

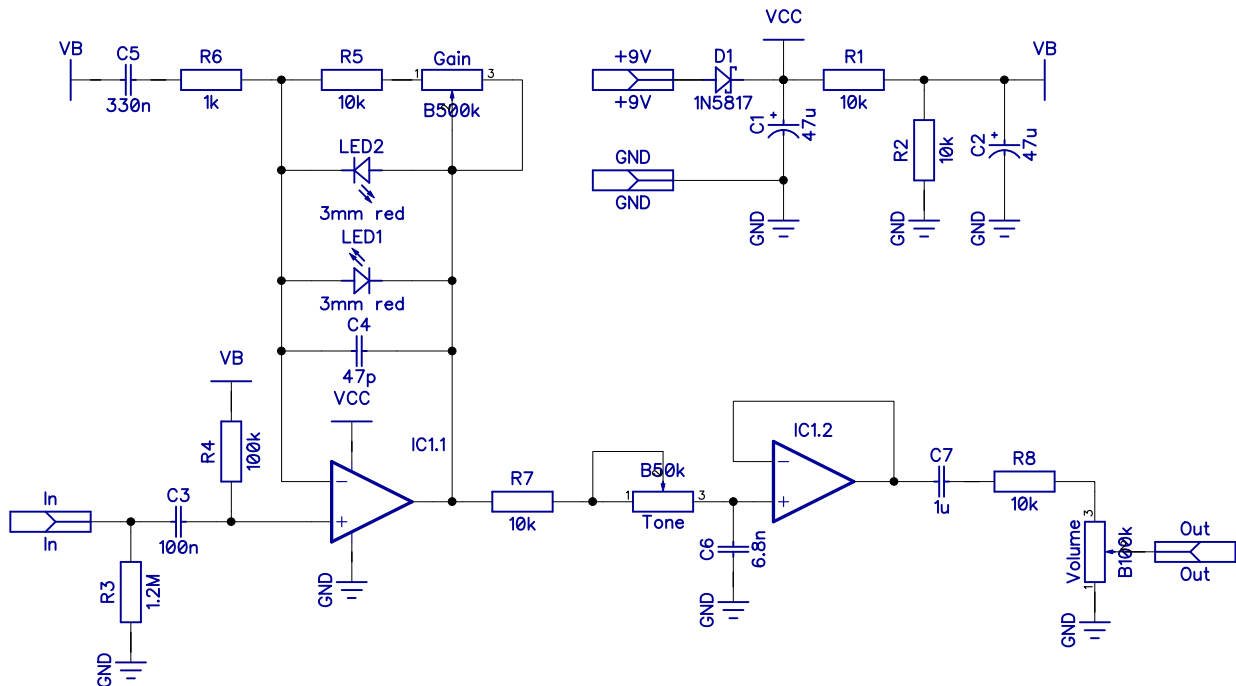


8 Ball

Based on Keeler Push
PCB artwork ©2017 drdFX
Release date: 2017. 11. 03.

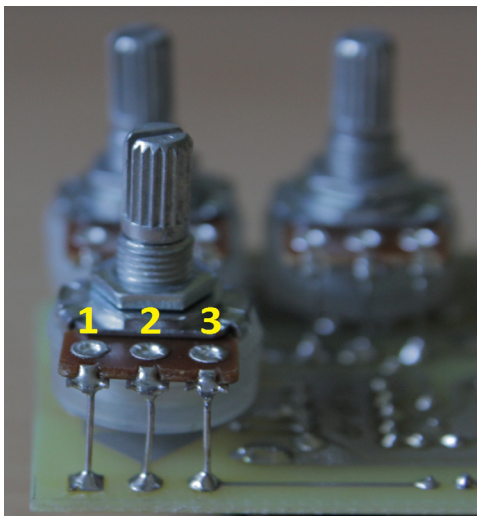
8 Ball is a clone of the Keeler Push overdrive with some suggestions for modifications, so be sure to read the Notes section.

SCHEMATIC



BOM							
Resistors		Capacitors		Semiconductors		Others	
R1	10k	C1	47u	D1	1N5817	Gain	B500k
R2	10k	C2	47u	LED1	3mm red	Volume	B100k
R3	1.2M	C3	100n	LED2	3mm red	Tone	B50k
R4	100k	C4	47p	IC1	4558/TL072		
R5	10k	C5	330n				
R6	1k	C6	6.8n				
R7	10k	C7	1u				
R8	10k						

NOTES



The Volume and Gain pots are board mounted and the Tone pot 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 pots.

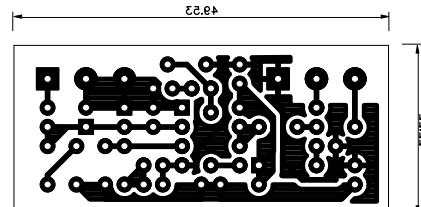
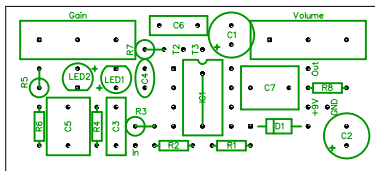
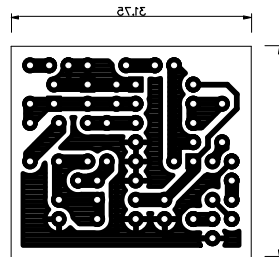
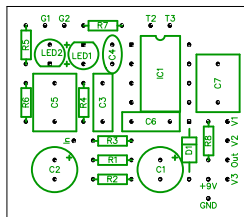
Usually I suggest experimenting with clipping diodes in similar designs, here you can do that too, however I find the original's LED clippers very good sounding. The original has a bit muffled and muddy sound. Bass response can be enhanced with changing the C5 cap to a 680nF one.

The response of the tone control can be improved by changing C6 to 3.3nF.

If you find the gain to be a bit less than desired you can go for a 1M pot, however even if you stick with the 500k pot going for a logarithmic one instead of the linear will improve the feel of the pot in its overall range.

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.

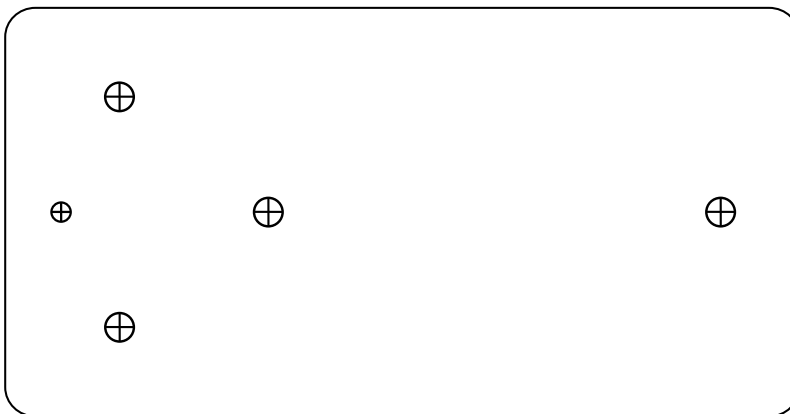


DRILLING TEMPLATES

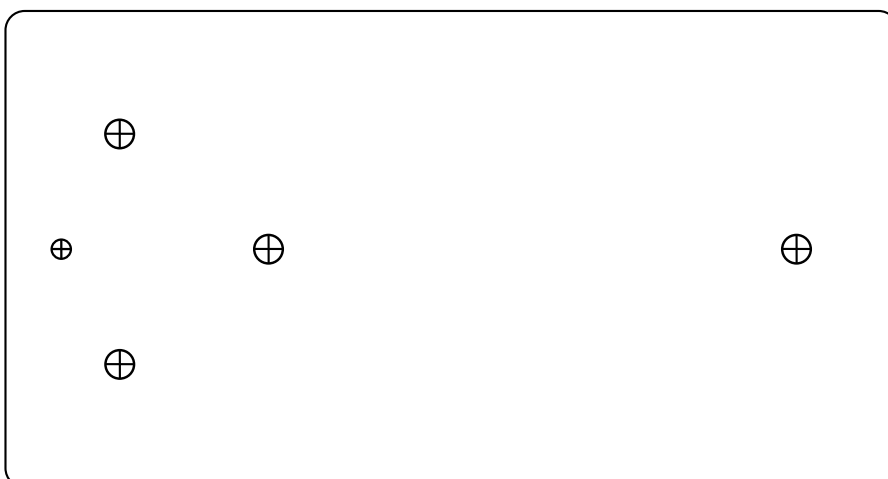
Here are three templates for the top of the box for the various box sizes. The large design fits in both 1590B and 125B, however if you are less experienced you may find the 125B enclosure easier to work with. With careful measurement and low profile parts the small design fits into the small 1590A enclosure.



1590A



1590B



1590B