

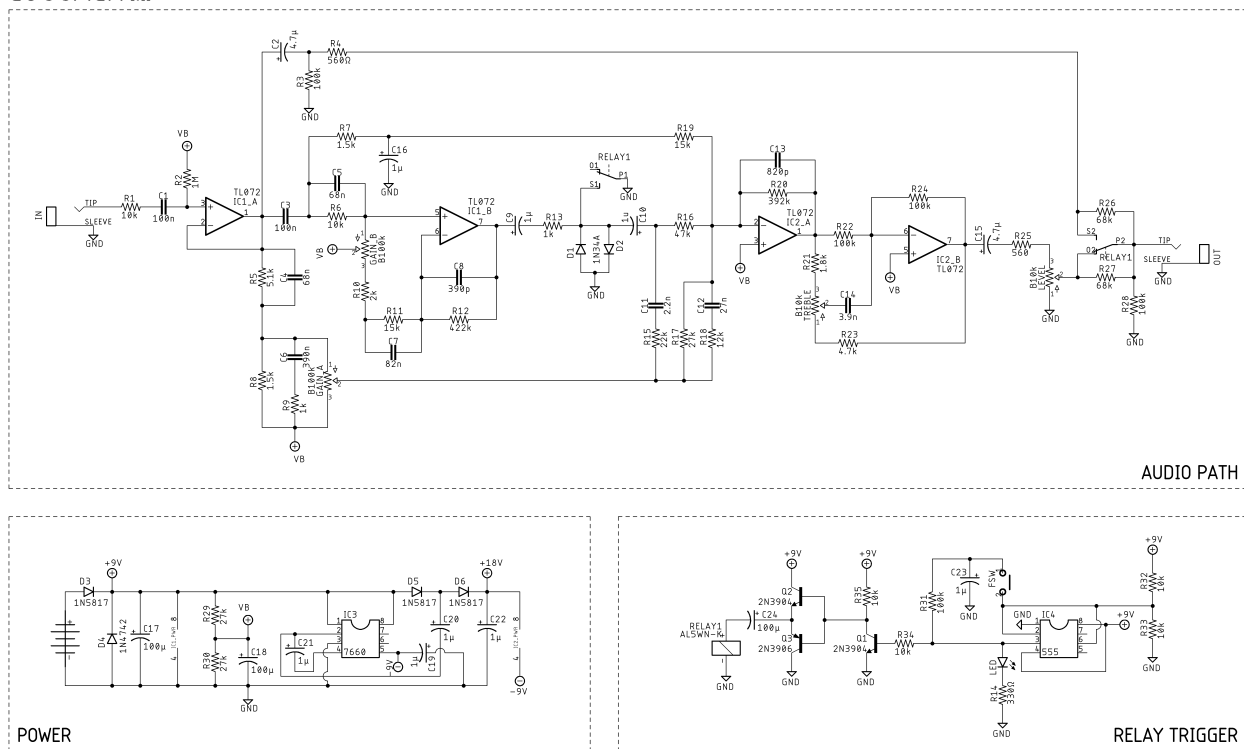
# КОЗАК

## DESCRIPTION

The КОЗАК (COSSACK) is a pretty standard Klone with soft touch relay bypass. This board came about from the Pedals for Ukraine fundraising initiative put together by matmosphere. I picked КОЗАК for the name as the Zaporozhian Cossacks have a long history of fighting for the freedom of Ukraine and are one of the country's national symbols. The horseman imagery is based on the Bohdan Khmelnytsky Monument, depicting the first Hetman of the Zaporizhian Host (a Ukrainian Cossack state in the 17-18th centuries) in Sophia Square in Kyiv.

## SCHEMATIC

### COSSACK EFFECTS LAYOUTS 2022



## BOM

### Resistors

R1	10k
R2	1M
R3	100k
R4	560Ω
R5	5.1k
R6	10k
R7	1.5k
R8	1.5k
R9	1k
R10	2k
R11	15k
R12	422k
R13	1k
R14	330Ω
R15	22k
R16	47k
R17	27k
R18	12k
R19	15k
R20	392k
R21	1.8k
R22	100k
R23	4.7k
R24	100k
R25	560Ω
R26	68k
R27	68k
R28	100k
R29	27k
R30	27k
R31	100k
R32	10k
R33	10k
R34	10k
R35	10k

### Capacitors

C1	100n
C2	4.7μ
C3	100n
C4	68n
C5	68n

C6	390n
C7	82n
C8	390p
C9	1μ
C10	1μ
C11	2.2n
C12	27n
C13	820p
C14	3.9n
C15	4.7μ
C16	1μ
C17	100μ
C18	100μ
C19	1μ
C20	1μ
C21	1μ
C22	1μ
C23	1μ
C24	100μ

### Semiconductors

D1	1N34A
D2	1N34A
D3	1N5817
D4	1N4742
D5	1N5817
D6	1N5817
IC1	TL072
IC2	TL072
IC3	7660 or MAX1044
IC4	555
LED	3 or 5mm
Q1	2N3904 (or similar NPN)
Q2	2N3904 (or similar NPN)
Q3	2N3906 (or similar PNP)

### Electromechanical

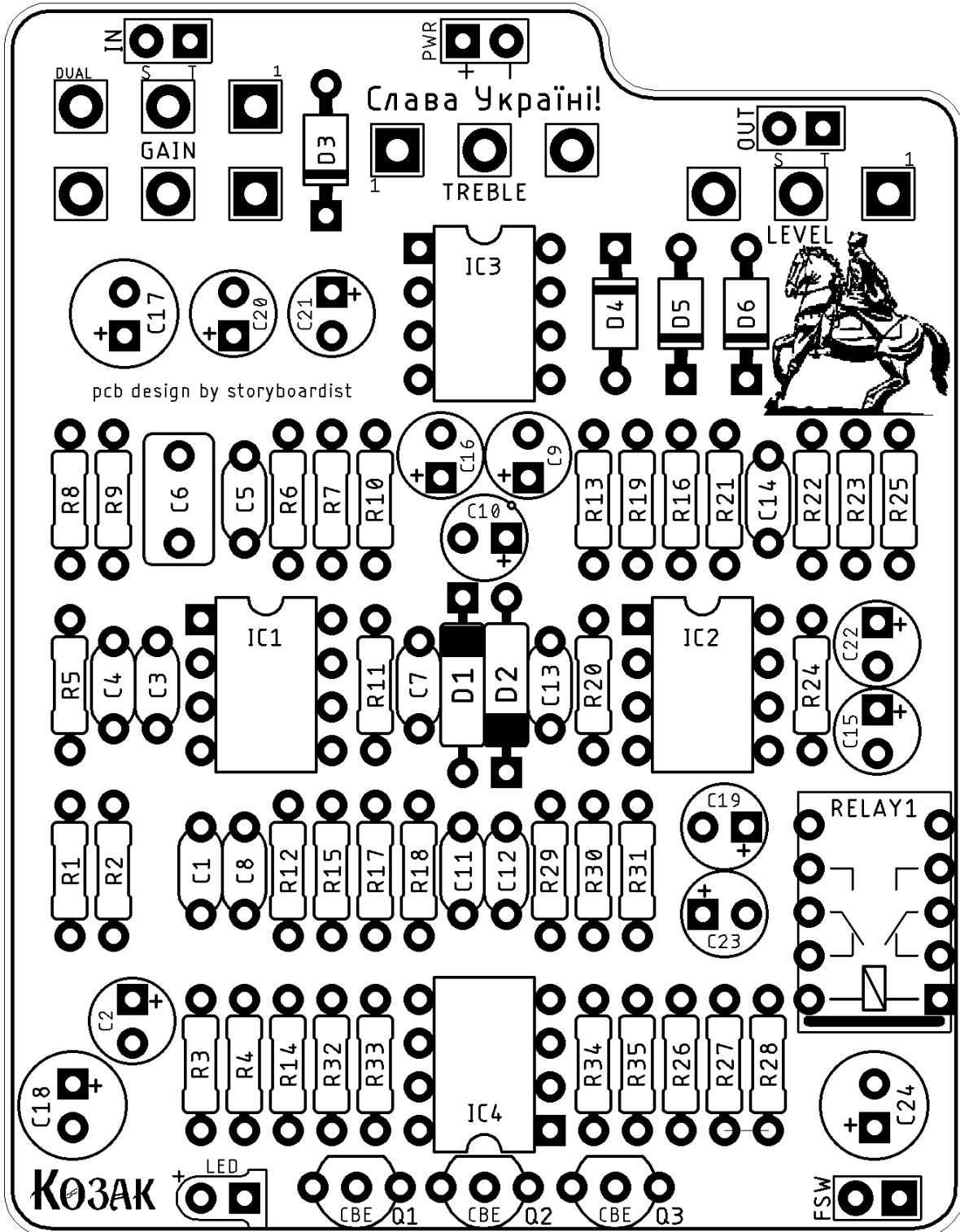
Fsw	Momentary footswitch (normally open)
Gain	B100k Dual Gang
Level	B10k
Relay1	AL5WN-K or similar
Treble	B10k

## SHOPPING LIST

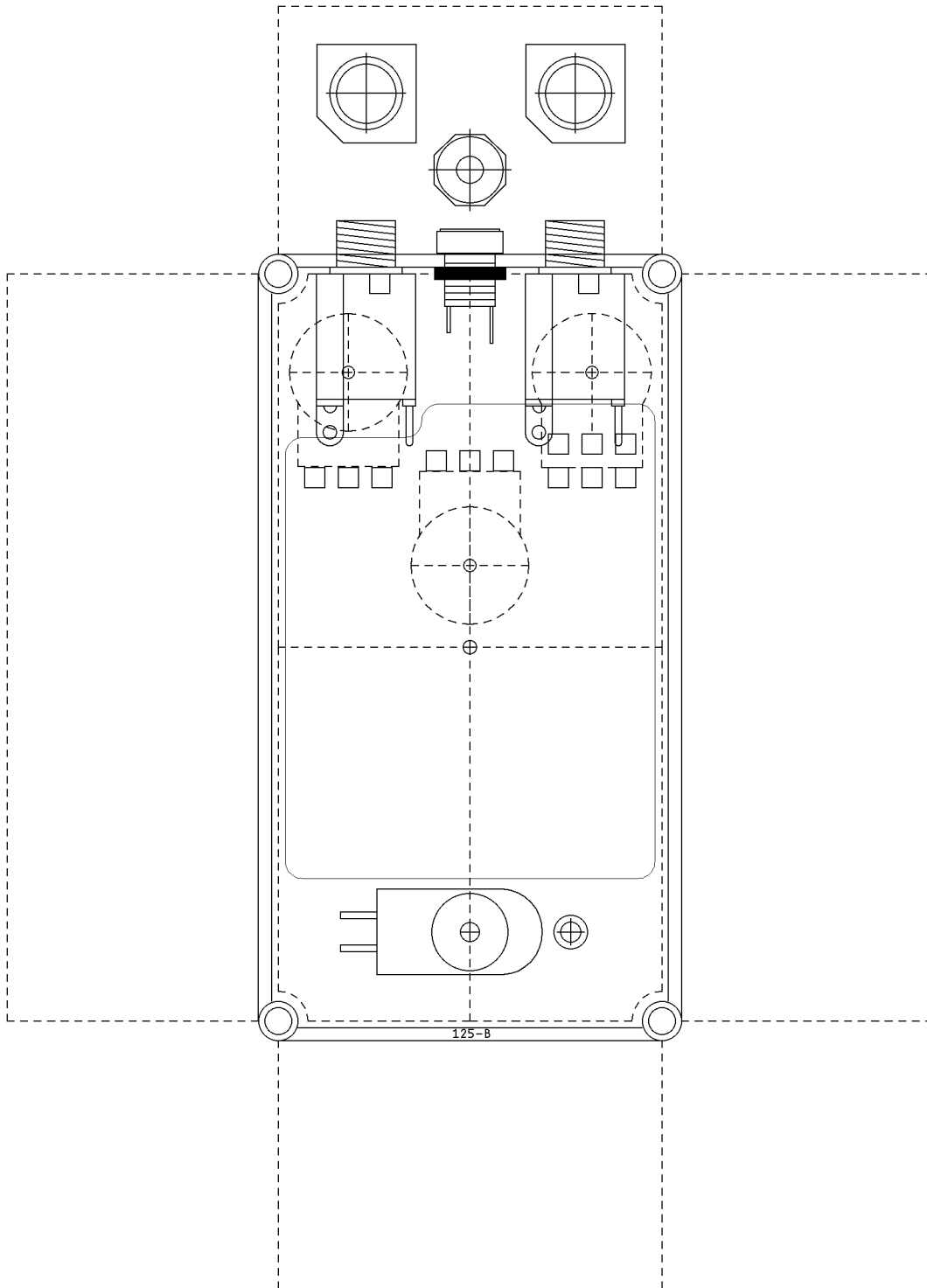
Value	Type (suggested)	Quantity
330Ω	¼ watt metal or carbon film	1
560Ω	¼ watt metal or carbon film	2
1k	¼ watt metal or carbon film	2
1.5k	¼ watt metal or carbon film	2
1.8k	¼ watt metal or carbon film	1
2k	¼ watt metal or carbon film	1
4.7k	¼ watt metal or carbon film	1
5.1k	¼ watt metal or carbon film	1
10k	¼ watt metal or carbon film	6
12k	¼ watt metal or carbon film	1
15k	¼ watt metal or carbon film	2
22k	¼ watt metal or carbon film	1
27k	¼ watt metal or carbon film	3
47k	¼ watt metal or carbon film	1
68k	¼ watt metal or carbon film	2
100k	¼ watt metal or carbon film	5
392k	¼ watt metal or carbon film	1
422k	¼ watt metal or carbon film	1
1M	¼ watt metal or carbon film	1
390p	Ceramic	1
820p	Ceramic	1
2.2n	Film	1
3.9n	Film	1
27n	Film	1
68n	Film	2
82n	Film	1
100n	Film	2
390n	Film	1
1μ	Electrolytic (25v+)	8
4.7μ	Electrolytic (25v+)	2
100μ	Electrolytic (25v+)	3
1N34A	Germanium diode	2
1N4742	12v zener diode	1
1N5817	Schottky rectifier diode	3
2N3904	NPN BJT	2
2N3906	PNP BJT	1
555	Timer	1
7660/MAX1044	Charge pump	1
LED	3 or 5mm	1
TL072	Dual opamp	2
AL5WN-K	5v latching DPDT relay	1
B10k	16mm right angle PC mount	2

B100k	16mm right angle dual gang PC mount	1
Footswitch	Normally open momentary footswitch	1

LAYOUT



**DRILL TEMPLATE (125B)**



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Not for non-peer to peer resale.