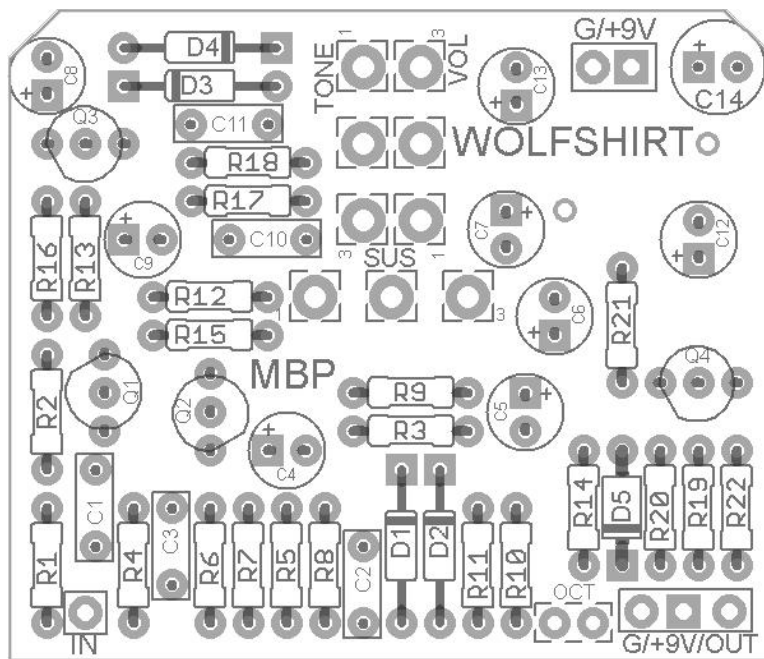
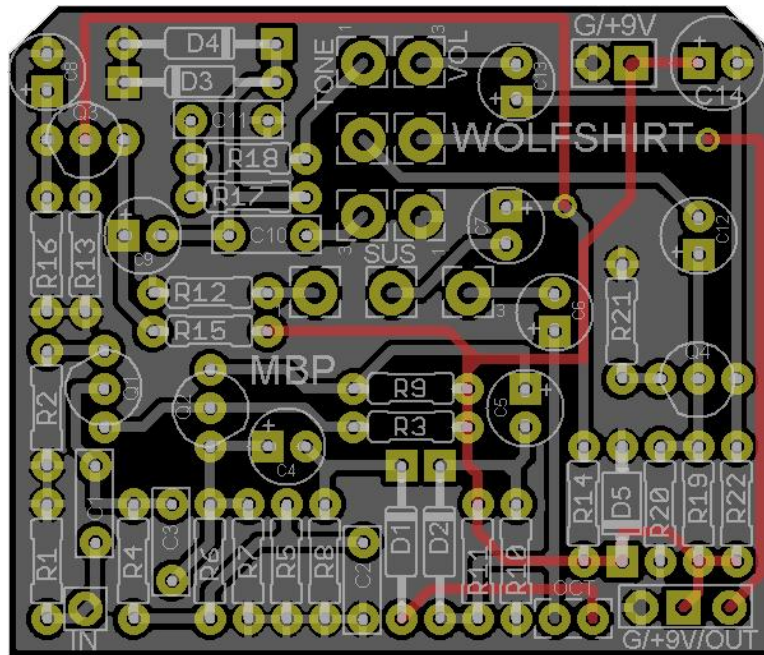
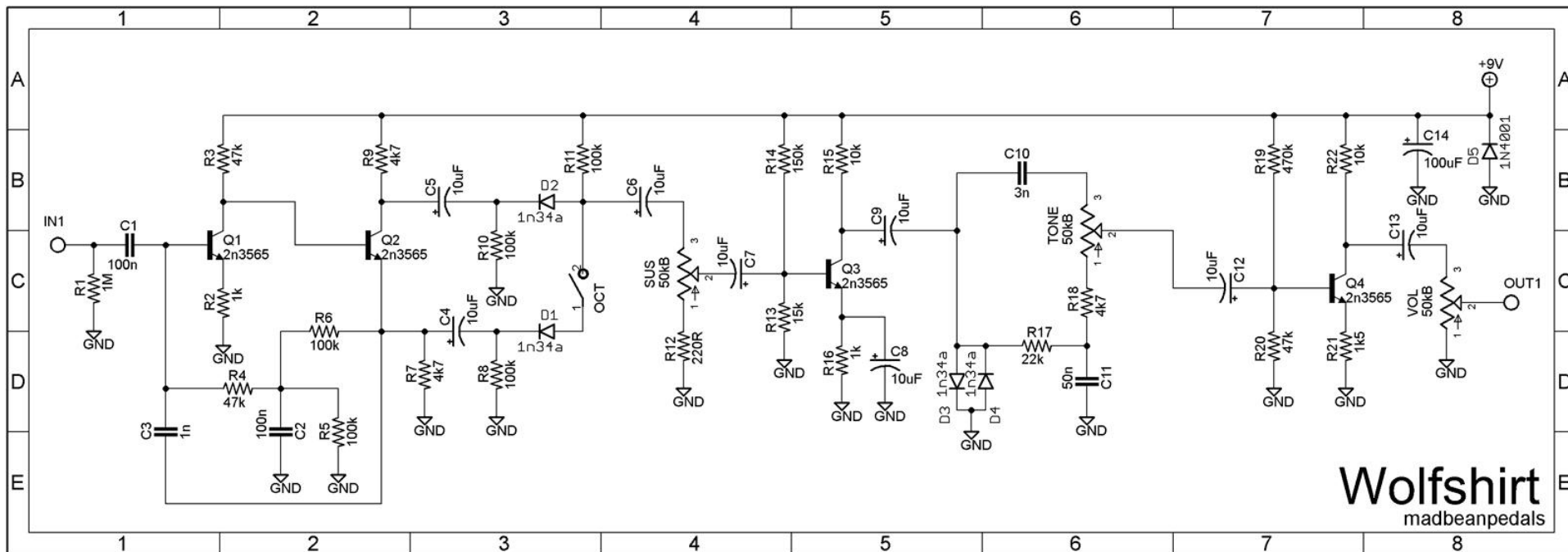


WOLFSHIRT

01.2012 madbeanpedals

PCB Dimensions: 2.0"W x 1.575"H





Resistors

R1	1M
R2	1k
R3	47k
R4	47k
R5	100k
R6	100k
R7	4k7
R8	100k
R9	4k7
R10	100k
R11	100k
R12	220R
R13	15k
R14	150k
R15	10k
R16	1k
R17	22k
R18	4k7
R19	470k
R20	47k
R21	1k5
R22	10k

Caps

C1	100n
C2	100n
C3	1n
C4	10uF
C5	10uF
C6	10uF
C7	10uF
C8	10uF
C9	10uF
C10	3n
C11	50n
C12	10uF
C13	10uF
C14	100uF

Diodes

D1 - D4	1n34a
D5	1N4001

Switch

OCT	SPST
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Transistors

Q1 - Q4	2n3565
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Pots

SUS	50k
TONE	50k
VOL	50k

What Is It?

The **Wolfshirt** is a direct copy of the classic Foxx Tone Machine™, which is widely used and revered fuzz/octave stompbox. The effect is broken down into four distinct sections. The first stage comprises a fuzz face like gain stage with feedback, followed by the octave stage (generated by waveform clipping with germanium diodes). After the passive gain control there is another gain stage and passive tone control with added clipping and lastly a gain recovery stage.

All of these gain stages add up to a blistering fuzz/octave which will work well on both guitar and bass.

Controls

SUS: An attenuator to control the overall fuzz.

TONE: A Big Muff™ tone control derivative with added clipping via two additional back to back germanium diodes.

VOL: The output level.

OCT: This allows you to switch off the octave portion of the circuit and use it as fuzz only.

Notes

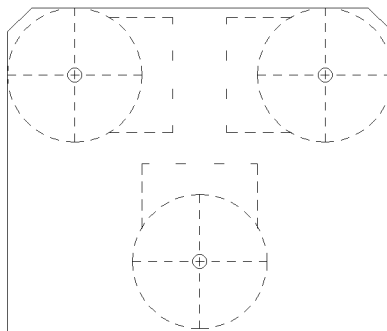
You do not have to use 2n3565 for the transistors. Any bi-polar silicon with similar Hfe (150 – 600) will work. I have used both 2n222a and 2n3904 in this circuit. Between those two, I much preferred the 2n3904.

2n3565 on [Smallbear](#)

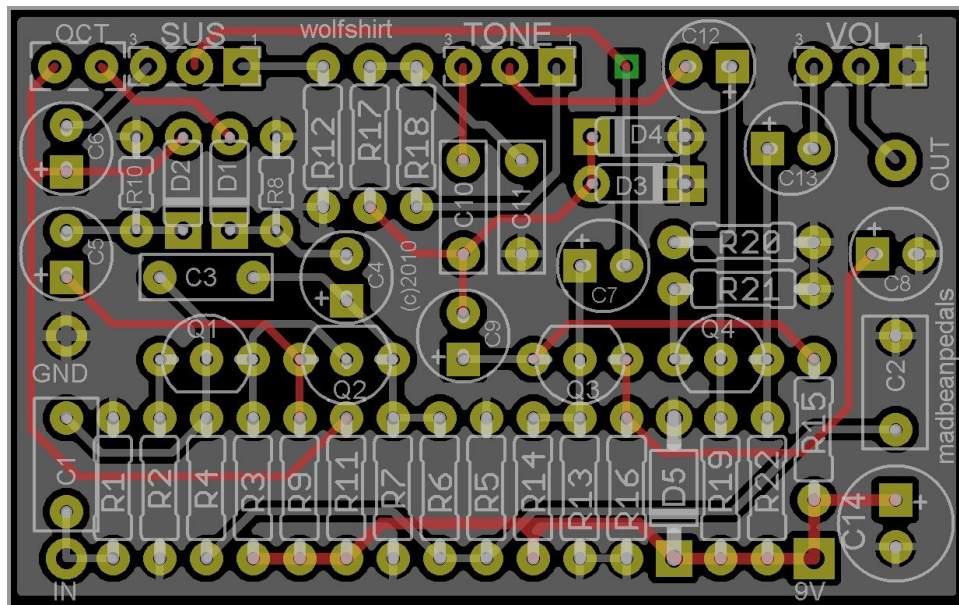
The 3n cap used for **C10** will be difficult to source. You can sub either 2n7 or 3n3.

If you do not wish to use the **OCT** switch, make sure you jumper the two pads together.

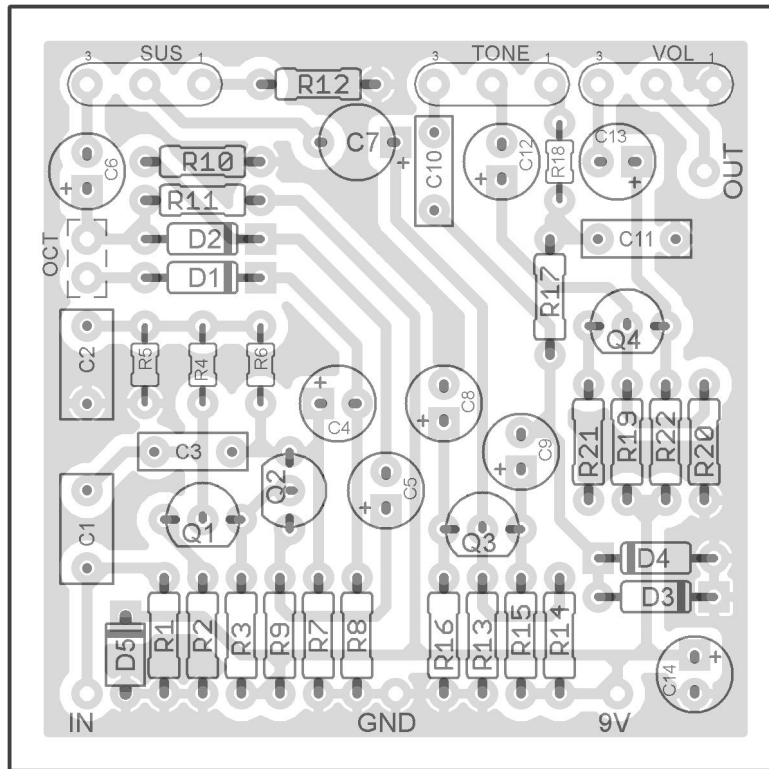
Drill markers for PCB mounted pots (actual size)



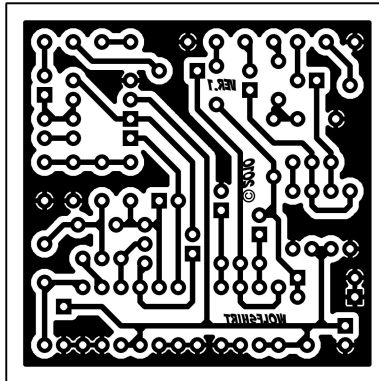
Previous version (before Jan. 21012)



Single Sided Layout



2" W x 1.99" H (including borders)



Licensing

The user may utilize a purchased **Wolfshirt** PCB from madbeanpedals for DIY/non-commercial purposes. You may not use the artwork to sell your own version of the PCB design or as part of a “kit” or similar commercial product.

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