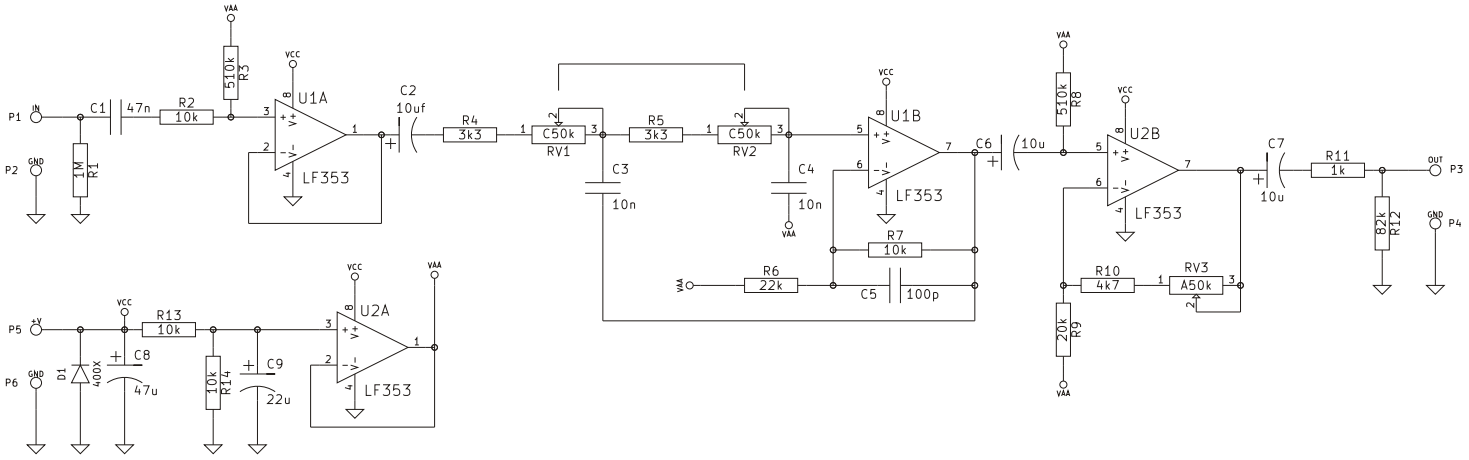
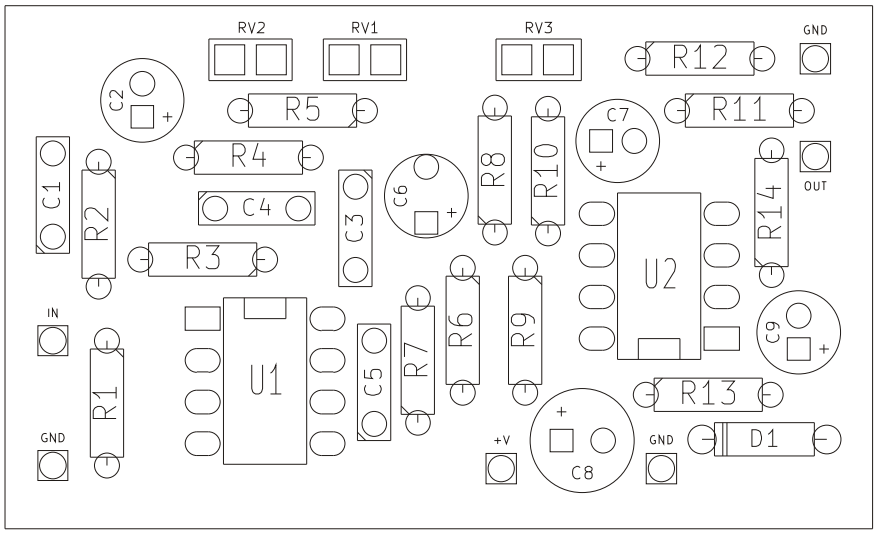
Hi Cut / LPF Filter schematic: **21.02.2019**



PCB parts placement diagram:



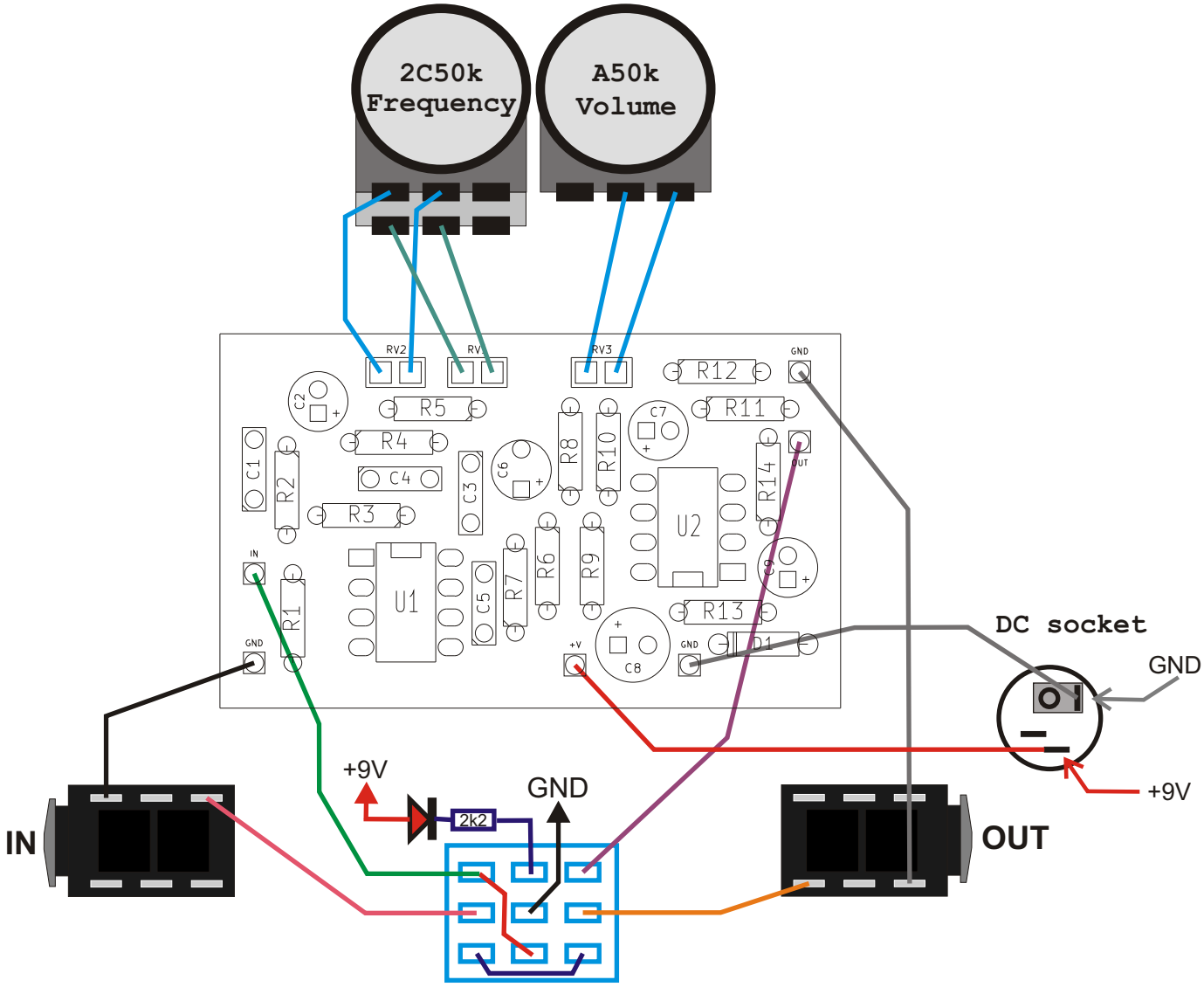
R1 1M
R2 10k
R3 510k
R4 3k3
R5 3k3
R6 22k
R7 10k
R8 510k
R9 20k
R10 4k7
R11 1k
R12 82k
R13 10k
R14 10k

RV1 C50k
RV2 C50k
RV3 A50k

C1 47n
C2 10u
C3 10n
C4 10n
C5 100p
C6 10u
C7 10u
C8 47u
C9 22u

D1 1N400X
U1 LF353

Wiring (bottom view):



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

Bill of materials:

Resistors:

2k2	1pcs.	"LED"
1k	1pcs.	"R11"
3k3	2pcs.	"R4 R5"
4k7	1pcs.	"R10"
10k	4pcs.	"R2 R7 R13 R14"
20k	1pcs.	"R9"
22k	1pcs.	"R6"
82k	1pcs.	"R12"
510k	2pcs.	"R3 R8"
1M	1pcs.	"R1"

Potentiometers:

2C50k	1pcs.	"RV1 RV2"
A50k	1pcs.	"RV3"

Semiconductors:

1N400X	1pcs.	"D1"
LF353	1pcs.	"U1"
LED	1pcs.	

Capacitors:

100p	1pcs.	"C5"
10n	2pcs.	"C3 C4"
47n	1pcs.	"C1"

Electrolytic capacitors:

10u	3pcs.	"C2 C6 C7"
22u	1pcs.	"C9"
47u	1pcs.	"C8"

Other:

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