

good for board 2.2.1 as well

Step	Qty	Reference(s)	Value	Notes	
1	16	C2, C8, C9, C10, C13, C20, C24, C25, C26, C28, C32, C35, C36, C37, C38, C39	100n	0805	
2	4	C3, C7, C19, C21	470p	0805	
3	2	C11, C27	2n2	0805	
4	10	C1, C4, C12, C16, C18, C22, C30, C31, C33, C34	1u	0805	
5	7	C5, C6, C14, C15, C17, C23, C29	10u	0805	
6	24	R2, R6, R9, R10, R13, R14, R15, R17, R18, R20, R21, R25, R26, R29, R30, R31, R33, R34, R35, R36, R45, R46, R47, R48	10k	0805	
7	10	R11, R12, R22, R23, R27, R28, R37, R38, R49, R58	47k	0805	
8	2	R56, R57	OR	bridge with solder or bit of wire. Or the LED legs clipping.	
9	6	R1, R7, R16, R19, R39, R40	15k	0805	
10	4	R3, R4, R5, R24	1k	0805	
11	6	R8, R32, R41, R50, R54, R55	100k	0805	
12	6	R42, R43, R44, R51, R52, R53	30k	0805	
13	2	D1, D4	1N4001 or 1N5819	reverse power protection optional, could jumper these with wire instead of series diode drop	DO-41
14	1	Power Header	Conn_02x05	if using keyed header, double check orientation for +/-	
15	2	U4, U5	TL074	triple check orientation	SOIC-14_3.9x8.7mm_P1.27mm
16	1	U6	TL072	triple check orientation	SOIC-8_3.9x4.9mm_P1.27mm
17	2	U1, U3	PT2399	triple check orientation	SOIC-16_3.9x9.9mm_P1.27mm
18	1	U2	L7805 or Recom R-78E5.0-0.5	when looking from the power header, dot is on left and +5 on right. Logo faces you. LM7805 drawn on PCB with tab up.	TO-220
insert and align faceplate elements before soldering steps 19-22					
19	8	RV1, RV2, RV3, RV4, RV5, RV6, RV7, RV8	B100K		Alpha_RD901F-40-00D
20	2	D2, D3	3mm LED	check LED orientation. Colors optional: changes tone of overload	
21	1	SW1	SW_DPDT	doesn't need a lot of solder	6-pin
22	5	Jacks	Thonkiconn	switching jacks	PJ-3001F

power cable  
screws and washers  
knobs