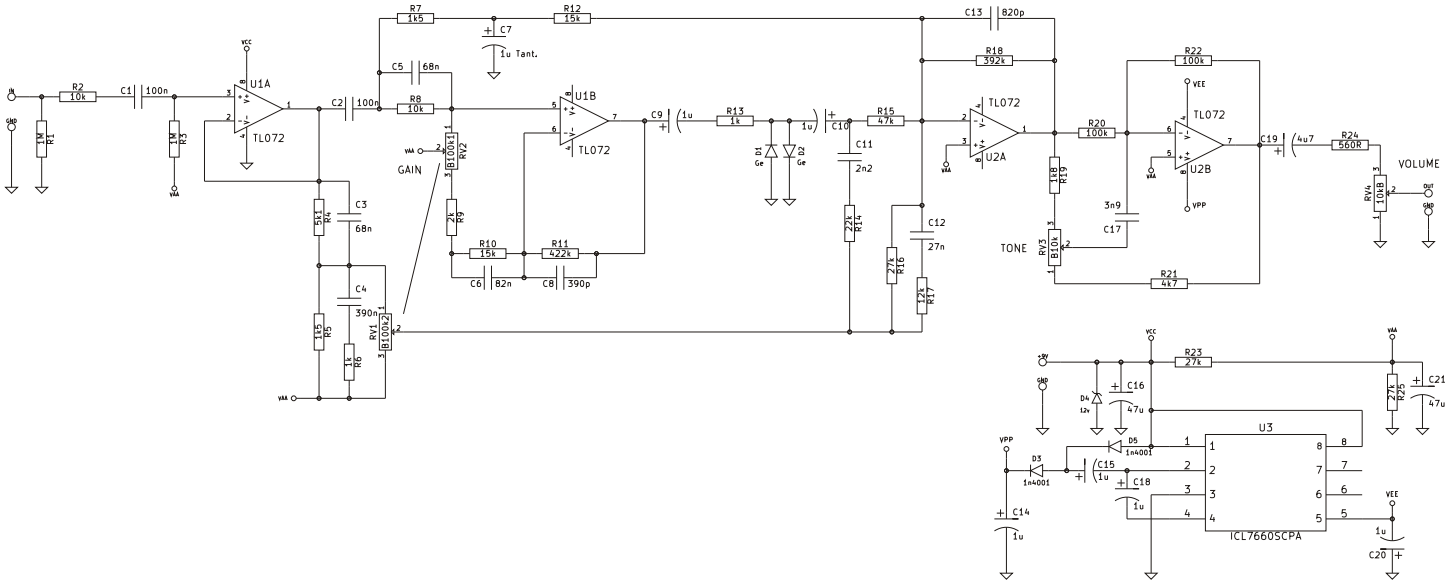
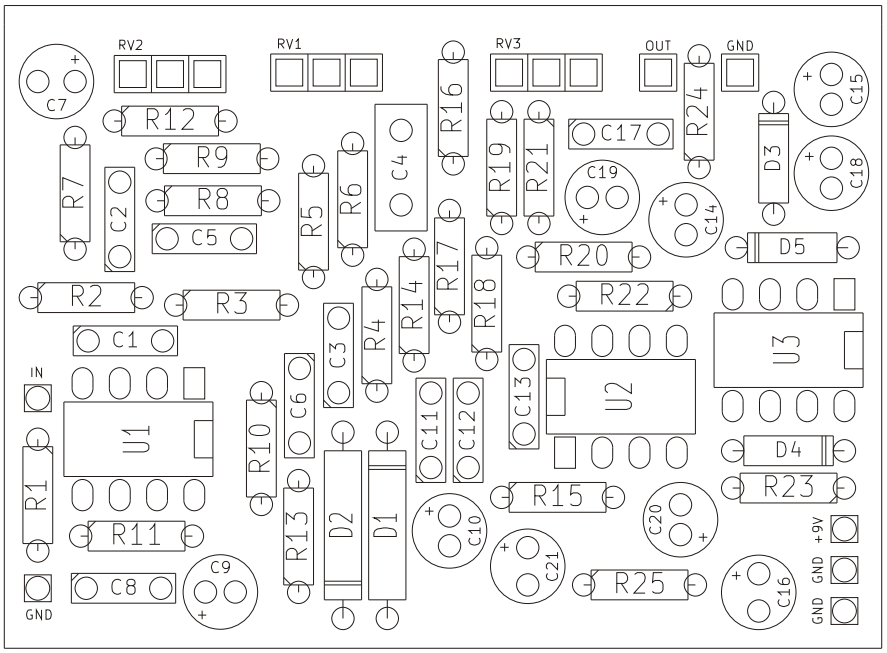
Klon Centaur schematic: **20.07.2021**



PCB parts placement diagram:



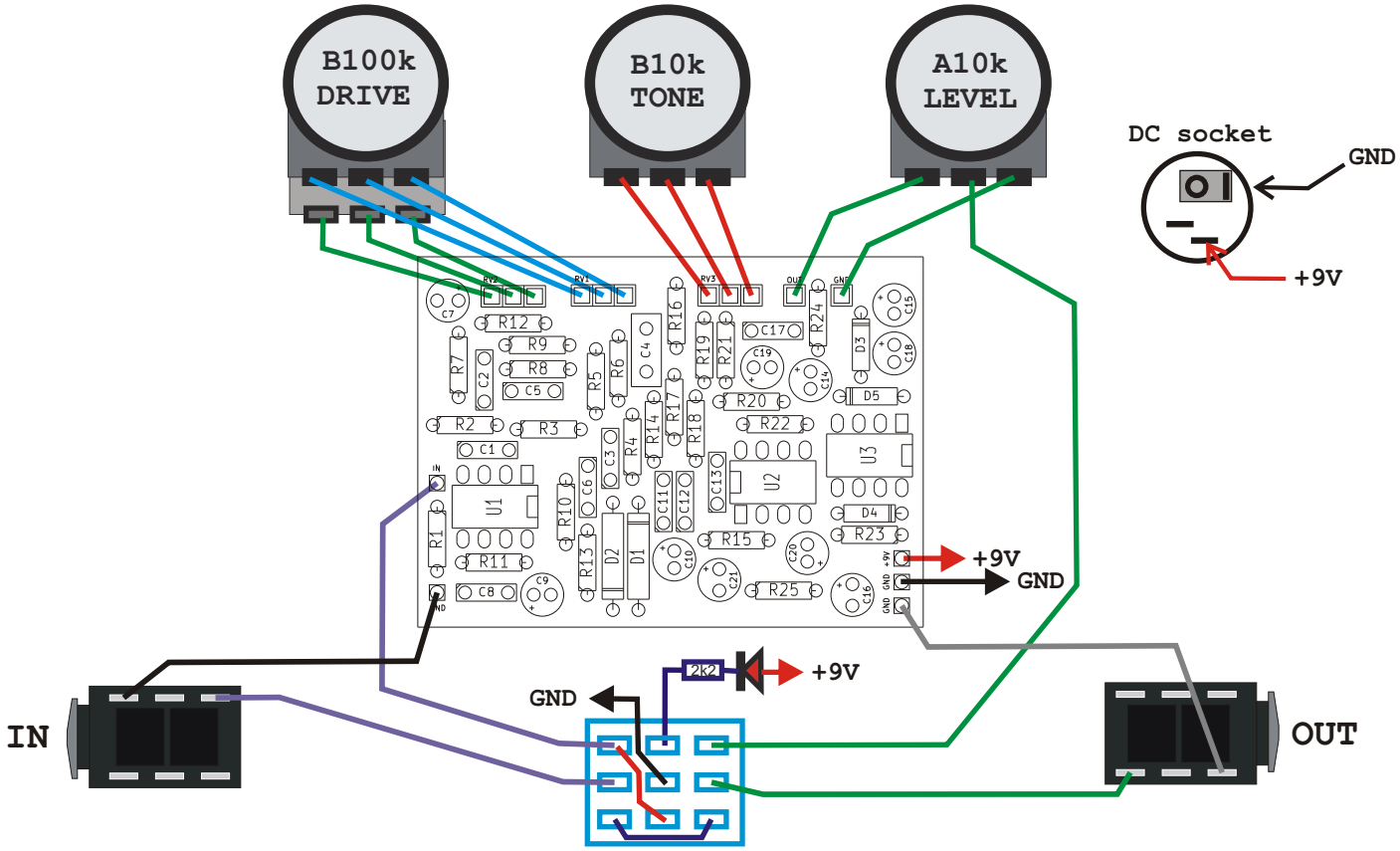
D1 1N34A
D2 1N34A
D3 1n4001
D4 Zener 12v
D5 1n4001
U1 TL072
U2 TL072
U3 ICL7660S

RV1/RV2 B100k stereo
RV3 B10k
RV4 A10k

R1 1M
R2 10k
R3 1M
R4 5k1
R5 1k5
R6 1k
R7 1k5
R8 10k
R9 2k
R10 15k
R11 422k
R12 15k
R13 1k
R14 22k
R15 47k
R16 27k
R17 12k
R18 392k
R19 1k8
R20 100k
R21 4k7
R22 100k
R23 27k
R24 560R
R25 27k

C1 100n
C2 100n
C3 68n
C4 390n
C5 68n
C6 82n
C7 1u Tant.
C8 390p
C9 1u
C10 1u
C11 2n2
C12 27n
C13 820p
C14 1u
C15 1u
C16 47u
C17 3n9
C18 1u
C19 4u7
C20 1u
C21 47u

3. Wiring (bottom view):



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

Bill of materials:

Resistors:

1pcs.	560R	"R24"
2pcs.	1k	"R6 R13"
2pcs.	1k5	"R5 R7"
1pcs.	1k8	"R19"
1pcs.	2k	"R9"
1pcs.	2k2	"LED"
1pcs.	4k7	"R21"
1pcs.	5k1	"R4"
2pcs.	10k	"R2 R8"
1pcs.	12k	"R17"
2pcs.	15k	"R10 R12"
1pcs.	22k	"R14"
3pcs.	27k	"R16 R23 R25"
1pcs.	47k	"R15"
2pcs.	100k	"R20 R22"
1pcs.	392k	"R18"
1pcs.	422k	"R11"
2pcs.	1M	"R1 R3"

Potentiometers:

1pcs.	2xB100k	"RV1/RV2"
1pcs.	B10k	"Rv3"
1pcs.	A10k	"Rv4"

Capacitors:

1pcs.	390p	"C8"
1pcs.	820p	"C13"
1pcs.	2n2	"C11"
1pcs.	3n9	"C17"
1pcs.	27n	"C12"
2pcs.	68n	"C3 C5"
1pcs.	82n	"C6"
2pcs.	100n	"C1 C2"
1pcs.	390n	"C4"

Electrolytic capacitors:

1pcs.	1u Tant.	"C7"
6pcs.	1u	"C9 C10 C14 C15 C18 C20"
1pcs.	4u7	"C19"
2pcs.	47u	"C16 C21"

Other:

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

Semiconductors:

2pcs.	1n4002	"D3 D5"
2pcs.	1N34A	"D1 D2"
1pcs.	Zener12v	"D4"
2pcs.	Tl072	"U1 U2"
1pcs.	ICL7660S	"U3"
1pcs.	LED	

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