

RETROGRADE

FX TYPE: OCTAVE

Based on the Tycobrahe Octavia™

PCB artwork ©2011 madbeanpedals

Release date: 01.23.11

The Tycobrahe Octavia™ is another one of those mythical and practically un-obtainable classic stompboxes. This one is very popular for collectors and it is not rare to see them go for over \$1000 on eBay.

Or, you could build it for \$30. Just sayin'.

Anyway, if you are a Hendrix fan (and we all are) and would like to cop some of those octave/fuzz tones then this is the project for you! The **Retrograde** is a wall of fuzz, with a pronounced octave generated by an inexpensive transformer. The **Retrograde** also features the ability to turn the octave off with the flip of a switch, and can be built into a 1590B (without battery).

As with almost any analog octave effect, the most pronounced upper octave is achieved by using the guitar's neck pickup, with the tone rolled all the way off and notes played around the 12th fret. You can also get ring modulator type sounds with chords or with the volume knob on your guitar rolled down. Best of all, you get a great "dive-bomb" effect when doing double-stop bends!

You can read up a little more on the circuit here: <http://fuzzcentral.ssquitar.com/octavia.php>

The controls are as follows

FUZZ: Overall fuzz amount.

OCT: This switch turns off the octave effect if you want to use fuzz only.

VOL: The output level.

SmallBear Parts Guide – www.smallbearelec.com

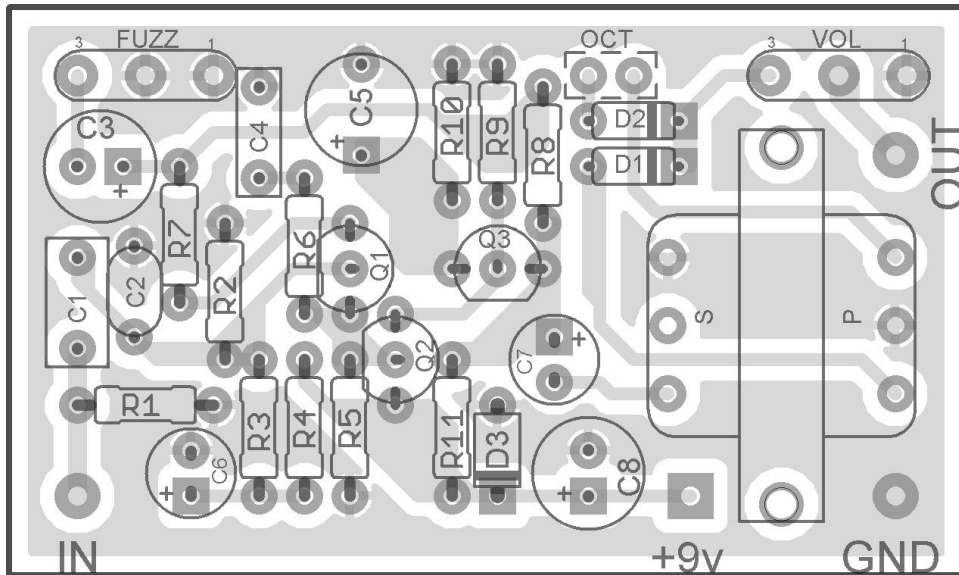
- Panasonic ECQ-B / V film caps or Topmay box caps
- Carbon film Resistors 1/4W and/or metal film resistors 1/4W
- 16v electrolytic radial caps
- Ceramic caps (for pF values)
- 16mm Alpha Pots

Notes

The 42TM022 transformer for this project can be purchased through smallbear or Mouser.

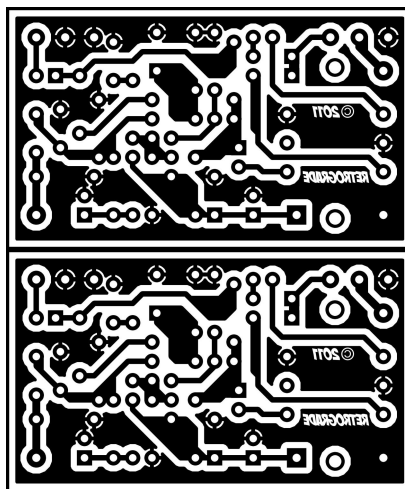
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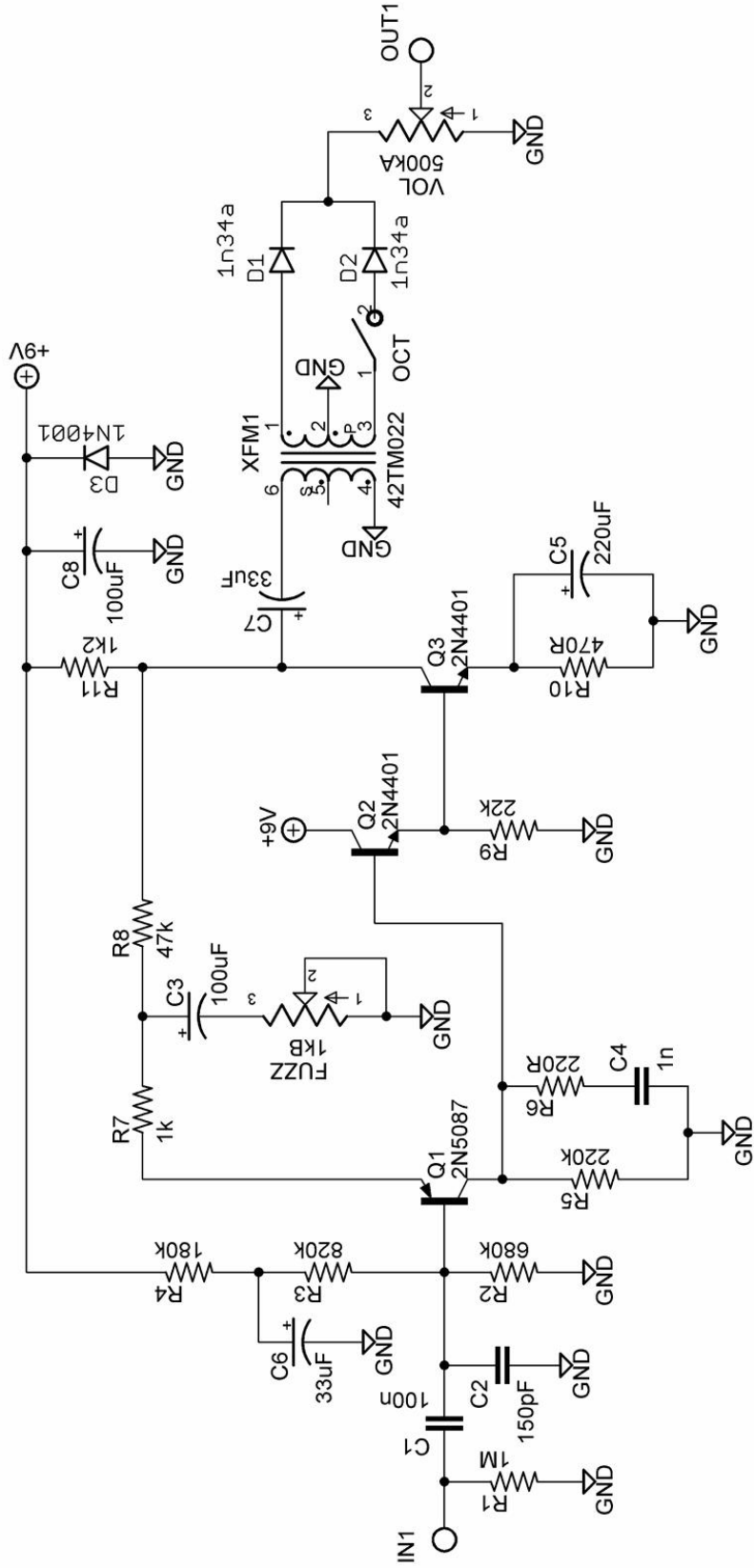
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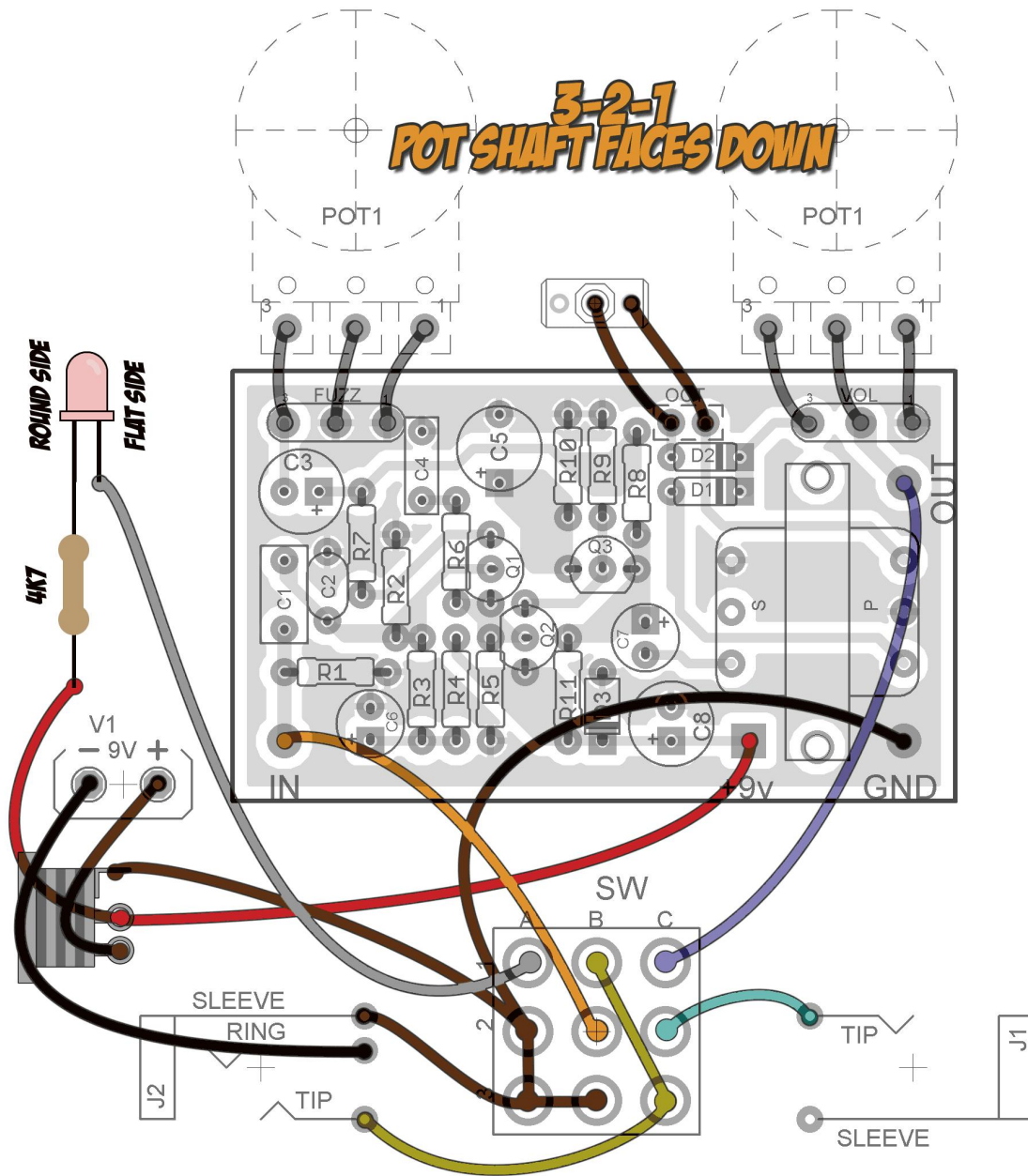


Resistors		Caps		Diodes	
R1	1M	C1	100n	D1, D2	1n34a
R2	680k	C2	150pF	D3	1N4001
R3	820k	C3	100uF	Transistors	
R4	180k	C4	1n	Q1	2N5087
R5	220k	C5	220uF	Q2, Q3	2N4401
R6	220R	C6	33uF	Transformer	
R7	1k	C7	33uF	XFM1	42TM022
R8	47k	C8	100uF	Switch	
R9	22k			OCT	SPST
R10	470R			Pots	
R11	1k2			FUZZ	1kB
				VOL	500kA

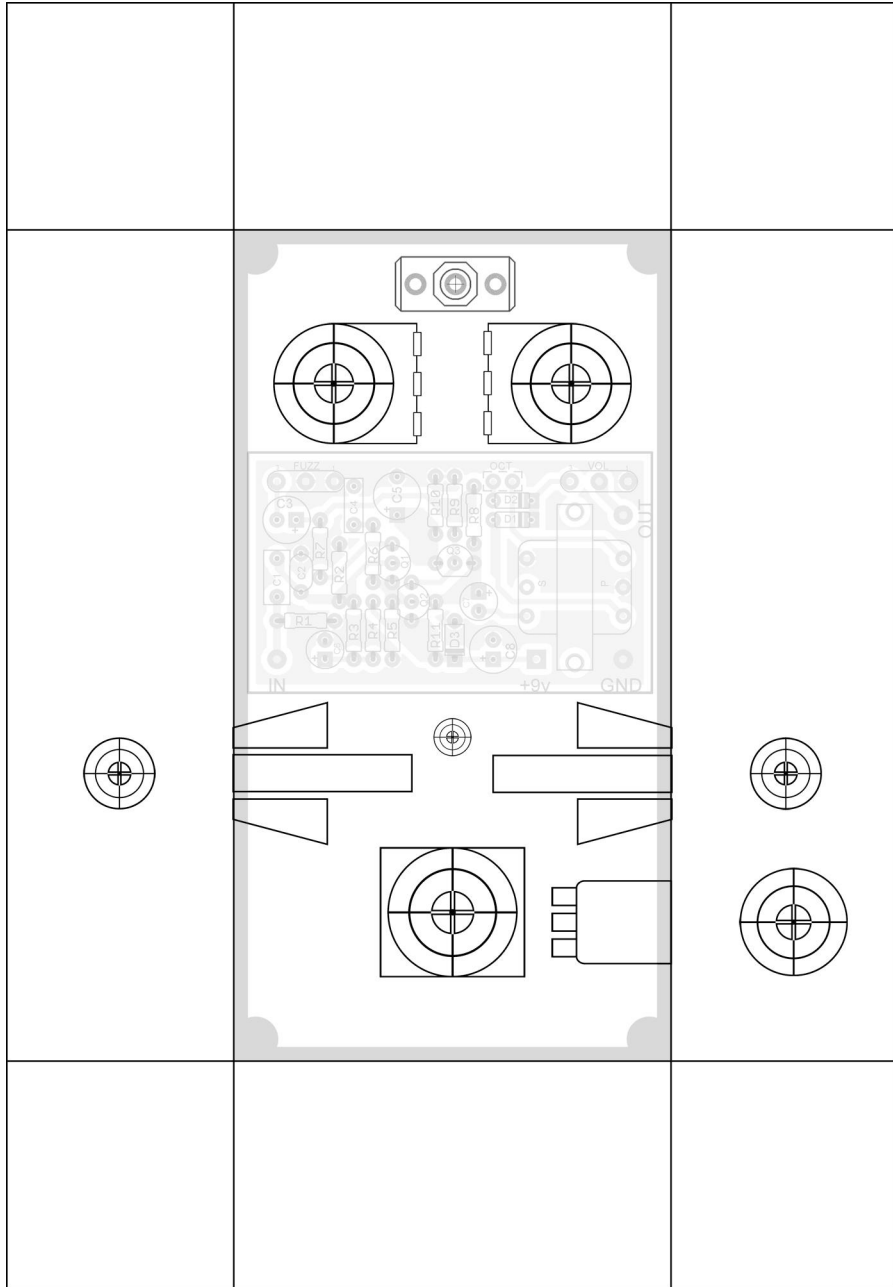
2.11" W x 1.26" H (including borders)



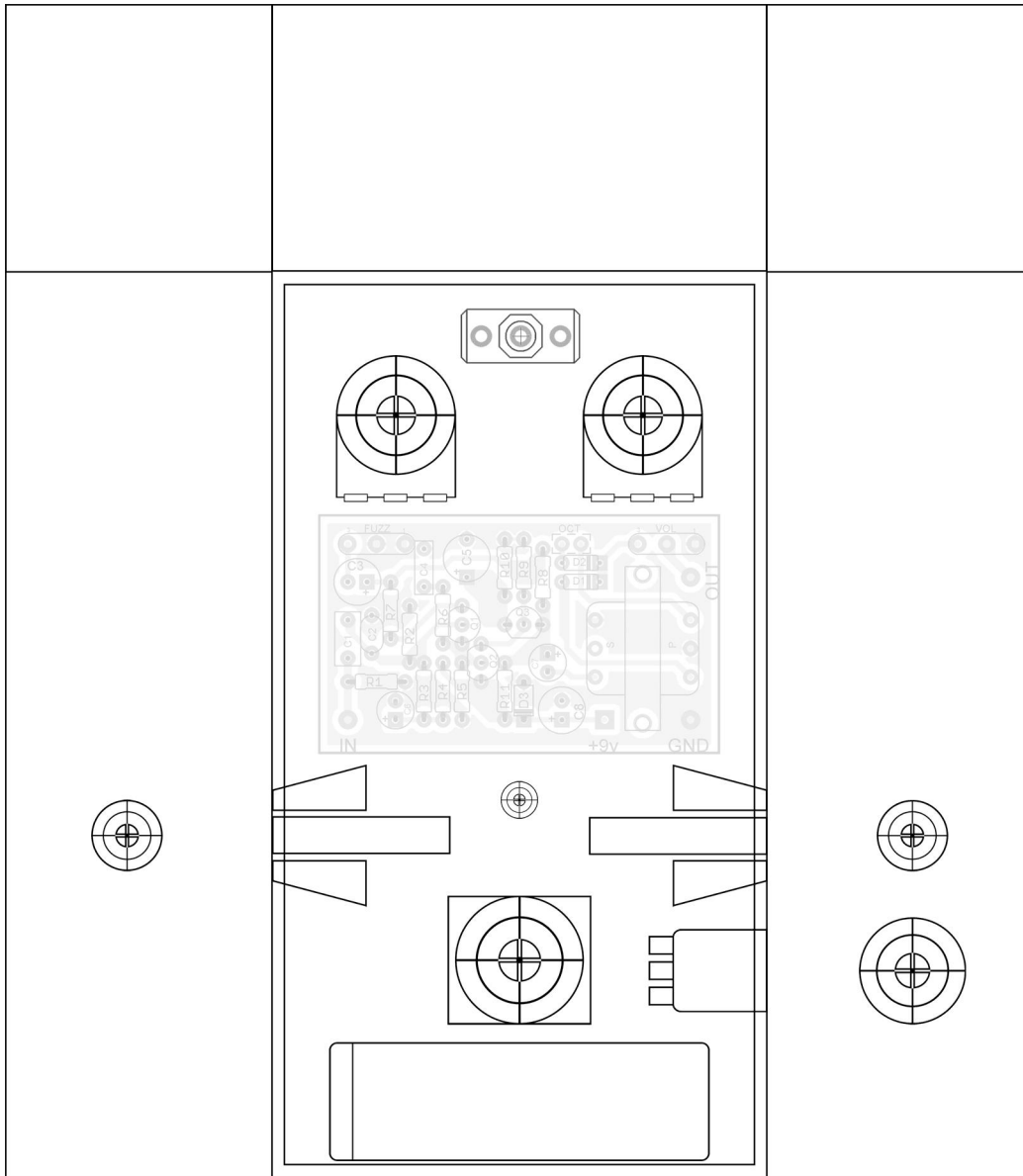




1590B Layout (no battery)
4.64" W x 6.69" H



125B Layout
5.41" W x 6.18" H



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