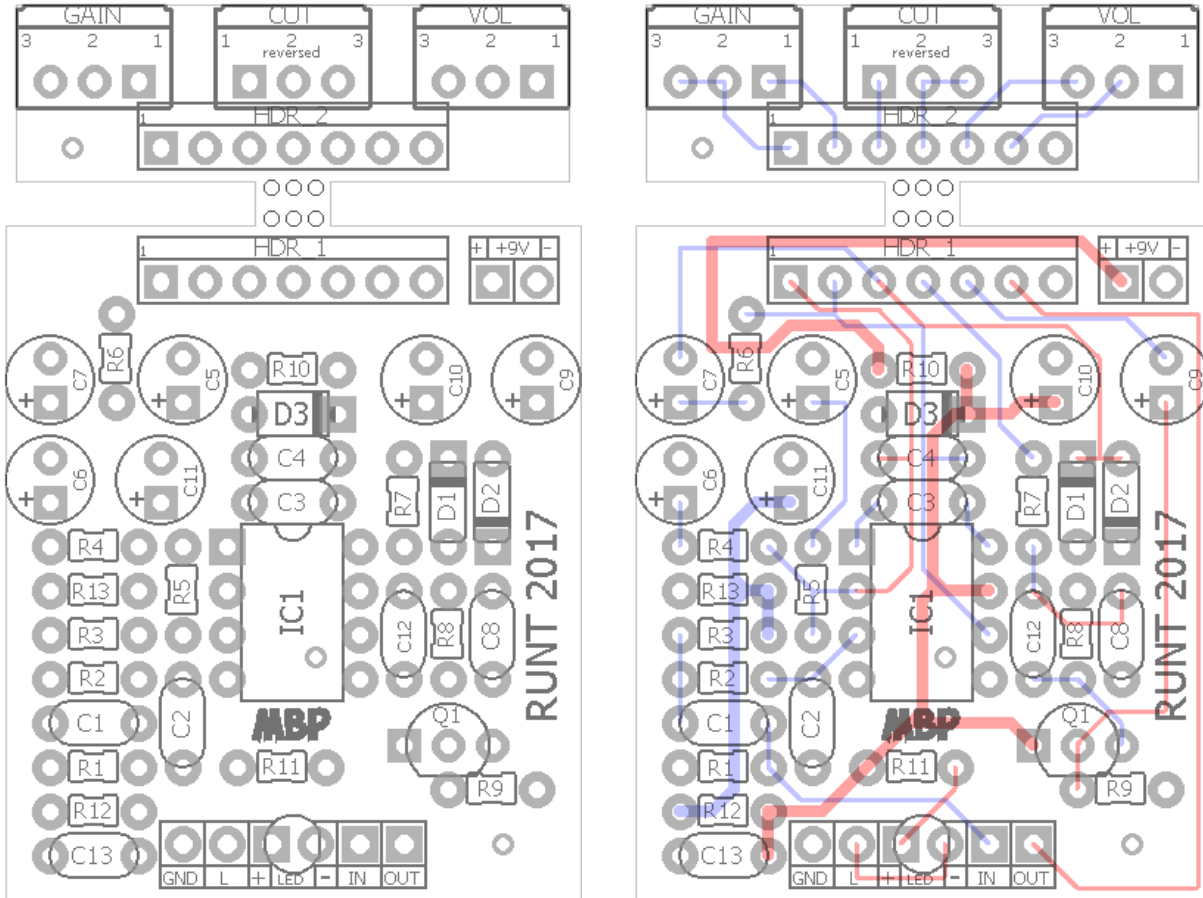


RUNT

FX Type: Distortion
Based on the ProCo® Rat™
© 2017 madbeanpedals

1.3" W x 1.525" H (main board)



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.

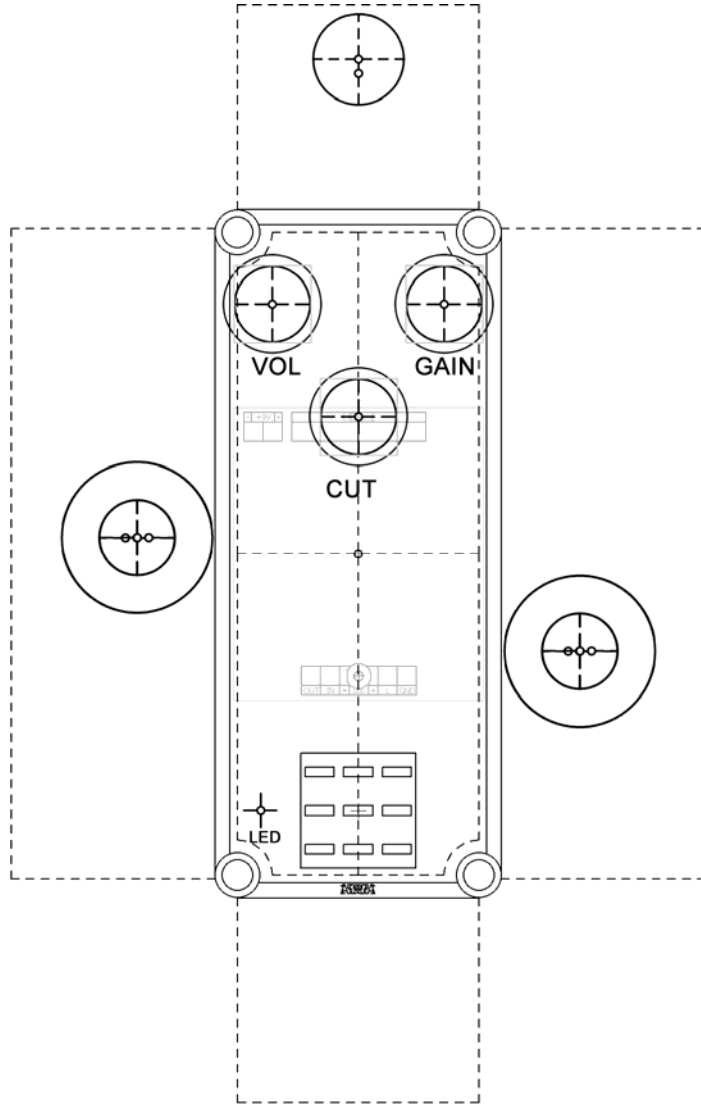
B.O.M.					
Resistors		Caps		Diodes	
R1	1M	C1	22n	D1	1N914
R2	1k	C2	1n	D2	1N914
R3	1M	C3	30pF	D3	1N4002
R4	47R	C4	100pF	Transistor	
R5	560R	C5	4u7	Q1	2N5457
R6	1k	C6	2u2	IC	
R7	1k5	C7	4u7	IC1	LM308
R8	1M	C8	3n3	Pots	
R9	10k	C9	1uF	VOL	100kA
R10	47R	C10	47uF	CUT	100kA
R11	4k7	C11	10uF	GAIN	100kA
R12	100k	C12	22n		
R13	100k	C13	100n		

Shopping List			
Value	Qty	Type	Rating
47R	2	Metal / Carbon Film	1/8W
560R	1	Metal / Carbon Film	1/8W
1k	2	Metal / Carbon Film	1/8W
1k5	1	Metal / Carbon Film	1/8W
4k7	1	Metal / Carbon Film	1/8W
10k	1	Metal / Carbon Film	1/8W
100k	2	Metal / Carbon Film	1/8W
1M	3	Metal / Carbon Film	1/8W
30pF	1	Ceramic / MLCC	16v min.
100pF	1	Ceramic / MLCC	16v min.
1n	1	Film	16v min.
3n3	1	Film	16v min.
22n	2	Film	16v min.
100n	1	Film	16v min.
1uF	1	Electrolytic	16v min.
2u2	1	Electrolytic	16v min.
4u7	2	Electrolytic	16v min.
10uF	1	Electrolytic	16v min.
47uF	1	Electrolytic	16v min.
1N914	2		
1N4002	1	or, 1N4001	
2N5457	1		
LM308	1		
100kA	3	PC Mount	9mm

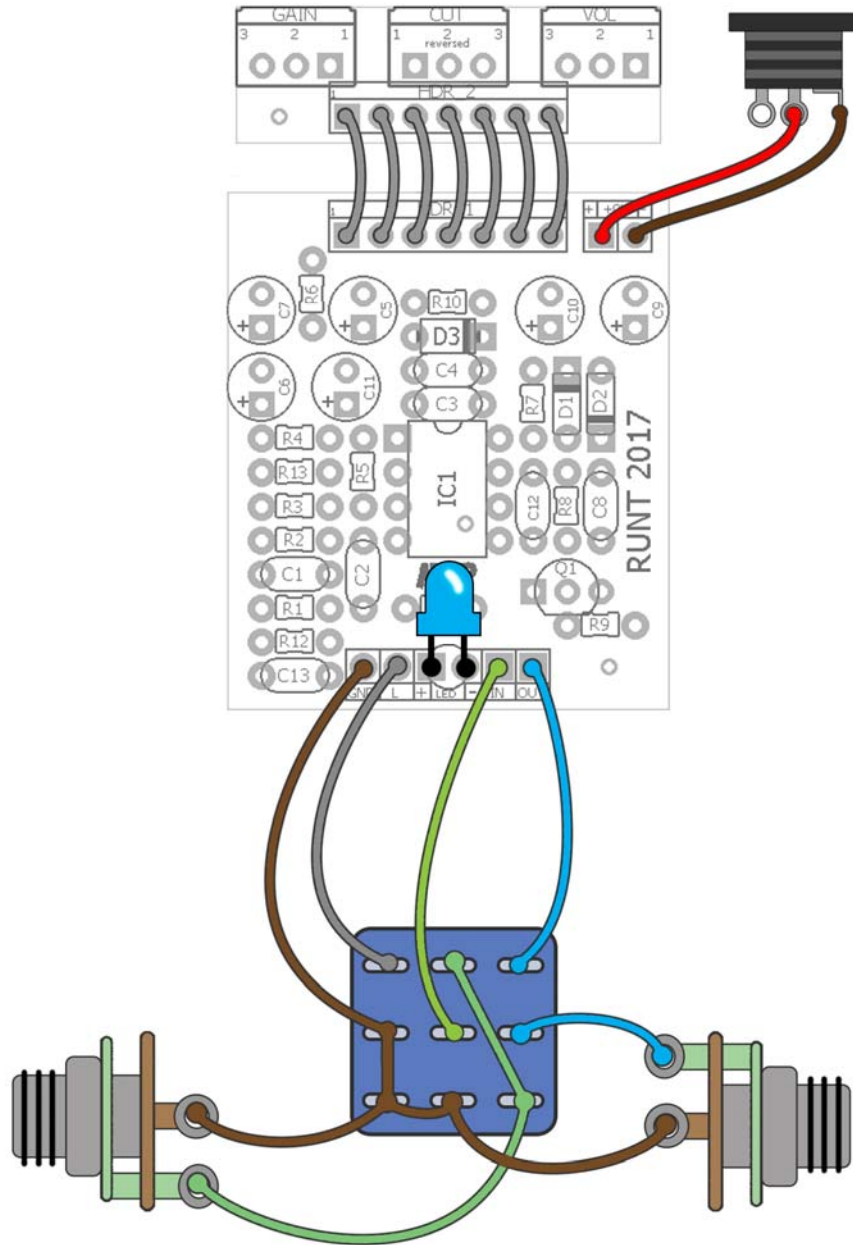
Pots: <http://smallbear-electronics.mybigcommerce.com/alpha-single-gang-9mm-pc-mount>

1590A Drill Guide

3.63" W x 5.72" H



Wiring Guide



The indicator LED should be wired to the PCB, not mounted directly. LED location shown on the Drill Guide.

Overview

Much like the venerated Ibanez® Tube Screamer™ the Rat™ needs little introduction. It is part of the “holy trinity” of dirt pedals that nearly every rock guitar player has owned or played through at some point (the other being the Big Muff™). But, unlike the smooth and refined sound of the Tube Screamer™, the Rat™ is more like a distant uncle...you know, the one that always smells like stale cigars and bottom-of-the-well whiskey; rude, abrasive and sometimes just plain ol’ mean.

While the Rat™ lacks smoothness (and pushes the boundaries on acceptable signal to noise ratio) it makes up for it with lots of character. It is a textured distortion; like putting a fine layer of gritty sand over your guitar tone. One can almost imagine ripping fat riffs while playing “Round and Round” at your local bar gig, flipping your long mane of hair while the ladies swoon over your tiger striped spandex. Well, maybe that’s just me.

Controls are self-explanatory.

2017 updates: Updated to the current MBP Eagle library and small changes to the power supply section.

Notes

The main board (circuit) and daughter board (pots) need to be separated before populating. Gently break the two boards apart with finger pressure. You can use a wire cutter to clean up any jagged edges.

The three pots are soldered directly to the daughter board and wired to the main board as shown in the Wiring Guide. The VOL and GAIN pots are soldered to the top of the daughter board. **The CUT pot must be soldered underneath the daughter board.**

