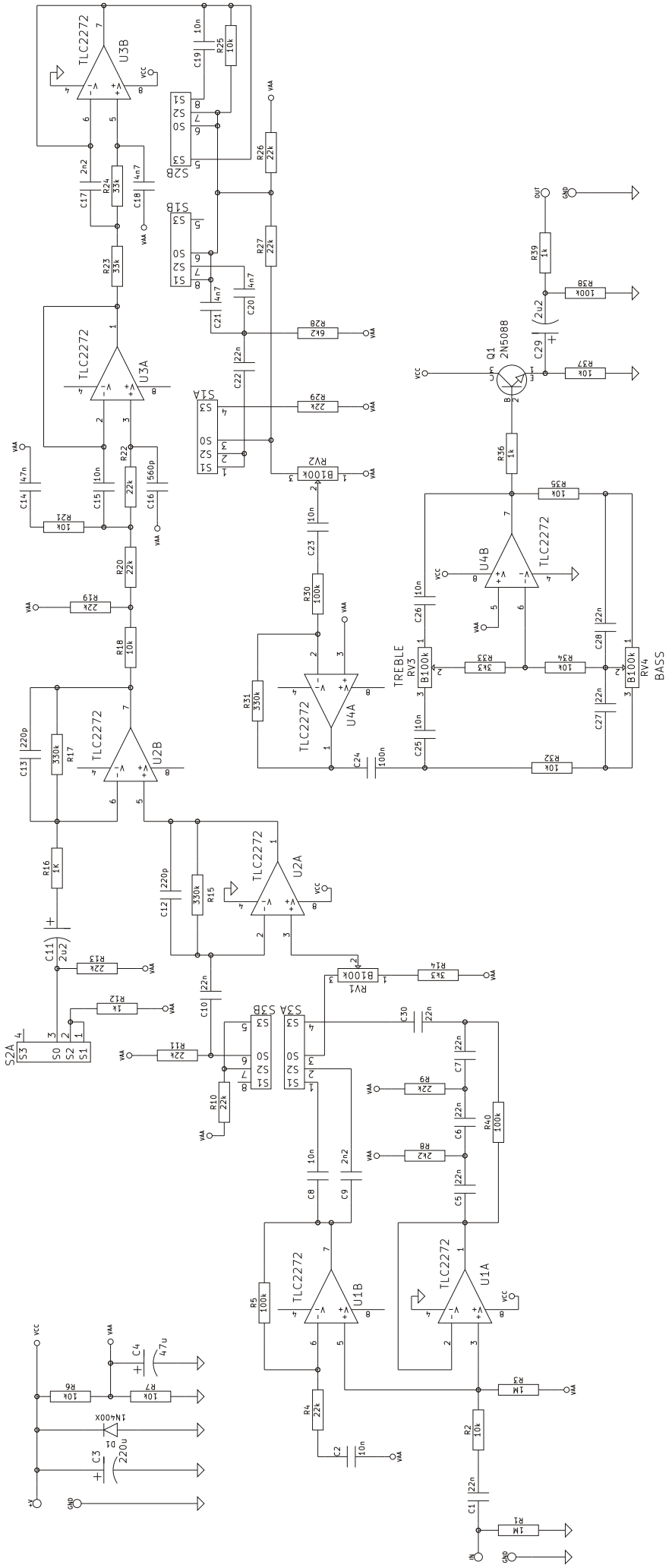
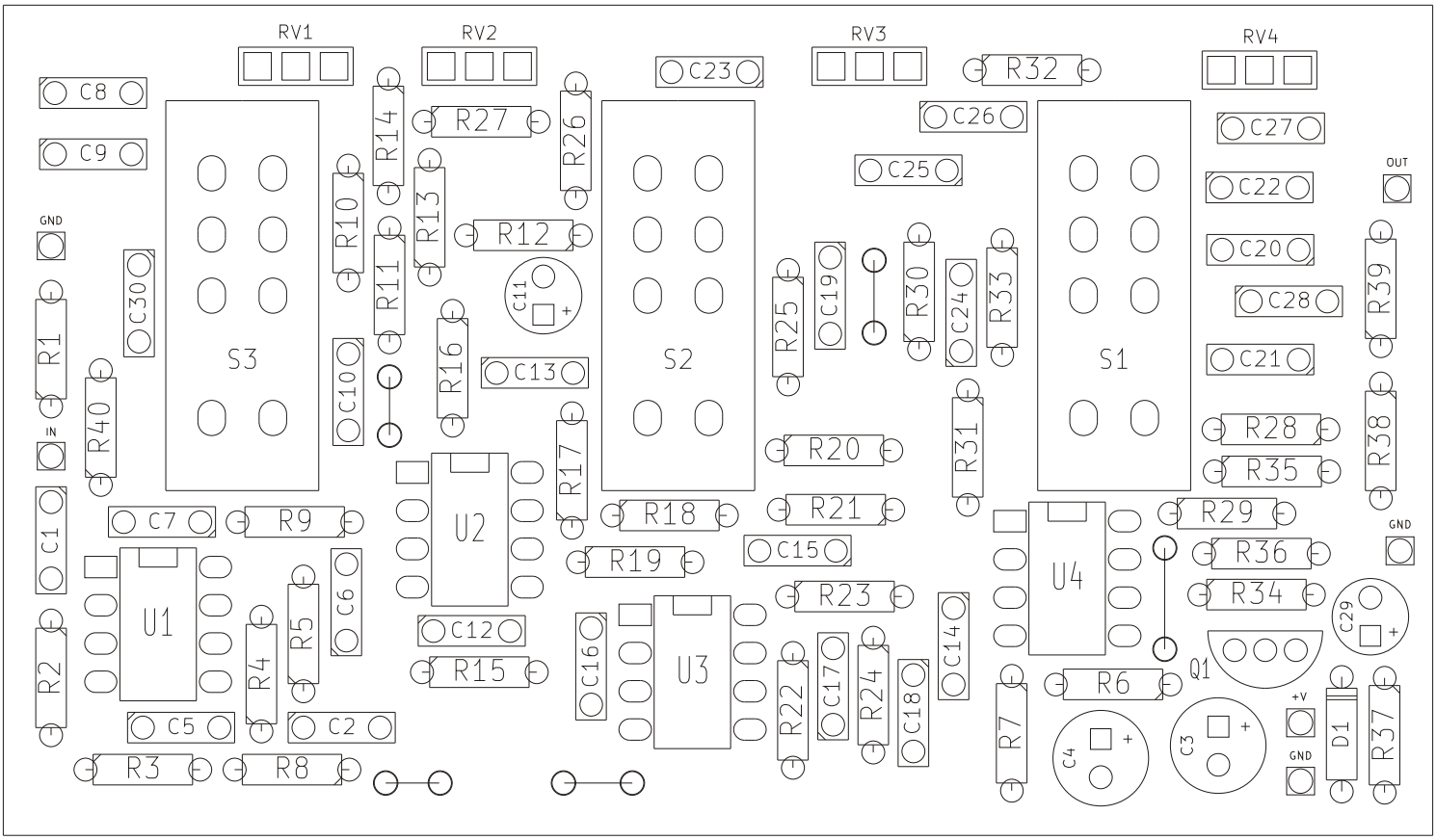
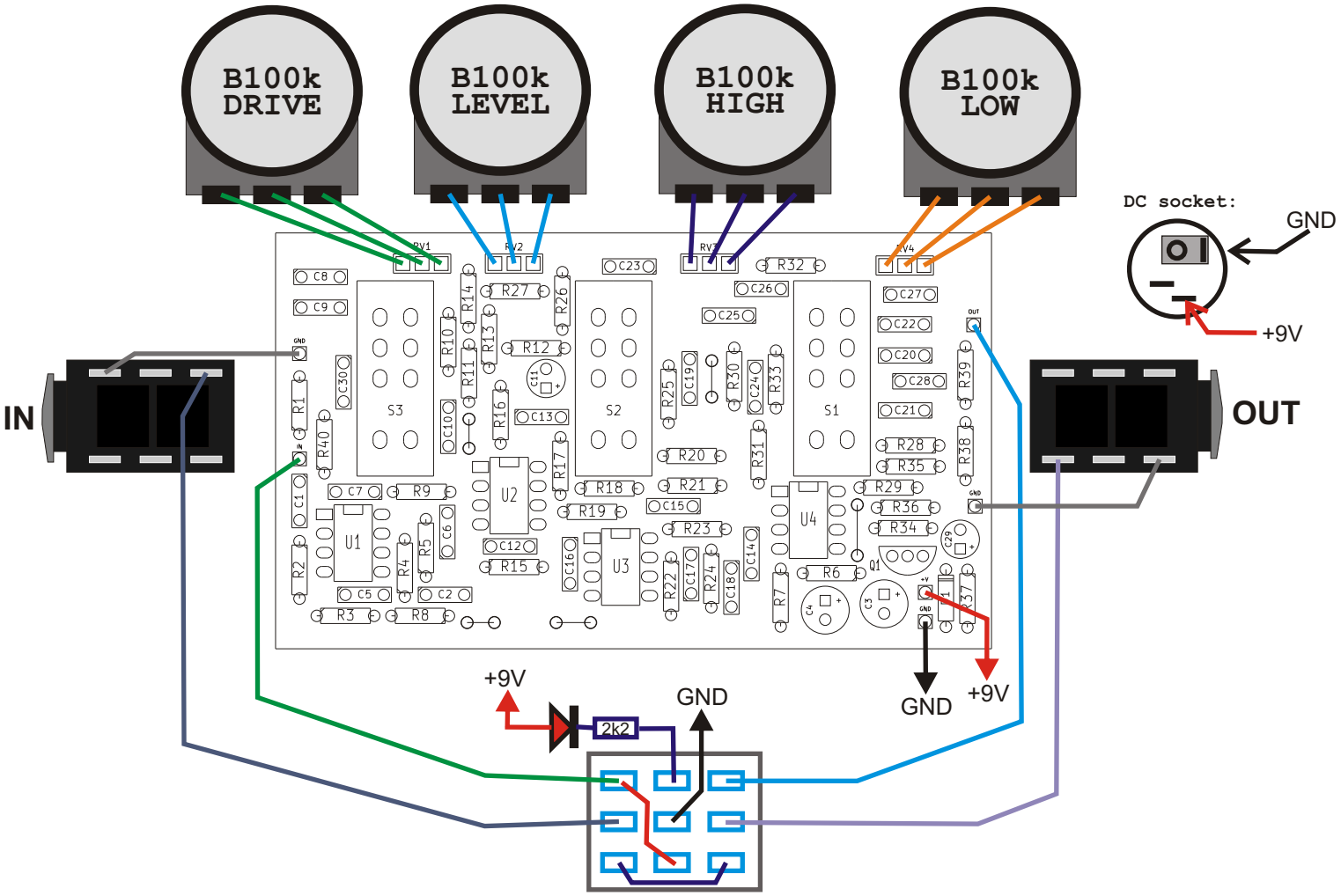

TLC2272
U3B
U3A
U2B
U2A
U4B
U4A
U1B
U1A
Q1
2N5088
TREBLE
RV3
BASS
RV4
RV1
RV2
S1A
S1B
S2A
S2B
S3A
S3B
VCC
VAA
GND
IN
OUT
1N4007
D1

PCB parts placement diagram:



R1	1M	R31	330k	C1	22n	D1	1N400X
R2	10k	R32	10k	C2	10n	Q1	2N5088
R3	1M	R33	3k3	C3	220u	U1	TLC2272
R4	22k	R34	10k	C4	47u	U2	TLC2272
R5	100k	R35	10k	C5	22n	U3	TLC2272
R6	10k	R36	1k	C6	22n	U4	TLC2272
R7	10k	R37	10k	C7	22n		
R8	2k2	R38	100k	C8	10n	S1	3WAY SWITCH
R9	22k	R39	1k	C9	2n2	S2	3WAY SWITCH
R10	22k	R40	100k	C10	22n	S3	3WAY SWITCH
R11	22k	RV1	B100k	C11	2u2		
R12	1k	RV2	B100k	C12	220p		
R13	22k	RV3	B100k	C13	220p		
R14	3k3	RV4	B100k	C14	47n		
R15	330k			C15	10n		
R16	1k			C16	560p		
R17	330k			C17	2n2		
R18	10k			C18	4n7		
R19	22k			C19	10n		
R20	22k			C20	4n7		
R21	10k			C21	4n7		
R22	22k			C22	22n		
R23	33k			C23	10n		
R24	33k			C24	100n		
R25	10k			C25	10n		
R26	22k			C26	10n		
R27	22k			C27	22n		
R28	6k2			C28	22n		
R29	22k			C29	2u2		
R30	100k			C30	22n		

Wiring (bottom view):



Use metal enclosure connected to ground. Solder 3way switches on the copper side of PCB. Power supply: 9V DC

Bill of materials:

Resistors:

1k	4pcs.	"R12 R16 R36 R39"
2k2	2pcs.	"R8 LED"
3k3	2pcs.	"R14 R33"
6k2	1pcs.	"R28"
10k	10pcs.	"R2 R6 R7 R18 R21 R25 R32 R34 R35 R37"
22k	11pcs.	"R4 R9 R10 R11 R13 R19 R20 R22 R26 R27 R29"
33k	2pcs.	"R23 R24"
100k	4pcs.	"R5 R30 R38 R40"
330k	3pcs.	"R15 R17 R31"
1M	2pcs.	"R1 R3"

Potentiometers:

B100k	4pcs.	"RV1 RV2 RV3 RV4"

Other:

Knobs	4pcs.
Footswitch 3PDT	1pcs.
Jack socket	2pcs.
DC socket 5.5/2.1	1pcs.
3way Switch	3pcs.

Capacitors:

220p	2pcs.	"C12 C13"
560p	1pcs.	"C16"
2n2	2pcs.	"C9 C17"
4n7	3pcs.	"C18 C20 C21"
10n	7pcs.	"C2 C8 C15 C19 C23 C25 C26"
22n	9pcs.	"C1 C5 C6 C7 C10 C22 C27 C28 C30"
47n	1pcs.	"C14"
100n	1pcs.	"C24"

Electrolytic capacitors:

2u2	2pcs.	"C11 C29"
47u	1pcs.	"C4"
220u	1pcs.	"C3"

Semiconductors:

TLC2272	4pcs.	"U1 U2 U3 U4"
1N400X	1pcs.	"D1"
2N5088	1pcs.	"Q1"
LED	1pcs.	

Resistor color code:

390 x 10Ω = 3,9kΩ

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 kΩ	
Green	5	5	5	100 kΩ	0,5%
Blue	6	6	6	1 MΩ	0,25%
Purple	7	7	7	10 MΩ	0,1%
Gray	8	8	8	100 MΩ	0,05%
White	9	9	9	1 GΩ	
Gold				0,1 Ω	5%
Silver				0,01 Ω	10%

Capacitors markings:

471 = 47 x 10^1 pF = 470pF
472 = 47 x 10^2 pF = 4700pF = 4,7nF
473 = 47 x 10^3 pF = 47000pF = 47nF
474 = 47 x 10^4 pF = 470000pF = 470nF

100pF	100p	100	101
220pF	220p	220	221
4,7nF	4n7	0.0047	472
10nF	10n	0.01	103
100nF	100n	0.1	104
220nF	220n	0.22	224
470nF	470n	0.47	474
1000nF	1uF	1u	105