

Dazatronyx Black Russian Kit - Bill of Materials

Parts	Qty	Value	Markings / notes
Resistors & Inductor			
R10, R21, R22	3	390Ω	Metal film, 1/4W, ORG , WHT , BLK , BLK , BRN
R23, R24 (CLR)	2	1K	Metal film, 1/4W, BRN , BLK , BLK , BRN , BRN
R4	1	2K7	Metal film, 1/4W, RED , VIO , BLK , BRN , BRN
R6, R12, R19	3	10K	Metal film, 1/4W, BRN , BLK , BLK , RED , BRN
R11, R13, R18	3	12K	Metal film, 1/4W, BRN , RED , BLK , RED , BRN
R8	1	20K	Metal film, 1/4W, RED , BLK , BLK , RED , BRN
R5	1	22K	Metal film, 1/4W, RED , RED , BLK , RED , BRN
R2	1	39K	Metal film, 1/4W, ORG , WHT , BLK , RED , BRN
R3, R14, R16, R20	4	100K	Metal film, 1/4W, BRN , BLK , BLK , ORG , BRN
R7, R9, R15, R17	4	470K	Metal film, 1/4W, YLW , VIO , BLK , ORG , BRN
R1	1	2M2	Metal or carbon film, 1/4W, RED , RED , BLK , (YLW , BRN)
L1	1	6800μH	BLU , GRY , RED , SILVER Alternative: 22Ω / 33Ω resistor

Diodes (polarity sensitive)			
D5	1	1N5819 schottky	Alternative: 1N5818. Band side goes into the square pad.
D1, D2, D3, D4	4	KD521V	Alternative: 1N4148. Band side goes into the square pad. Install in opposing directions.
D7	1	LED	Short leg goes into the square pad. Insert underneath the board.

Capacitors - Axial			
C10, C11, C12	3	470p / 0.470n	470 polystyrene. Alternative 500p. See notes.
C14	1	100n / 0.1μ	104 ceramic (yellow bead, firm bend). Standard 5mm spacing.

Capacitors - Radial			
C9	1	3n9 / 0.0039μ	392
C8	1	10n / 0.01μ	103 / 0.1K / 100 R
C6, C7	2	47n / 0.047μ	473
C1, C2, C3, C4, C5, C13	6	100n / 0.1μ	104
C15	1	220μ	Electrolytic (Polarity sensitive: short leg with band goes into the square pad) Alternative: 100μ 25V

Transistors			
Q1, Q2, Q3, Q4	4	BC547C	(flat side of the transistor aligns with the part number)

Potentiometers (<u>do not solder to PCB</u> until all potentiometers are tightly assembled in the enclosure)			
MIDS	1	50KB	16mm, linear
VOLUME	1	100KA	16mm, log
TONE, SUSTAIN	2	100KB	16mm, linear

Additional parts checklist			
	1	Printed circuit board (PCB)	
	1	1590BS enclosure + lid + screws	
	1	3PDT footswitch (latching) + metal washer	
	1	2.1mm DC socket (must be plastic cased type, not metal)	
	1	mono open frame audio socket 1/4” + flat washer + nut + serrated star washer	
	1	stereo open frame audio socket 1/4” + flat washer + nut + serrated star washer	
	4	knobs	
	4	extra potentiometer nuts	
	2	potentiometer plastic caps (optional)	
	1	9V battery connector (optional)	
		25mm wire (footswitch OUT)	
		54mm wire (negative)	
		solder (lead-free)	

- Further notes
- Polarity sensitive devices must be installed oriented in the correct direction. See all notes on this. This includes all diodes, transistors, and the electrolytic capacitor.
 - If not using pot dust caps: be careful to trim all wires near potentiometers close to the board, so as to avoid short circuits between the board and the pots.
 - Avoid soldering the potentiometers, LED, and footswitch, until all of the hardware is mounted tightly inside the enclosure in final locations. This will prevent stress on the hardware and the supporting pads.
 - The 470pF “smoothing” capacitors are a part of the *Bubble Font* Russian build. To make this as a *Tall Font* build, replace each 470pF capacitor with 2x 1000pF/1nF connected in series. This makes the value of 500pF. There are additional pads for using either axial capacitors, or standard 5mm caps such as ceramic.
 - The BC547C transistor uses a reversed pinout to the more-common 2N5088 style. If substituting the transistors, check if you need to flip the orientation.
 - A larger LED current limiter resistor (CLR) my be required for R24. 1K is suitable for old-style diffused LEDs. Clear LEDs may need around 10K, and high-intensity LEDs around 33K. Lower resistance means more brightness.

Debugging

I will do my best to answer any technical questions about building the circuit, even small ones. Unfortunately, however, I may not always have the resources to *remotely* help you debug circuits which are not working correctly, as this will almost always be a soldering or assembly fault. General debugging support is best found online through DIY building groups. Unsuccessful builds may be posted back to me for debugging and fixing for an additional fee. Contact me if you need replacement parts.

Feedback

Any feedback or suggestions are always welcomed and may help contribute to future updates. My technical knowledge is limited, and I am happy to crowd-source as much free information as I can. Please consider that these documents may be revised at any time, so it is better to share a link rather than the actual file.

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