES

You can get the BC149Cs on eBay. Ideally you want to be aiming for something in the region of Q1-350hfe, Q2-300hfe and Q3-600hfe. That sort of thing. The B&M flips this around by having Q1&2 at around 600hfe and Q3 at around 150hfe. Now whether this was just random throwing in of transistors of the day (likely), it does have a bearing on how it sounds. So socket and see how you prefer it. I tend to go with the former, but then I much prefer the JTB setting to the FU. That said, if you're wanting to nail that Collins sound, you might want to go for the latter.

If you use the BC149Cs please note that the orientation of them is with the flat towards the top of the board, which is the opposite way to the silkscreen, but correct for the trannies in terms of where the pin holes are. See the picture at the end of the doc to see mine. Also they don't go very far through the holes due to the odd design of the legs. But they go enough to solder too. Vintage transistors... Gotta love 'em.

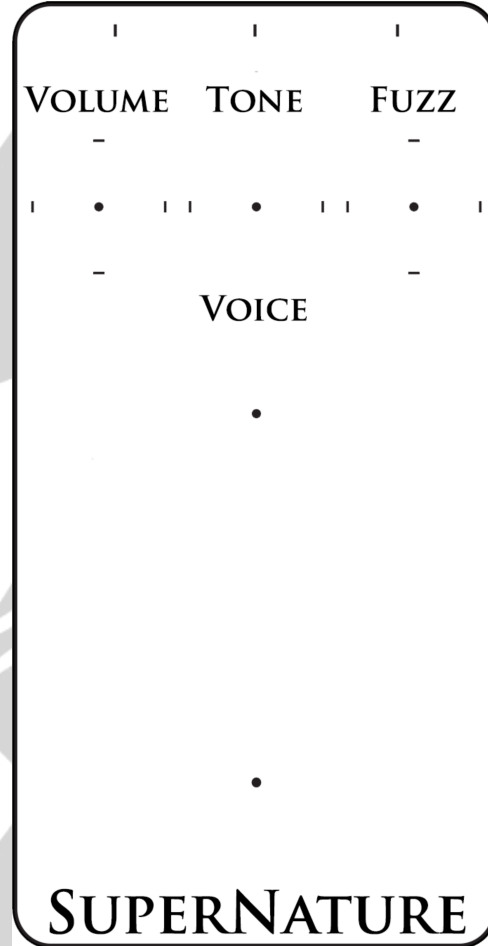
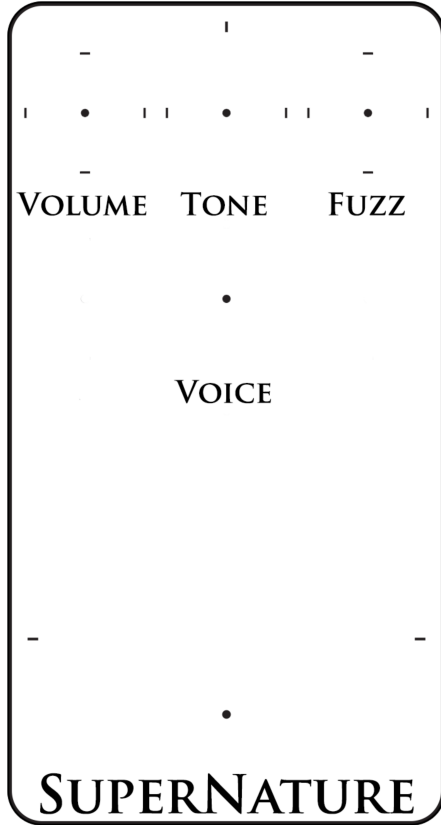
The pads for the transistors on the board are universal so there's no reason you can't use more attainable alternatives in a similar gain range. The 2N5088 and BC109C would make perfect alternatives.

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This PCB was designed using our standard 1590B/125B layout.

Guide drill templates:



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