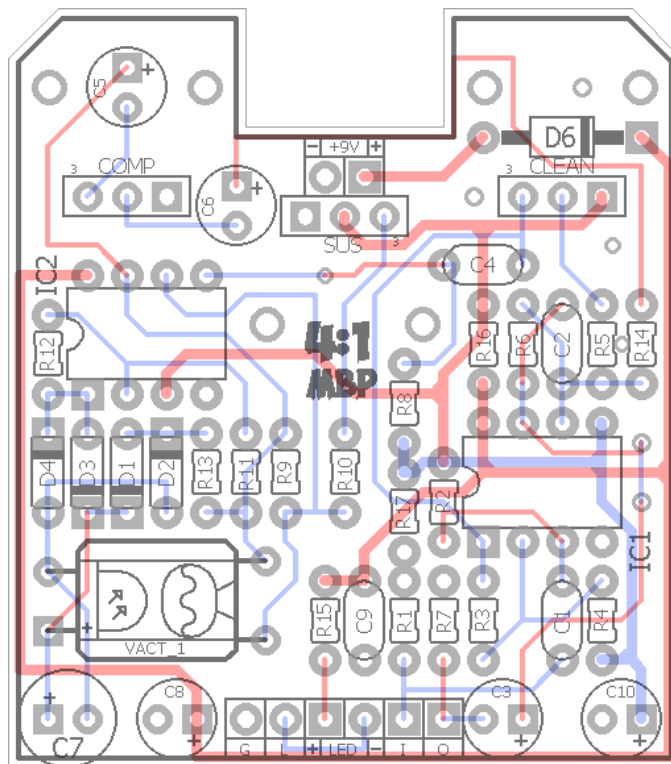
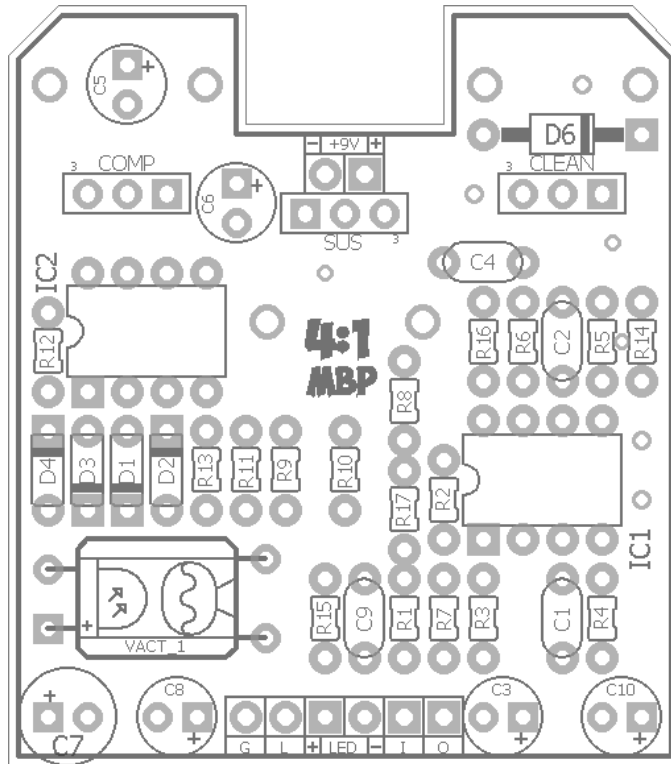


4:1

FX TYPE: Compressor
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1.7" W x 1.925" H



Terms of Use: You are free to use purchased circuit boards for both DIY and small commercial operations. You may not offer these PCBs for resale or as part of a "kit" in a commercial fashion. Peer to peer re-sale is, of course, okay.

B.O.M.					
Resistors		Caos		Diodes	
R1	10M	C1	1n	D1 - D4	BAT46
R2	10M	C2	33pF	D6	1N5817
R3	10k	C3	1uF	IC's	
R4	10k	C4	220n	IC1, IC2	TL072
R5	10k	C5	1uF	Vactrol	
R6	22k	C6	1uF	VACT_1	VTL5C3
R7	100k	C7	100uF	Pots	
R8	1M	C8	47uF	CLEAN	100kB
R9	220k	C9	100n	COMP	100kB
R10	10k	C10	10uF	SUS	100kA
R11	10k				
R12	47k				
R13	330R				
R14	22k				
R15	4k7				
R16	10k				
R17	10k				

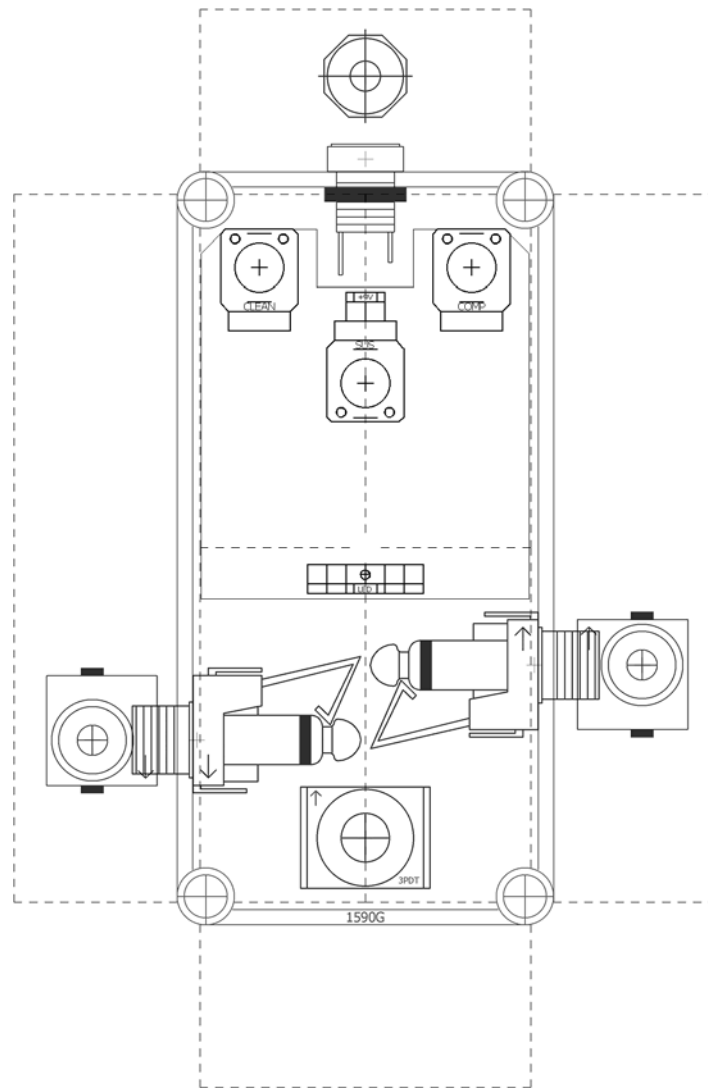
Shopping List			
Value	QTY	Type	Rating
330R	1	Metal /Carbon Film	1/8W
4k7	1	Metal /Carbon Film	1/8W
10k	7	Metal /Carbon Film	1/8W
22k	2	Metal /Carbon Film	1/8W
47k	1	Metal /Carbon Film	1/8W
100k	1	Metal /Carbon Film	1/8W
220k	1	Metal /Carbon Film	1/8W
1M	1	Metal /Carbon Film	1/8W
10M	2	Metal /Carbon Film	1/8W
33pF	1	Ceramic	16v min.
1n	1	Film	16v min.
100n	1	Film	16v min.
220n	1	Film	16v min.
1uF	3	Electrolytic	16v min.
10uF	1	Electrolytic	16v min.
47uF	1	Electrolytic	16v min.
100uF	1	Electrolytic	16v min.
BAT46	4		
1N5817	1		
TL072	2		
VTL5C3	1	or, Macron equivalent	
100kB	2	PCB Right Angle, Metal Shaft	9mm
100kA	1	PCB Right Angle, Metal Shaft	9mm

VTL5C3: <http://smallbear-electronics.mybigcommerce.com/photocoupler-vactec-vtl5c3/>

Macron MI1210CLF-R: <http://smallbear-electronics.mybigcommerce.com/photocouplers-macron-mi1210clx-series/>

1590G Drill Guide

3.66"W x 5.63"H



Indicator LED can be mounted directly to the PCB! Drill spot is directly above the “LED” text.

Photoshop Drill Guide: <http://www.madbeanpedals.com/projects/1590G/DrillGuides>

Overview

The 4:1 is an optical compressor based on the John Hollis Flatline. It is the same basic compressor as the Afterlife project but adds a clean blend. The clean blend allows you to balance between compressed and clean guitar signals in a sort-of side-chain fashion. This means you can add more subtle amounts of compressed signal while still retaining some dynamics with the clean guitar.

Controls

- Sus: Compression amount.
- Comp: Compression volume.
- Clean: Non-compressed volume

Notes

The 4:1 uses BAT46 diodes in place of the germaniums spec'd in the original design. This is due to the limited space available on the PCB. BAT46 seem to work equally as well due to their low forward voltage.

Mods

R10 and R12 have the most influence over the total compression you can achieve in this design. Lower values of R10 or higher values of R12 will increase the total compression if you want to experiment (although the stock design has plenty enough, IMO).

Voltages

IC1	V	IC2	V
1	4.59	1	4.59
2	4.59	2	4.59
3	2.03	3	4.58
4	0	4	0
5	4.58	5	4.14
6	4.58	6	4.58
7	4.58	7	4.59
8	9.16	8	9.16

