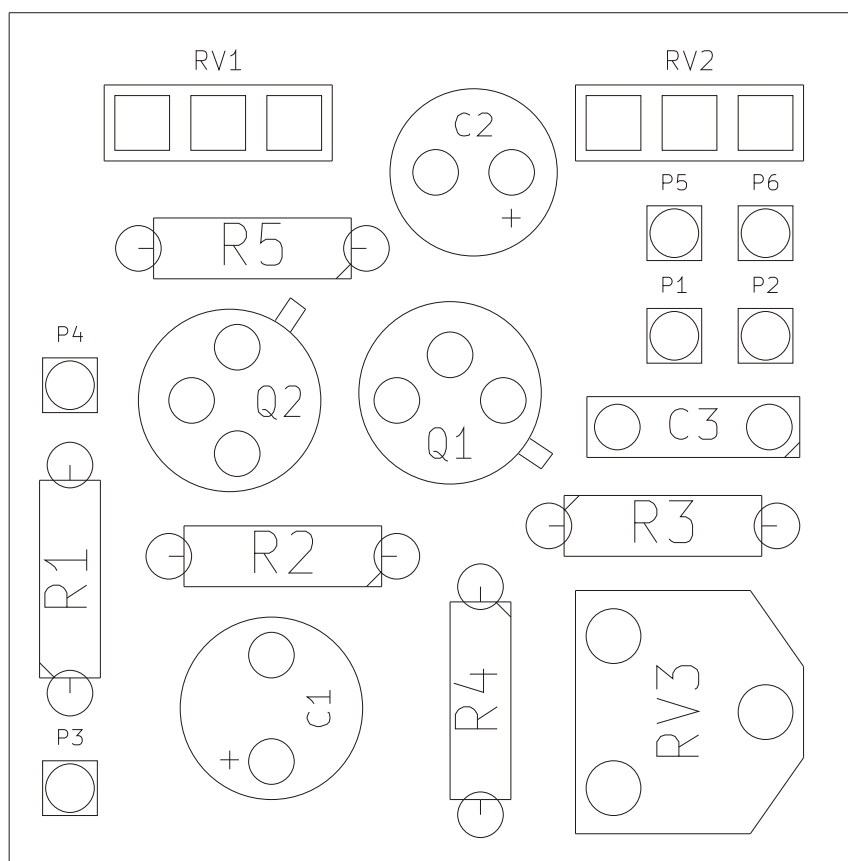


PCB parts placement diagram:



- R1 1M**
- R2 33k**
- R3 330R**
- R4 8k2***
- R5 100k**

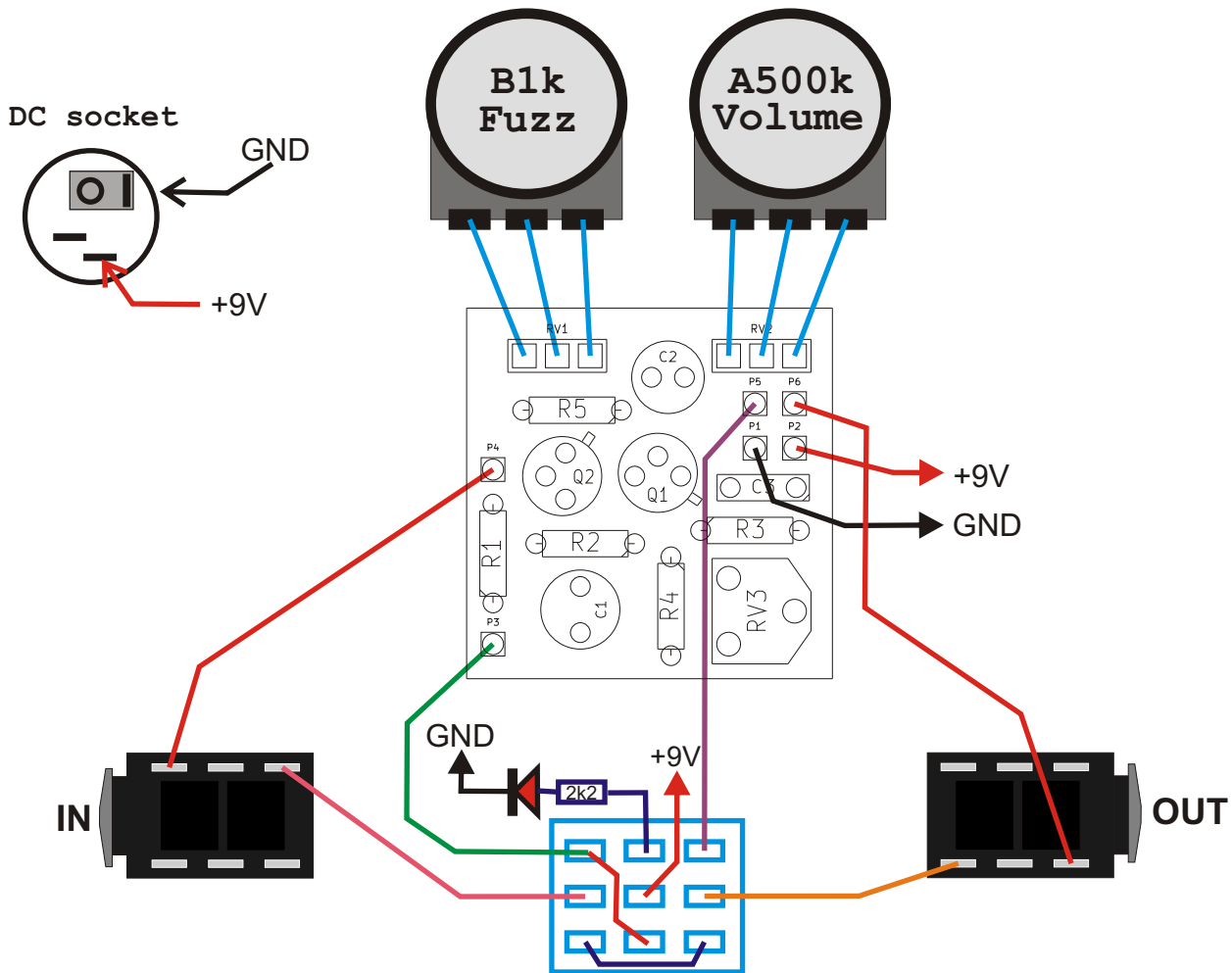
- C1 2u2**
- C2 22u**
- C3 10n**

- Q1 AC128**
- Q2 AC128**

- RV1 B1k**
- RV2 A500k**
- RV3 Tr.10k***

*In original unit R4=8k2 RV3=leave empty.
 In this version R4=leave empty RV3=10k trimpot.
 Set trimpot to get sound you like.

Wiring (bottom view):



Use separate power supply to avoid shorts via ground wire.

Bill of materials:

Resistors:

- 330R 1pcs. "R3"
- 2k2 1pcs. "LED"
- 8k2 1pcs. "R4"
- 33k 1pcs. "R2"
- 100k 1pcs. "R5"
- 1M 1pcs. "R1"

Potentiometers:

- Trimpot 10k 1pcs. "RV3"
- B1k 1pcs. "RV1"
- A500k 1pcs. "RV2"

Other:

- Knobs 2pcs.
- Footswitch 3PDT 1pcs.
- Jack socket 2pcs.
- DC socket 5.5/2.1 1pcs.

Capacitors:

- 10n 1pcs. "C3"

Electrolytic capacitors:

- 2u2 1pcs. "C1"
- 22u 1pcs. "C2"

Semiconductors:

- AC128 2pcs. "Q1 Q2"
- LED 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:

$$471 = 47 \times 10^1 \text{ pF} = 470 \text{ pF}$$

$$472 = 47 \times 10^2 \text{ pF} = 4700 \text{ pF} = 4,7 \text{ nF}$$

$$473 = 47 \times 10^3 \text{ pF} = 47000 \text{ pF} = 47 \text{ nF}$$

$$474 = 47 \times 10^4 \text{ pF} = 470000 \text{ pF} = 470 \text{ nF}$$

$$100 \text{ pF} = 100 \text{ p} = 100 = 101$$

$$220 \text{ pF} = 220 \text{ p} = 220 = 221$$

$$4,7 \text{ nF} = 4 \text{ n}7 = 0.0047 = 472$$

$$10 \text{ nF} = 10 \text{ n} = 0.01 = 103$$

$$100 \text{ nF} = 100 \text{ n} = 0.1 = 104$$

$$220 \text{ nF} = 220 \text{ n} = 0.22 = 224$$

$$470 \text{ nF} = 470 \text{ n} = 0.47 = 474$$

$$1000 \text{ nF} = 1 \mu\text{F} = 1 \mu = 105$$