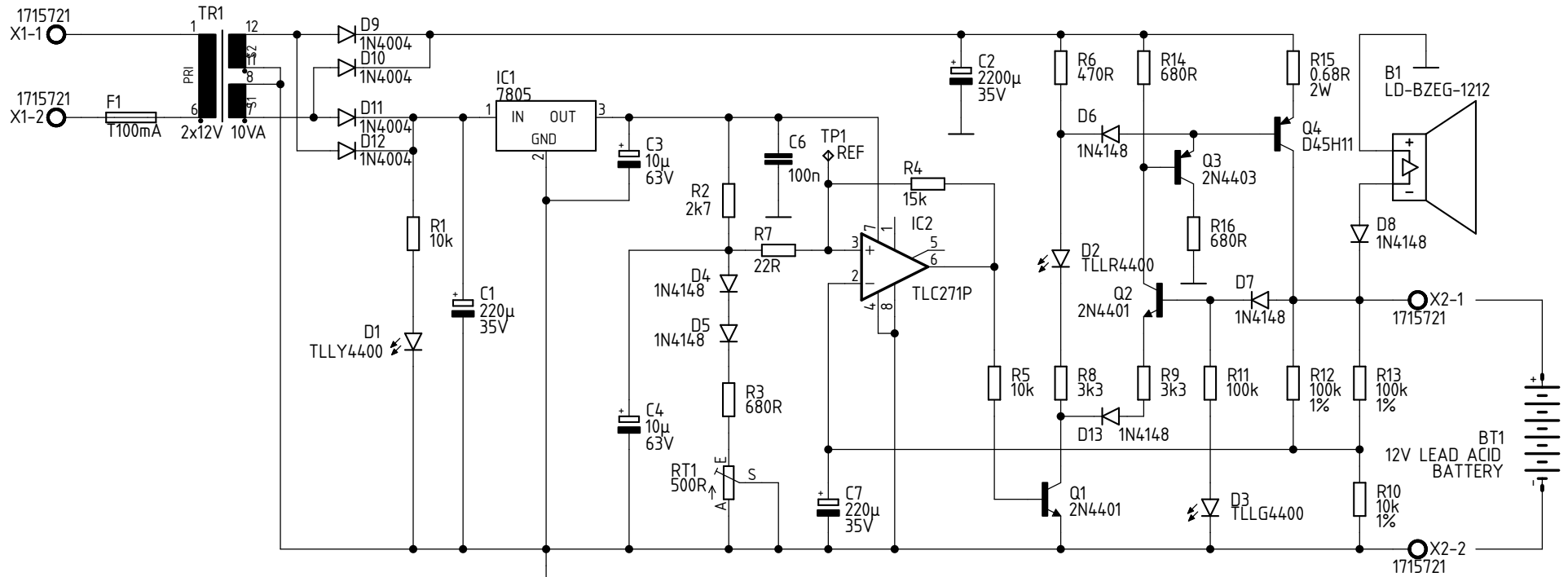


Suitable transformers TR1 and suggested fuse F1:
 Myrra 44237 T63mA
 Breve TEZ10/D230/12-12V T100mA
 Indel TSZZ12/008M T100mA
 Hahn BV EI 481 1327 T100mA



Adjust TP1 (REF) to 2.1 V using RT1 at the moment CHARGE LED does not light. Connect battery or big capacitor at output to keep charge off longer. If adjustment is done at temperature other than +20°C, compensate -4 mV/°C. (e.g. adjust to 2.18 V at 0°C)

- H1 MOUNT-PAD-ROUND3.3
- H2 MOUNT-PAD-ROUND3.3
- H3 MOUNT-HOLE3.3
- H4 MOUNT-HOLE3.3



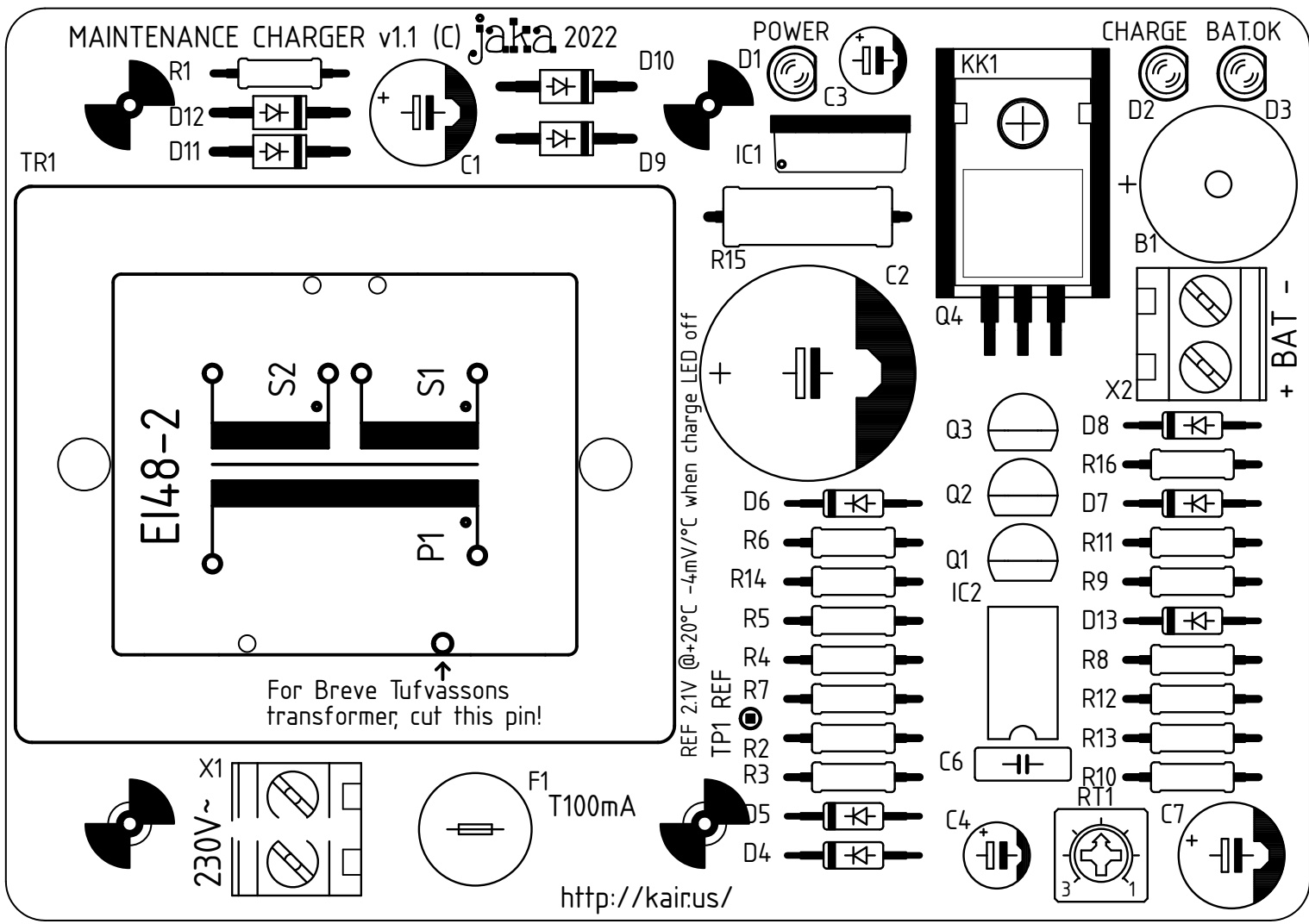
All resistors 0.5W 5% unless otherwise indicated

JAKA

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Circuit diagram
 maintenance_charger
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MAINTENANCE CHARGER v1.1 (C) **jaka** 2022



JAKA	Assembly drawing	
http://kairus/	maintenance_charger	
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1	2	3	4	5	6
A	Description	Qty	Parts	Alternative MPN	TME part number
	R METFILM 22R 5% 0.5W	1	R7		M0.6W-22R
	R METFILM 470R 5% 0.5W	1	R6		M0.6W-470R
	R METFILM 680R 5% 0.5W	3	R3,R14,R16		M0.6W-680R
	R METFILM 2k7 5% 0.5W	1	R2		M0.6W-2K7
	R METFILM 3k3 5% 0.5W	2	R8,R9		M0.6W-3K3
	R METFILM 10k 1% 0.5W	3	R1,R5,R10		M0.6W-10K
	R METFILM 15k 5% 0.5W	1	R4		M0.6W-15K
	R METFILM 100k 1% 0.5W	3	R11-R13		M0.6W-100K
	R WIREWOUND 0.68R 5% 2W	1	R15		KNP02WS-0R68
B	R TRIM 500R SINGLE TURN CT6EP501 COPAL	1	RT1	GF063P1-B501K	GF063P1-B501K
	C CERAM 100nF X7R RADIAL 5mm PITCH	1	C6	K104K15X7RF53H5	CM-100N-X7R
	C ELLY 10µF 63V RADIAL 2mm PITCH	2	C3,C4		EEUEB1J100S
	C ELLY 220µF 35V RADIAL 3.5mm PITCH	2	C1,C7		EEUEB1V221
	C ELLY 2200µF 35V RADIAL 7.5mm PITCH	1	C2		ECA1HHG222
	DIODE 1N4004	4	D9-D12		1N4004-DIO
	DIODE 1N4148	6	D4-D8,D13		1N4148-DIO
	LED YELLOW 3mm HIGH EFFICIENCY	1	D1	TLLY4400	OSY5JA3Z74A
	LED RED 3mm HIGH EFFICIENCY	1	D2	TLLR4400	OSR5JA3Z74A
	LED GREEN 3mm HIGH EFFICIENCY	1	D3	TLLG4400	OSG5TA3Z74A
C	NPN 2N4401 TO-92	2	Q1,Q2		2N4401-DIO
	NPN 2N4403 TO-92	1	Q3		2N4403-DIO
	PNP D45H11 TO-220	1	Q4		D45H11
	IC 7805 VREG 5V 1A TO-220	1	IC1		L7805CV
	IC TLC271CP OPAMP DIP-8	1	IC2		TLC271CP
	BUZZER 12V 12mm WITH GENERATOR	1	B1		LD-BZEG-1212
	FUSE T100mA TR5	1	F1		RFT-0.1A
	TRANSFORMER 2x12V 10VA EI48	1	TR1	TEZ10/D230/12-12V	MYRRA-44273
	CONN MKDS 1,5/2-5,08 BK	2	X1,X2		TB-5.08-P-2P/BL
	TEST TERMINAL 20-313141 VERO	1	TP1	151-103-RC	KEYS4952
D	HEATSINK TO-220 577202B00000G AAVID	1	KK1	274-2AB	274-2AB
	SCREW 3x8mm PLASTOFAST	6		3137674	B3X8/BN84229
	ENCLOSURE Z66 ABS KRADEX	1		Z66J ABS	Z66-ABS
	CAR BATTERY CLIP 25mm BLACK	1			ZAC-65-B
	CAR BATTERY CLIP 25mm RED	1			ZAC-65-R
	MAINS CABLE WITH CEE 7/16 EURO PLUG	1			S1-2/07/1.8BK
				JAKA	Bill of materials
				http://kairus/	maintenance_charger
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