

## SCA B16 Bill of Material

REV 1

Item	Qty	Ref	Value	Marking	Description	Mfg	Mfg Part Number	Source
1	1	C3	47pF	470	COG Ceramic Capacitor	Kemet	C315C470J1G5TA	Mouser
2	5	C4, C5, C9, C32, C33	100pF	101	COG Ceramic Capacitor	Kemet	C315C101J1G5TA	Mouser
3	1	C6	220pF	221	COG Ceramic Capacitor	Kemet	C315C221J1G5TA	Mouser
4	1	C16	47nF	473	Metallized Film Capacitor	Panasonic	ECQ-V1H473JL	Mouser
5	15	C1-C2,C13-C14,C19,C23,C26-C27,C34,C100-C105	100nF	104	X7R Ceramic Capacitor	Kemet	C315C104M5U5CA	Mouser
6	1	C21	220nF	224	Metallized Film Capacitor	Panasonic	ECQ-V1H224JL	Mouser
7	1	C10	10uF	10uF 25V or 35V	Tantalum Electrolytic Capacitor	Kemet	T351E106K025AT	Mouser
8	2	C12, C15	10uF	10uF 50V BP	Radial Electrolytic Capacitor	Nichicon	UVP1H100MED	Mouser
9	4	C7, C8, C22, C29	22uF	22uf 35V	Radial Electrolytic Capacitor	Panasonic	EEU-FC1V220	Mouser
10	2	C17, C18	47uF	47uf 35V or 50V	Radial Electrolytic Capacitor	Panasonic	EEU-FC1V470	Mouser
11	2	C24, C25	100uF	100uF 35V	Radial Electrolytic Capacitor	Panasonic	EEU-FC1V101	Mouser
12	1	C31	100uF	100uF 63V	Radial Electrolytic Capacitor	Panasonic	EEU-FC1J101L	Mouser
13	1	C20	220uF	220uF 6.3V	Radial Electrolytic Capacitor	Panasonic	ECA-0JM221	Mouser
14	2	C11	330uF	330uF 50V	Radial Electrolytic Capacitor	Panasonic	ECO-S1HA152BA	Mouser
15	2	C39, C40	1000pF/2KV	Suppression Cap	Suppression Cap	Vishay	S102M33Z5UR63L6R	Digi-Key
16	3	D1, D2, D3	1N4148	1N4148	Diode	Fairchild	1N4148TA	Mouser
17	11	D6 - D13, D16-D18	1N4002	1N4002	Rectifier Diode	Fairchild	1N4002	Mouser
18	2	D4, D5			Red LED	Kingbright	WP132XIT	Mouser
19	1	L1	4.7uH		Shielded Inductor	Bourns	CM322522-4R7JL	Digi-Key
20	4	L3 - L6	1000pF	C102	Filter	Bourns	EMI102T-RC	Mouser
21	2	R38, R39 (Install If NO Transformer)	0	Black	Zero-Ohm Jumper	Xicon	291-0-RC	Mouser
22	2	R6-R7	10	Brown-Black-Black-Gold-Brown	Metal Film Resistor 1/4W	Xicon	271-10-RC	Mouser
23	1	R37	150	Brown-Green-Black-Black-Brown	Metal Film Resistor 1/4W	Xicon	271-150-RC	Mouser
24	2	R30, R31	180	Brown-Violet-Black-Black-Brown	Metal Film Resistor 1/4W	Xicon	271-180-RC	Mouser
25	1	R28	220	Red-Red-Black-Black-Brown	Metal Film Resistor 1/4W	Xicon	271-220-RC	Mouser
26	1	R3	1K4	Brown-Yellow-Black-Brown-Brown	Metal Film Resistor 1/4W	Xicon	271-1.4K-RC	Mouser
27	2	R29, R34	2.4K	Red-Yellow-Black-Brown-Brown	Metal Film Resistor 1/4W	Xicon	271-2.4K-RC	Mouser
28	2	R40, R41	2K49	Red-Yellow-White-Brown-Brown	Metal Film Resistor 1/4W	Xicon	271-2.49K-RC	Mouser
29	1	R32	4K7	Yellow-Violet-Black-Brown-Brown	Metal Film Resistor 1/4W	Xicon	271-4.7K-RC	Mouser
30	1	R42	4K99	Yellow-White-White-Brown-Brown	Metal Film Resistor 1/4W	Xicon	271-4.99K-RC	Mouser
31	3	R1, R21, R23	5K1	Green-Brown-Black-Brown-Brown	Metal Film Resistor 1/4W	Xicon	271-5.1K-RC	Mouser
32	1	R20	10K	Brown-Black-Black-Red-Brown	Metal Film Resistor 1/4W	Xicon	271-10K-RC	Mouser
33	1	R2	15K	Brown-Green-Black-Red-Brown	Metal Film Resistor 1/4W	Xicon	271-15K-RC	Mouser
34	3	R9, R19, R22	20K	Red-Black-Black-Red-Brown	Metal Film Resistor 1/4W	Xicon	271-20K-RC	Mouser
35	3	R13, R14, R16	30K1	Orange-Black-Brown-Red-Brown	Metal Film Resistor 1/4W	Xicon	271-30.1K-RC	Mouser
36	1	R25	32.4K	Orange-Red-Yellow-Red-Brown	Metal Film Resistor 1/4W	Xicon	271-32.4K-RC	Mouser
37	2	R12, R36	100K	Brown-Black-Black-Orange-Brown	Metal Film Resistor 1/4W	Xicon	271-100K-RC	Mouser
38	1	R15	470K	Yellow-Violet-Black-Orange-Brown	Metal Film Resistor 1/4W	Xicon	271-470K-RC	Mouser
39	1	R18	590K	Green-White-Black-Orange-Brown	Metal Film Resistor 1/4W	Xicon	271-590K-RC	Mouser
40	1	R17	2M7	Red-Violet-Green-Gold	Carbon Film Resistor 1/4W	Xicon	291-2.7M-RC	Mouser
41	1	R27	3M9	Orange-White-Green-Gold	Carbon Film Resistor 1/4W	Xicon	291-3.9M-RC	Mouser
42	1	R8	50K	503	Potentiometer	Bourns	3296Y-1-503LF	Digi-Key
43	2	R1, R4	10K/10K	81A2A-G36-A15/A15L	Potentiometer	Bourns	81A2A-G36-A15/A15L	Arrow
44	2	RLY1, RLY2		G5V-2-H DC48	DPDT Relay	Omron	G5V-2-H1 DC48	Mouser
45	1	SW1		100A WSP1	SPDT Switch (ON-OFF-ON)	E-Switch	100AWSP3T2B4M7RE	Digi-Key
46	1	SW201		100A WDP1	DPDT Switch	E-Switch	100AWDP1T2B4M7RE	Digi-Key
47	1	T1 (Optional)		CMOQ-2S	Output Transformer	CineMag	CMOQ-2S	CineMag
48	1	U1		THAT 4305	Dynamic Processor	THAT Corp	4305Q16-U	Mouser
49	3	U2, U7, U8		OPA2604AP	Dual CMOS Op Amp	Burr-Brown	OPA2604AP	Digi-Key
50	1	U3		THAT 1646	Line Driver	THAT Corp	1646P08-U	Mouser
51	1	U4		THAT 1200	Line Receiver	THAT Corp	1200P08-U	Mouser
52	1	U5		LM317	Voltage Regulator, Pos	Fairchild	LM317T	Mouser
53	1	U6		LM337	Voltage Regulator, Neg	Fairchild	LM337T	Mouser
54	1	U10		DC-DC Converter	DC-DC Converter	CUI	PDQE10-Q24-D24-D	Digi-Key
55	2				Heatsink	Aavid	577202B00000	Mouser

56	2				Outer Knob	Cosmo		Cosmo
57	2				Inner Knob	Cosmo		Cosmo
58	2	Optional for transformer	#4-40 x 1"		Pan head machine screw			Olander
59	4	Two are Optional for transformer	#4-40 x 1/4"		Pan head machine screw		4C25PPMZR	Olander
60	2	Optional for transformer	1/8"		1/8" Nylon Spacer			Olander
61	1	HARDWARE			500 Tray			SCA
62	1	HARDWARE			500 Cover			SCA
63	1	HARDWARE			B16-500 Faceplate			SCA
64	8	HARDWARE	#4-40 x 1/8"		Flat head machine screw			MISC
65	2	HARDWARE	#4-40 x 1"		Flat head machine screw			MISC
66	4	HARDWARE	#4-40		Kepps nut			MISC
67	4	HARDWARE	#4-40 x 3/16"		HEX STANDOFF #4-40 ALUM 3/16"			MISC
68	2	HARDWARE			1/8" Nylon spacer			MISC
69	4	HARDWARE	#4-40 x 1-		1/4 HEX 1-1/16" LENGTH Spacer			MISC
70	1				PCB	SCA		SCA