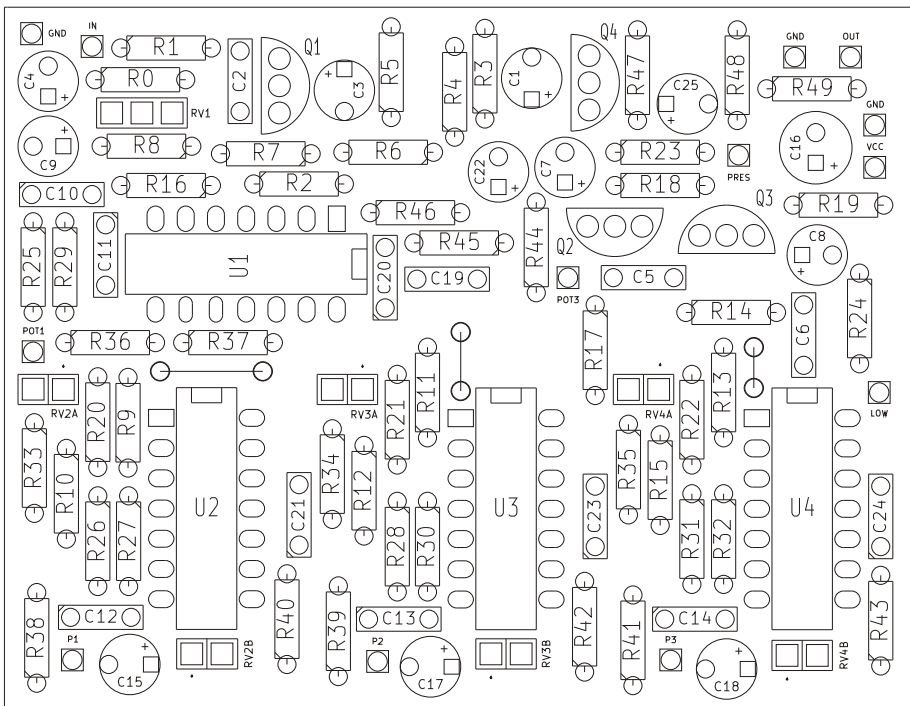


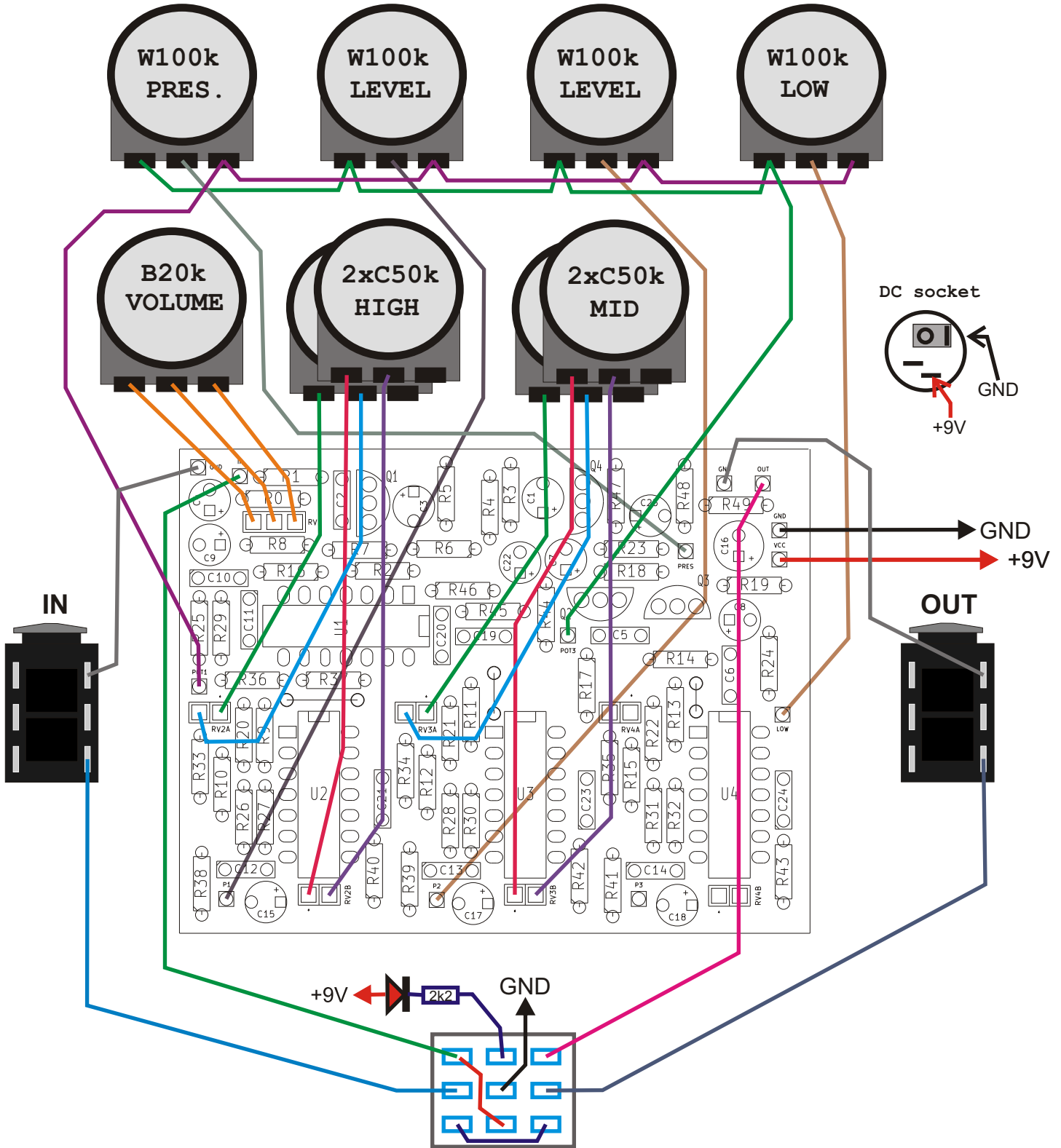
- | | |
|---------|-------------|
| R0 1M | R46 100k |
| R1 10k | R47 10k |
| R2 47k | R48 82k |
| R3 47k | R49 1k |
| R4 1M | |
| R5 10k | C1 47u |
| R6 1M | C2 47n |
| R7 10k | C3 10u |
| R8 1k5 | C4 10u |
| R9 22k | C5 2n2 |
| R10 10k | C6 100n |
| R11 22k | C7 1u |
| R12 10k | C8 1u |
| R14 18k | C9 10u |
| R16 10k | C10 1n |
| R17 10k | C11 47p |
| R18 4k7 | C12 6n8 |
| R19 4k7 | C13 33n |
| R20 22k | C15 1u |
| R21 22k | C16 100u |
| R23 4k7 | C17 1u |
| R24 4k7 | C19 1n |
| R25 47k | C20 47p |
| R26 22k | C21 6n8 |
| R27 22k | C22 2u2 |
| R28 22k | C23 33n |
| R29 10k | C25 10u |
| R30 22k | |
| R33 2k7 | Q1 BF247 |
| R34 2k7 | Q2 BC550 |
| R36 47k | Q3 BC550 |
| R37 47k | Q4 BC550 |
| R38 6k8 | |
| R39 6k8 | U1 TL074 |
| R40 2k7 | U2 TL074 |
| R42 2k7 | U3 TL074 |
| R44 47k | |
| R45 10k | RV1 B20k |
| | RV2 2x C50k |
| | RV3 2x C50k |

PCB parts placement diagram:



Parts not listed leave empty! --->

Wiring (bottom view):



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

Bill of materials:

Resistors:

1k 1pcs. "R49"
1k5 1pcs. "R8"
2k2 1pcs. "LED"
2k7 4pcs. "R33 R34 R40 R42"
4k7 4pcs. "R18 R19 R23 R24"
6k8 2pcs. "R38 R39"
10k 10pcs. "R1 R5 R7 R10 R12 R16 R17 R29 R45 R47"
18k 1pcs. "R14"
22k 8pcs. "R9 R11 R20 R21 R26 R27 R28 R30"
47k 6pcs. "R2 R3 R25 R36 R37 R44"
82k 1pcs. "R48"
100k 1pcs. "R46"
1M 3pcs. "R0 R4 R6"

Potentiometers:

B20k 1pcs. "RV1"
2xC50k 2pcs. "RV2 RV3"
W100k 4pcs. "PRES. LOW MID-LEVEL HIGH-LEVEL"

Capacitors:

47p 2pcs. "C11 C20"
1n 2pcs. "C10 C19"
2n2 1pcs. "C5"
6n8 2pcs. "C12 C21"
33n 2pcs. "C13 C23"
47n 1pcs. "C2"
100n 1pcs. "C6"

Electrolytic capacitors:

1u 4pcs. "C7 C8 C15 C17"
2u2 1pcs. "C22"
10u 4pcs. "C3 C4 C9 C25"
47u 1pcs. "C1"
100u 1pcs. "C16"

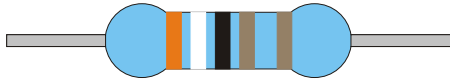
Semiconductors:

BC550 3pcs. "Q2 Q3 Q4"
BF247 1pcs. "Q1"
TL074 3pcs. "U1 U2 U3"
LED 1pcs.

Other:

Knobs 7pcs.
Footswitch 3PDT 1pcs.
JACK socket 2pcs.
DC socket 5.5/2.1 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:

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

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

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

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

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

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

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

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

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

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

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

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