



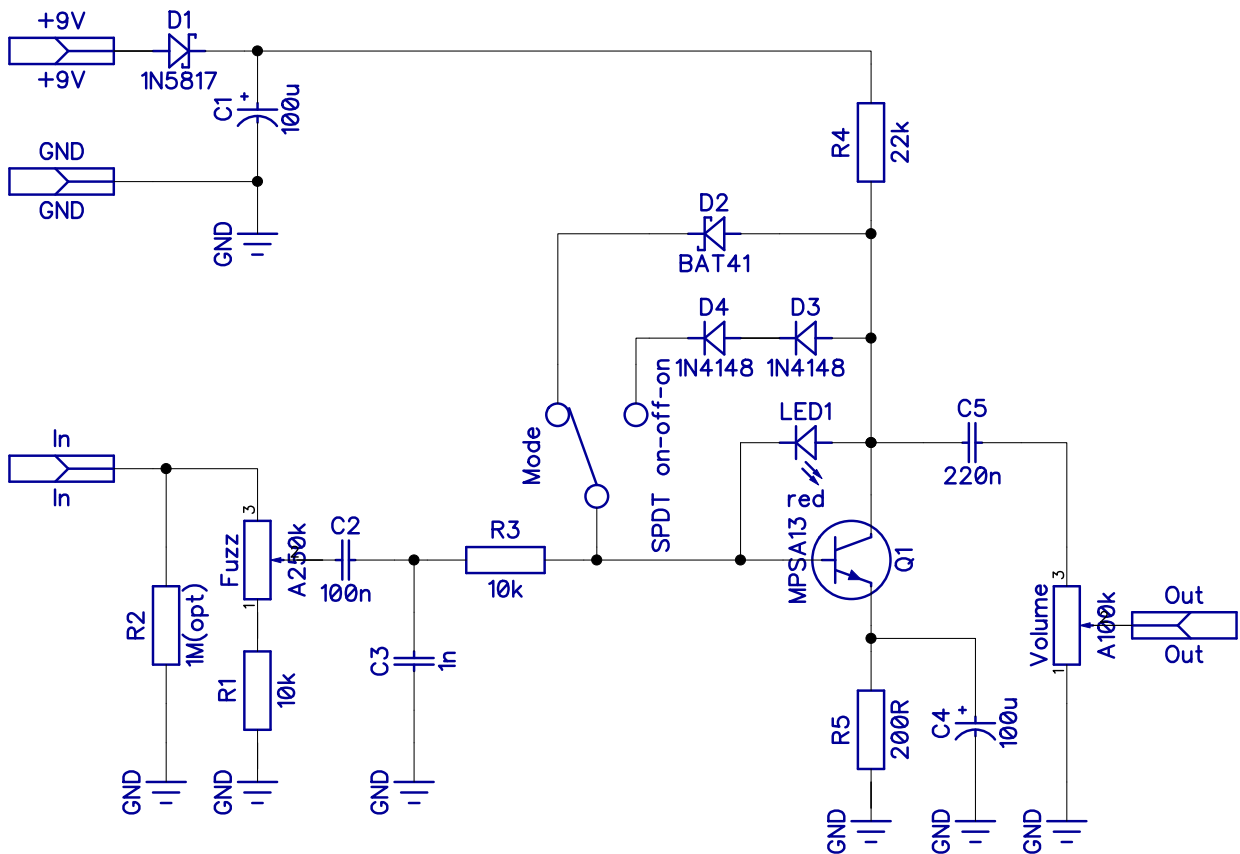
Operation Fuzz

PCB artwork ©2018 drdFX

Release date: 2018. 07. 12.

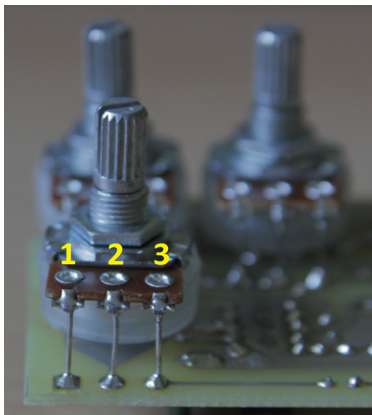
Operation Fuzz is an original drdFX design. It is a low to high gain fuzz pedal for Bass. With some modifications it can be used for guitar too.

SCHEMATIC



BOM							
Resistors		Capacitors		Semiconductors		Others	
R1	10k	C1	100u	D1	1N5817	Fuzz	A250k
R2	1M(opt)	C2	100n	D2	BAT41	Volume	A100k
R3	10k	C3	1n	D3	1N4148	Mode	SPDT on-off-on
R4	22k	C4	100u	D4	1N4148		
R5	200R	C5	220n	LED1	3mm red		
				Q1	MPSA13		

NOTES



The Volume and Gain pots are board mounted and the Mode switch is connected off-board with wires on the large layout. The square pad marks the lug 1, for the numbering of the lugs see the picture. The smaller layout uses off-board wiring for all controls.

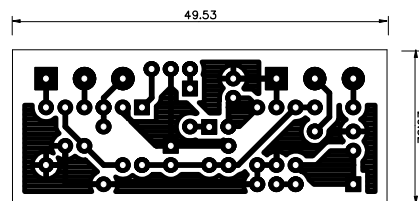
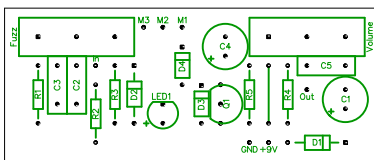
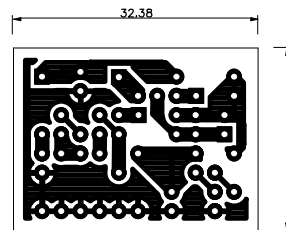
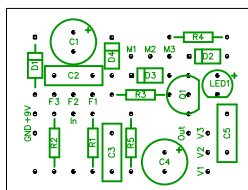
R2 is optional, this pul-down resistor is only needed if you have issues with pops when engaging the pedal. In mine I had no such issues, so I'd suggest starting without it first.

If you only have a two way switch I suggest using the LED and the BAT41 options only, the two 1N4148 option is quite close to the BAT41's sound. Or you can experiment with other clipping diodes as well of course.

This fuzz is basically meant for bass. It could be used on guitars as well, but you might find the bass a bit flabby and unfocused. To fix that you can change the input and output coupling capacitors C2 and C5 to lower values, 22nF (C2) and 68nF (C5) could be a good starting point.

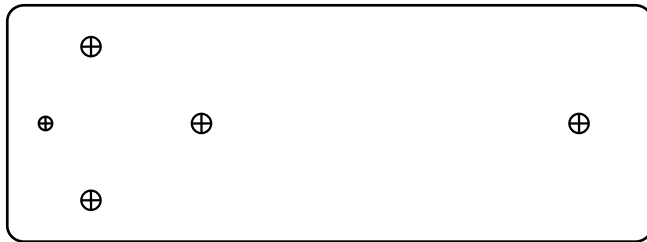
LAYOUT

Print out the PCB design without any resizing options and make sure you switch off the "fit to page" option. The design is free for personal/home use and you also may build one or two for your friends, but the PCB layout is my artwork, therefore protected by copyright and is not permitted to be used for commercial purposes. The smaller layout fits into a 1590A, the larger one can be mounted with the pots and fits 1590B or 125B.

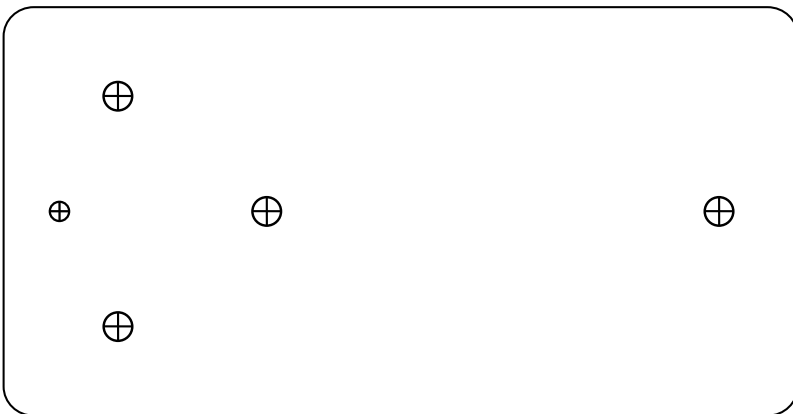


DRILLING TEMPLATES

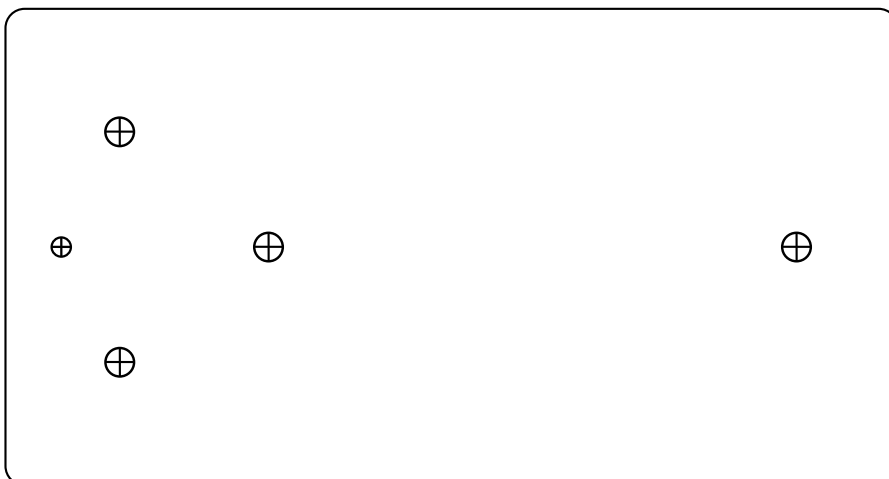
Here are three templates for the top of the box for the various box sizes. The design fits in both 1590B and 125B, however if you are less experienced you may find the 125B enclosure easier to work with. With careful measurement and low profile parts it might fit into the small 1590A enclosure as well.



1590A



1590B



125B