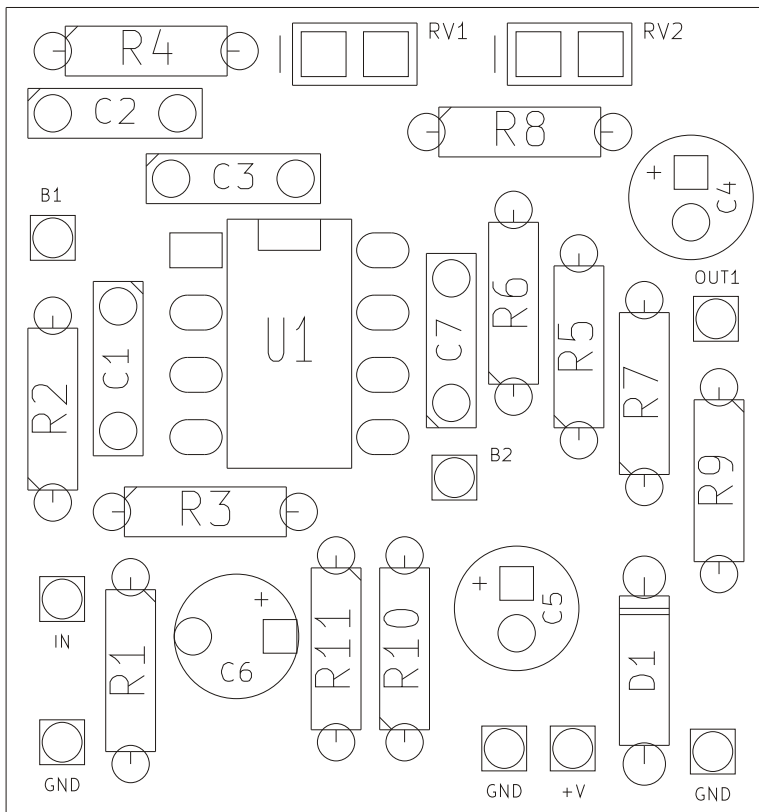


PCB parts placement diagram:

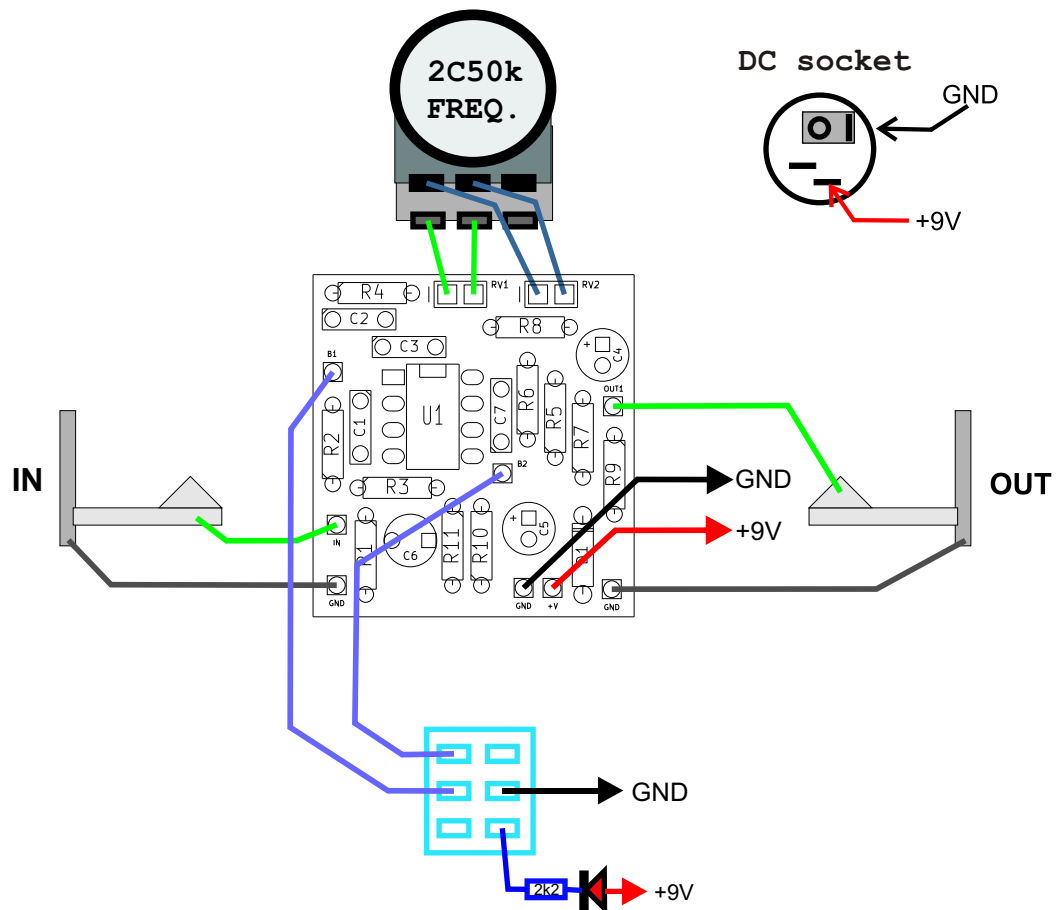


- R1 1M
- R2 1k
- R3 1M
- R4 5k6
- R5 5k6
- R6 10k
- R7 20k
- R8 100R
- R9 100k
- R10 20k
- R11 20k
- RV1, RV2 2xC50k

- C1 220n
- C2 150n
- C3 150n
- C4 10u
- C5 22u
- C6 10u
- C7 47p

- D1 5819
- U1 TL072

Wiring (bottom view):



Use metal enclosure connected to ground.
 Power supply: 9V DC

Bill of materials:

Resistors:

- 100R 1pcs. "R8"
- 1k 1pcs. "R2"
- 2k2 1pcs. "LED"
- 5k6 2pcs. "R4 R5"
- 10k 1pcs. "R6"
- 20k 3pcs. "R7 R10 R11"
- 100k 1pcs. "R9"
- 1M 2pcs. "R1 R3"

Potentiometers:

- 2C50k stereo 1pcs.

Capacitors:

- 47p 1pcs. "C7"
- 150n 2pcs. "C2 C3"
- 220n 1pcs. "C1"

Electrolytic capacitors:

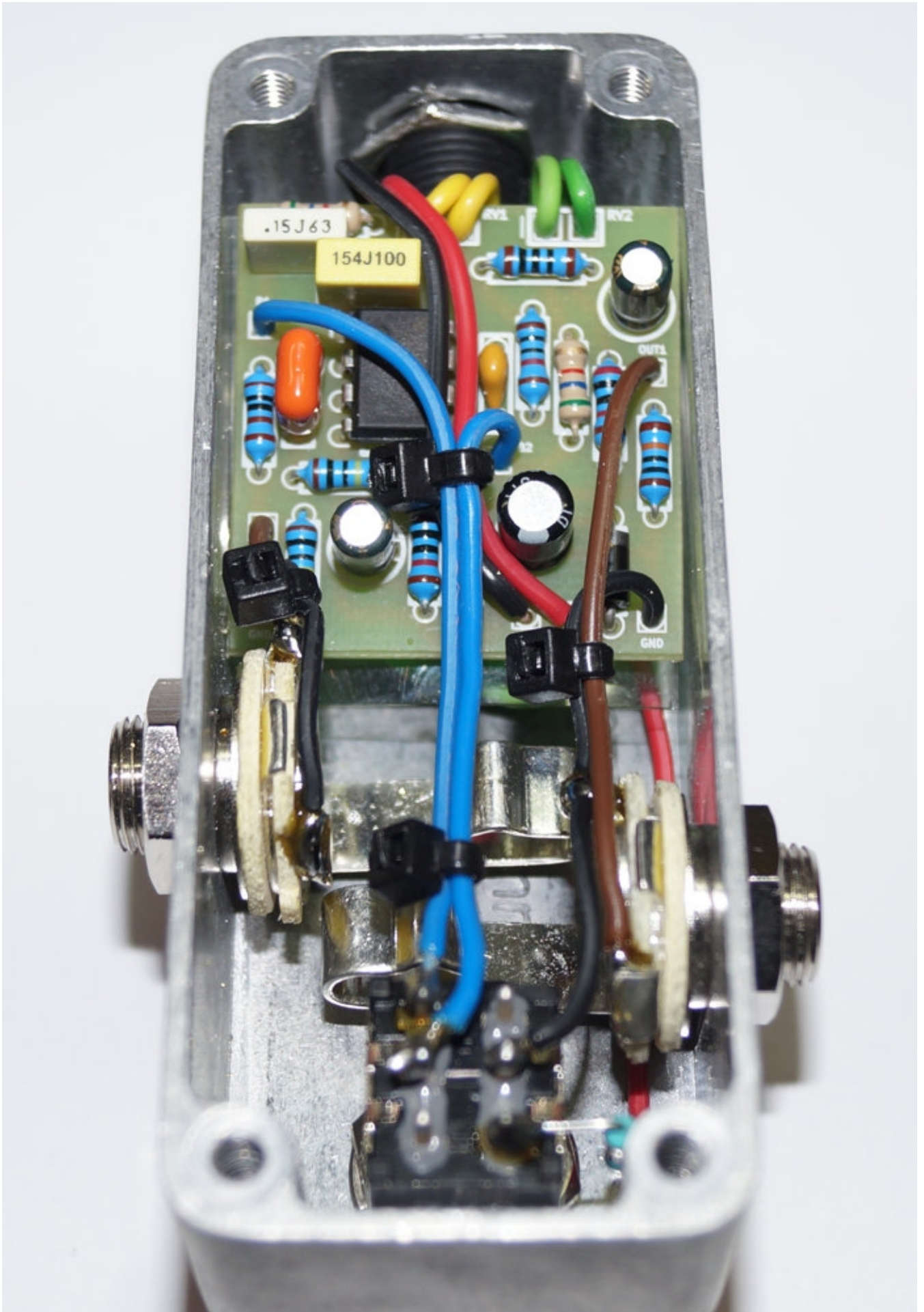
- 10u 2pcs. "C4 C6"
- 22u 1pcs. "C5"

Semiconductors:

- 1N5819 1pcs. "D1"
- TL072 1pcs. "U1"
- LED 1pcs.

Other:

- Footswitch DPDT 1pcs.
- Knob 1pcs.
- JACK socket 2pcs.
- DC 5.5/2.1 socket 1pcs.



Resistor color code:



$$390 \times 10\Omega = 3,9k\Omega$$

Color	Band 1	Band 2	Band 3	Multiplier	Tolerance
Black	0	0	0	1 Ω	
Brown	1	1	1	10 Ω	1%
Red	2	2	2	100 Ω	2%
Orange	3	3	3	1k Ω	
Yellow	4	4	4	10 k Ω	
Green	5	5	5	100 k Ω	0,5%
Blue	6	6	6	1 M Ω	0,25%
Purple	7	7	7	10 M Ω	0,1%
Gray	8	8	8	100 M Ω	0,05%
White	9	9	9	1 G Ω	
Gold				0,1 Ω	5%
Silver				0,01 Ω	10%

Capacitors markings:

$$\begin{aligned}
 471 &= 47 \times 10^1 \text{ pF} = 470 \text{ pF} \\
 472 &= 47 \times 10^2 \text{ pF} = 4700 \text{ pF} = 4,7 \text{ nF} \\
 473 &= 47 \times 10^3 \text{ pF} = 47000 \text{ pF} = 47 \text{ nF} \\
 474 &= 47 \times 10^4 \text{ pF} = 470000 \text{ pF} = 470 \text{ nF}
 \end{aligned}$$

$$\begin{aligned}
 100 \text{ pF} &= 100 \text{ p} = 100 = 101 \\
 220 \text{ pF} &= 220 \text{ p} = 220 = 221 \\
 4,7 \text{ nF} &= 4 \text{ n}7 = 0.0047 = 472 \\
 10 \text{ nF} &= 10 \text{ n} = 0.01 = 103 \\
 100 \text{ nF} &= 100 \text{ n} = 0.1 = 104 \\
 220 \text{ nF} &= 220 \text{ n} = 0.22 = 224 \\
 470 \text{ nF} &= 470 \text{ n} = 0.47 = 474 \\
 1000 \text{ nF} &= 1 \mu\text{F} = 1 \mu = 105
 \end{aligned}$$