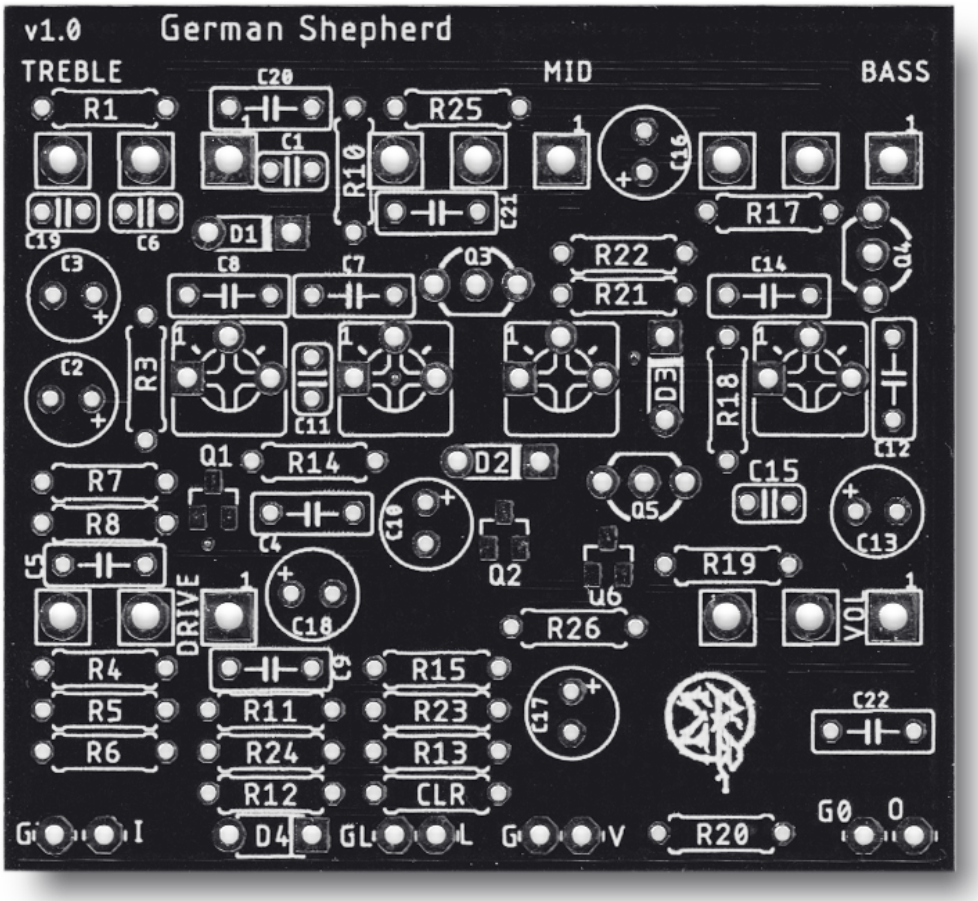
GERMAN SHEPHERD

Are you searching for a crushing, amp-like distortion sound? Look no further! Our German Shepherd is a very aggressive JFET preamp/distortion with tons of modding options. Form your sound by changing particular parts of the German Shepherd (e.g. clipping diodes) and unleash the beast!



59x54mm

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Knobs

VOL	Controls the output volume
DRIVE	Controls the amount of gain
BASS	Controls the low frequencies
MID	Controls midrange frequencies
TREBLE	Controls the high frequencies

BOM

Resistors	
R1	1M
R2	N/A
R3	1k5
R4	510k
R5	33k
R6	47k
R7	100k
R8	1k
R9	N/A
R10	43k
R11	33k
R12	22k
R13	22k
R14	100k
R15	2k
R16	N/A
R17	43k
R18	100k
R19	33k
R20	1M
R21	43k
R22	47k
R23	24k
R24	24k
R25	33k
R26	33k

Capacitors	
C1	100pF
C2	100uF(elec)
C3	22uF(elec)
C4	220nF
C5	4n7
C6	470p
C7	4n7
C8	100nF
C9	3n3
C10	100uF(elec)
C11	470pF
C12	2n2
C13	2u2(elec)
C14	47nF
C15	470pF
C16	2u2(elec)
C17	100uF(elec)
C18	100uF(elec)
C19	220pF
C20	22nF
C21	22nF
C22	470nF

Transistors	
Q1	SST5484
Q2	SST5484
Q3	2N7000
Q4	2N7000
Q5	2N7000
Q6	SST5484

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Diodes	
D1	1N4148
D2	1N4148
D3	1N4148
D4	1N4001

Potentiometers	
VOL	B1M
DRIVE	A100k
BASS	B1M
MID	A20k/A25k
TREBLE	A250k
TRIM1	100k
TRIM2	100k
TRIM3	100k
TRIM4	100k

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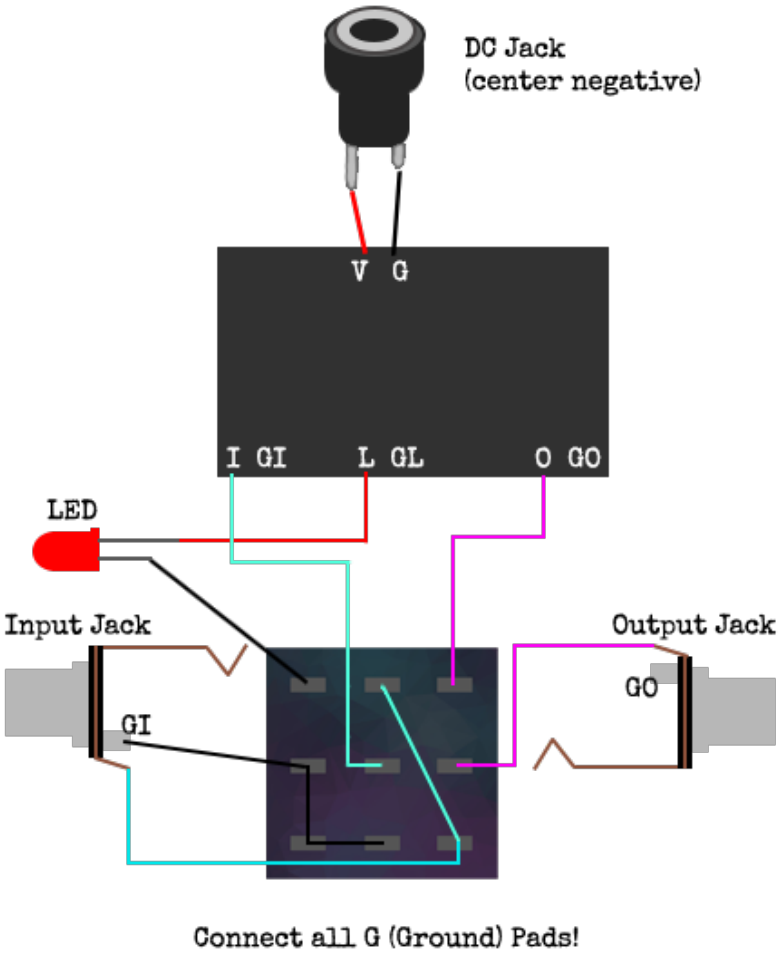
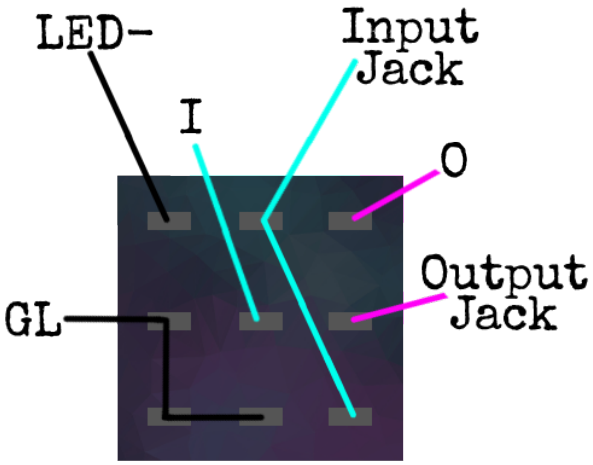
Suggestions

Beware of Counterfeit components, if you want quality products, order a kit , don't use ceramic capacitors over 1nF they tend to have microphonic characteristics in some setups.

The 2N7000 can be replaced with BS170, just flip it 180 degrees!

Wiring





Notes

This PCB requires proper JFET biasing. They need to be biased to around 4,5V but you can also do it by ear. If you want to bias them correctly, you need to hook up the PCB to a 9V power supply. Take your multimeter and connect the black (negative) tip to ground and the positive tip to „Drain“ (Have a look at the schematic, it’s marked with a „D“).
You can now read the voltage and carefully trim those pots one after another.

CLR is usually 4k7 – 10k. The value depends on how bright you like your status LED.

Mods

Try different transistors (SST5457)
Try different diodes (D1, D2, D3)
You can also tweak the tone stack to your liking

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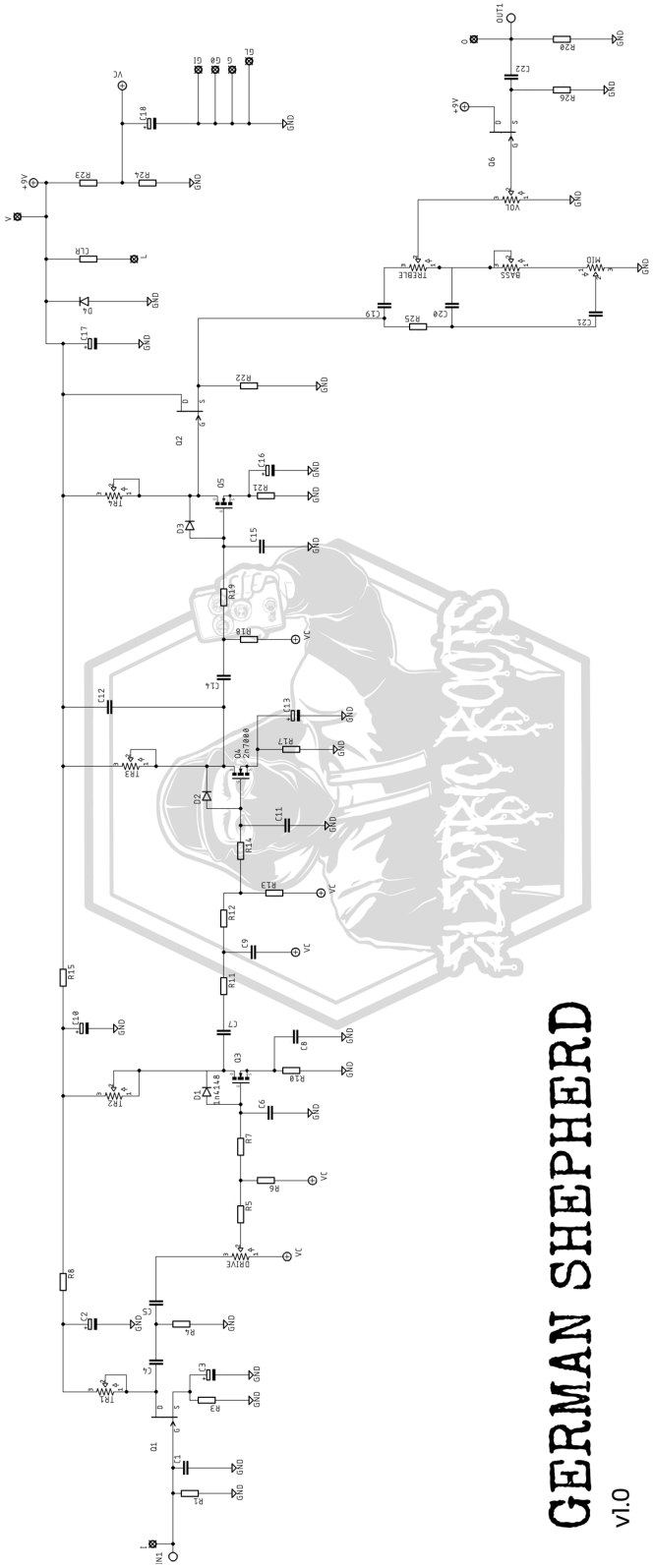
Schematic



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