

MINI MUFFIN V1.1C

from Ram's Head to Green Russian

OVERVIEW

The Big Muff™ is an old-school-device and was built many different ways throughout the decades it exists. This is a classic device giving a very well known smooth distortion sound.

The part numbers match the madbean Mudbunny and therefore [JuanSolo's Version sheet](#) can be used to build a wide variety of versions!

GENERAL

The bill of materials shows only one specific arrangement of values the effect can be build to. It's called the Civil War specs. Feel free to experiment !

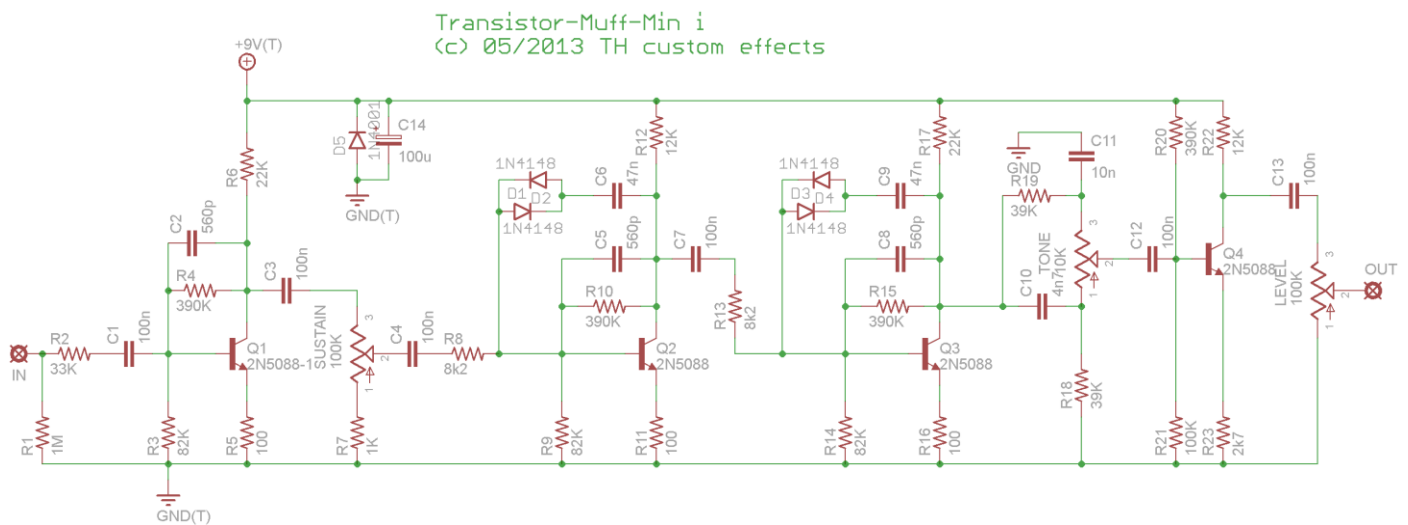
You can also substitute germanium diodes and transistors to get different sounding clipping, tonality and gain.

This circuit has polarity protection. The tone pot works backwards.

This is a specific small build to fit into a 1590A enclosure.

V1.1 has an improved layout featuring 9mm helper board pots.

SCHEMATIC

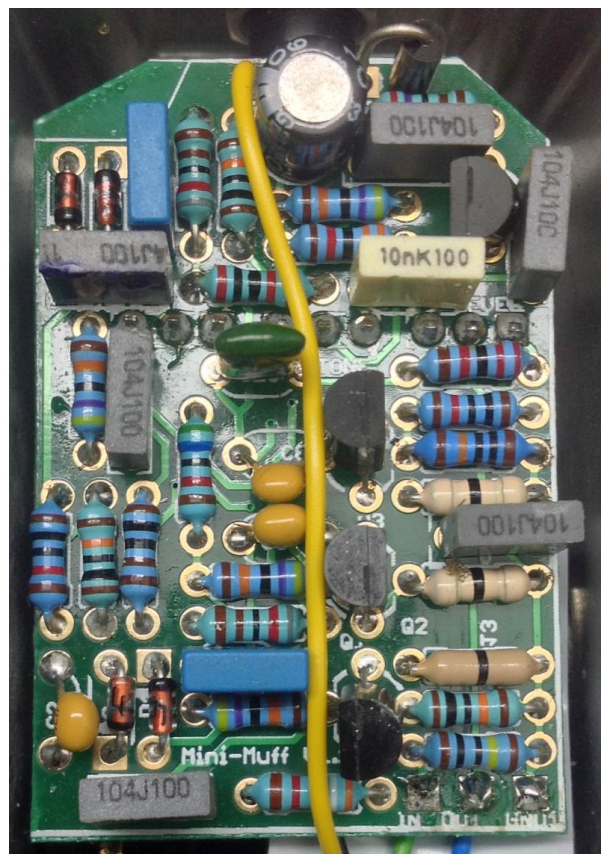
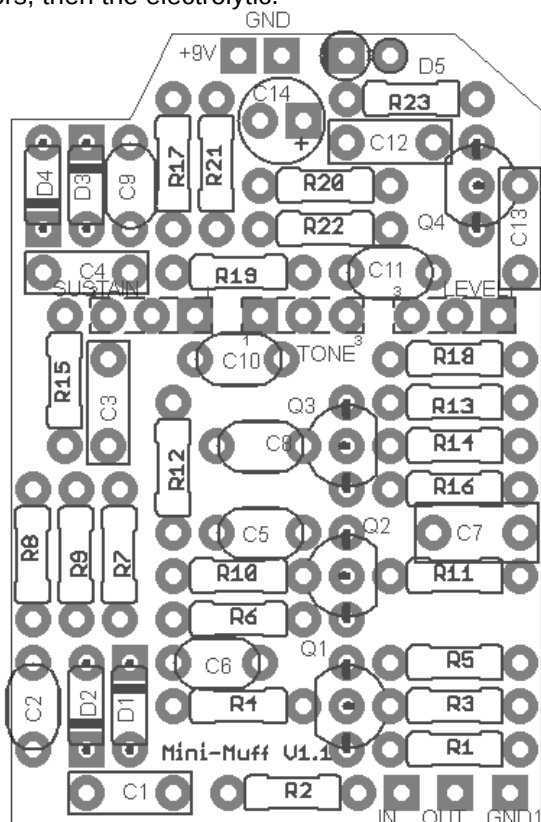


BILL OF MATERIALS (GREEN RUSSIAN SPEC'S)

	Device#	Qty	Value	Comment
Resistors	R1	1	1M	
	R2	1	39k	
	R3,R9,R14,R21	4	100k	
	R4,R10,R15,R20	4	470k	
	R5,R11,R16	3	390R	
	R6,R12,R17	3	12k	
	R7	1	1k	
	R8,R13,R22	3	10k	
	R18	1	22k	
	R19	1	20k	
	R23	1	2k	
Capacitors	C1,C3,C4,C7,C12,C13	6	100n	box film
	C2,C5,C8	3	430p	ceram
	C6,C9	2	47n	box film
	C10	1	3n9	box film
	C11	1	10n	box film
	C14	1	100u	polarized electro
Diodes	D1,D2,D3,D4	3	1N4148*	
	D5	1	1N4001	
Transistors	Q1-Q4	4	2N5088	
Pots	VOLUME	1	100k-log	9mm
	TONE,SUSTAIN	2	100k-lin	9mm

BUILDING

Start populating the diodes and resistors first. Put the transistor sockets in next. Last are the ceramic and film box capacitors, then the electrolytic.



ENCLOSURE

Brian at madbeanpedals has an excellent guide on 1590A builds. It includes drilling templates and many other very valuable stuff. [Check it out!](#)

FINALLY

There are a lot of different ways to build this effect. Have fun building and playing !

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