


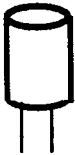





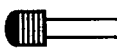

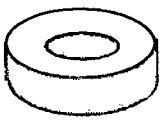

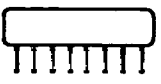


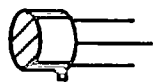
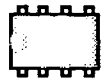

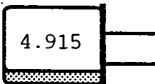

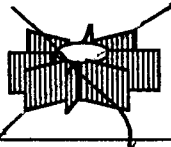


Appendix A: NorCal 40A parts List

Rev. F, 12-8-1999

Drawing	Ref.	Description, markings ("")	Part Number	Source	Qty
	C4,C31,C37	CAP,DISC,4.7pf,10%("4.7")	140CD50S2-00-5J	MOUSER	3
	C6,C14,C49	CAP,DISC,47pF,5%("47")	P4452-ND	DIGIKEY	3
	C38	CAP,DISC,100pF,5%("101" or "100")	1313PH-I	DIGIKEY	1
	C32	CAP,DISC,150pF,5%("151" or "150")	P4026-ND	DIGIKEY	1
	C9-13,C18,C35	CAP,DISC,270pF,5%("271" or "270")	P4029-ND	DIGIKEY	7
	C45,C47	CAP,DISC,330pF,5%("331" or "330")	P4030-ND	DIGIKEY	2
	C46	CAP,DISC,820pF,5%("821" or "820")	P4035-ND	DIGIKEY	1
	C5,C7,C19,C22,C48,C55	CAP,DISC,.01μF,20%,25V("103" or ".01")	P4424-ND	DIGIKEY	6
	C3,C8,C33,C36,C43,C44,C54,C57	CAP,DISC or MONO,.047μF,20%,25V("473" or ".047")	P4428-ND	DIGIKEY	8
	C51	CAP,POLY,390pF,5%("390")	23PS139	MOUSER	1
	C52,C53	CAP,POLY,1200pF,5%("1200")	23PS212	MOUSER	2
	C20,C21,C28	CAP,MYLAR,0.1μF,100V("104" or ".1")	140-PM2A104K	MOUSER	3
	C15,C23,C30	CAP,ELEC,2.2μF,25V("2.2μF")	140-XRL25V2.2	MOUSER	3
	C26,C29,C42,C56	CAP,ELEC,10μF, 25V("10μF")	140-XRL25V10	MOUSER	4
	C27,C41	CAP,ELEC,100μF,25V("100μF")	140-XRL25V100	MOUSER	2
	C50	CAP,VAR,2-24pF, AIR	530-189-0509-5	MOUSER	1
	C1,C2,C17,C34,C39	CAP,VAR,8-50pF,MICA	24AA024	MOUSER	5
	D1-4,D9,D11	DIODE,SWITCHING	1N914 or 1N4148	DIGIKEY	6
	D12	DIODE,ZENER,43V,1W	333-1N4755A	MOUSER	1
	D5-7,D10	DIODE,SHOTTKY	1N5817 (alt: 1N5818)	DIGIKEY	4
	D8	DIODE,VARACTOR	MVAM108	Wildemess	1
	J3,J4	JACK,3.5MM,STEREO,PC-MT,W/SPST SWITCH	161-3500	MOUSER	2
	J1	JACK,BNC,PC-MOUNT	177-3138	MOUSER	1
	J2	JACK, DC POWER, 2.1MM	16PJ031	MOUSER	1

	P1 (MATING PLUG FOR J2)	PLUG,DC POWER,2.1MM	1710-2131	MOUSER	1
	L1	IND,CHOKE,15UH (bm-gm-blk)	43LS155	MOUSER	1
	L4,L5,RFC1	IND,CHOKE,18UH (bm-gray-blk)	43LS185	MOUSER	3
	RFC2	IND,CHOKE,1MH (bm-blk-red)	43LS103	MOUSER	1
	L6	IND,2.5μH,28T #28 (16")	T37-2 (red, 0.37")	AMIDON	1
	L7,L8	IND,1.3μH,18T #26 (12")	T37-2 (red, 0.37")	AMIDON	2
	L9	IND,21μH,60T #28 (56")	T68-7 (white, 0.68")	AMIDON	1
	T1	XFMR, PRI: 14T #26 (10"); SEC: 4T #26 (4")	FT37-43 (black w/ orange mark, 0.37")	AMIDON	1
	T2	XFMR, SEC: 20T #26 (14"); PRI: 1T #26 (2", see text)	FT37-61 (black, 0.37")	AMIDON	1
	T3	XFMR, PRI: 23T #28 (16"); SEC: 6T #26 (6")	FT37-61 (black, 0.37")	Wildemess	1
	R12	RES,20Ω,1/4W,5% (red-blk-blk)	20Q	DIGIKEY	1
	R14, R25	RES,100Ω,1/4W,5% (bm-blk-bm)	100Q	DIGIKEY	2
	R10,R11,R15	RES,510Ω,1/4W,5% (gm-bm-bm)	510Q	DIGIKEY	3
	R18	RES,1.0K,1/4W,5% (bm-blk-red)	1.0KQ	DIGIKEY	1
	R1,R22,R23	RES,1.8K,1/4W,5% (bm-gray-red)	1.8KQ	DIGIKEY	3
	R20	RES,4.7K,1/4W,5% (yel-violet-red)	4.7KQ	DIGIKEY	1
	R7,R9,R19,R21	RES,47K, 1/4W, 5% (yel-violet-org)	47KQ	DIGIKEY	4
	R3, R24	RES,150K,1/4W,5% (bm-gm-yel)	150KQ	DIGIKEY	2
	R4	RES,8.2M,1/4W,5% (gray-red-gm)	8.2MQ	DIGIKEY	1
	R4 alternate	RES,15M,1/4W,5% (brn-gm-blue)	15MQ	DIGIKEY	1
	R5	RES. NETWORK, 8-PIN SIP,2.2M	BOURNS 4608X-102-225	Wildemess	1
	R8,R13	RES,TRIMMER,500Ω	36C52-ND	DIGIKEY	2
	R6	RES,TRIMMER,10K	36C14-ND	DIGIKEY	1
	R2, R16	RES,PANEL MOUNT POT,1K	31CW301	MOUSER	2
	R17	RES,PANEL MOUNT POT,10K	314-1410-10K	MOUSER	1
	S1,S2	SWITCH, SPDT, PC-MT, RIGHT ANGLE, THD BUSHING	CK 7101SDAV2QE	Wildemess	2
	Q1	TRANS,NPN,2N4124,TO-92	592-2N4124	MOUSER	1
	Q6	TRANS,NPN,2N2222A,TO-92	592-PN2222A	MOUSER	1
	Q2,Q3,Q5,Q8	TRANS,JFET,J309,TO-92	J309	Wildemess	4
	Q4	TRANS,PNP,2N3906,TO-92	592-2N3906	MOUSER	1
	Q7	TRANS,NPN,2SC799,TO-5 (alt: 2N3553)	2SC799	Wildemess	1
	U3	IC,AF AMP	LM386N-1 (alt: -4)	DIGIKEY	1
	U6	IC,COMPARATOR	LM393N	DIGIKEY	1
	U1,U2,U4	IC,MIXER/OSC	NE602AN (alt: 612)	Wildemess	3

	U5	IC,VOLTAGE REG.,8V,TO-92	AN78L08	DIGIKEY	1
	X1-6	CRYSTAL, 4.915 MHZ, HC-49 (matched by Wilderness, +/- 20HZ)	CTX050-ND	DIGIKEY	6
	Z1	FERRITE BEAD, .146" O.D., .138" LONG, #64 MAT'L	542-FB64-110	MOUSER	1
	MISC	CABINET, NORCAL 40A, SILKSCREEND AND PAINTED	n/a	Wilderness	1
	MISC	MANUAL, NORCAL 40A	n/a	Wilderness	1
	MISC	PC BOARD, NORCAL 40A	n/a	Wilderness	1
	MISC	FOOT, RUBBER	SJ5518-0-ND	DIGIKEY	4
	MISC	HEATSINK	33HS502	MOUSER	1
	MISC	KNOB, 0.60"	450-2034	MOUSER	2
	MISC	KNOB, 1.38"	450-2039	MOUSER	1
	MISC	LOCKWASHER,#4, INT. TOOTH, STEEL/ZINC	n/a	Wilderness	10
	MISC	2-56 x 5/16" SCREW, FLAT HEAD 4-40 X 5/16", STEEL/ZINC, PHILLIPS	n/a	Wilderness	10
	MISC	#4 hex nut (small)	n/a	Wilderness	10
	MISC	SCREW,NYLON,0.5",6-32	561-J632.5	MOUSER	1
	MISC	NUT,NYLON,6-32	561-G632	MOUSER	1
	MISC	SHOULDER WASHER,NYLON,#6	7682K-ND	DIGIKEY	1
	MISC	STANDOFF, HEX, MALE/FEM, 3/8" LONG,4-40 THD, 0.25" ACROSS FLATS	J211-ND	DIGIKEY	2
	MISC	LATCH SET, PLASTIC (UPPER AND LOWER PARTS)	07-10-102-12 (SOUTHCO)	Wilderness	2
	MISC	WIRE,#26 ENAMEL, 8 FEET	n/a	Wilderness	1
	MISC	WIRE,#28 ENAMEL, 8 FEET	n/a	Wilderness	1