

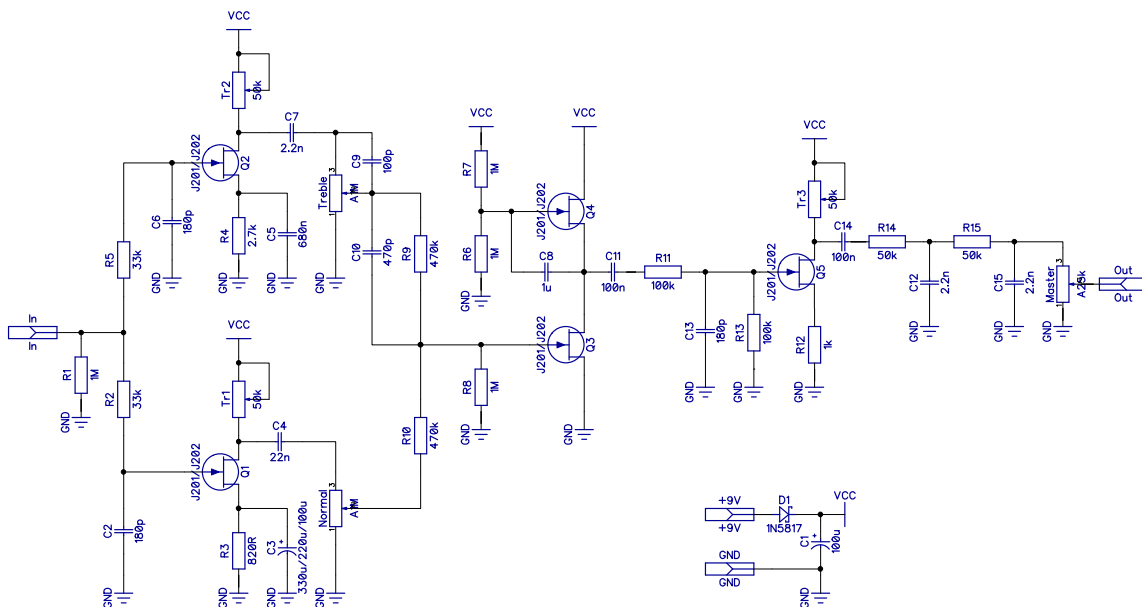


Miraculum

Based on the RambleFX Marvel Drive
PCB artwork ©2015 drdFX
Release date: 2015.08.19.

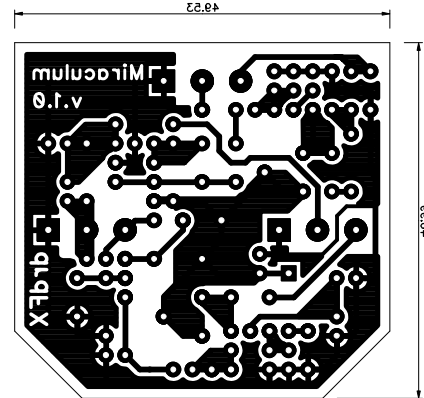
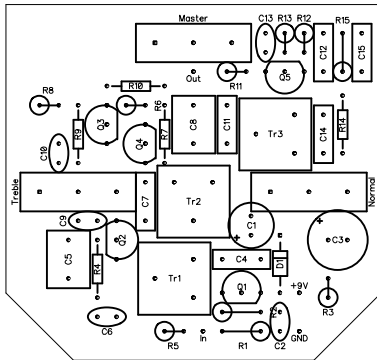
Miraculum is a copy of the RambleFX Marvel Drive. It is a Marshall Plexi simulation pedal. The Treble and Normal channels produce different sounds and by setting the proportions you can achieve the desired tonality. The idea behind the two channels originates to the trick that many guitarists used with those old 4-input amps: one channel's input was fed to the other's too, and so the player could use both channels at the same time and set the desired sound by the proportions of the two channels. The Master pot sets the overall level of the effect.

SCHEMATIC



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.

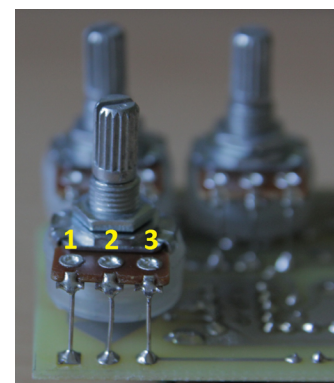


BOM

Resistors		Capacitors		Semiconductors		Others	
R1	1M	C1	100u	D1	1N5817	Master	A25k
R2	33k	C2	180p	Q1	J201	Normal	A1M
R3	820R	C3	330u	Q2	J201	Treble	A1M
R4	2.7k	C4	22n	Q3	J201	Tr1	50k
R5	33k	C5	680n	Q4	J201	Tr2	50k
R6	1M	C6	180p	Q5	J201	Tr3	50k
R7	1M	C7	2.2n				
R8	1M	C8	1u				
R9	470k	C9	100p				
R10	470k	C10	470p				
R11	100k	C11	100n				
R12	1k	C12	2.2n				
R13	100k	C13	180p				
R14	50k	C14	100n				
R15	50k	C15	2.2n				

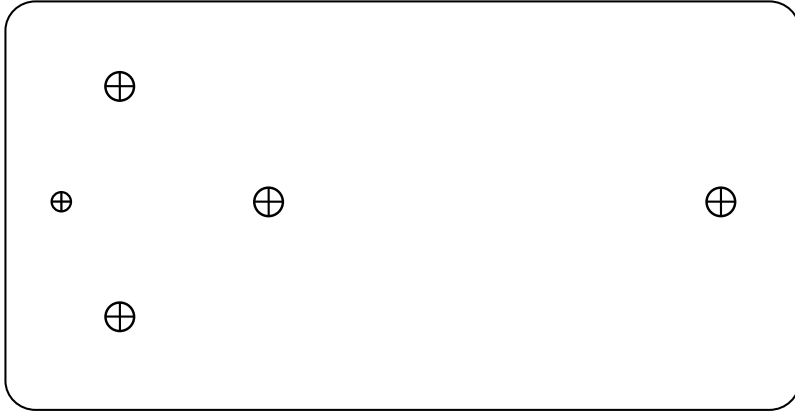
NOTES

The pots are board mounted to the bottom of the board. The square pads mark the lug 1, for the numbering of the lugs see the picture below:

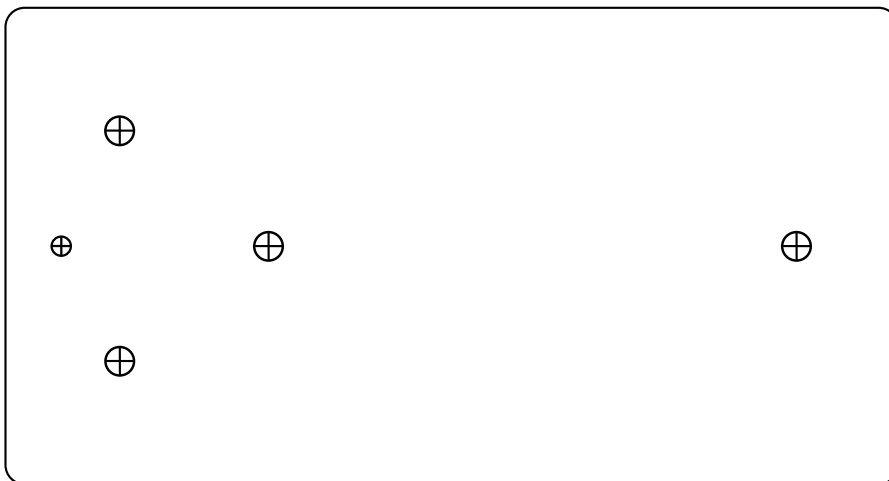


DRILLING TEMPLATES

Here are three templates for the top of the box for the various box sizes. The larger design fits in both 1590B and 125B, however if you are less experienced you may find the 125B enclosure easier to work with.



1590B



125B