

3.6 PARTS LIST

3.61 LCD control board

RESISTORS		
R1	33K	1/8 Watt Carbon Film
R2	33K	1/8 Watt Carbon Film
R3	820R	1/8 Watt Carbon Film
R4	390R	1/8 Watt Carbon Film
R5	390R	1/8 Watt Carbon Film
R6	10K	1/8 Watt Carbon Film
R7	820R	1/8 Watt Carbon Film
R8	820R	1/8 Watt Carbon Film
R9	820R	1/8 Watt Carbon Film
R10	820R	1/8 Watt Carbon Film
R11	820R	1/8 Watt Carbon Film
R12	1K8	1/8 Watt Carbon Film
R13	1K8	1/8 Watt Carbon Film
R14	1K8	1/8 Watt Carbon Film
R15	100R	1/8 Watt Carbon Film
R16	33K	1/8 Watt Carbon Film
R17	620R	1/8 Watt Carbon Film
R18	100R	1/8 Watt Carbon Film
R19	100K	1/8 Watt Carbon Film
R20	100R	1/8 Watt Carbon Film
R21	4K7	1/8 Watt Carbon Film
R22	100R	1/8 Watt Carbon Film
R23	10K	1/8 Watt Carbon Film
R24	10K	1/8 Watt Carbon Film
R25	-	not fitted
R26	-	not fitted
CAPACITORS		
C1	47U	Miniature Radial Electrolytic
C2	47U	Miniature Radial Electrolytic
C3	33PF	Ceramic Plate 2.5 pitch (680)
C4	33PF	Ceramic Plate 2.5 pitch (680)
C5-11	560PF	Ceramic Plate 2.5 pitch (680)
C12	100N	Monolithic Ceramic 2.5 pitch
C13	2U2	Miniature Radial Electrolytic
C14	560PF	Ceramic Plate 2.5 pitch (680)
C15	100N	Monolithic Ceramic 2.5 pitch
C16	560PF	Ceramic Plate 2.5 pitch (680)
C17	560PF	Ceramic Plate 2.5 pitch (680)
C18	2U2	Miniature Radial Electrolytic
MISC		
VR1	5K	5mm MiniPot
VR2	100K	5mm MiniPot
D1	-	LINKED ON PCB
D2	-	WIRE LINK
LED1	1N4148	400mW Glass Axial
LED2	GREEN	3MM GREEN LED
LED3	RED	3MM RED LED
X1	8MHZ	HC49/U microprocessor crystal
REG1	7805	TO220 1A 5 V regulator
IC1	PIC16F877	40 pin 8 Bit micro Controller
IC2	CA3240	op-amp
T1	TIP32A	PNP Transistor
SW1-3	BUTTONS	Blue buttons
CON1	10W IDC	IDC boxed header
CON2	16W IDC	IDC boxed header
LCD1	122x32	NAN YA LMD62S042JM

3.62 Power amplifier board

RESISTORS		
R1	1K8-3K6 (sot)	1/4 Watt Metal Oxide
R2	75R	1/4 Watt Metal Oxide
R3	10R	1/4 Watt Metal Oxide
R4	12R	1 WATT 2512 SMD
R5	12R	1 WATT 2512 SMD
R6	12R	1 WATT 2512 SMD
R7		NOT FITTED
R8	39R	3 Watt Metal Oxide
R9	47R	1206 SMD (under CON3)
R10	10K	1206 SMD (under CON3)
R11	6K8	1/4 Watt Metal Oxide
R12	560R	1/4 Watt Metal Oxide
R13	10K	1 WATT 2512 SMD
R14		NOT FITTED
R15	12R	1 WATT 2512 SMD
R16	12R	1 WATT 2512 SMD
R17	330R	1 WATT 2512 SMD
R18	470R	1/4 Watt Metal Oxide
R19	470R	1/4 Watt Metal Oxide
R20	1K8	1/4 Watt Metal Oxide
R21	470R	1/4 Watt Metal Oxide
R22	10K	1/4 Watt Metal Oxide
R23	1R	1/4 Watt Metal Oxide
R24	10K	1/4 Watt Metal Oxide
R25	470R	1/4 Watt Metal Oxide
R26	1K5	1/4 Watt Metal Oxide
R27	18K	1/4 Watt Metal Oxide
R28	10K	1/4 Watt Metal Oxide
R29	10K	1/4 Watt Metal Oxide
R30	13K	1/4 Watt Metal Oxide
R31	3K3	1/4 Watt Metal Oxide
R32	18K	1/4 Watt Metal Oxide
VR1-3	1K	5MM Minipot
CAPACITORS		
C1	1N	Ceramic Plate 5MM pitch (680)
C2	39PF	Ceramic Plate 2.5 pitch (680)
C3	100N	Monolithic Ceramic 2.5 pitch
C4	150PF	Ceramic Plate 2.5 pitch (680)
C5	1UF 63V	Polycarbonate
C6	2.2UF 50V	Radial Electrolytic
C7	2.2UF 50V	Radial Electrolytic
C8	1N	Gen. Pur. Ceramic Disc 2.5 pitch
C9	100N	Monolithic Ceramic 2.5 pitch
C10	100N	Monolithic Ceramic 2.5 pitch
C11	1N	Gen. Pur. Ceramic Disc 2.5 pitch
C12	220UF 63V	Radial Electrolytic
C13	220UF 63V	Radial Electrolytic
C14	1UF 63V	Polycarbonate
C15	8.2PF	SEMCO book mica
C16	10PF	SEMCO book mica
C17	12PF	SEMCO book mica
C18	33PF	SEMCO book mica
C19	33PF	SEMCO book mica
C20	33PF	SEMCO book mica
C21	15PF	SEMCO book mica
C22	220UF 63V	Radial Electrolytic
C23	-	not fitted
C24	100N	Monolithic Ceramic 2.5 pitch

C25	100N	Monolithic Ceramic 2.5 pitch	C22	27pF	Ceramic Plate 2.5 pitch (680)
C26	100N	Monolithic Ceramic 2.5 pitch	C23	56pF	Ceramic Plate 2.5 pitch (680)
C27	100N	Monolithic Ceramic 2.5 pitch	C24	82pF	Ceramic Plate 2.5 pitch (680)
C28	100N	Monolithic Ceramic 2.5 pitch	C25	1n	Gen. Pur. Ceramic Disc 2.5 pitch
C29	220UF 63V	Radial Electrolytic	C26	100n Y5V	Monolithic Ceramic 2.5 pitch
C30	100N	Monolithic Ceramic 2.5 pitch	C27	82pF	Ceramic Plate 2.5 pitch (680)
VC1	5-65 PF	5-65 Trimmer capacitor	C28	100n Y5V	Monolithic Ceramic 2.5 pitch
INDUCTORS			C29	100n Y5V	Monolithic Ceramic 2.5 pitch
L1	2.5 S18	Toko moulded S18 coil 2.5T	C30	27pF	Ceramic Plate 2.5 pitch (680)
L2	3.5 S18	Toko moulded S18 coil 2.5T	C31	12pF	Ceramic Plate 2.5 pitch (680)
L3	FERRITE BEAD	Ferrite bead	C32	56pF	Ceramic Plate 2.5 pitch (680)
L4	6 turn choke	6 turn 2.5mm enamelled	C33	1n	Gen. Pur. Ceramic Disc 2.5 pitch
L5	3 turn choke	3 turns on ferrite core	C34	33pF	Ceramic Plate 2.5 pitch (680)
L6	3 TURN COIL	In House Low Pass Coil	C35		Not Used
L7	4 TURN COIL	In House Low Pass Coil	C36	100n Y5V	Monolithic Ceramic 2.5 pitch
L8	4 TURN COIL	In House Low Pass Coil	C37		Not Used
MISC			C38	47pF	Ceramic Plate 2.5 pitch (680)
T2	BLF278	BLF278	C39	47pF	Ceramic Plate 2.5 pitch (680)
T1	VN66AF	VN66AF	C40	100n Y5V	Monolithic Ceramic 2.5 pitch
RFT1	4 TO 1 RFT	4 TO 1 RFT	C41	100n Y5V	Monolithic Ceramic 2.5 pitch
RFT2	4 TO 1 RFT	In House BLF278 Output	C42	47pF	Ceramic Plate 2.5 pitch (680)
RFT3	VSWR RFT3	In House VSWR Coupler Toroid	C43	47pF	Ceramic Plate 2.5 pitch (680)
		micrometals T37-8-90 core	C44	100n Y5V	Monolithic Ceramic 2.5 pitch
CON1	PCB MCX	MCX connector	C45	4n7	Polycarbonate 5mm Pitch
CON2	5 WAY TERM	Screwless terminal block	C46	6n8	Polycarbonate 5mm Pitch
CON3	PCB MCX	MCX connector	C47	6n8	Polycarbonate 5mm Pitch
CON4	2 WAY TERM	Screwless terminal block	C48	4n7	Polycarbonate 5mm Pitch
CON5	10 WAY IDC	IDC Ribbon Box Header	C49	27pF	Ceramic Plate 2.5 pitch (680)
REG1	7818	18 V 1A Regulator	C50	47pF	Ceramic Plate 2.5 pitch (680)
IC1	CA3240	op-amp	C51	100n Y5V	Monolithic Ceramic 2.5 pitch
IC2	CA3240	op-amp	C52	47pF	Ceramic Plate 2.5 pitch (680)
TS1	LM335Z	Temperature sensor	C53	27pF	Ceramic Plate 2.5 pitch (680)
D1	BAT42	Rectifier Diode	C54	47uF 16V	Miniature Radial Electrolytic
D2	BAT42	Rectifier Diode	C55	10uF 16v	Miniature Radial Electrolytic
			C56	47pF	Ceramic Plate 2.5 pitch (680)
			C57	47uF 16V	Miniature Radial Electrolytic
			C58	27pF	Ceramic Plate 2.5 pitch (680)
			C59	27pF	Ceramic Plate 2.5 pitch (680)
			C60	100n Y5V	Monolithic Ceramic 2.5 pitch
			C61	100n Y5V	Monolithic Ceramic 2.5 pitch
			C62	47uF 16V	Miniature Radial Electrolytic
			C63	47uF 16V	Miniature Radial Electrolytic
			C64	330pF	Ceramic Plate 2.5 pitch (680)
			C65	330pF	Ceramic Plate 2.5 pitch (680)
			C66	100n Y5V	Monolithic Ceramic 2.5 pitch
			C67	47uF 16	Miniature Radial Electrolytic
			C68	100n Y5V	Monolithic Ceramic 2.5 pitch
			C69	100n Y5V	Monolithic Ceramic 2.5 pitch
			C70	47uF 16V	Miniature Radial Electrolytic
			C71	100n Y5V	Monolithic Ceramic 2.5 pitch
			C72	2.2uF 16V	Miniature Radial Electrolytic
			C73	39pF	Ceramic Plate 2.5 pitch (680)
			C74	2.2uF 16V	Miniature Radial Electrolytic
			C75	12pF	Ceramic Plate 2.5 pitch (680)
			C76	100n Y5V	Monolithic Ceramic 2.5 pitch
			C77	2.2uF 16V	Miniature Radial Electrolytic
			C78	330pF	Ceramic Plate 2.5 pitch (680)
			C79	100n Y5V	Monolithic Ceramic 2.5 pitch
			C80	100pF	Ceramic Plate 2.5 pitch (680)
			C81	330pF	Ceramic Plate 2.5 pitch (680)
			C82	330pF	Ceramic Plate 2.5 pitch (680)
			C83	-	Not Used
			C84	330pF	Ceramic Plate 2.5 pitch (680)
			C85	100n Y5V	Monolithic Ceramic 2.5 pitch
			C86	12pF	Ceramic Plate 2.5 pitch (680)
			C87	100n Y5V	Monolithic Ceramic 2.5 pitch
			C88	47uF 16V	Miniature Radial Electrolytic

3.63 Combo board

CAPACITORS		
C1	2.2 uF 16V	Miniature Radial Electrolytic
C2	2.2 uF 16V	Miniature Radial Electrolytic
C3	100n Y5V	Monolithic Ceramic 2.5 pitch
C4	39pF	Ceramic Plate 2.5 pitch (680)
C5	2.2 uF 16V	Miniature Radial Electrolytic
C6	470uF 16V	Radial Electrolytic
C7	470uF 16V	Radial Electrolytic
C8	2.2 uF 16V	Miniature Radial Electrolytic
C9	2.2 uF 16V	Miniature Radial Electrolytic
C10	82pF	Ceramic Plate 2.5 pitch (680)
C11	100n Y5V	Monolithic Ceramic 2.5 pitch
C12	100uF 16V	Monolithic Ceramic 2.5 pitch
C13	2.2 uF 16V	Miniature Radial Electrolytic
C14	100n Y5V	Monolithic Ceramic 2.5 pitch
C15	82pF	Ceramic Plate 2.5 pitch (680)
C16	100n Y5V	Monolithic Ceramic 2.5 pitch
C17	100uF 16V	Radial Electrolytic
C18	100uF 16V	Radial Electrolytic
C19	1n	Gen. Pur. Ceramic Disc 2.5 pitch
C20	220pF	Ceramic Plate 2.5 pitch (680)
C21	4p7	Ceramic Plate 2.5 pitch (680)

C89	470uf 16V	Radial Electrolytic	R13	1K2	1/8 Watt Carbon Film
C90	470uf 16V	Radial Electrolytic	R14	330K	1/8 Watt Carbon Film
C91	2.2uF 16V	Miniature Radial Electrolytic	R15	330R	1/8 Watt Carbon Film
C92	100n Y5V	Monolithic Ceramic 2.5 pitch	R16	330R	1/8 Watt Carbon Film
C93	10uF 35V	Miniature Radial Electrolytic	R17	1K2	1/8 Watt Carbon Film
C94	39pF		R18	100R	1/4 Watt Metal Oxide
VC1	5-65pF	Variable capacitor	R19	12K	1/8 Watt Carbon Film
			R20	4K7	1/8 Watt Carbon Film
		MISC	R21	220R	1/8 Watt Carbon Film
IC1	TL071	Low noise Op-Amp	R22	1K2	1/8 Watt Carbon Film
IC2-3	TL072	Low noise Dual Op-Amp	R23	1K2	1/8 Watt Carbon Film
IC4	TL071	Low noise Op-Amp	R24	68R	1/8 Watt Carbon Film
IC5	LM13600	Transconductance Amplifier	R25	180R	1/8 Watt Carbon Film
IC6-7	TL072	Low noise Dual Op-Amp	R26	4K7	1/8 Watt Carbon Film
IC8-9	TL072	Low noise Op-Amp	R27	470R	1/8 Watt Carbon Film
IC10-11	TL071	Low noise Op-Amp	R28	10R	1/8 Watt Carbon Film
IC12	DG201-HS	Analog Switch	R29	4K7	1/8 Watt Carbon Film
IC13	16C620A-04P	8 Bit Microcontroller	R30	220R	1/8 Watt Carbon Film
IC14	TL071	Low noise Op-Amp	R31	2R2	1/8 Watt Carbon Film
IC15	TL071	Low noise Op-Amp	R32	1K2	1/8 Watt Carbon Film
IC16	TL072	Low noise Op-Amp	R33	1K2	1/8 Watt Carbon Film
IC17	PIC16CE623-20P	8 Bit Microcontroller	R34	1K2	1/8 Watt Carbon Film
IC18	MC145170-P	PLL synth. Chip	R35	1K2	1/8 Watt Carbon Film
IC19	4066	Analog Switch	R36	1K2	1/8 Watt Carbon Film
IC20	LF351	Bi-Fet op-amp	R37	1K2	1/8 Watt Carbon Film
T1-2	BC327	PNP General Purpose	R38	10R	1/8 Watt Carbon Film
T3-6	MPHS10	High Speed Switching	R39	2K2	1/4 Watt Metal Oxide
T7	2N4427	High Speed Switching	R40	1K	1/4 Watt Metal Oxide
T8-10	BC337	NPN General Purpose	R41	560R	1/4 Watt Metal Oxide
T11	MPSH10	High Speed Switching	R42	820R	1/4 Watt Metal Oxide
J1-12	3 PIN	3 Pin Jumper Header	R43	75R	1/4 Watt Metal Oxide
FIL1-2	5085	15KHz Block Filters	R44	12K	1/4 Watt Metal Oxide
X1	4.864MHz	HC49 Microprocessor crystal	R45	1K	1/4 Watt Metal Oxide
X2	8.000MHz	HC49 Microprocessor crystal	R46	36K	1/4 Watt Metal Oxide
DC1	NMH1215S	Newport 2W dual output DC convertor	R47	7K5	1/4 Watt Metal Oxide
			R48	24K	1/4 Watt Metal Oxide
RFT1	4 to 1 Tx	4 Turns Blue / Yellow Ferrite/Ring)	R49	24K	1/4 Watt Metal Oxide
SW1-4	DEC ROTA.	Decimal Rotary PCB switches	R50	470R	1/4 Watt Metal Oxide
FB	FB	Axial Ferrite Bead	R51	1K	1/4 Watt Metal Oxide
HEATS.	TO5 SINK	Push On TO5 Heatsink	R52	3K3	1/4 Watt Metal Oxide
8 PIN	8PIN	8 Pin IC Holders X 14	R53	100K	1/4 Watt Metal Oxide
14 PIN	14 PIN	14 Pin IC Holders X 1	R54	12K	1/4 Watt Metal Oxide
16 PIN	16 PIN	16 Pin IC Holders X 3	R55	24K	1/4 Watt Metal Oxide
18 PIN	18 PIN	18 Pin IC Holders X 2	R56	24K	1/4 Watt Metal Oxide
			R57	200R	1/4 Watt Metal Oxide
		INDUCTORS	R58	24K	1/4 Watt Metal Oxide
L1	3.9mH	10RB Radial Inductor	R59	3K3	1/4 Watt Metal Oxide
L2	4.7mH	10RB Radial Inductor	R60	12K	1/4 Watt Metal Oxide
L3	MC120 075	Screened Variable Inductor	R61	7K5	1/4 Watt Metal Oxide
L4	S18 2.5T	Moulded Variable Inductor	R62	7K5	1/4 Watt Metal Oxide
L5	S18 3.5T	Moulded Variable Inductor	R63	16K	1/4 Watt Metal Oxide
L6	.15uH	Axial Inductor	R64	16K	1/4 Watt Metal Oxide
L7-8	220uH	Axial Inductor	R65	1K	1/4 Watt Metal Oxide
			R66	12K	1/4 Watt Metal Oxide
		RESISTORS	R67	36K	1/4 Watt Metal Oxide
R1	10K	1/8 Watt Carbon Film	R68	7K5	1/4 Watt Metal Oxide
R2	10K	1/8 Watt Carbon Film	R69	100K	1/4 Watt Metal Oxide
R3	10K	1/8 Watt Carbon Film	R70	3K3	1/4 Watt Metal Oxide
R4	10K	1/8 Watt Carbon Film	R71	1K	1/4 Watt Metal Oxide
R5	10K	1/8 Watt Carbon Film	R72	470R	1/4 Watt Metal Oxide
R6	10K	1/8 Watt Carbon Film	R73	24K	1/4 Watt Metal Oxide
R7	330K	1/8 Watt Carbon Film	R74	24K	1/4 Watt Metal Oxide
R8	330K	1/8 Watt Carbon Film	R75	24K	1/4 Watt Metal Oxide
R9	10K	1/8 Watt Carbon Film	R76	12K	1/4 Watt Metal Oxide
R10	470R	1/8 Watt Carbon Film	R77	24K	1/4 Watt Metal Oxide
R11	33K	1/8 Watt Carbon Film	R78	200R	1/4 Watt Metal Oxide
R12	1K2	1/8 Watt Carbon Film	R79	12K	1/4 Watt Metal Oxide

R80	470K	1/4 Watt Metal Oxide
R81	470K	1/4 Watt Metal Oxide
R82	3K3	1/4 Watt Metal Oxide
R83	6k8	1/4 Watt Metal Oxide
R84	10R	1/4 Watt Metal Oxide
R85	470R	1/4 Watt Metal Oxide
R86	12K	1/4 Watt Metal Oxide
R87	3K3	1/4 Watt Metal Oxide
R88	6K8	1/4 Watt Metal Oxide
R89	10R	1/4 Watt Metal Oxide
R90	5K6	1/4 Watt Metal Oxide
R91	12K	1/4 Watt Metal Oxide
R92	47K	1/4 Watt Metal Oxide
R93	120K	1/4 Watt Metal Oxide
R94	1K	1/4 Watt Metal Oxide
R95	4K3	1/4 Watt Metal Oxide
R96	12K	1/4 Watt Metal Oxide
R97	3K3	1/4 Watt Metal Oxide
R98	1K	1/4 Watt Metal Oxide
R99	6K8	1/4 Watt Metal Oxide
R100	1M	1/4 Watt Metal Oxide
R101	10K	1/4 Watt Metal Oxide
R102	24K	1/4 Watt Metal Oxide
R103	5K1	1/4 Watt Metal Oxide
R104	5K3	1/4 Watt Metal Oxide
R105	100R	1/4 Watt Metal Oxide
R106	3K6	1/4 Watt Metal Oxide
R107	11K	1/4 Watt Metal Oxide
R108	75R	1/4 Watt Metal Oxide
R109	10K	1/4 Watt Metal Oxide
R110	10K	1/4 Watt Metal Oxide
R111	SOR	SORT ON TEST
R112	10K	1/4 Watt Metal Oxide
R113	10K	1/4 Watt Metal Oxide
R114	10K	1/4 Watt Metal Oxide
R115	10K	1/4 Watt Metal Oxide
R116	10K	1/4 Watt Metal Oxide
R117	10K	1/4 Watt Metal Oxide
R118	10K	1/4 Watt Metal Oxide
R119	10K	1/4 Watt Metal Oxide
R120	10R	1/4 Watt Metal Oxide
R121	75R	1/4 Watt Metal Oxide
VR1-2	10K	Horizontal Multiturn
VR3-4	1K	Vertical Multiturn
VR5	10K	Horizontal Multiturn
VR6	10K	Horizontal 5MM Pitch
DIODES		
D1-12	1N4148	Glass axial general purpose Diode
D13	1N4001	Axial 1 amp silicon rectifier diode
D14	4R7	4R7 OHM RESISTOR
D15-30	1N4148	Glass axial general purpose Diode
VD1	BB809	VHF varicap Diode
LED1-4	GREEN BI	Bi directional 5mm Green LED
LED5	RED	5mm Standard RED LED
REG1	7815	1 A TO220 15 V Linear Reg
REG2	7805	1 A TO220 5 V Linear Reg
REG3	78L10	100 mA TO92 10 V Linear Reg
REG4	79L12	100 mA TO92 -12 V Linear Reg
REG5	78L12	100 mA TO92 +12 V Linear Reg
CON 1	15 WAY D	Right Angled Female 15 D PCB
CON 2-3R/A	BNC	Right Angled PCB BNC
CON 4-5R/A	XLR	Right Angled XLR
CON6	2 TERM	2 Way Screwless Terminal
CON7	R/A RCA	Pcb mount RCA Socket
CON8	IDC HEAD	10 or 16 way IDC straight header
CON9	2 TERM	2 Way Screwless Terminal