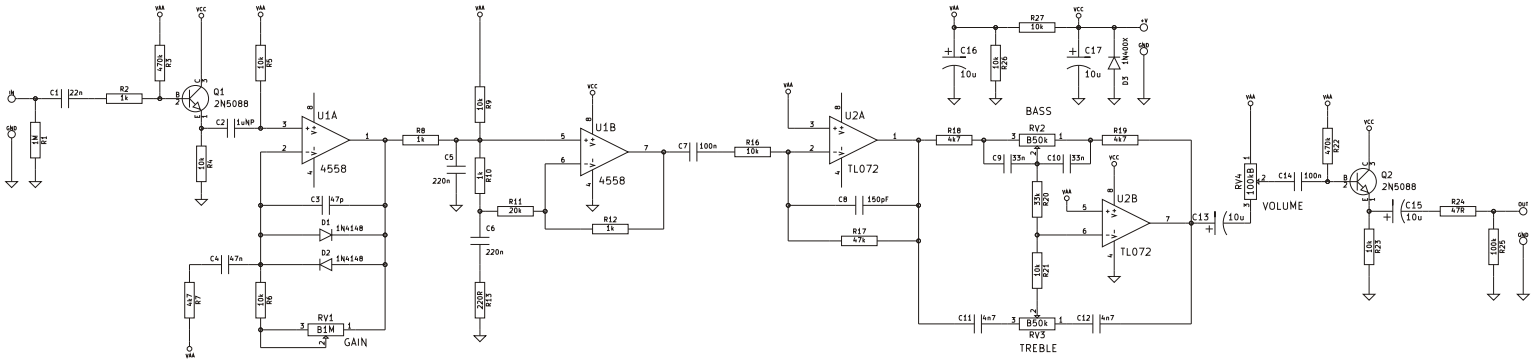
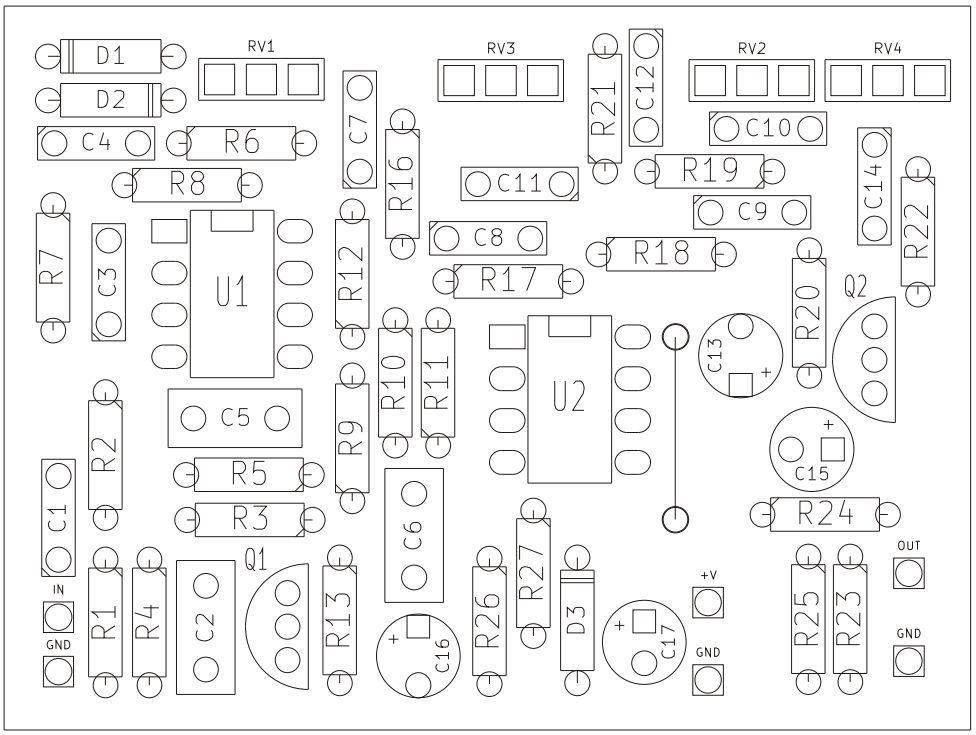
BB Preamp™ schematic: **10.02.2019**

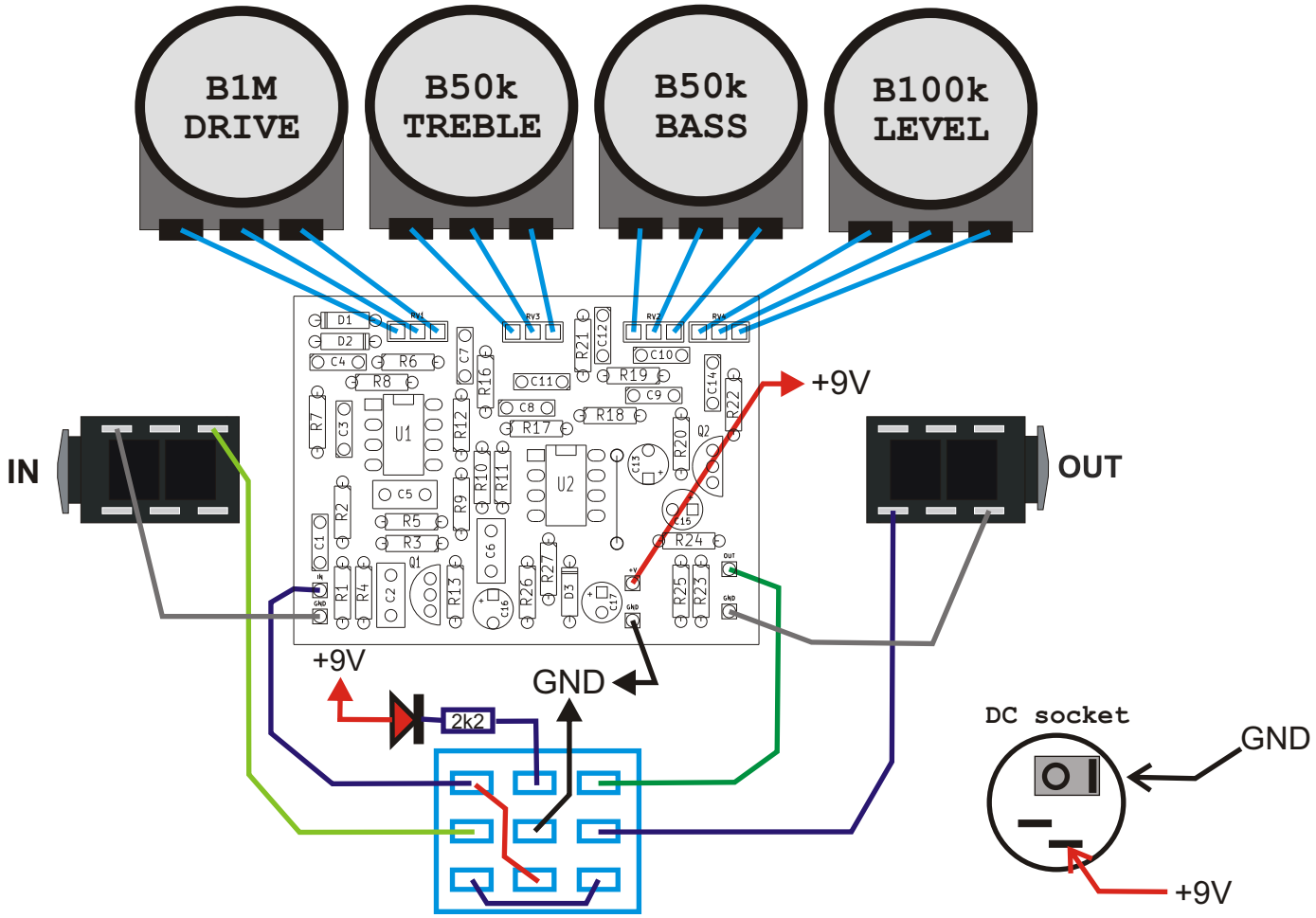


PCB parts placement diagram:



R1	1M	C1	22n
R2	1k	C2	1u
R3	470k	C3	47p
R4	10k	C4	47n
R5	10k	C5	220n
R6	10k	C6	220n
R7	4k7	C7	100n
R8	1k	C8	150p
R9	10k	C9	33n
R10	1k	C10	33n
R11	20k	C11	4n7
R12	1k	C12	4n7
R13	220R	C13	10u
R16	10k	C14	100n
R17	47k	C15	10u
R18	4k7	C16	10u
R19	4k7	C17	10u
R20	33k		
R21	10k		
R22	470k	D1	1N4148
R23	10k	D2	1N4148
R24	47R	D3	1N400X
R25	100k	Q1	2N5088
R26	10k	Q2	2N5088
R27	10k	U1	4558
RV1	B1M	U2	TL072
RV2	B50k		
RV3	B50k		
RV4	100kB		

Wiring (bottom view):



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

Bill of materials:

Resistors:

47R	1pcs.	"R24"
220R	1pcs.	"R13"
1k	4pcs.	"R2 R8 R10 R12"
2k2	1pcs.	"LED"
4k7	3pcs.	"R7 R18 R19"
10k	9pcs.	"R4 R5 R6 R9 R16 R21 R23 R26 R27"
20k	1pcs.	"R11"
33k	1pcs.	"R20"
47k	1pcs.	"R17"
100k	1pcs.	"R25"
470k	2pcs.	"R3 R22"
1M	1pcs.	"R1"

Potentiometers:

100kB	1pcs.	"RV4"
B1M	1pcs.	"RV1"
B50k	2pcs.	"RV2 RV3"

Other:

Knobs	4pcs.
Footswitch 3PDT	1pcs.
Jack socket 6,3mm	2pcs.
DC socket 5.5/2.1	1pcs.

Capacitors:

47p	1pcs.	"C3"
150p	1pcs.	"C8"
4n7	2pcs.	"C11 C12"
22n	1pcs.	"C1"
33n	2pcs.	"C9 C10"
47n	1pcs.	"C4"
100n	2pcs.	"C7 C14"
220n	2pcs.	"C5 C6"
1u	1pcs.	"C2"

Electrolytic capacitors:

10u	4pcs.	"C13 C15 C16 C17"

Semiconductors:

1N4148	2pcs.	"D1 D2"
1N400X	1pcs.	"D3"
2N5088	2pcs.	"Q1 Q2"
4558	1pcs.	"U1"
TL072	1pcs.	"U2"
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