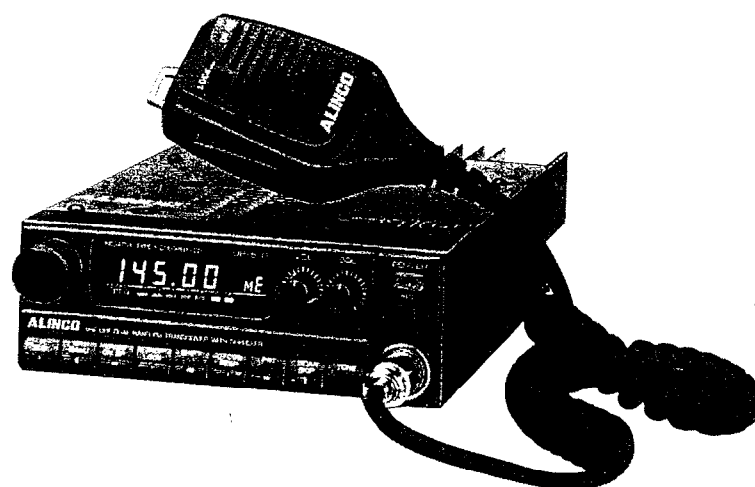


DR-510T/E

Service Manual



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ALINCO ELECTRONICS INC.

SPECIFICATIONS

General

Frequency Coverage	144.0~148.0 MHz (DR-510T) 440.0~450.0 MHz 144.0~146.0 MHz (DR-510E) 430.0~440.0 MHz
Input Impedance	50 ohms unbalanced
Power Supply Requirement	13.8 Volts D.C.
Current Drain at 13.8 V	Receiving Squelched: does not exceed 500 mA Transmitting High: 45 W approx. 9.5 A at VHF 35 W approx. 10 A at UHF Low: 5 W approx. 4 A at VHF 5 W approx. 4 A at UHF
Dimensions	140 mm (W) × 50 mm (H) × 205 mm (D) (5½" × 2" × 8¼")
Weight	Approx. 1.7 kgs. (3.75 lbs.)

Transmitter

Output Power	High: 45 Watts at VHF, 35 Watts at UHF Low: Approx. 5 Watts at both bands
Modulation Mode	16F3
Excitation System	Variable Reactance F.M.
Frequency Deviation	±5 kHz
Spurious Emission	More than 60 dB below carrier
Microphone	Electret Condenser Microphone
Operating Mode	Simplex Duplex: ±600 kHz from receive frequency at VHF ±5, 1.6, 7.6 MHz from receive frequency at UHF (Odd offsets programmable)
Frequency Encoder	Built-in

Receiver

Receiving System	Superhetrodyne, dual conversion
Modulation Acceptance	16F3
Intermediate Frequency	1st 10.7 MHz 2nd 455 kHz at VHF 1st 30.825 MHz 2nd 455 kHz at UHF
Sensitivity	12 dB SINAD less than 0.16 µV
Selectivity	More than ±6 kHz at -6 dB Less than ±12 kHz at -60 dB
Power Output	More than 1.5 Watts (8 ohms-10% Distortion)
Output Impedance	8 ohms

■ PARTS LIST

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
UHF Drive Unit								
R7	RK0018	Chip R, MCR10EZJ101E	R43	RK0045	Chip R, MCR10EZJ472E	R136	RD0018	R. 1/4 W 100Ω R20
R8	RK0035	Chip R, MCR10EZJ102E (DR-510T only)	R44	RK0005	Chip R, MCR10EZJ220E	R137	RD0116	R. R20 R02 J1R0
R8	RK0048	Chip R, MCR10EZJ682F (DR-510E only)	R45	RK0045	Chip R, MCR10EZJ472E	R138	RK0062	Chip R, MCR10EZJ473E
R9	RK0105	Chip R, MCR10EZJ2R2E (DR-510T only)	R46	RK0062	Chip R, MCR10EZJ473E	R140	RK0052	Chip R, MCR10EZJ103E
R9	RK0011	Chip R, MCR10EZJ470E (DR-510E only)	R47	RK0062	Chip R, MCR10EZJ473E	R141	RK0035	Chip R, MCR10EZJ102E
R10	RK0011	Chip R, MCR10EZJ470E	R48	RK0062	Chip R, MCR10EZJ473E	R142	RK0035	Chip R, MCR10EZJ102E
R11	RK0042	Chip R, MCR10EZJ332E	R49	RK0062	Chip R, MCR10EZJ473E	C1	CU0011	Chip C, C2012CH1H100D
R12	RK0031	Chip R, MCR10EZJ681E	R50	RK0062	Chip R, MCR10EZJ473E	C2	CU0004	Chip C, C2012CH1H030C
R13	RK0011	Chip R, MCR10EZJ470E	R51	RK0018	Chip R, MCR10EZJ101E	C3	CU0035	Chip C, C2012CH1H101K
R14	RK0005	Chip R, MCR10EZJ220E	R52	RK0052	Chip R, MCR10EZJ103E	C4	CU8016	Chip C, C2012B1H102K
R17	RK0035	Chip R, MCR10EZJ102E (DR-510T only)	R53	RK0056	Chip R, MCR10EZJ223E	C5	CU8016	Chip C, C2012B1H102K
R17	RK0062	Chip R, MCR10EZJ473E (DR-510E only)	R54	RK0035	Chip R, MCR10EZJ102E	C6	CU0035	Chip C, C2012CH1H101K
R18	RK0018	Chip R, MCR10EZJ101E (DR-510T only)	R55	RK0062	Chip R, MCR10EZJ473E	C7	CU0002	Chip C, C2012CH1H010C
R18	RK0028	Chip R, MCR10EZJ471E (DR-510E only)	R56	RK0062	Chip R, MCR10EZJ473E	C8	CU8016	Chip C, C2012B1H102K
Q4	XT0030	Transistor, 2SC3356T1 (DR-510T only)	R57	RK0062	Chip R, MCR10EZJ473E	C9	CU0025	Chip C, C2012CH1H390K
Q4	XT0074	Transistor, 2SC2759T1 (DR-510E only)	R58	RK0022	Chip R, MCR10EZJ221E	C10	CU8016	Chip C, C2012B1H102K
Q5	XT0030	Transistor, 2SC3356T1 (DR-510T only)	R59	RK0052	Chip R, MCR10EZJ103E	C11	CU8016	Chip C, C2012B1H102K
Q5	XT0074	Transistor, 2SC2759T1 (DR-510E only)	R60	RK0038	Chip R, MCR10EZJ182E	C12	CU8016	Chip C, C2012B1H102K
L1	QC0018	Coil K3002 12NH	R61	RK0050	Chip R, MCR10EZJ822E	C13	CU8016	Chip C, C2012B1H102K
L2	QC0018	Coil K3002 12NH	R62	RK0038	Chip R, MCR10EZJ182E	C14	CU0003	Chip C, C2012CH1H020C
C3	CV8016	Chip C, C2012B1H102K	R63	RK0079	Chip R, MCR10EZJ474E	C15	CU0023	Chip C, C2012CH1H330K
C4	CV8016	Chip C, C2012B1H102K	R64	RK0052	Chip R, MCR10EZJ103E	C16	CU8016	Chip C, C2012B1H102K
C5	CV8016	Chip C, C2012B1H102K	R66	RK0052	Chip R, MCR10EZJ103E	C17	CU0035	Chip C, C2012CH1H101K
C6	CV0064	Chip C, C2012B1H220J	R67	RK0056	Chip R, MCR10EZJ223E	C18	CU8016	Chip C, C2012B1H102K
C7	CV8016	Chip C, C2012B1H102K	R68	RK0035	Chip R, MCR10EZJ102E	C19	CU8016	Chip C, C2012B1H102K
C8	CV0051	Chip C, C2012CH1H471K	R69	RK0018	Chip R, MCR10EZJ101E	C20	CU0008	Chip C, C2012CH1H070D
C9	CV0051	Chip C, C2012CH1H471K	R70	RK0045	Chip R, MCR10EZJ472E	C21	CU0035	Chip C, C2012CH1H101K
C10	CV8016	Chip C, C2012B1H102K	R71	RK0039	Chip R, MCR10EZJ222E	C22	CU8028	Chip C, C2012B1H103K
C11	CS0049	Chip Tantal, TMC1C105TR	R72	RK0018	Chip R, MCR10EZJ101E	C23	CU8028	Chip C, C2012B1H103K
UHF Main Unit			R73	RK0035	Chip R, MCR10EZJ102E (DR-510E only)	C24	CU8028	Chip C, C2012B1H103K
R1	RK0056	Chip R, MCR10EZJ223E	R74	RK0039	Chip R, MCR10EZJ222E	C25	CU8016	Chip C, C2012B1H102K
R2	RK0056	Chip R, MCR10EZJ223E	R75	RK0106	Chip R, MCR10EZJ3R3E	C26	CU0016	Chip C, C2012CH1H150K
R3	RK0069	Chip R, MCR10EZJ104E	R76	RK0018	Chip R, MCR10EZJ101E	C27	CU0029	Chip C, C2012CH1H560K
R4	RK0018	Chip R, MCR10EZJ101E	R77	RK0022	Chip R, MCR10EZJ221E	C28	CE0064	Chemical C, 10 V 47 μF MS9
R5	RK0018	Chip R, MCR10EZJ101E	R79	RK0031	Chip R, MCR10EZJ681E	C29	CE8028	Chemical C, B1H103K
R6	RK0011	Chip R, MCR10EZJ470E	R81	RK0106	Chip R, MCR10EZJ3R3E	C30	CE8016	Chemical C, B1H102K
R7	RK0106	Chip R, MCR10EZJ3R3E	R82	RK0062	Chip R, MCR10EZJ473E	C31	CE0030	Chemical C, 16 V 10 μF MS7
R8	RK0005	Chip R, MCR10EZJ220E	R83	RK0062	Chip R, MCR10EZJ473E	C33	CU8028	Chip C, C2012B1H103K
R12	RK0022	Chip R, MCR10EZJ221E	R85	RK0020	Chip R, MCR10EZJ151E	C34	CE0064	Chemical C, 10 V 47 μF MS9
R13	RK0011	Chip R, MCR10EZJ470E	R86	RK0038	Chip R, MCR10EZJ182E	C35	CE0121	Chemical C, 10 V 100 μF MS7
R15	RK0062	Chip R, MCR10EZJ473E	R87	RK0107	Chip R, MCR10EZJ000E (DR-510T only)	C36	CU8003	Chemical C, JF1E104Z
R16	RK0052	Chip R, MCR10EZJ103E	R87	RK0128	Chip R, MCR10EZJ5R6E (DR-510E only)	C38	CU8016	Chip C, C2012B1H102K
R17	RK0028	Chip R, MCR10EZJ471E	R88	RK0022	Chip R, MCR10EZJ221E	C39	CU8016	Chip C, C2012B1H102K
R18	RK0020	Chip R, MCR10EZJ151E	R89	RK0107	Chip R, MCR10EZJ000E (DR-510T only)	C40	CE0064	Chemical C, 10 V 47 μF MS9
R19	RK0018	Chip R, MCR10EZJ101E	R89	RK0128	Chip R, MCR10EZJ5R6E (DR-510E only)	C41	CU8007	Chemical C, JF1H473Z
R20	RK0052	Chip R, MCR10EZJ103E	R90	RK2008	Chip R, MCR10EZJ220E	C42	CE0064	Chemical C, 10 V 47 μF MS9
R21	RK0106	Chip R, MCR10EZJ3R3E	R91	RK0069	Chip R, MCR10EZJ104E	C44	CU8038	Chip C, CM316Y5V105Z25VAT
R24	RK0059	Chip R, MCR10EZJ333E	R92	RK0069	Chip R, MCR10EZJ104E	C45	CU8016	Chip C, C2012B1H102K
R26	RK0035	Chip R, MCR10EZJ102E	R95	RK0035	Chip R, MCR10EZJ102E	C46	CE0149	Chemical C, 10 V 220 μF SSP
R28	RK0035	Chip R, MCR10EZJ102E	R96	RK0035	Chip R, MCR10EZJ102E	C47	CE8028	Chemical C, 103K
R29	RK0035	Chip R, MCR10EZJ102E	R97	RK0052	Chip R, MCR10EZJ103E	C48	CS0064	Chip Tantal C, TMC1A155TR
R31	RK0035	Chip R, MCR10EZJ102E	R99	RK0079	Chip R, MCR10EZJ474E	C49	CE0064	Chemical C, 10 V 47 μF MS9
R33	RK0039	Chip R, MCR10EZJ222E	R100	RK0062	Chip R, MCR10EZJ473E	C50	CE8028	Chemical C, 103K
R35	RK0069	Chip R, MCR10EZJ104E	R101	RK0039	Chip R, MCR10EZJ222E	C51	CE0019	Chemical C, CH1H220K
R38	RK0052	Chip R, MCR10EZJ103E	R102	RK0035	Chip R, MCR10EZJ102E	C52	CE8028	Chemical C, 103K
R40	RK0052	Chip R, MCR10EZJ103E	R106	RK0069	Chip R, MCR10EZJ104E	C53	CE0043	Chemical C, CH1H221K
R41	RK0038	Chip R, MCR10EZJ182E	R107	RK0039	Chip R, MCR10EZJ222E	C54	CE0035	Chemical C, CH1H101K
R42	RK0005	Chip R, MCR10EZJ220E	R108	RK0062	Chip R, MCR10EZJ473E	C55	CU8016	Chip C, C2012B1H102K
			R115	RK0076	Chip R, MCR10EZJ334E	C56	CU0035	Chip C, C2012CH1H101K
			R116	RK0076	Chip R, MCR10EZJ334E	C57	CU8032	Chip C, C2012CH1H223K
			R119	RK0056	Chip R, MCR10EZJ223E	C58	CU8032	Chip C, C2012CH1H223K
			R120	RK0057	Chip R, MCR10EZJ273E	C59	CS0064	Chip Tantal C, TMC1A155TR
			R123	RK0045	Chip R, MCR10EZJ472E	C60	CQ0008	Film C, 50F2M683K
			R125	RK0056	Chip R, MCR10EZJ223E	C61	CU8016	Chip C, C2012B1H102K
			R126	RK0107	Chip R, MCR10EZJ000E	C62	CQ0008	Film C, 50F2M683K
			R127	RK0056	Chip R, MCR10EZJ223E	C63	CQ8028	Film C, 50F2M103K
			R128	RK0052	Chip R, MCR10EZJ103E	C64	CS0049	Chip Tantal C, TMC1C105TR
			R130	RK0052	Chip R, MCR10EZJ103E	C65	CS8028	Chip Tantal C, TMC1C103K
			R131	RK0052	Chip R, MCR10EZJ103E	C66	CU8016	Chip C, C2012B1H102K
			R133	RK0056	Chip R, MCR10EZJ223E	C67	CU8028	Chip C, C2012B1H103K
			R134	RK0107	Chip R, MCR10EZJ000E	C68	CE0149	Chemical C, 10 V 220 μF SSP
			R135	RK0039	Chip R, MCR10EZJ222E	C69	CE8028	Chemical C, 103K
						C70	CE0149	Chemical C, 10 V 220 μF SSP
						C71	CE0003	Chemical C, CH1H020C
						C72	CE0007	Chemical C, CH1H060D (DR 510E only)

Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
CU0015	Chip C, C2012CH1H150K (DR-510T only)	L1	QA0050	Coil 5x5 1/4 T	R2	RK0052	Chip R, MCR10EZHJ103E
CE0004	Chemical C, CH1H030C (DR-510E only)	L2	QA0036	Coil 3x1.5 T	R3	RK0056	Chip R, MCR10EZHJ223E
CU8016	Chip C, C2012B1H102K	L3	QA0061	Coil 110-7H2-440C	R4	RK0018	Chip R, MCR10EZHJ101E
CU0019	Chip C, C2012CH1H220K	L4	QA0061	Coil 110-7H2-440C	R5	RK0028	Chip R, MCR10EZHJ471E
CU8016	Chip C, C2012B1H102K	L5	QC0018	Coil K3002 12NH	R6	RK0022	Chip R, MCR10EZHJ221E (DR-510E only)
CU8016	Chip C, C2012B1H102K	L6	QC0050	Coil 5x5 1/4 T	R8	RK0037	Chip R, MCR10EZHJ152E
CU0011	Chip C, C2012CH1H100D	L7	QA0042	Coil 30R8MIF	R9	RK0011	Chip R, MCR10EZHJ470E
CU8016	Chip C, C2012B1H102K	L8	QA0043	Coil 30R8MIF	R10	RK0052	Chip R, MCR10EZHJ103E
CU8038	Chip C, CM316Y5V105Z25VAT	L9	QA0043	Coil 30R8MIF	R11	RK0069	Chip R, MCR10EZHJ104E
CU8038	Chip C, CM316Y5V105Z25VAT	L10	QC0039	Coil NL322522T-1ROM	R12	RK0028	Chip R, MCR10EZHJ471E
CU8034	Chip C, C2012B1E333K	L11	QC0045	Coil 4x1R2xOR6	R13	RK0022	Chip R, MCR10EZHJ221E (DR-510E only)
CE0064	Chemical C, 10 V 47 μ F MS9	L12	QC0048	Coil NL322522T 100K	R14	RK0011	Chip R, MCR10EZHJ470E
CE0064	Chemical C, 10 V 47 μ F MS9	L15	QC0048	Coil NL322522T 100K	R15	RK0107	Chip R, MCR10EZHJ000E
CE0064	Chemical C, 10 V 47 μ F MS9	L16	QC0020	Coil K3004 25NH	R16	RK0107	Chip R, MCR10EZHJ000E
CE0151	Chemical C, 10 V 470 μ F SSP	L17	QC0020	Coil K3004 25NH	R17	RK0052	Chip R, MCR10EZHJ103E
CU8003	Chemical C, JF1E104Z	IC1	XA0082	IC, MC7808CT	R18	RK0035	Chip R, MCR10EZHJ102E
CE0051	Chemical C, 16 V 1000 μ F MS16	IC2	XA0078	IC, M54959	R19	RK0052	Chip R, MCR10EZHJ103E
CE8028	Chemical C, 103K	IC4	XA0079	IC, μ PC1241H	C1	CU8016	Chip C, C2012B1H102K
CE0051	Chemical C, 16 V 1000 μ F MS16	FL1	XF0005	XF IL30. 8M 15A HC49/T	C2	CU8028	Chip C, C2012B1H103K
CE8028	Chemical C, 103K	FL2	XC0001	Ceramic F, CFW 455F	C3	CU0003	Chip C, C2012CH1H020C
CE0006	Chemical C, C2012CH1H050C	D1	XD0103	Diode, ISS226TE85L	C4	CU0009	Chip C, C2012CH1H080D
CE0064	Chemical C, 10 V 47 μ F MS9	D3	XD0040	Diode, DAN202KT96	C5	CU0011	Chip C, C2012CH1H100D
CU8016	Chip C, C2012B1H102K	D4	XD0040	Diode	C6	CU0061	Chip C, C2012CH1H120J
CU8016	Chip C, C2012B1H102K	D5	XD0104	Diode, 02CZ6.2YTE85L	C7	CU0029	Chip C, C2012CH1H560K (DR-510T only)
CE0030	Chemical C, 16 V 10 μ F MS7	D6	XD0041	Diode, DAP202KT96	C7	CU0008	Chip C, C2012CH1H070D (DR-510E only)
CU8016	Chip C, C2012B1H102K	D7	XD0070	Diode, ISS265	C8	CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K	D8	XD0070	Diode, ISS265	C9	CU0003	Chip C, C2012CH1H020C
CU8016	Chip C, C2012B1H102K	D9	XD0041	Diode, DAP202KT96	C10	CU0009	Chip C, C2012CH1H080D
CU8016	Chip C, C2012B1H102K	D10	XD0058	Diode, ISS181	C11	CU0011	Chip C, C2012CH1H100D
CU8016	Chip C, C2012B1H102K	D11	XD0040	Diode, DAN202KT96	C13	CU8016	Chip C, C2012B1H102K
CU8016	Chip C, C2012B1H102K	D12	XD0040	Diode, DAN202KT96	C14	CU8016	Chip C, C2012B1H102K
CE0122	Chemical C, 16 V 22 μ F SM7	D13	XD0080	Diode, RB400D796	C15	CU8016	Chip C, C2012B1H102K
CS0064	Chip Tantal C, TMC1A155TR	D14	XD0080	Diode, RB400D796	C16	CU8016	Chip C, C2012B1H102K
CU8025	Chip C, C2012B1H562K	D15	XD0040	Diode, DAN202KT96	C17	CU0001	Chip C, C2012CH1H0R5C
CU8025	Chip C, C2012B1H562K	D17	XD0040	Diode, DAN202KT96	C18	CU8016	Chip C, C2012B1H102K
CE0125	Chemical C, 25 V 4.7 μ F MS7	D18	XD0078	Diode, DAN235KT96	C19	CU0003	Chip C, C2012CH1H020C
CE8028	Chemical C, 103K	D20	XL0011	LED, TLG211	C20	CU8016	Chip C, C2012B1H102K
CE8028	Chemical C, 103K	Q1	XE0013	FET, 3SK184STX	Q1	XT0074	Transistor 2SC2759T1
CE8028	Chemical C, 103K	Q2	XE0002	FET, 2SK125	Q2	XE0010	Transistor 2SK508K52T1
CE0035	Chemical C, CH1H101K	Q3	XE0014	FET, 3SK184RTX	Q3	XT0037	Transistor 2SC2412KT96R
CE8028	Chemical C, 103K	Q4	XT0059	Transistor, 2SC3082	Q4	XE0010	Transistor 2SK508K52T1
CE8028	Chemical C, 103K	Q5	XT0077	Transistor, 2SC3326ATE85L	Q5	XU0012	Transistor DTC114EKT96
CE8003	Chemical C, JF1E104Z	Q6	XT0061	Transistor, 2SB1132T100Q	D1	XD0100	Varicap 1SV164T1
CU8016	Chip C, C2012B1H102K	Q7	XT0061	Transistor, 2SB1132T100Q	D2	XD0100	Varicap 1SV164T1
CU8016	Chip C, C2012B1H102K	Q8	XU0018	Digital Transistor DTC124EKT96	D3	XD0100	Varicap 1SV164T1
CU8016	Chip C, C2012B1H102K	Q9	XU0018	Digital Transistor DTC124EKT96	D4	XD0100	Varicap 1SV164T1
CU8016	Chip C, C2012B1H102K	Q10	XT0037	Transistor, 2SC2412KT96R	D5	XD0078	Diode DAN235KT96
CU8016	Chip C, C2012B1H102K	Q11	XT0037	Transistor, 2SC2412KT96R	TC1	CT0022	Trimmer C, ECRJA020E12W
CU0035	Chip C, C2012CH1H101K	Q12	XT0037	Transistor, 2SC2412KT96R	TC2	CT0021	Trimmer C, ECRJA010A12W
CU0035	Chip C, C2012CH1H101K	Q13	XT0037	Transistor, 2SC2412KT96R	L1	QK0076	Coil QK0076 (DR-510T only)
CU0035	Chip C, C2012CH1H101K	Q14	XT0037	Transistor, 2SC2412KT96R	L1	QK0039	Coil QK0039 (DR-510E only)
CU0035	Chip C, C2012CH1H101K	Q15	XT0037	Transistor, 2SC2412KT96R	L2	QK0039	Coil QK0039
CU8016	Chip C, C2012B1H102K	Q16	XT0038	Transistor, 2SA1037KT96R	L3	QC0036	Coil NL322522T-R56M
CU8016	Chip C, C2012B1H102K	Q17	XT0030	Transistor, 2SC3356T1	L4	QC0036	Coil NL322522T-R56M
CU8016	Chip C, C2012B1H102K	Q18	XT0030	Transistor, 2SC3356T1	L5	QC0036	Coil NL322522T-R56M
CU8016	Chip C, C2012B1H102K	Q19	XT0037	Transistor, 2SC2412KT96R	L6	QC0036	Coil NL322522T-R56M
CU8016	Chip C, C2012B1H102K	Q20	XT0078	Transistor, 2SC3369	L7	QC0036	Coil NL322522T-R56M
CK0003	Ceramic C, 50 V 102Z	Q21	XT0064	Transistor, 2SD1761E	L8	QC0036	Coil NL322522T-R56M
CE0149	Chemical C, 10 V 220 μ F 8SP	Q22	XT0037	Transistor, 2SC2412KT96R	L9	QC0022	Coil K300639NH
RH0043	VR, VM6CK-PV-1S501B	Q23	XT0037	Transistor, 2SC2412KT96R	L10	QC0010	Coil MLF3216E100M (DR-510T only)
RH0044	VR, VM6CK-PV-1S103B	Q24	XT0037	Transistor, 2SC2412KT96R	L10	QC0052	Coil LER015TR56M (DR-510E only)
RH0044	VR, VM6CK-PV-1S103B	Q25	XU0012	Digital Transistor DTC114EKT96	RX-SW Unit		
RH0046	VR, VM6CK-PV-1S503B	X1	XQ0037	X'tal HC-49/u 12.8 MHz	R1	RK0062	Chip R, MCR10EZHJ473E
RH0044	VR, VM6CK-PV-1S103B	X2	XQ0034	X'tal HC-49/u 30.4 MHz	R2	RK0107	Chip R, MCR10EZHJ000E
RH0045	VR, VM6CK-PV-1S303B	TH1	Thermistor	TD 5A150D	R3	RK0107	Chip R, MCR10EZHJ000E
RH0021	VR, H0651A 10KB	UHF VCO Unit			R4	RK0107	Chip R, MCR10EZHJ000E
CT0015	Trimmer C, CV05A0601	R1	RK0019	Chip R, MCR10EZHJ121E			
CT0015	Trimmer C, CV05A0601						
CT0015	Trimmer C, CV05A0601						
CT0024	Trimmer C, ECRJA010A12						
CT0024	Trimmer C, ECRJA010A12						
CT0015	Trimmer C, CV05A0601						

Ref. No.	Part Code	Part Name and Number
R5	RK0107	Chip R, MCR10EZJH000E
D1	XD0040	Diode DAN202KT96
D2	XD0040	Diode DAN202KT96
D3	XD0041	Diode DAP202KT96
D4	XD0105	Diode 02CZ3.9XTE85L
D5	XD0105	Diode 02CZ3.9XTE85L
C1	CS0049	Chip Tantal, TMC1C105TR
C2	CS0049	Chip Tantal, TMC1C105TR
C3	CS0049	Chip Tantal, TMC1C105TR
Q1	XU0019	Transistor DTA114YKT96
Q2	XU0021	Transistor FMC3T98
Q3	XU0019	Transistor DTA114YKT96
Q4	XU0019	Transistor DTA114YKT96
APC Unit		
R1	RK0039	Chip R, MCR10EZJH222E
R2	RK0035	Chip R, MCR10EZJH102E
R3	RK0037	Chip R, MCR10EZJH152E
R4	RK0052	Chip R, MCR10EZJH103E
R5	RK0052	Chip R, MCR10EZJH103E
R6	RK0036	Chip R, MCR10EZJH122E
C1	CU8016	Chip C, C2012B1H102K
C2	CS0064	Chip Tantal, TMC1A155TR
C3	CU8024	Chip C, C2012B1H472K
C4	CU8016	Chip C, C2012B1H102K
C5	CU8024	Chip C, C2012B1H472K
C6	CU8016	Chip C, C2012B1H102K
Q1	XU0020	Transistor FMW1T98
Q2	XU0020	Transistor FMW1T98
Q3	XU0038	Transistor 2SA1037KT96R
Lock SW Unit		
R1	RK0045	Chip R, MCR10EZJH472E
R2	RK0045	Chip R, MCR10EZJH472E
R3	RK0045	Chip R, MCR10EZJH472E
R4	RK0045	Chip R, MCR10EZJH472E
R5	RK0045	Chip R, MCR10EZJH472E
R6	RK0052	Chip R, MCR10EZJH103E
C1	CU8016	Chip C, C2012B1H102K
C2	CU8016	Chip C, C2012B1H102K
D1	XD0040	Diode DAN202KT96
Q1	XT0038	Transistor 2SA1037KT96R
Q2	XT0038	Transistor 2SA1037KT96R
Q3	XT0037	Transistor 2SC2412KT96R
IF Unit		
R1	RK0069	Chip R, MCR10EZJH104E
R2	RK0069	Chip R, MCR10EZJH104E
R4	RK0042	Chip R, MCR10EZJH332E
R5	RK0038	Chip R, MCR10EZJH182E
C2	CU8016	Chip C, C2012B1H102K
C3	CU0066	Chip C, C2012CH1H330J
C4	CU8024	Chip C, C2012B1H472K
C5	CU2059	Chip C, C2012SL1H561J
C6	CU8024	Chip C, C2012B1H472K
C7	CU8028	Chip C, C2012B1H103K
C8	CU8003	Chip C, C2012JF1E104Z
C9	CU8003	Chip C, C2012JF1E104Z
C10	CU8003	Chip C, C2012JF1E104Z
IC1	XA0070	IC, MC3361D T
L1	QC0049	Coil, NL322522T-221K
L2	QC0050	Coil, NL453232T-102K

Ref. No.	Part Code	Part Name and Number
SQL Unit		
R1	RK0069	Chip R, MCR10EZJH104E
R2	RK0040	Chip R, MCR10EZJH272E
R3	RK0039	Chip R, MCR10EZJH222E
R4	RK0056	Chip R, MCR10EZJH223E
R5	RK0042	Chip R, MCR10EZJH332E
R6	RK0048	Chip R, MCR10EZJH682E
R7	RK0052	Chip R, MCR10EZJH103E
R8	RK0069	Chip R, MCR10EZJH104E
R9	RK0045	Chip R, MCR10EZJH472E
R10	RK0079	Chip R, MCR10EZJH474E
R11	RK0057	Chip R, MCR10EZJH273E
R12	RK0056	Chip R, MCR10EZJH223E
R13	RK0039	Chip R, MCR10EZJH222E
R14	RK0061	Chip R, MCR10EZJH393E
R15	RK0057	Chip R, MCR10EZJH273E
R17	RK0039	Chip R, MCR10EZJH222E
C1	CU8016	Chip C, C2012B1H102K
C2	CU0066	Chip C, C2012CH1H330J
C4	CU9015	Chip C, 32161E 0.1 μ FZ
C5	CU8038	Chip C, CM316Y5V105Z25VAT
C6	CS0065	Chip Tantal, TMC1D684TR
C7	CU8035	Chip C, C2012B1E393K
C8	CU8035	Chip C, C2012B1E393K
C9	CU8030	Chip C, C2012B1H153K
C10	CU8034	Chip C, C2012B1E333K
D1	XD0103	Diode ISS226TE85L
D2	XD0041	Diode DAP202KT96
Q1	XT0037	Transistor, 2SC2412KT96R
Q2	XT0037	Transistor, 2SC2412KT96R
Q3	XT0076	Transistor, 2SC3295BTE85L
Q4	XT0076	Transistor, 2SC3295BTE85L
Q5	XT0037	Transistor, 2SC2412KT96R
Q6	XT0037	Transistor, 2SC2412KT96R
MIC Unit		
R1	RK0053	Chip R, MCR10EZJH123E
R2	RK0062	Chip R, MCR10EZJH473E
R3	RK0064	Chip R, MCR10EZJH563E
R4	RK0018	Chip R, MCR10EZJH101E
R5	RK0071	Chip R, MCR10EZJH154E
R6	RK0069	Chip R, MCR10EZJH104E
R7	RK0018	Chip R, MCR10EZJH101E
R8	RK0062	Chip R, MCR10EZJH473E
R9	RK0062	Chip R, MCR10EZJH473E
R10	RK0030	Chip R, MCR10EZJH561E
R11	RK0074	Chip R, MCR10EZJH274E
R12	RK0064	Chip R, MCR10EZJH563E
R13	RK0073	Chip R, MCR10EZJH224E
R14	RK0067	Chip R, MCR10EZJH823E
R15	RK0067	Chip R, MCR10EZJH823E
R16	RK0067	Chip R, MCR10EZJH823E
R17	RK0052	Chip R, MCR10EZJH103E
R18	RK0107	Chip R, MCR10EZJH000E
C1	CU8032	Chip C, C2012B1E223K
C2	CU8038	Chip C, CM316Y5V105Z25VAT
C3	CU8034	Chip C, C2012B1E333K
C4	CU8032	Chip C, C2012B1E223K
C6	CU8038	Chip C, CM316Y5V105Z25VAT
C7	CU0071	Chip C, C2012CH1H101J
C8	CU8021	Chip C, C2012B1H272K
C9	CU8038	Chip C, CM316Y5V105Z25VAT
C10	CU0071	Chip C, C2012CH1H101J
C11	CU8015	Chip C, C2012B1H821K
IC1	XA0068	IC, M5218FP-T01-1
IC2	XA0068	IC, M5218FP-T01-1
APC Unit		
R1	RK0039	Chip R, MCR10EZJH222E

Ref. No.	Part Code	Part Name and Number
R2	RK0035	Chip R, MCR10EZJH102E
R3	RK0037	Chip R, MCR10EZJH152E
R4	RK0052	Chip R, MCR10EZJH103E
R5	RK0052	Chip R, MCR10EZJH103E
R6	RK0036	Chip R, MCR10EZJH122E
Q1	XU0020	Transistor, FMW1 T98
Q2	XU0020	Transistor, FMW1 T98
Q3	XT0038	Transistor, 2SA1037KT96R
C1	CU8016	Chip C, C2012B1H102K
C2	CS0064	Chip Tantal, TMC1A155TR
C3	CU8024	Chip C, C2012B1H472K
C4	CU8016	Chip C, C2012B1H102K
C5	CU8024	Chip C, C2012B1H472K
C6	CU8016	Chip C, C2012B1H102K
VHF Drive Unit		
R7	RK0018	Chip R, MCR10EZJH101E
R8	RK0035	Chip R, MCR10EZJH102E
R10	RK0014	Chip R, MCR10EZJH680E
R11	RK0038	Chip R, MCR10EZJH182E
R12	RK0028	Chip R, MCR10EZJH471E
R13	RK0010	Chip R, MCR10EZJH390E
R14	RK0005	Chip R, MCR10EZJH220E
R16	RK0025	Chip R, MCR10EZJH331E
R17	RK0045	Chip R, MCR10EZJH472E
R19	RK0056	Chip R, MCR10EZJH223E
Q4	XT0059	Transistor, 2SC3082KT96Q
Q5	XT0071	Transistor, 2SC3837KT96N
L1	QC0024	Chip L, K300860NH
C3	CU8028	Chip C, C2012B1H103K
C4	CU8028	Chip C, C2012B1H103K
C5	CU8016	Chip C, C2012B1H102K
C6	CU0066	Chip C, C2012CH1H330J
C7	CU8028	Chip C, C2012B1H103K
C8	CU8028	Chip C, C2012B1H103K
C9	CU8028	Chip C, C2012B1H103K
C10	CU8016	Chip C, C2012B1H102K
C11	CS0049	Chip Tantal, TMC1C105TR
C12	CU0003	Chip C, C2012CH1H020C
VHF VCO Unit		
R1	RK0018	Chip R, MCR10EZJH101E
R2	RK0056	Chip R, MCR10EZJH223E
R3	RK0052	Chip R, MCR10EZJH103E
R4	RK0018	Chip R, MCR10EZJH101E
R5	RK0011	Chip R, MCR10EZJH470E
R6	RK0027	Chip R, MCR10EZJH391E
R7	RK0069	Chip R, MCR10EZJH104E
R8	RK0052	Chip R, MCR10EZJH103E
R9	RK0037	Chip R, MCR10EZJH152E
R10	RK0067	Chip R, MCR10EZJH823E
R11	RK0073	Chip R, MCR10EZJH224E
R12	RK0011	Chip R, MCR10EZJH470E
R13	RK0021	Chip R, MCR10EZJH181E
R14	RK0048	Chip R, MCR10EZJH682E
R15	RK0052	Chip R, MCR10EZJH103E
R16	RK0052	Chip R, MCR10EZJH103E
R17	RK0035	Chip R, MCR10EZJH102E
D1	XD0040	Diode DAN202KT96
D2	XD0100	Varicap ISV164T1
D3	XD0101	Varicap ISV166T1
D4	XD0101	Varicap ISV166T1
D5	XD0094	Diode ISS153T1
Q1	XT0075	Transistor, 2SC2757T1
Q2	XE0010	FET 2SK508K52T1
Q3	XT0037	Transistor, 2SC2412KT96R
Q4	XE0011	FET 2SK508K51T1

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
	QC0045	Chip L, NL322522T-3R3M	X2	XQ0033	X'tal HC-49/u 10.245 MHz	R82	RK0052	Chip R, MCR10EZJ103E
	QK0042	Coil 3x5R0x0R6				R89	RK0018	Chip R, MCR10EZJ101E
	QC0045	Chip L, NL322522T-3R3M	TH1	XS0004	Thermistor TD5A150D	R90	RK0038	Chip R, MCR10EZJ182E
	QC0045	Chip L, NL322522T-3R3M				R91	RK0020	Chip R, MCR10EZJ151E
	QK0041	Coil 3x4R0x0R8	IC1	XA0082	IC, MC7808CT	R94	RK0039	Chip R, MCR10EZJ222E
	QC0039	Chip L, NL322522T-1R0M	IC2	XA0078	IC, M54959P	R95	RK2008	Chip R, MCR50JZHJ220E
						R96	RK0069	Chip R, MCR50JZHJ104E
	CT0021	Trimmer C, ECRJA010A12W	R1	RK0047	Chip R, MCR10EZJ562E	R98	RK0069	Chip R, MCR50JZHJ104E
	CT0021	Trimmer C, ECRJA010A12W	R2	RK0052	Chip R, MCR10EZJ103E	R100	RK0045	Chip R, MCR50JZHJ472E
			R3	RK0056	Chip R, MCR10EZJ223E	R103	RK0055	Chip R, MCR50JZHJ183E
	CU8016	Chip C, C2012B1H102K	R4	RK0018	Chip R, MCR10EZJ101E	R104	RK0052	Chip R, MCR50JZHJ103E
	CU8016	Chip C, C2012B1H102K	R5	RK0011	Chip R, MCR10EZJ470E	R109	RK0035	Chip R, MCR50JZHJ102E
	CU0004	Chip C, C2012CH1H030C	R6	RK0025	Chip R, MCR10EZJ331E	R110	RK0069	Chip R, MCR50JZHJ104E
	CU8028	Chip C, C2012B1H103K	R7	RK0011	Chip R, MCR10EZJ470E	R111	RK0069	Chip R, MCR50JZHJ104E
	CU0004	Chip C, C2012CH1H030C	R8	RK0052	Chip R, MCR10EZJ103E	R112	RK0069	Chip R, MCR50JZHJ104E
	CU0011	Chip C, C2012CH1H100D	R9	RK0062	Chip R, MCR10EZJ473E	R113	RK0062	Chip R, MCR50JZHJ473E
	CU0009	Chip C, C2012CH1H080D	R10	RK0011	Chip R, MCR10EZJ470E	R114	RK0035	Chip R, MCR50JZHJ102E
	CU0064	Chip C, C2012CH1H220J	R11	RK0062	Chip R, MCR10EZJ473E	R115	RK0035	Chip R, MCR50JZHJ102E
	CU0001	Chip C, C2012CH1H0R5C	R12	RK0035	Chip R, MCR10EZJ102E	R116	RK0035	Chip R, MCR50JZHJ102E
	CU0065	Chip C, C2012CH1H270J	R13	RK0001	Chip R, MCR10EZJ100E	R118	RK0107	Chip R, MCR50JZHJ000E
	CU8016	Chip C, C2012B1H102K	R14	RK0074	Chip R, MCR10EZJ274E	R121	RK0107	Chip R, MCR50JZHJ000E
	CU0004	Chip C, C2012CH1H030C	R15	RK0018	Chip R, MCR10EZJ101E	R122	RK0107	Chip R, MCR10EZJ000E
	CU8028	Chip C, C2012B1H103K	R16	RK0038	Chip R, MCR10EZJ182E	R124	RK0107	Chip R, MCR10EZJ000E
	CU0004	Chip C, C2012CH1H030C	R17	RK0062	Chip R, MCR10EZJ473E	R127	RK0056	Chip R, MCR10EZJ223E
	CU0061	Chip C, C2012CH1H120J	R18	RK0052	Chip R, MCR10EZJ103E	R128	RK0057	Chip R, MCR10EZJ273E
	CU0066	Chip C, C2012CH1H330J	R19	RK0018	Chip R, MCR10EZJ101E	R129	RK0008	Chip R, MCR10EZJ330E
	CU0060	Chip C, C2012CH1H470J	R20	RK0028	Chip R, MCR10EZJ471E	R130	RK0052	Chip R, MCR10EZJ103E
	CU0011	Chip C, C2012CH1H100D	R21	RK0018	Chip R, MCR10EZJ101E	R131	RK0052	Chip R, MCR10EZJ103E
	CU8016	Chip C, C2012B1H102K	R23	RK0038	Chip R, MCR10EZJ182E	R132	RK0056	Chip R, MCR10EZJ223E
	CU0060	Chip C, C2012CH1H470J	R25	RK0059	Chip R, MCR10EZJ333E	R133	RK0052	Chip R, MCR10EZJ103E
	CU8016	Chip C, C2012B1H102K	R31	RK0035	Chip R, MCR10EZJ102E	R140	RK0107	Chip R, MCR10EZJ000E
	CU8016	Chip C, C2012B1H102K	R33	RK0069	Chip R, MCR10EZJ104E	R141	RK0035	Chip R, MCR10EZJ102E
	CE0198	Chemical C, 10MS5100	R34	RK0039	Chip R, MCR10EZJ222E	R142	RD0116	R, R20R02J1R0
			R35	RK0107	Chip R, MCR10EZJ000E	R143	RK0039	Chip R, MCR10EZJ222E
			R36	RK0038	Chip R, MCR10EZJ182E	R144	RK0107	Chip R, MCR10EZJ000E
			R37	RK0052	Chip R, MCR10EZJ103E			
			R38	RK0038	Chip R, MCR10EZJ182E	L1	QA0038	Coil, 114M RF
			R39	RK0035	Chip R, MCR10EZJ102E	L2	QA0038	Coil, 114M RF
			R40	RK0052	Chip R, MCR10EZJ103E	L3	QA0053	Coil, 144M
			R41	RK0038	Chip R, MCR10EZJ182E	L4	QA0053	Coil, 144M
			R42	RK0035	Chip R, MCR10EZJ102E	L5	QA0054	Coil, 144M
			R43	RK0001	Chip R, MCR10EZJ100E	L6	QA0037	Coil, 144M TC
			R44	RK0045	Chip R, MCR10EZJ472E	L7	QA0039	Coil, 10R7M IF
			R45	RK0062	Chip R, MCR10EZJ473E	L8	QA0039	Coil, 10R7M IF
			R46	RK0062	Chip R, MCR10EZJ473E	L10	QA0041	Coil, 455K IF
			R47	RK0062	Chip R, MCR10EZJ473E	L11	QL0007	Choke Coil, 1R6MH R6A
			R48	RK0062	Chip R, MCR10EZJ473E	L13	QC0045	Chip L, NL322522T-3R3M
			R49	RK0062	Chip R, MCR10EZJ473E	L14	QC0034	Chip L, NL322522T-R39M
			R50	RK0048	Chip R, MCR10EZJ682E	L15	QK0032	Coil, 3x4T
			R51	RK0076	Chip R, MCR10EZJ334E	L16	QK0042	Coil, 3x5R0x0R6
			R52	RK0044	Chip R, MCR10EZJ392E			
			R53	RK0076	Chip R, MCR10EZJ334E	C1	CU0066	Chip C, C2012CH1H330J
			R54	RK0044	Chip R, MCR10EZJ392E	C2	CU0061	Chip C, C2012CH1H120J
			R55	RK0056	Chip R, MCR10EZJ223E	C3	CU0009	Chip C, C2012CH1H080C
			R58	RK0018	Chip R, MCR10EZJ101E	C4	CU0010	Chip C, C2012CH1H080D
			R59	RK0056	Chip R, MCR10EZJ223E	C5	CU8016	Chip C, C2012B1H102K
			R60	RK0052	Chip R, MCR10EZJ103E	C6	CU8016	Chip C, C2012B1H102K
			R62	RK0052	Chip R, MCR10EZJ103E	C7	CU8028	Chip C, C2012B1H103K
			R63	RK0062	Chip R, MCR10EZJ473E	C8	CU8016	Chip C, C2012B1H102K
			R64	RK0040	Chip R, MCR10EZJ272E	C9	CU8016	Chip C, C2012B1H102K
			R65	RK0040	Chip R, MCR10EZJ272E	C10	CU8028	Chip C, C2012B1H103K
			R66	RK0050	Chip R, MCR10EZJ822E	C11	CU0005	Chip C, C2012CH1H040C
			R67	RK0038	Chip R, MCR10EZJ182E	C12	CU0062	Chip C, C2012CH1H150J
			R68	RK0052	Chip R, MCR10EZJ103E	C13	CU8016	Chip C, C2012B1H102K
			R69	RK0052	Chip R, MCR10EZJ103E	C14	CU8028	Chip C, C2012B1H103K
			R70	RK0045	Chip R, MCR10EZJ472E	C15	CU0006	Chip C, C2012CH1H050C
			R71	RK0056	Chip R, MCR10EZJ223E	C16	CU8016	Chip C, C2012B1H102K
			R72	RK0052	Chip R, MCR10EZJ103E	C17	CU8028	Chip C, C2012B1H103K
			R73	RK0056	Chip R, MCR10EZJ223E	C18	CU8028	Chip C, C2012B1H103K
			R74	RK0018	Chip R, MCR10EZJ101E	C19	CU8028	Chip C, C2012B1H103K
			R75	RK0035	Chip R, MCR10EZJ102E	C20	CU8016	Chip C, C2012B1H102K
			R76	RK0018	Chip R, MCR10EZJ101E	C21	CE0064	Chemical C, 10 V 47 μF MS9
			R77	RK0035	Chip R, MCR10EZJ102E	C22	CU2073	Chip C, C2012S151J
			R78	RK0056	Chip R, MCR10EZJ223E	C23	CU8028	Chip C, C2012B1H103K
			R79	RK0052	Chip R, MCR10EZJ103E	C25	CU0066	Chip C, C2012CH1H330J
			R80	RK0018	Chip R, MCR10EZJ101E	C27	CU8016	Chip C, C2012B1H102K
			R81	RK0052	Chip R, MCR10EZJ103E	C32	CU8003	Chip C, C2012JF1E104Z
VHF Main Unit								
	XE0013	FET, 3SK184STX						
	XE0012	FET, 3SK131V11(V12)T1						
	XT0059	Transistor, 2SC3082KT96Q						
	XT0061	Transistor, 2SB1132T100Q						
	XT0061	Transistor, 2SB1132T100Q						
	XU0018	Transistor, DTC124EKT96						
	XU0018	Transistor, DTC124EKT96						
	XT0037	Transistor, 2SC2412KT96R						
	XT0081	Transistor, 2SC2714Y						
	XT0037	Transistor, 2SC2412KT96R						
	XT0037	Transistor, 2SC2412KT96R						
	XT0038	Transistor, 2SA1037KT96R						
	XT0030	Transistor, 2SC3356T1						
	XT0030	Transistor, 2SC3356T1						
	XT0037	Transistor, 2SC2412KT96R						
	XT0078	Transistor, 2SC3369						
	XT0064	Transistor, 2SD1761E						
	XT0037	Transistor, 2SC2412KT96R						
	XT0037	Transistor, 2SC2412KT96R						
	XD0103	Diode ISS226TE85L						
	XD0040	Diode DAN202KT96						
	XD0040	Diode DAN202KT96						
	XD0104	Diode 02CZ6.2YTE85L						
	XD0041	Diode DAP202KT96						
	XD0070	Diode ISS265						
	XD0070	Diode ISS265						
	XD0041	Diode DAP202KT96						
	XD0058	Diode ISS181TE85L						
	XD0100	Varicap ISV164T1						
	XD0100	Varicap ISV164T1						
	XD0100	Varicap ISV164T1						
	XD0040	Diode DAN202KT96						
	XD0040	Diode DAN202KT96						
	XD0080	Diode RB400DT96						
	XD0080	Diode RB400DT96						
	XF0004	XF 1L10.7M 15 A 49/T						
	XC0001	Ceramic Filter CFW455F						
	XQ0037	X'tal HC-49/u 12.8 MHz						

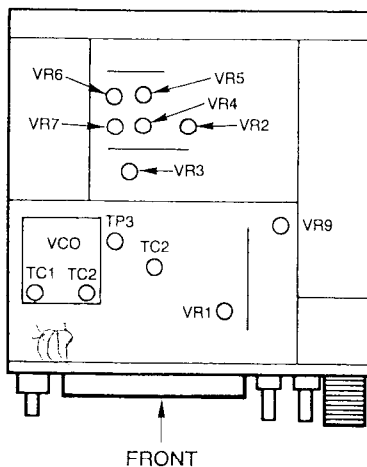
Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
C33	CU8003	Chip C, C2012JF1E104Z	TC4	CT0025	Trimmer C, ECRLA020E12	R20	RK0107	Chip R, MCR10EZHJ000E
C34	CU8028	Chip C, C2012B1H103K	VR1	RH0043	VR VM6CK-PV-1S501B	C1	CS0049	Chip Tantal, TMC1C105TR
C35	CU8016	Chip C, C2012B1H102K	VR2	RH0044	VR VM6CK-PV-1S103B	C2	CS0049	Chip Tantal, TMC1C105TR
C36	CU8016	Chip C, C2012B1H102K	VR3	RH0044	VR VM6CK-PV-1S103B	C3	CU8003	Chip C, C2012JF1E104Z
C37	CE0064	Chemical C, 10 V 47 μ F MS9	VR4	RH0046	VR VM6CK-PV-1S503B	C4	CU8003	Chip C, C2012JF1E104Z
C38	CU8034	Chip C, C2012B1E333K	VR5	RH0046	VR VM6CK-PV-1S503B	C5	CU8028	Chip C, C2012B1H103K
C39	CE0064	Chemical C, 10 V 47 μ F MS9	VR6	RH0044	VR VM6CK-PV-1S103B	C6	CU0051	Chip Tantal, TMC1C106TR
C40	CU8038	Chip C, CM316Y5V105Z25VAT	VR7	RH0045	VR VM6CK-PV-1S303B	C8	CU8003	Chip C, C2012JF1E104Z
C41	CU8028	Chip C, C2012B1H103K	1750 Hz Tone Burst Unit			C11	CS0051	Chip Tantal, TMC1C106TR
C42	CE0064	Chemical C, 10 V 47 μ F MS9	C2	CU8003	Chip C, C2012JF1E	C12	CS0049	Chip Tantal, TMC1C105TR
C43	CU8028	Chip C, C2012B1H103K	C3	CU0051	Chip C, C2012CH1H471K	C13	CU8038	Chip C, C3216B1H105K
C44	CE0030	Chemical C, 16 V 10 μ F MS7	C4	CU8005	Chip C, C2012B1H222K	C14	CS0049	Chip Tantal, TMC1C105TR
C45	CS0049	Chip Tantal, TMC1C105TR	C5	CU8016	Chip C, C2012B1H102K	C15	CS0050	Chip Tantal, TMC1A475TR
C46	CE0064	Chemical C, 10 V 47 μ F MS9	C6	CU8028	Chip C, C2012B1H103K	C16	CC0105	Ceramic C, 50 V 4 pF CH
C47	CU8016	Chip C, C2012B1H102K	C7	CS0049	Chip Tantal, TMC1C105TR	C17	CU8003	Chip C, C2012JF1E104Z
C48	CU8028	Chip C, C2012B1H103K	C8	CU8016	Chip C, C2012B1H102K	Q1	XU0002	Transistor, DTC114YKT96
C49	CU8028	Chip C, C2012B1H103K	C9	CS0050	Chip Tantal, TMC1A475TR	Q2	XU0002	Transistor, DTC114YKT96
C50	CU8028	Chip C, C2012B1H103K	C10	CU0011	Chip C, C2012CH1H100D	Q3	XT0037	Transistor, 2SC2412KT96R
C51	CU8003	Chip C, C2012JF1E104Z	C11	CU0011	Chip C, C2012CH1H100D	Q4	XU0002	Transistor, DTC114YKT96
C53	CU8028	Chip C, C2012B1H103K	C12	CU8016	Chip C, C2012B1H102K	Q5	XU0002	Transistor, DTC114YKT96
C54	CU0064	Chip C, C2012CH1H220J	R1	RK0079	Chip R, MCR10EZHJ474E	Q6	XT0037	Transistor, 2SC2412KT96R
C55	CU0043	Chip C, C2012CH1H221K	R2	RK0062	Chip R, MCR10EZHJ473E	Q7	XU0002	Transistor, DTC114YKT96
C56	CU0071	Chip C, C2012CH1H101J	R3	RK0069	Chip R, MCR10EZHJ104E	IC1	XA0020	IC, MN6520
C57	CU0071	Chip C, C2012CH1H101J	R4	RK0056	Chip R, MCR10EZHJ223E	IC2	XA0019	IC, MPD4094BG
C59	CQ0007	Film C, 50F2M473K	R5	RK0052	Chip R, MCR10EZHJ103E	FAR1	XB0002	FAR, C4CA04194000K01
C60	CU0071	Chip C, C2012CH1H101J	R7	RK0107	Chip R, MCR10EZHJ000E	VR1	RH0051	VR, CVR-42A-472AW1D
C61	CU2051	Chip C, C2012SL471K	R8	RK0107	Chip R, MCR10EZHJ000E	Crystal Converter Unit		
C62	CU8019	Chip C, C2012B1H182K	R9	RK0086	Chip R, MCR10EZHJ105E	R2	RK0048	Chip R, MCR10EZHJ682E
C63	CU8028	Chip C, C2012B1H103K	R10	RK0107	Chip R, MCR10EZHJ000E	R3	RK0054	Chip R, MCR10EZHJ153E
C65	CU8016	Chip C, C2012B1H102K	R11	RK0062	Chip R, MCR10EZHJ473E	R4	RK0045	Chip R, MCR10EZHJ472E
C67	CU8028	Chip C, C2012B1H103K	R12	RK0018	Chip R, MCR10EZHJ101E	R5	RK0028	Chip R, MCR10EZHJ471E
C68	CQ0008	Film C, 50F2M683K	R13	RK0035	Chip R, MCR10EZHJ102E	R6	RK0052	Chip R, MCR10EZHJ103E
C69	CS0049	Chip Tantal, TMC1C105TR	R14	RK0035	Chip R, MCR10EZHJ102E	R7	RK0040	Chip R, MCR10EZHJ272E
C70	CE0199	Chemical C, 16 V 100 μ F MS7	R15	RK0062	Chip R, MCR10EZHJ473E	R8	RK0062	Chip R, MCR10EZHJ473E
C72	CU0066	Chip C, C2012CH1H330J	R16	RK0107	Chip R, MCR10EZHJ000E	R9	RK0054	Chip R, MCR10EZHJ153E
C73	CU8016	Chip C, C2012B1H102K	R17	RK0107	Chip R, MCR10EZHJ000E	R10	RK0028	Chip R, MCR10EZHJ471E
C74	CU0066	Chip C, C2012CH1H330J	R18	RK0062	Chip R, MCR10EZHJ473E	R11	RK0020	Chip R, MCR10EZHJ151E
C75	CU8028	Chip C, C2012B1H103K	R19	RK0107	Chip R, MCR10EZHJ000E	R13*	RK0045	Chip R, MCR10EZHJ472E
C76	CU0011	Chip C, C2012CH1H100D	VR1	RH0031	VR, CVR-42A-103AW1D	R14	RK0054	Chip R, MCR10EZHJ153E
C77	CU8016	Chip C, C2012B1H102K	Q1	XT0037	Transistor, 2SC2412KT96R	R15	RK0059	Chip R, MCR10EZHJ333E
C78	CU0011	Chip C, C2012CH1H100D	Q2	XT0038	Transistor, 2SA1037KT96R	R16	RK0025	Chip R, MCR10EZHJ331E
C79	CU8028	Chip C, C2012B1H103K	X1	XQ0021	X'Tal DSMAT 3.58 MHz	R17	RK0054	Chip R, MCR10EZHJ153E
C80	CU2051	Chip C, C2012SL471K	IC2	XA0084	IC, MPD4020BG-T1	R18	RK0062	Chip R, MCR10EZHJ473E
C81	CU8016	Chip C, C2012B1H102K	IC3	XA0085	IC, MPD4069BG-T1	R19	RK0025	Chip R, MCR10EZHJ331E
C82	CU8028	Chip C, C2012B1H103K	Tone Squelch Unit			R20	RK0039	Chip R, MCR10EZHJ222E
C84	CU8028	Chip C, C2012B1H103K	R1	RK0062	Chip R, MCR10EZHJ473E	R21	RK0039	Chip R, MCR10EZHJ222E
C85	CU8028	Chip C, C2012B1H103K	R2	RK0062	Chip R, MCR10EZHJ473E	R22	RK0056	Chip R, MCR10EZHJ223E
C93	CE0051	Chemical C, 16 V 1000 μ F MS16	R3	RK0039	Chip R, MCR10EZHJ222E	R23	RK0054	Chip R, MCR10EZHJ153E
C96	CE0125	Chemical C, 25 V 4.7 μ F MS7	R4	RK0073	Chip R, MCR10EZHJ224E	R24	RK0037	Chip R, MCR10EZHJ152E
C97	CE0030	Chemical C, 16 V 10 μ F MS7	R5	RK0062	Chip R, MCR10EZHJ473E	R25	RK0031	Chip R, MCR10EZHJ681E
C98	CU8016	Chip C, C2012B1H102K	R6	RK0031	Chip R, MCR10EZHJ681E	R26	RK0048	Chip R, MCR10EZHJ682E
C100	CU8016	Chip C, C2012B1H102K	R7	RK0052	Chip R, MCR10EZHJ103E	R27	RK0056	Chip R, MCR10EZHJ223E
C101	CE0030	Chemical C, 16 V 10 μ F MS7	R8	RK0052	Chip R, MCR10EZHJ103E	R28	RK0035	Chip R, MCR10EZHJ102E
C102	CU8016	Chip C, C2012B1H102K	R9	RK0039	Chip R, MCR10EZHJ222E	R31	RK0011	Chip R, MCR10EZHJ470E
C103	CE0199	Chemical C, 16 V 100 μ F MS7	R10	RK0086	Chip R, MCR10EZHJ105E	R32	RK0052	Chip R, MCR10EZHJ103E
C104	CU8028	Chip C, C2012B1H103K	R11	RK0062	Chip R, MCR10EZHJ473E	D1	XD0078	Diode, DAN235KT96
C105	CU8016	Chip C, C2012B1H102K	R12	RK0022	Chip R, MCR10EZHJ221E	D2	XD0078	Diode, DAN235KT96
C106	CU8016	Chip C, C2012B1H102K	R13	RK0052	Chip R, MCR10EZHJ103E	X1	XQ0031	X'Tal UM-1 57.7777 MHz
C107	CU8016	Chip C, C2012B1H102K	R14	RK0050	Chip R, MCR10EZHJ822E	Q1	XT0030	Transistor, 2SC3356T1
C108	CU8016	Chip C, C2012B1H102K	R15	RK0039	Chip R, MCR10EZHJ222E	Q2	XT0030	Transistor, 2SC3356T1
C109	CU8016	Chip C, C2012B1H102K	R16	RK0071	Chip R, MCR10EZHJ154E	Q3	XT0030	Transistor, 2SC3356T1
C113	CU8028	Chip C, C2012B1H103K	R17	RK0053	Chip R, MCR10EZHJ123E	Q4	XT0030	Transistor, 2SC3356T1
C114	CU0006	Chip C, C2012CH1H050C	R18	RK0050	Chip R, MCR10EZHJ822E	Q5	XT0030	Transistor, 2SC3356T1
C115	CU0061	Chip C, C2012CH1H120J	R19	RK0035	Chip R, MCR10EZHJ102E	Q6	XT0030	Transistor, 2SC3356T1
C116	CU0006	Chip C, C2012CH1H050C				TC1	CT0020	Trimmer C, CV38A2001
C117	CU0061	Chip C, C2012CH1H120J				TC2	CT0020	Trimmer C, CV38A2001
C118	CU0064	Chip C, C2012CH1H220J						
C119	CU8028	Chip C, C2012B1H103K						
C120	CS0033	Chip Tantal, TMC1A225TR						
C121	CU8016	Chip C, C2012B1H102K						
C141	CU0071	Chip C, C2012CH1H101J						
C142	CU0071	Chip C, C2012CH1H101J						
C143	CU0071	Chip C, C2012CH1H101J						
C144	CU0071	Chip C, C2012CH1H101J						
TC2	CT0023	Trimmer C, ECRLA006A12						
TC3	CT0025	Trimmer C, ECRLA020E12						

Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
CT0020	Trimmer C, CV38A2001	C14	CU0051	Chip C, C2012CH1H471K	C5	CU0051	Chip C, C2012CH1H471K
CT0017	Trimmer C, CV38A0301	C15	CC5014	Ceramic C, HM60SJSLO40C	C6	CC5016	Ceramic C, HM60SJSLO80D
CT0017	Trimmer C, CV38A0301	C16	CU7018	Chip C, VC232H0180J-T	C7	CC5015	Ceramic C, HM60SJSLO60D
CT0017	Trimmer C, CV38A0301	C17	CC5014	Ceramic C, HM60SJSLO40C	C8	CC5015	Ceramic C, HM60SJSLO60D
CT0018	Trimmer C, CV38A0601	C18	CU0051	Chip C, C2012CH1H471K	C9	CU0011	Chip C, C2012CH1H100D
CT0019	Trimmer C, CV38A1001	C19	CU0051	Chip C, C2012CH1H471K	C10	CU0051	Chip C, C2012CH1H471K
CT0019	Trimmer C, CV38A1001	C21	CU0002	Chip C, C2012CH1H010C	C11	CS0049	Chip Tantal, TMC1C105TR
		C25	CU8016	Chip C, C2012B1H102K	C12	CU8016	Chip C, C2012B1H102K
		C26	CU0005	Chip C, C2012CH1H040C (DR-510E only)	C13	CU0005	Chip C, C2012CH1H040C
CU0064	Chip C, C2012CH1H220J	VR1	RH0049	VR, TM64K2PV101B	L1	QK0055	Coil, 3x6Tx0.8
CU0009	Chip C, C2012CH1H080D	L1	QK0044	Coil, 3x9R5x0R5	L2	QK0055	Coil, 3x6Tx0.8
CU0060	Chip C, C2012CH1H470J	L2	QK0038	Coil, 3x1R5x0R7	L3	QK0054	Coil, 3x1.75Tx0.8
CU0002	Chip C, C2012CH1H010C	L3	QK0040	Coil, 3x3R5x0R6	L5	QK0054	Coil, 3x1.75Tx0.8
CU0060	Chip C, C2012CH1H470J	L4	QK0038	Coil, 3x1R5x0R7	L6	QK0054	Coil, 3x1.75Tx0.8
CU0004	Chip C, C2012CH1H030C	L5	QK0038	Coil, 3x1R5x0R7	RL1	UL0006	Relay, AG201344
CU8016	Chip C, C2012B1H102K	L6	QC0051	Inductor FL4H1R0	Q1	XT0037	Transistor, 2SC2412KT96R
CU0071	Chip C, C2012CH1H101J	Q1	XA0077	IC, M57788M	Dual Control Unit		
CU0064	Chip C, C2012CH1H220J	D2	XD0106	Diode, UM9401	R1	RK0035	Chip R, MCR10EZJH102E
CU0002	Chip C, C2012CH1H010C	D3	XD0014	Diode, M1308	R2	RK0062	Chip R, MCR10EZJH473E
CU8028	Chip C, C2012B1H103K	D4	XD0102	Diode, ISS101	R3	RK0062	Chip R, MCR10EZJH473E
CU0063	Chip C, C2012CH1H180J	D5	XD0102	Diode, ISS101	R4	RK0052	Chip R, MCR10EZJH103E
CU0002	Chip C, C2012CH1H010J	VHF PA Unit			R5	RK0018	Chip R, MCR10EZJH101E
CU8016	Chip C, C2012B1H102K	R1	RD1008	R, 1/2 W 150Ω	R6	RK0067	Chip R, MCR10EZJH823E
CU8016	Chip C, C2012B1H102K	R2	RD0054	R, 1/4 W 15 kΩ	R7	RK0071	Chip R, MCR10EZJH154E
CU8026	Chip C, C2012B1H103K	C1	CE0044	Chemical C, 16 V 10 μF MS5	R8	RK0067	Chip R, MCR10EZJH823E
CU0006	Chip C, C2012CH1H050C	C2	CE0044	Chemical C, 16 V 10 μF MS5	R9	RK0059	Chip R, MCR10EZJH333E
CU0003	Chip C, C2012CH1H020C	C3	CC5002	Ceramic C, 500 V 10 pF SL	R10	RK0052	Chip R, MCR10EZJH103E
CU0003	Chip C, C2012CH1H020C	C4	CC5020	Ceramic C, HM60SJSLO180J	R11	RK0062	Chip R, MCR10EZJH473E
CU0008	Chip C, C2012CH1H050C	C5	CC5025	Ceramic C, HM60SJSLO102K	R12	RK0062	Chip R, MCR10EZJH473E
CU0001	Chip C, C2012CH1H0R5C	C6	CC5020	Ceramic C, HM60SJSLO180J	R13	RK0062	Chip R, MCR10EZJH473E
CU0051	Chip C, C2012CH1H471K	C7	CC5023	Ceramic C, HM60SJSLO390J	R14	RK0062	Chip R, MCR10EZJH473E
CU0006	Chip C, C2012CH1H050C	C8	CC0102	Ceramic C, 50 V 1 pF CH	R15	RK0062	Chip R, MCR10EZJH473E
CU8016	Chip C, C2012B1H102K	C9	CC5003	Ceramic C, 500 V 33 pF SL	R16	RK0062	Chip R, MCR10EZJH473E
CU0009	Chip C, C2012CH1H080D	C10	CC0102	Ceramic C, 50 V 1 pF CH	R17	RK0062	Chip R, MCR10EZJH473E
CU0071	Chip C, C2012CH1H101J	C11	CC5021	Ceramic C, HM60SJSLO220J	R18	RK0062	Chip R, MCR10EZJH473E
CU0066	Chip C, C2012CH1H330J	C12	CU8016	Chip C, C2012B1H102K	R19	RK0062	Chip R, MCR10EZJH473E
CU0062	Chip C, C2012CH1H150J	C13	CU8016	Chip C, C2012B1H102K	R20	RK0062	Chip R, MCR10EZJH473E
CU0061	Chip C, C2012CH1H120J	C14	CU8016	Chip C, C2012B1H102K	R21	RK0062	Chip R, MCR10EZJH473E
CU0004	Chip C, C2012CH1H030C	C15	CU8016	Chip C, C2012B1H102K	R22	RK0062	Chip R, MCR10EZJH473E
CU0061	Chip C, C2012CH1H120J	C16	CU8016	Chip C, C2012B1H102K	R23	RK0062	Chip R, MCR10EZJH473E
CU8016	Chip C, C2012B1H102K	D1	XD0107	Diode, G3B	R24	RK0062	Chip R, MCR10EZJH473E
CU0004	Chip C, C2012CH1H030C	D2	XD0106	Diode, UM9401	R25	RK0062	Chip R, MCR10EZJH473E
CU8016	Chip C, C2012B1H102K	D3	XD0014	Diode, M1308	R26	RK0045	Chip R, MCR10EZJH472E
CU8016	Chip C, C2012B1H102K	D4	XD0095	Diode, 1S2472	R27	RK0070	Chip R, MCR10EZJH124E
CU8028	Chip C, C2012B1H103K	D5	XD0095	Diode, 1S2472	R28	RK0070	Chip R, MCR10EZJH124E
CU8028	Chip C, C2012B1H103K	IC1	XA0043	IC, M57726	R29	RK0070	Chip R, MCR10EZJH124E
QK0037	Coil, 3x2.5T	L1	QK0044	Coil, 3x9R5x0R5	R30	RK0070	Chip R, MCR10EZJH124E
QK0037	Coil, 3x2.5T	L2	QK0031	Coil, 3x6T	R31	RK0062	Chip R, MCR10EZJH473E
QA0046	Coil, 30R8MIF	L3	QK0041	Coil, 3x4R0x0R8	R35	RK0052	Chip R, MCR10EZJH103E
QK0036	Coil, 3x1.5T	L4	QK0044	Coil, 3x9R5x0R5	R36	RK0052	Chip R, MCR10EZJH103E
QK0036	Coil, 3x1.5T	L5	QK0041	Coil, 3x4R0x0R8	R37	RK0045	Chip R, MCR10EZJH472E
QK0005	Coil, 3x3T	L6	QK0041	Coil, 3x4R0x0R8	R38	RK0069	Chip R, MCR10EZJH104E
QA0048	Coil, 58MOSC	L7	QC0051	Inductor, FL4H1R0	R39	RK0035	Chip R, MCR10EZJH102E
QA0047	Coil, 177MTC	VR1	RH0049	VR, TM64K2PU101B	R42	RK0069	Chip R, MCR10EZJH104E
QA0047	Coil, 177MTC	Duplexer Unit			R43	RK1035	Chip R, MCR18EZJH102E
RD0108	JPW01 R-01	R1	RK0039	Chip R, MCR10EZJH222E	R44	RK0052	Chip R, MCR10EZJH103E
RD0108	JPW01 R-01	R2	RK0069	Chip R, MCR10EZJH104E	R47	RK0018	Chip R, MCR10EZJH101E
UHF PA Unit		R3	RK0069	Chip R, MCR10EZJH104E	R48	RK0062	Chip R, MCR10EZJH473E
RD1008	R, 1/2 W 150Ω	C1	CC5022	Ceramic C, HM60SJSLO270D	R49	RK0062	Chip R, MCR10EZJH473E
RD0052	R, 1/4 W 10K R20	C2	CC5022	Ceramic C, HM60SJSLO270D	R50	RK0038	Chip R, MCR10EZJH182E
CU0051	Chip C, C2012CH1H471K	C3	CU7012	Chip C, UC232H0040C-T	R51	RK0038	Chip R, MCR10EZJH182E
CE0044	Chemical C, 16 V 10 μF MS5	C4	CU0051	Chip C, C2012CH1H471K	R52	RK0038	Chip R, MCR10EZJH182E
CU0051	Chip C, C2012CH1H471K	Dual Control Unit			R53	RK0038	Chip R, MCR10EZJH182E
CF0044	Chemical C, 16 V 10 μF MS5	R1	RK0035	Chip R, MCR10EZJH102E	R54	RK0038	Chip R, MCR10EZJH182E
CU7014	Chip C, UC232H0060D-T	R2	RK0069	Chip R, MCR10EZJH104E	R55	RK1039	Chip R, MCR18EZJH222E
CU0051	Chip C, C2012CH1H471K	R3	RK0069	Chip R, MCR10EZJH104E	R56	RK0035	Chip R, MCR10EZJH102E
CU0051	Chip C, C2012CH1H471K	C1	CC5022	Ceramic C, HM60SJSLO270D	R57	RK0107	Chip R, MCR10EZJH000E (DR-510T only)
CC5014	Ceramic C, HM60SJSLO40C	C2	CC5022	Ceramic C, HM60SJSLO270D	R58	RK0035	Chip R, MCR10EZJH102E
CU0005	Chip C, C2012CH1H040C	C3	CU7012	Chip C, UC232H0040C-T	R59	RK0035	Chip R, MCR10EZJH102E
CC5019	Ceramic C, HM60SJSLO150J	C4	CU0051	Chip C, C2012CH1H471K	R60	RK0035	Chip R, MCR10EZJH102E
CC5020	Ceramic C, HM60SJSLO180J				R61	RK0035	Chip R, MCR10EZJH102E
CC5021	Ceramic C, HM60SJSLO220J				R62	RK0035	Chip R, MCR10EZJH102E
CC0101	Ceramic C, 50 V 0.5 pF CH						

■ ADJUSTMENT (VHF)

Item	Adjustment point	Adjustment method
VCO P/D Voltage (RX)	TC2 (VCO Box)	Adjust TC2 so that the voltage of TP3 is 4V on the receiving mode.
VCO P/D Voltage (TX)	TC1 (VCO Box)	Adjust TC1 so that the voltage of TP3 is 3V on the transmission mode.
Frequency	TC2 (Main Board)	Set the unit in the transmission mode at 145.00 MHz and adjust TC2.
Power output	VR6 (Hi)	On "HI" position, turn VR6 for 45 W output at 145.00 MHz.
	VR7 (Lo)	On "LO" position, turn VR7 for 5 W output at 145.00 MHz.
RF Power Meter	VR4	Turn VR4 so that three segments will light on "LO" position.
Deviation	VR3	Input a signal of 1 KHz/25 mV into the MIC jack and adjust VR3 so that you obtain 4.9 KHz/Dev in the transmission mode.
MIC Gain	VR2	Input a signal of 1 KHz/10 mV into the MIC jack and adjust VR2 so that you obtain 4.0 KHz/Dev in the transmission mode.
Protection Circuit	VR5	Disconnect the antenna in the transmission mode and adjust VR5 so that the current consumption will be 5A.
Subaudible Tone Deviation (DR-510T)	VR1 (Tone squelch board)	On the "ENC" mode at 146.00 MHz, turn VR1 so that the deviation is 0.7 KHz.
1750 Hz Tone Deviation (DR-510E)	VR1 (Tone burst board)	Pressing Tone button at 145.00 MHz, turn VR1 so that the deviation is 3.5 KHz.
S-Meter (SG output: 3 dBμ EMF)	VR1	Turn VR1 so that the 1 begins to light.
Squelch Sensitivity (SG output: -6 dBμ EMF)	VR9	Turn the squelch control fully clockwise and turn VR9 so that the squelch will be closed at the SG output of -6 dBμ.

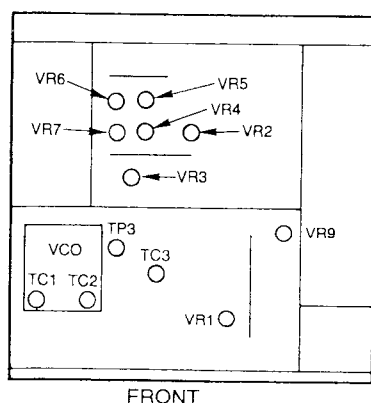
Upper Side View



■ ADJUSTMENT (UHF)

Item	Adjustment point	Adjustment method
VCO P/D Voltage (RX)	TC2 (VCO Box)	Adjust TC2 so that the voltage of TP3 is 2 V on the receiving mode.
VCO P/D Voltage (TX)	TC1 (VCO Box)	Adjust TC1 so that the voltage of TP3 is 1 V on the transmission mode.
Frequency	TC3 (Main Board)	Set the unit in the transmission mode at 435.00 MHz (T: 445.00 MHz) and adjust TC3.
Power output	VR6 (Hi)	On "HI" position, turn VR6 for 35 W output at 435 (T: 445) MHz.
	VR7 (Lo)	On "LO" position, turn VR7 for 5 W output at 145.00 MHz.
RF Power Meter	VR4	Turn VR4 so that three segments will light on "LO" position.
Deviation	VR3	Input a signal of 1 KHz/25 mV into the MIC jack and adjust VR3 so that you obtain 4.9 KHz/Dev in the transmission mode.
MIC Gain	VR2	Input a signal of 1 KHz/10 mV into the MIC jack and adjust VR2 so that you obtain 4.0 KHz/Dev in the transmission mode.
Protection Circuit	VR5	Disconnect the antenna in the transmission mode and adjust VR5 so that the current consumption will be 4A.
Subaudible Tone Deviation (DR-510T)	VR1 (Tone squelch board)	On the "ENC" mode at 435.00 MHz, (T: 445.00 MHz), turn VR1 so that the deviation is 0.7 KHz.
1750 Hz Tone Deviation (DR-510E)	VR1 (Tone burst board)	Pressing Tone button at 435.00 MHz (T: 445.00 MHz), turn VR1 so that the deviation is 3.5 KHz.
S-Meter (SG output: 3 dB μ EMF)	VR1	Turn VR1 so that the 1 begins to light.
Squelch Sensitivity (SG output: -6 dB μ EMF)	VR9	Turn the squelch control fully clockwise and turn VR9 so that the squelch will be closed at the SG output of -6 dB μ .

Lower Side View



The diagram illustrates a complex radio receiver circuit, organized into several functional units:

- I/F UNIT (IC1):** Includes an IF-AMP (MC381F), S METER (DE1), and various capacitors (C1, C2, C3, C4, C5, C6, C7, C8, C9, C10, C11, C12, C13, C14, C15, C16, C17, C18, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49, C50, C51, C52, C53, C54, C55, C56, C57, C58, C59, C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76, C77, C78, C79, C80, C81, C82, C83, C84, C85, C86, C87, C88, C89, C90, C91, C92, C93, C94, C95, C96, C97, C98, C99, C100, C101, C102, C103, C104, C105, C106, C107, C108, C109, C110, C111, C112, C113, C114, C115, C116, C117, C118, C119, C120, C121, C122, C123, C124, C125, C126, C127, C128, C129, C130, C131, C132, C133, C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C145, C146, C147, C148, C149, C150, C151, C152, C153, C154, C155, C156, C157, C158, C159, C160, C161, C162, C163, C164, C165, C166, C167, C168, C169, C170, C171, C172, C173, C174, C175, C176, C177, C178, C179, C180, C181, C182, C183, C184, C185, C186, C187, C188, C189, C190, C191, C192, C193, C194, C195, C196, C197, C198, C199, C200, C201, C202, C203, C204, C205, C206, C207, C208, C209, C210, C211, C212, C213, C214, C215, C216, C217, C218, C219, C220, C221, C222, C223, C224, C225, C226, C227, C228, C229, C230, C231, C232, C233, C234, C235, C236, C237, C238, C239, C240, C241, C242, C243, C244, C245, C246, C247, C248, C249, C250, C251, C252, C253, C254, C255, C256, C257, C258, C259, C260, C261, C262, C263, C264, C265, C266, C267, C268, C269, C270, C271, C272, C273, C274, C275, C276, C277, C278, C279, C280, C281, C282, C283, C284, C285, C286, C287, C288, C289, C290, C291, C292, C293, C294, C295, C296, C297, C298, C299, C300, C301, C302, C303, C304, C305, C306, C307, C308, C309, C310, C311, C312, C313, C314, C315, C316, C317, C318, C319, C320, C321, C322, C323, C324, C325, C326, C327, C328, C329, C330, C331, C332, C333, C334, C335, C336, C337, C338, C339, C340, C341, C342, C343, C344, C345, C346, C347, C348, C349, C350, C351, C352, C353, C354, C355, C356, C357, C358, C359, C360, C361, C362, C363, C364, C365, C366, C367, C368, C369, C370, C371, C372, C373, C374, C375, C376, C377, C378, C379, C380, C381, C382, C383, C384, C385, C386, C387, C388, C389, C390, C391, C392, C393, C394, C395, C396, C397, C398, C399, C400, C401, C402, C403, C404, C405, C406, C407, C408, C409, C410, C411, C412, C413, C414, C415, C416, C417, C418, C419, C420, C421, C422, C423, C424, C425, C426, C427, C428, C429, C430, C431, C432, C433, C434, C435, C436, C437, C438, C439, C440, C441, C442, C443, C444, C445, C446, C447, C448, C449, C450, C451, C452, C453, C454, C455, C456, C457, C458, C459, C460, C461, C462, C463, C464, C465, C466, C467, C468, C469, C470, C471, C472, C473, C474, C475, C476, C477, C478, C479, C480, C481, C482, C483, C484, C485, C486, C487, C488, C489, C490, C491, C492, C493, C494, C495, C496, C497, C498, C499, C500, C501, C502, C503, C504, C505, C506, C507, C508, C509, C510, C511, C512, C513, C514, C515, C516, C517, C518, C519, C520, C521, C522, C523, C524, C525, C526, C527, C528, C529, C530, C531, C532, C533, C534, C535, C536, C537, C538, C539, C540, C541, C542, C543, C544, C545, C546, C547, C548, C549, C550, C551, C552, C553, C554, C555, C556, C557, C558, C559, C560, C561, C562, C563, C564, C565, C566, C567, C568, C569, C570, C571, C572, C573, C574, C575, C576, C577, C578, C579, C580, C581, C582, C583, C584, C585, C586, C587, C588, C589, C590, C591, C592, C593, C594, C595, C596, C597, C598, C599, C600, C601, C602, C603, C604, C605, C606, C607, C608, C609, C610, C611, C612, C613, C614, C615, C616, C617, C618, C619, C620, C621, C622, C623, C624, C625, C626, C627, C628, C629, C630, C631, C632, C633, C634, C635, C636, C637, C638, C639, C640, C641, C642, C643, C644, C645, C646, C647, C648, C649, C650, C651, C652, C653, C654, C655, C656, C657, C658, C659, C660, C661, C662, C663, C664, C665, C666, C667, C668, C669, C670, C671, C672, C673, C674, C675, C676, C677, C678, C679, C680, C681, C682, C683, C684, C685, C686, C687, C688, C689, C690, C691, C692, C693, C694, C695, C696, C697, C698, C699, C700, C701, C702, C703, C704, C705, C706, C707, C708, C709, C710, C711, C712, C713, C714, C715, C716, C717, C718, C719, C720, C721, C722, C723, C724, C725, C726, C727, C728, C729, C730, C731, C732, C733, C734, C735, C736, C737, C738, C739, C740, C741, C742, C743, C744, C745, C746, C747, C748, C749, C750, C751, C752, C753, C754, C755, C756, C757, C758, C759, C760, C761, C762, C763, C764, C765, C766, C767, C768, C769, C770, C771, C772, C773, C774, C775, C776, C777, C778, C779, C780, C781, C782, C783, C784, C785, C786, C787, C788, C789, C790, C791, C792, C793, C794, C795, C796, C797, C798, C799, C800, C801, C802, C803, C804, C805, C806, C807, C808, C809, C810, C811, C812, C813, C8



VHF MAIN SCHEMATIC DIAGRAM

MAIN UNIT (0134-#P0182) DR510 T/E
(0134-#P0118)

IF (0124-#P0157)

LOCK SW (0126-#P0158)

DRIVE (0125-#P0161)

VCO (0129-#P0162)

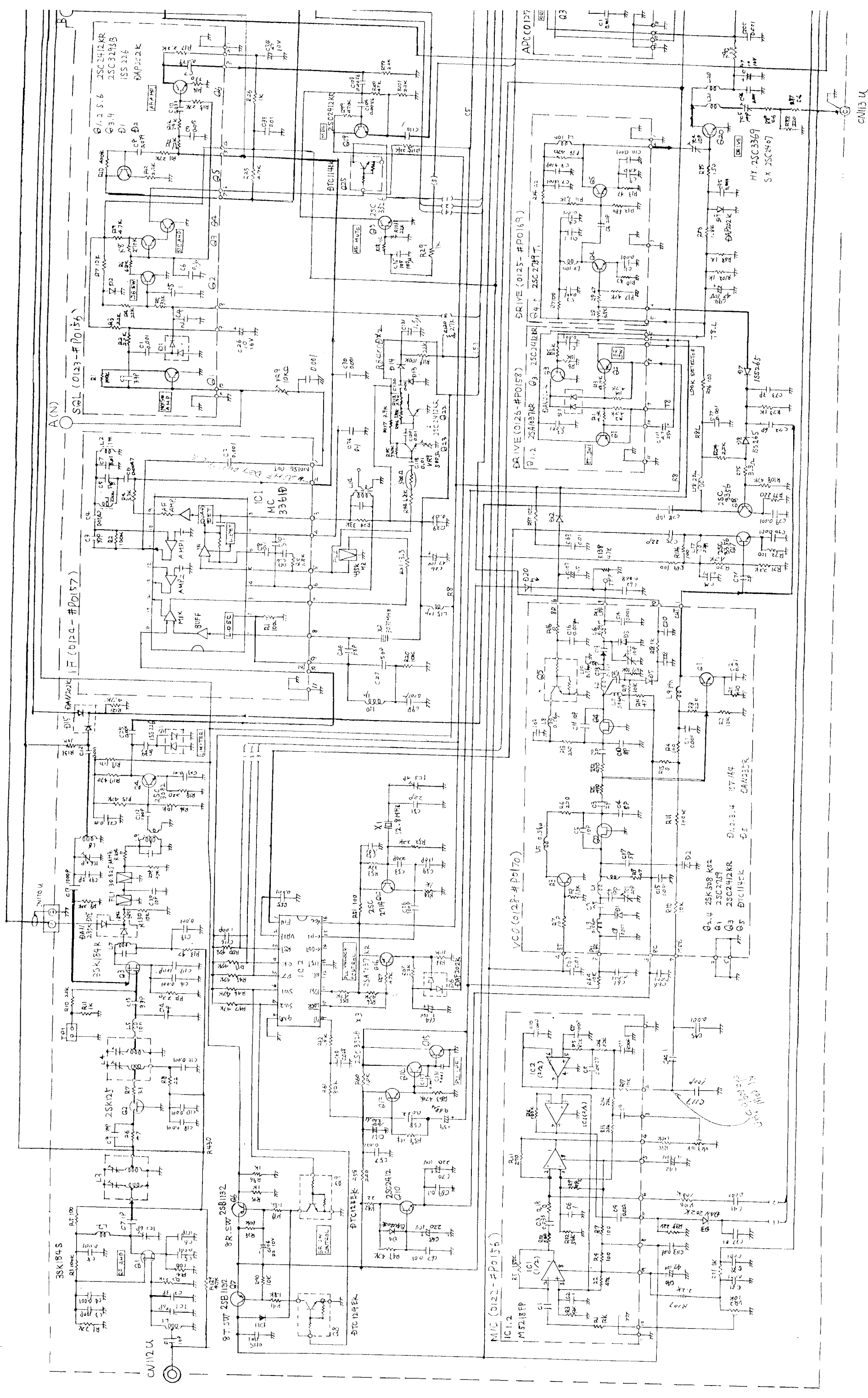
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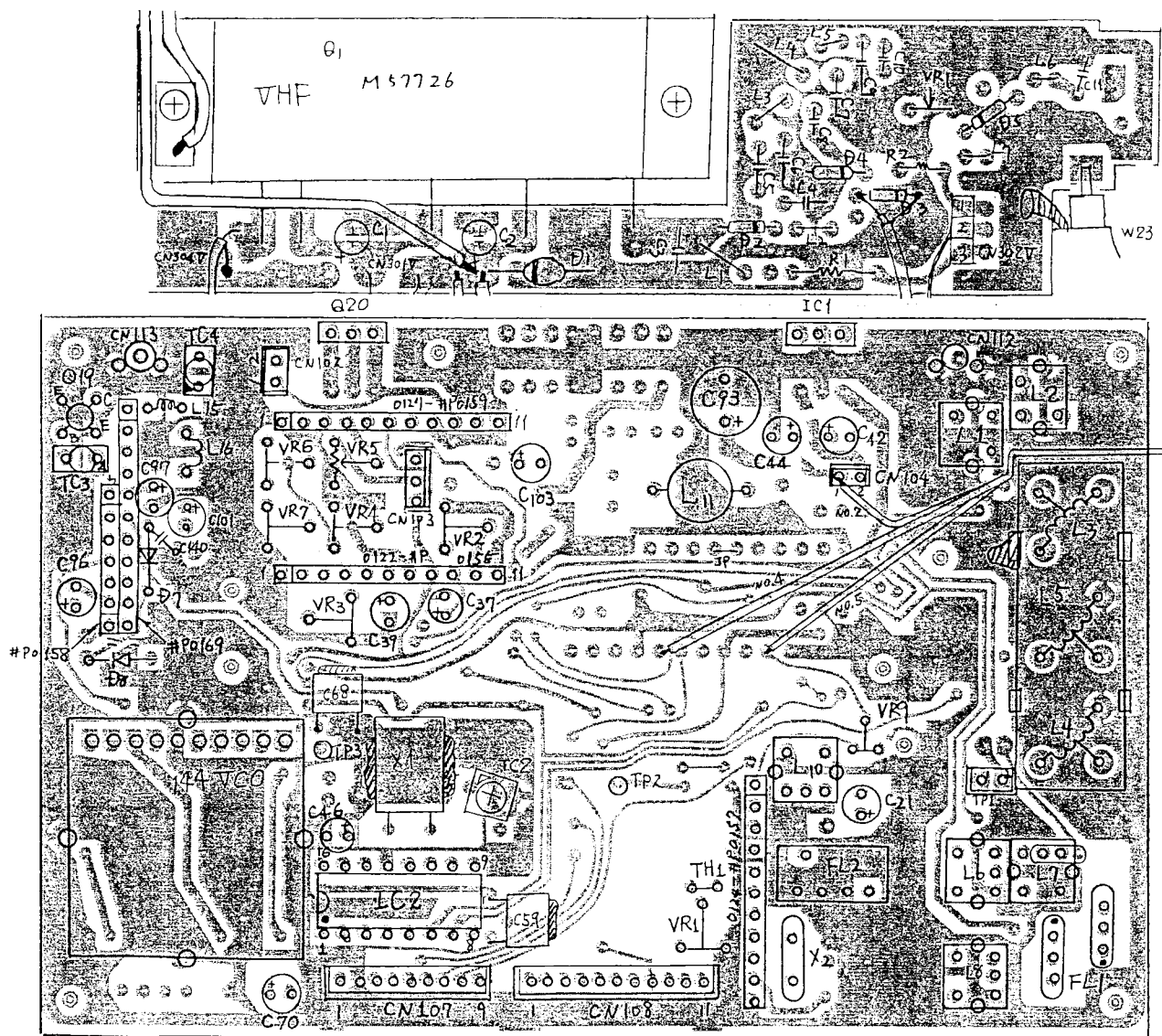
UHF MAIN SCHEMATIC DIAGRAM



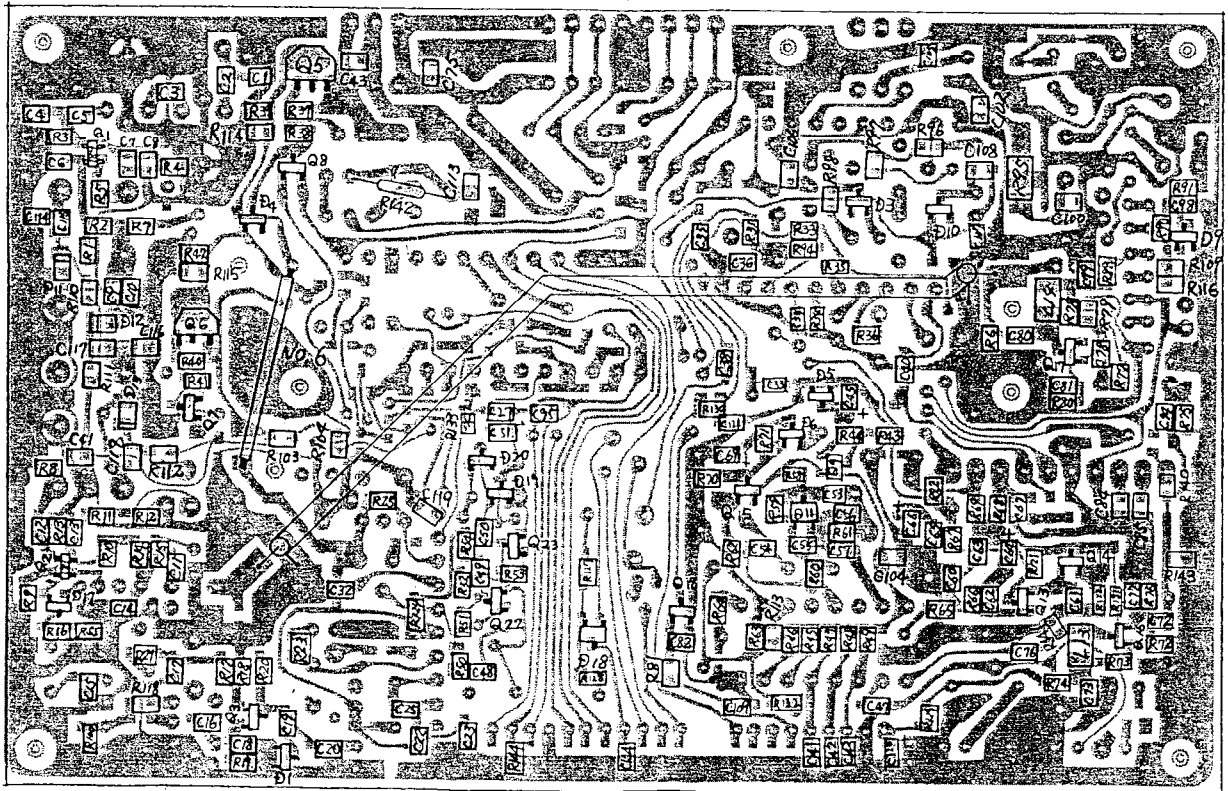
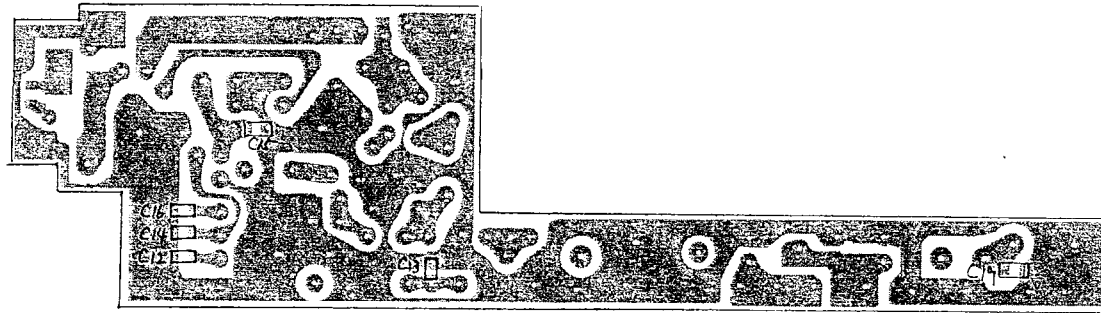
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VHF PA AND MAIN PC BOARD

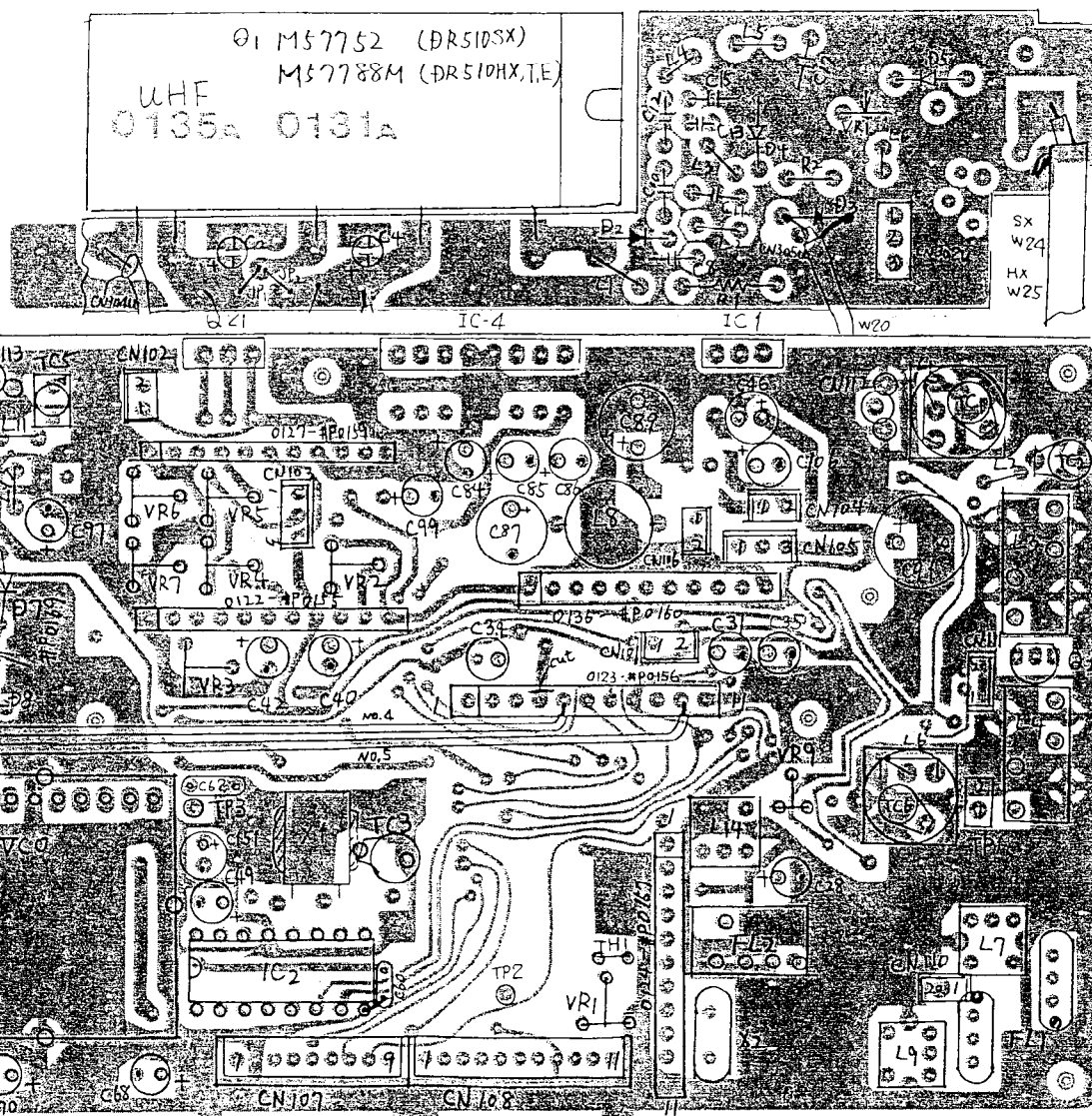


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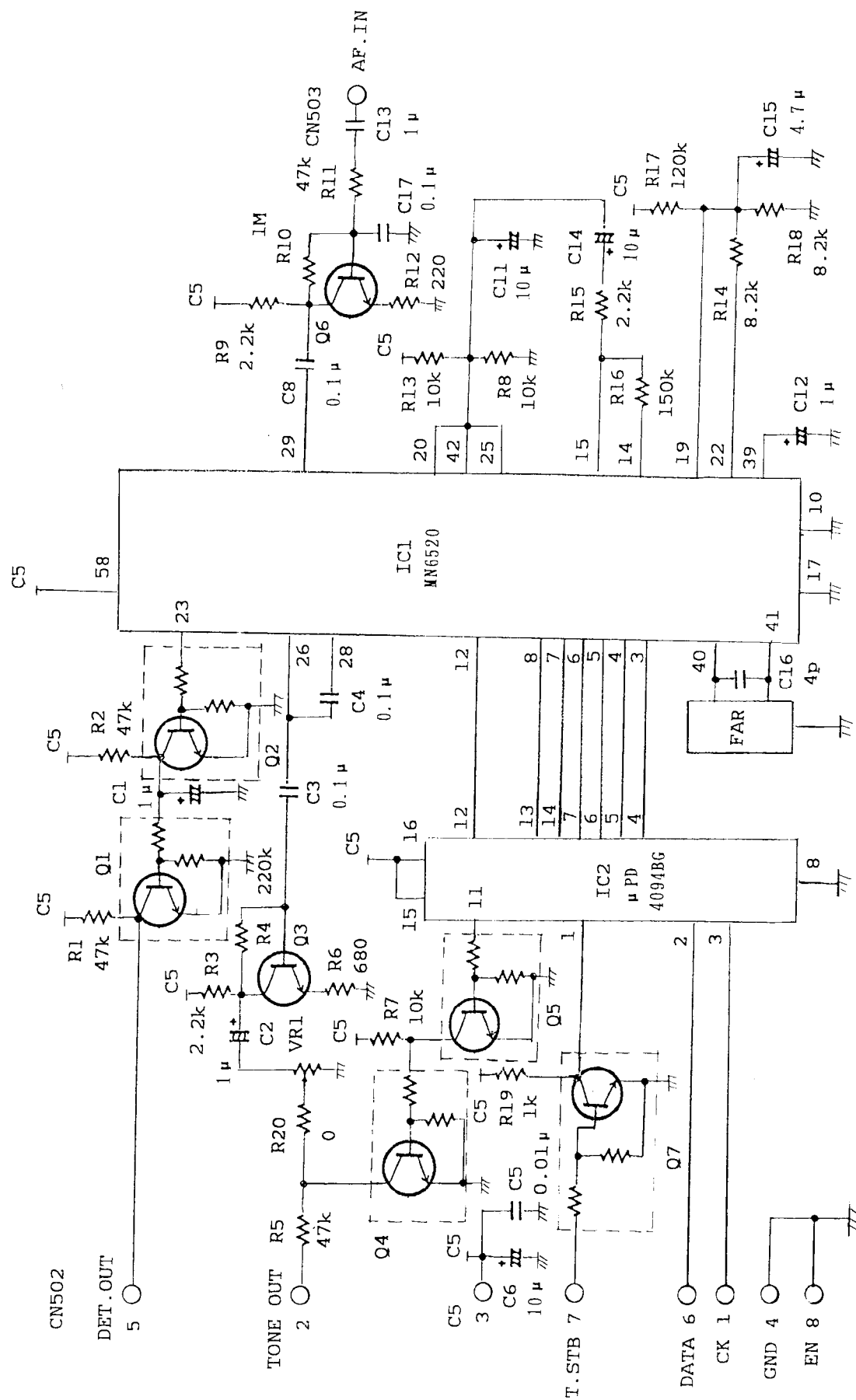
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UHF PA AND MAIN PC BOARD

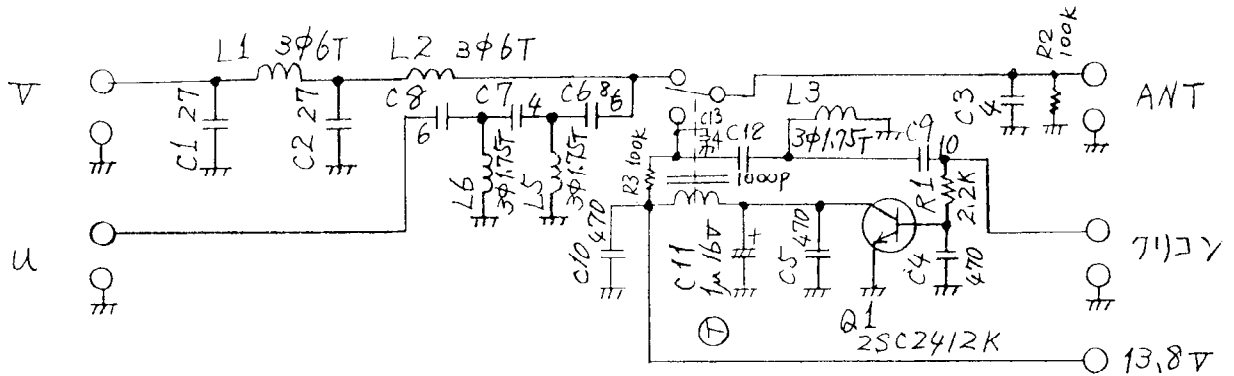


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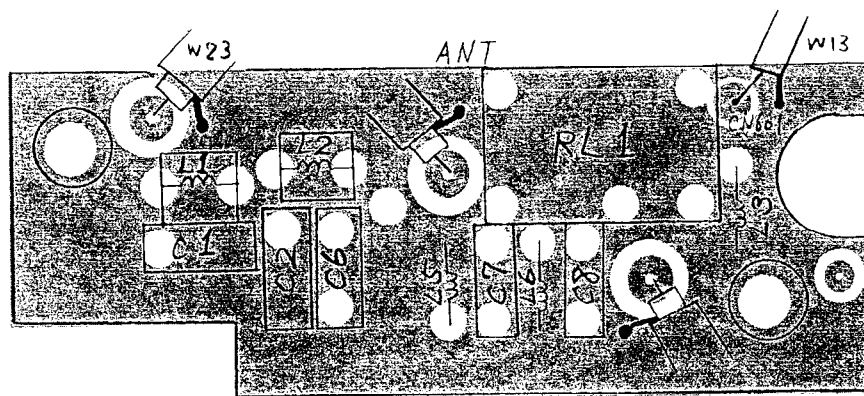
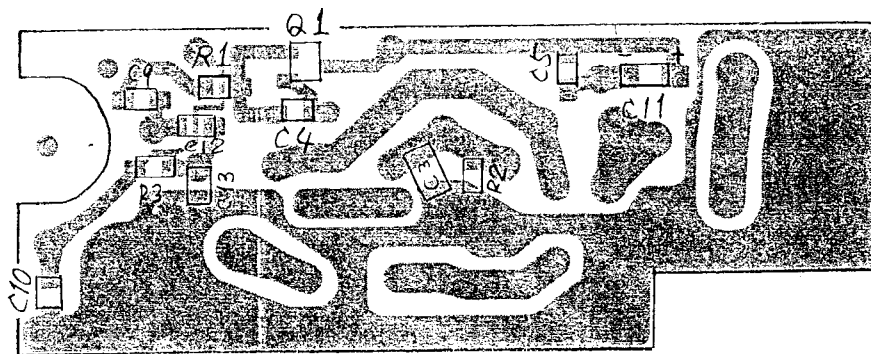
■ TONE SQUELCH SCHEMATIC DIAGRAM



■ DUPLEXER SCHEMATIC DIAGRAM

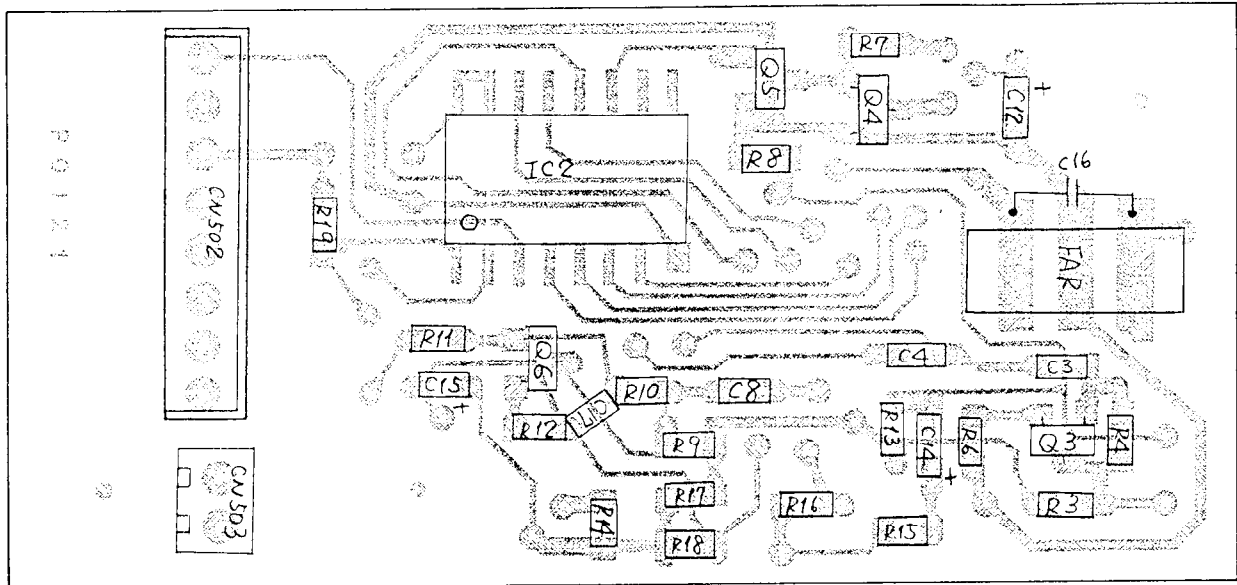


■ DUPLEXER PC BOARD

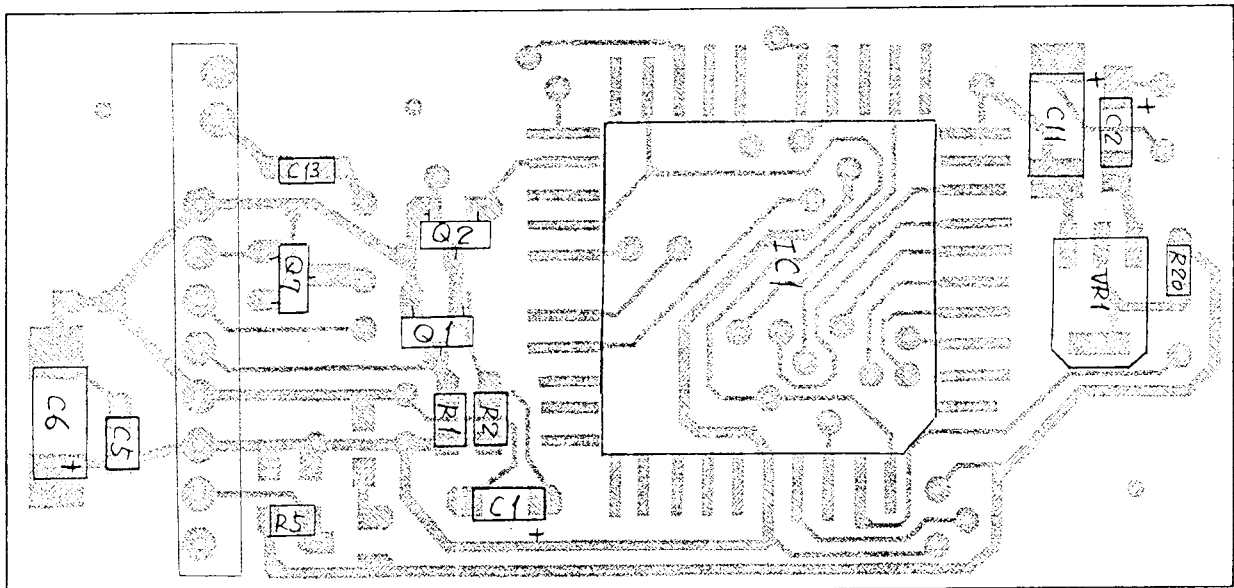


(Solder)

■ TONE SQUELCH PC BOARD

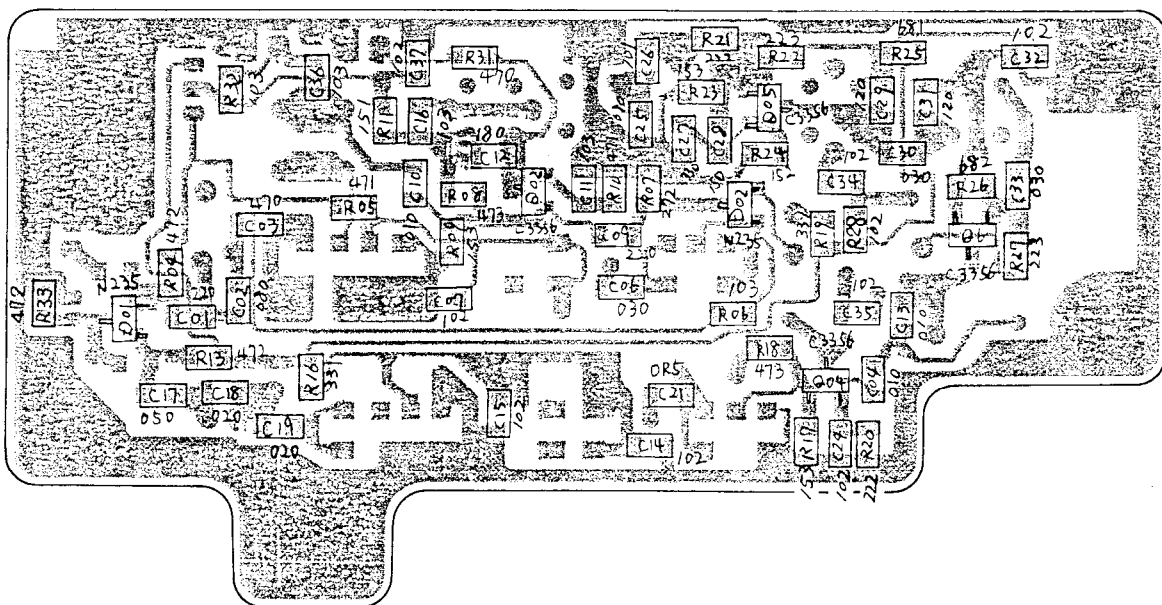
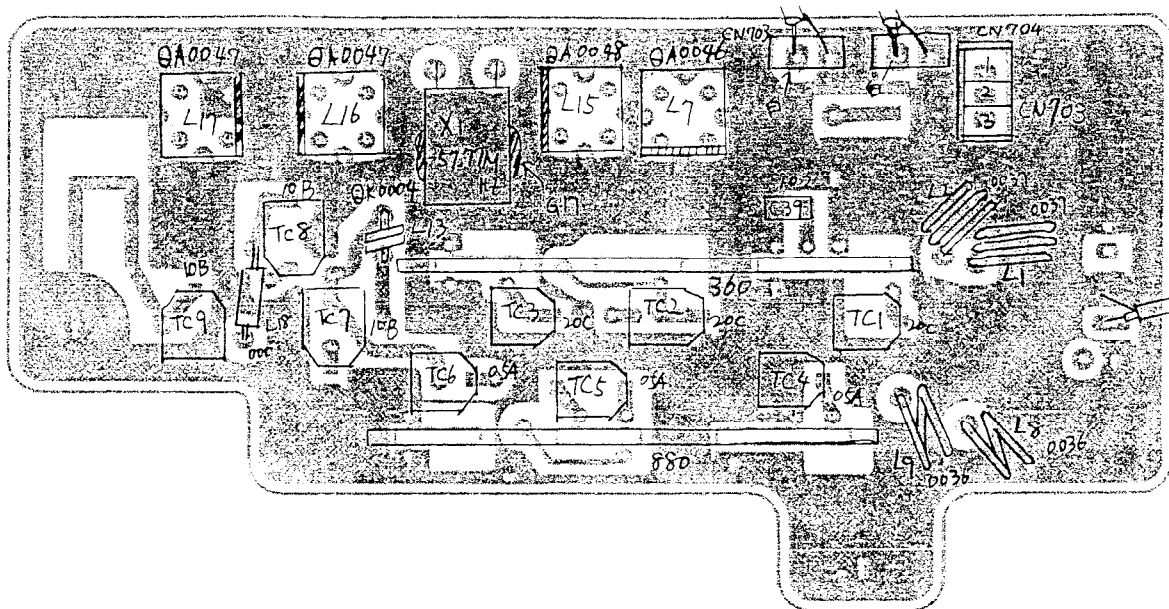


(Parts Side)

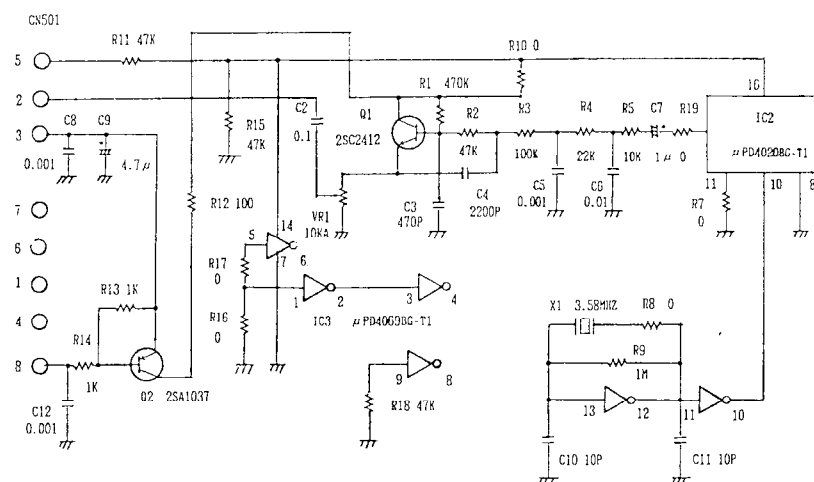


(Solder Side)

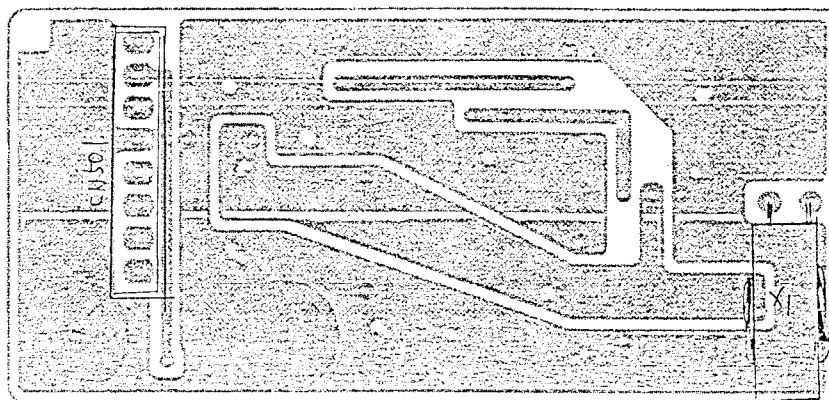
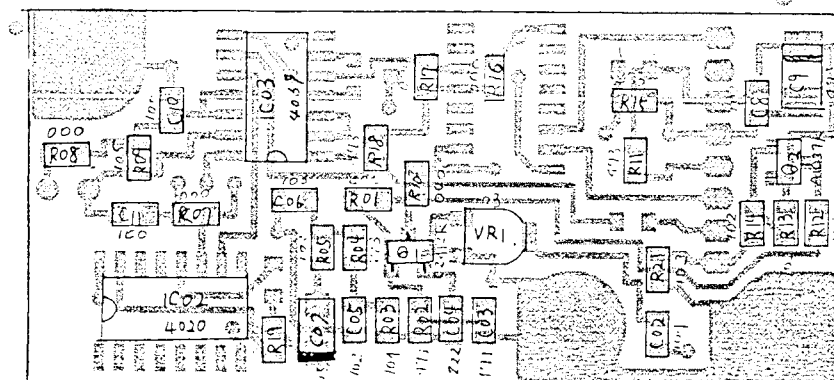
■ X'CON PC BOARD



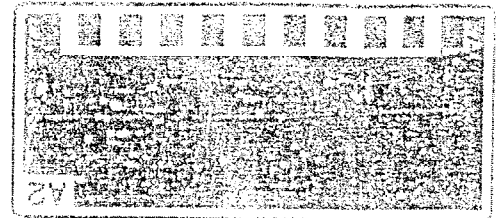
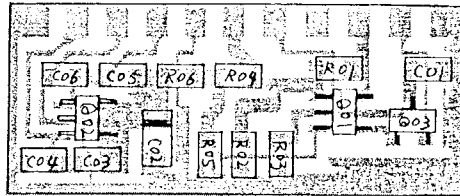
■ TONE BURST UNIT CIRCUIT DIAGRAM



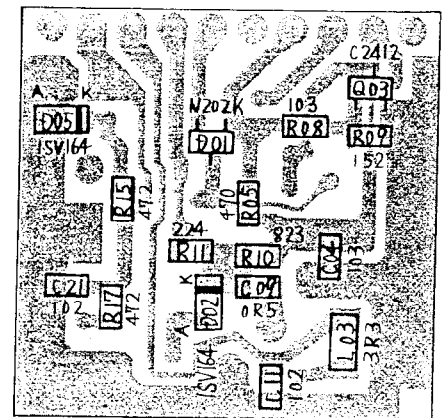
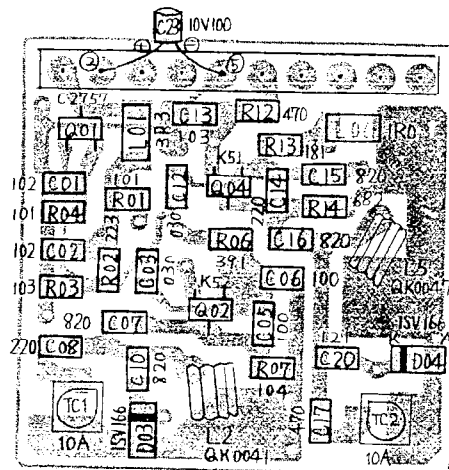
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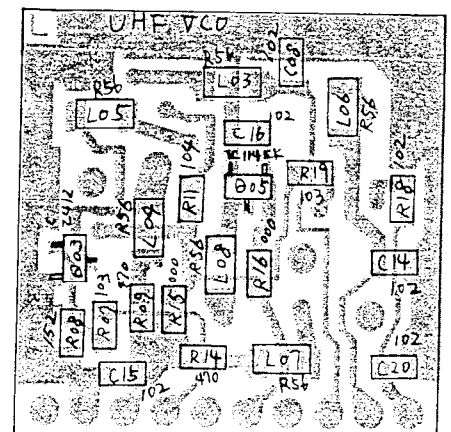
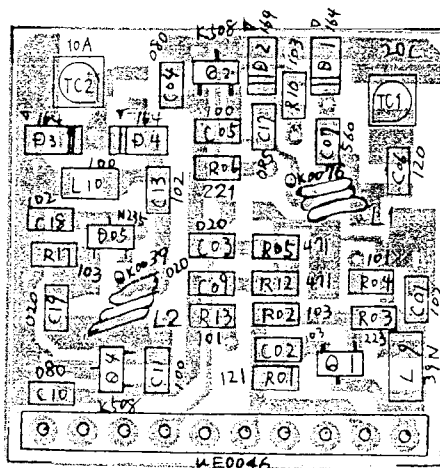
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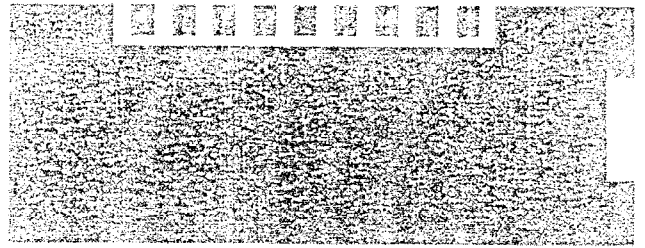
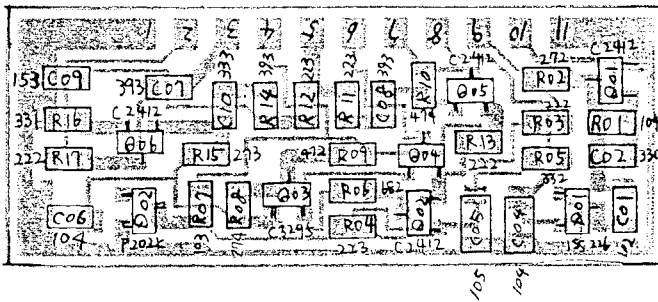
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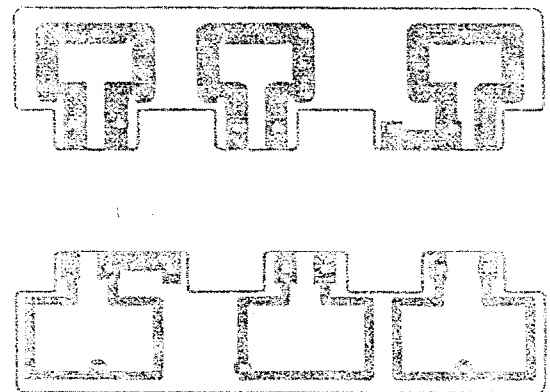
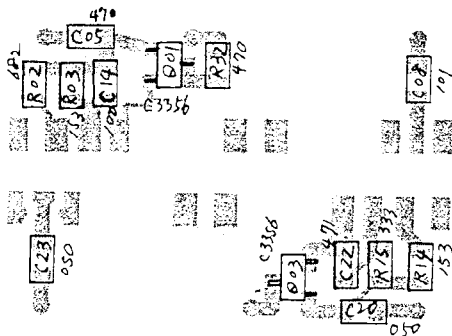
■ UHF VCO PC BOARD



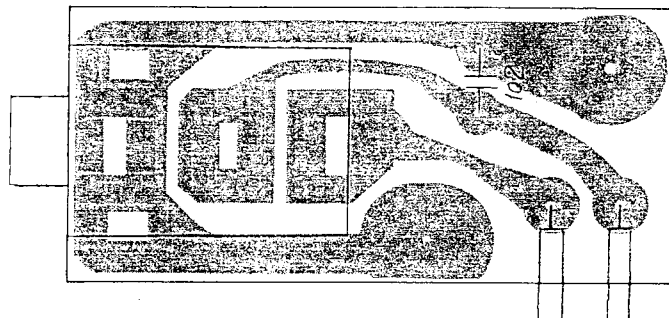
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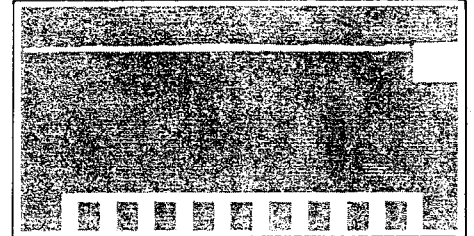
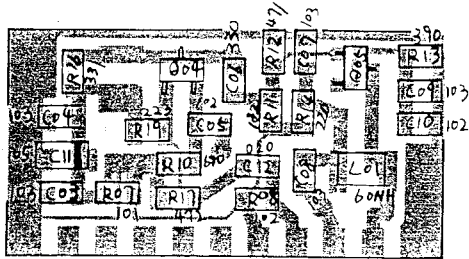
■ X'CON-SUB PC BOARD



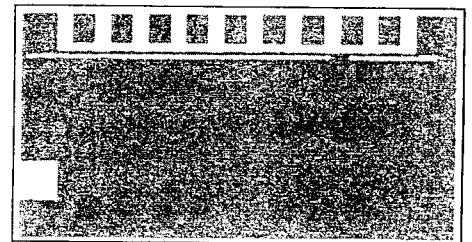
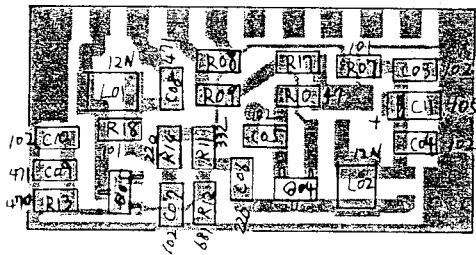
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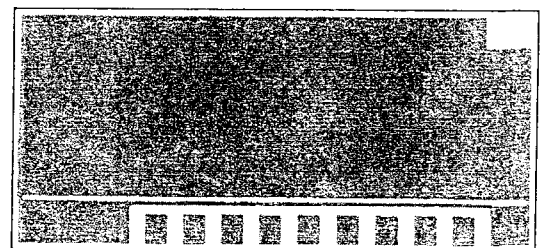
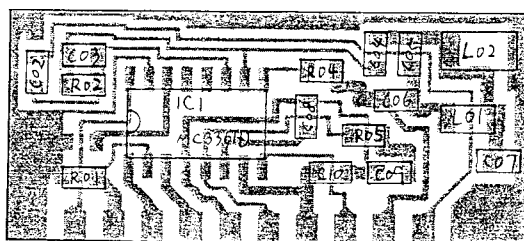
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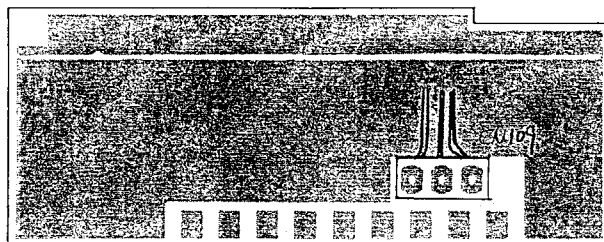
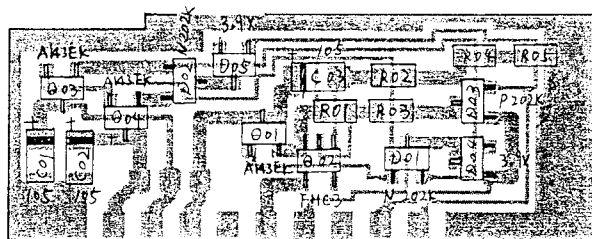
■ UHF DRIVE PC BOARD



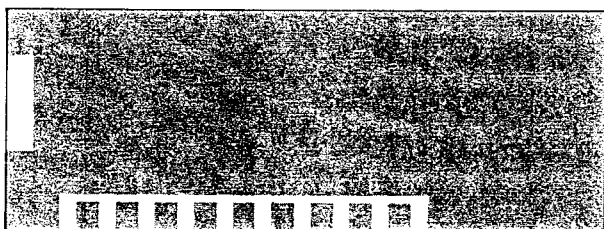
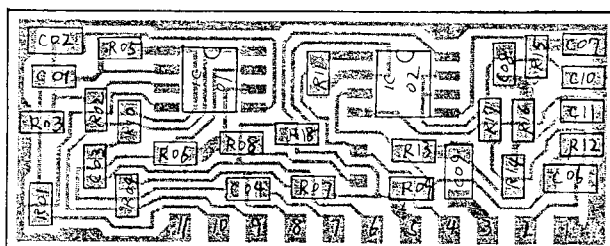
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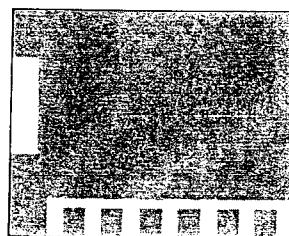
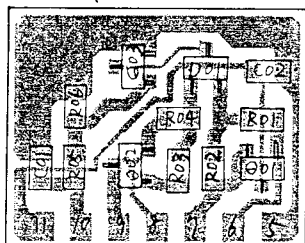
■ RX SW PC BOARD



■ MIC PC BOARD



■ LOCK SW PC BOARD





ALINCO ELECTRONICS INC.

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Factory: 1-1-1, Mishimae, Takatsuki, Osaka No. 569, Japan



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