



Service Manual

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■ SPECIFICATIONS

■ General

Frequency Range.....	DJ-162TD 144.00 — 148.00MHz DJ-162ED 144.00 — 146.00MHz
Emission Type	16F3
Antenna Impedance.....	50 OHMS
Operating Voltage.....	Rated 7.2V
Operating Current	High (2W) : 1A Low (0.2W): 500mA
Dimensions.....	142(H) × 57(W) × 32(D)mm
Weight	Approx. 350g

■ Receiver

Type.....	Superheterodyne, Double Conversion 1st IF: 55.05MHz 2nd IF: 455kHz
Sensitivity.....	12dB SINAD less than -15dB μ
Selectivity.....	More than \pm 7.5kHz at -6dB Less than \pm 15kHz at -60dB
IF	1st IF: 55.05MHz 2nd IF: 455kHz
Audio Output.....	More than 250mW (10% THD), 8 ohms

■ Transmitter

Output Power	See table
Modulation.....	Variable reactance FM
Maximum Deviation.....	\pm 5kHz
Harmonic Suppression	- 60dB
Microphone	Built-in electret condenser

	Hi	Lo
with Battery Pack EBP-10NA (7.2V)	2W	Approx. × 0.2W
with Battery Pack EBP-12NA (12V)	5W	Approx. × 0.5W
with Dry Cell Battery Pack (9V)	3W	Approx. × 0.3W

Specifications subject to change without notice.

PARTS LIST

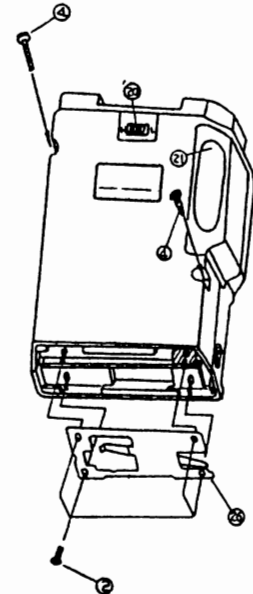
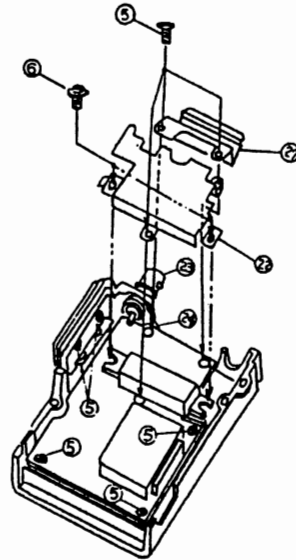
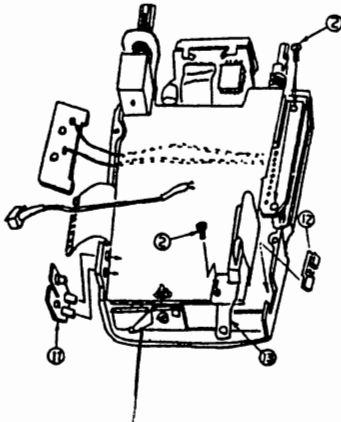
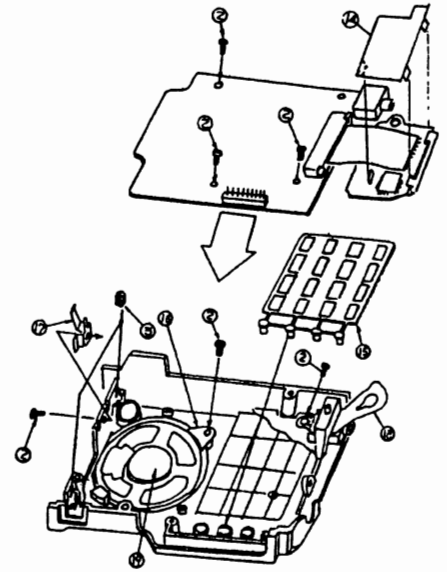
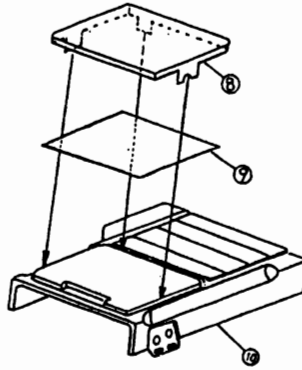
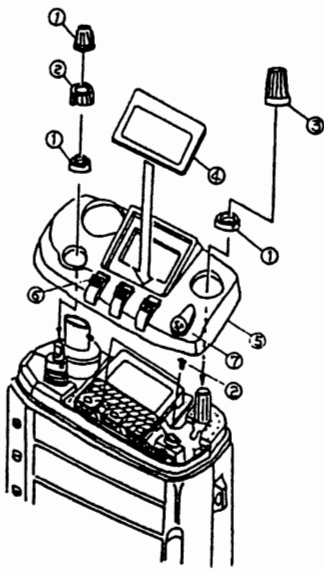
Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
CPU Unit			R56	RK3102	Chip R, MCR03 20kΩ (T only)	R121	RK3062	Chip R, MCR03 100kΩ
IC1	XA0138	IC, μ PD75116GF-690-3BE	R57	RK3102	Chip R, MCR03 20kΩ (T only)	R122	RK3050	Chip R, MCR03 10kΩ
IC2	XA0107	IC, MT8880AP	R58	RK3038	Chip R, MCR03 1kΩ (E only)	R123	RK3046	Chip R, MCR03 4.7kΩ
IC3	XA0106	S-8054HN-TI	R59	RK3034	Chip R, MCR03 470Ω	R124	RK3050	Chip R, MCR03 10kΩ
Q1	XT0038	Transistor, 2SA1037KT146R	R60	RK3050	Chip R, MCR03 10kΩ (T only)	R125	RK0107	Chip R, MCR10 0Ω (T only)
Q2	XT0077	Transistor, 2SC3326ATE85L	R61	RK3001	Chip R, MCR03 0Ω (E only)	C112	CU3052	Chip C, CM105W5R103K
Q3	XT0038	Transistor, 2SA1037KT146R	R62	RK3050	Chip R, MCR03 10kΩ (T only)	C113	CU3052	Chip C, CM105W5R103K
Q4	XT0077	Transistor, 2SC3326ATE85L	R63	RK3001	Chip R, MCR03 0Ω (E only)	C114	CU3035	Chip C, CM105W5R102K
D1	XD0120	Diode MA704WKTX	R64	RK3050	Chip R, MCR03 0Ω (E only)	C115	CU3052	Chip C, CM105W5R103K
D2	XD0121	Diode RLZ9.1CTE-11	R65	RK3001	Chip R, MCR03 0Ω (E only)	C116	CU3019	Chip C, CM105CH470K
FAR1	XB0001	FAR-C4CA-0358000K01	R66	RK3050	Chip R, MCR03 0Ω (E only)	C117	CU3003	Chip C, CM105CH020C
FAR2	XB0001	FAR-C4CA-0358000K01	R67	RK3001	Chip R, MCR03 0Ω (E only)	C118	CU3035	Chip C, CM105W5R102K
CN1	UE0099	Connector 52103-1317	R68	RK3102	Chip R, MCR03 20kΩ (T only)	C119	CU3035	Chip C, CM105W5R102K
CN2	UE0101	Connector 52030-2810	R69	RK3058	Chip R, MCR03 47kΩ	C121	CU3052	Chip C, CM105W5R103K
CN3	UE0102	BasewithPost 9P2mm	R70	RK3034	Chip R, MCR03 470Ω	C123	CU3035	Chip C, CM105W5R102K
L2	QC0016	Chip L, MLF3216A2R2M	R71	RK3038	Chip R, MCR03 1kΩ	C124	CU8003	Chip C, C2012Y1E104Z
L3	QC0016	Chip L, MLF3216A2R2M	R72	RK3058	Chip R, MCR03 47kΩ	C126	CS0063	ChipTantal C, TMC1V104TR
L4	QC0014	ChorkCoil LAL02"NA100K	R73	RK3058	Chip R, MCR03 47kΩ	C127	CS0058	ChipTantal C, TMC0J685TR
R1	RK3058	Chip R, MCR03 47kΩ	R74	RK3034	Chip R, MCR03 470Ω	RF Unit		
R2	RK3038	Chip R, MCR03 1kΩ	R75	RK3058	Chip R, MCR03 47kΩ	IC301	XA0044	IC, M57796MA
R3	RK3052	Chip R, MCR03 15kΩ	R76	KK1107	Chip R, MCR18 0Ω	IC302	XA0103	IC, MB1501PF-G-BND-TF
R4	RK3058	Chip R, MCR03 47kΩ	R77	RK3062	Chip R, MCR03 100kΩ	Q302	XT0030	Transistor, 2SC3356-T1 (R24orR25)
R5	RK3026	Chip R, MCR03 100Ω	C1	CU3035	Chip C, CM105W5R102K	Q303	XT0030	Transistor, 2SC3356-T1 (R24orR25)
R6	RK3050	Chip R, MCR03 10kΩ	C2	CU3035	Chip C, CM105W5R102K	Q304	XT0081	Transistor, 2SC2714YTE85L
R7	RK3046	Chip R, MCR03 4.7kΩ	C3	CS0050	Chip Tantal C, TMC1A475TR	Q307	XT0030	Transistor, 2SC3356-T1 (R24orR25)
R8	RK3038	Chip R, MCR03 1kΩ	C4	CS0053	Chip Tantal C, TMC0J476TR	Q308	XT0048	Transistor, 2SC3357-T1 (REorRF)
R9	RK3056	Chip R, MCR03 33kΩ	C5	CU3031	Chip C, CM105W5R471K	Q309	XT0030	Transistor, 2SC3356-T1 (R24orR25)
R10	RK3046	Chip R, MCR03 4.7kΩ	C6	CU3052	Chip C, CM105W5R103K	Q310	XU0017	Transistor, DTA144EKT146 (T only)
R11	RK3046	Chip R, MCR03 4.7kΩ	C7	CU3035	Chip C, CM105W5R102K	Q310	XU0017	Transistor, DTA144EKT196 (E only)
R12	RK3038	Chip R, MCR03 1kΩ	C8	CS0049	Chip Tantal C, TMC1C105TR	D302	XD0066	Diode, RLS135-TE11
R13	RK3026	Chip R, MCR03 100Ω (T only)	C9	CU3031	Chip C, CM105W5R471K	D303	XD0066	Diode, RLS135-TE11
R13	RK3038	Chip R, MCR03 1kΩ (E only)	C10	CU3056	Chip C, CM105Y5V473Z (T only)	D304	XD0066	Diode, RLS135-TE11
R14	RK3038	Chip R, MCR03 1kΩ	C10	CU2012	Chip C, C2012B1H103K (E only)	D305	XD0077	Varicap, 1SV161-TPH2
R15	RK3074	Chip R, MCR03 1MΩ	C11	CU3056	Chip C, CM105Y5V473Z (T only)	D306	XD0077	Varicap, 1SV161-TPH2
R16	RK3065	Chip R, MCR03 180kΩ	C11	CU2012	Chip C, C2012B1H103K (E only)	D307	XD0077	Varicap, 1SV161-TPH2
R17	RK3056	Chip R, MCR03 33kΩ	C12	CU3052	Chip C, CM105W5R103K	D308	XD0066	Diode, RLS135-TE11
R18	RK3052	Chip R, MCR03 15kΩ	C13	CU8003	Chip C, C2012Y1E104Z	VR301	RH0036	VRCVR-42A-102AW1D
R19	RK3049	Chip R, MCR03 8.2kΩ (E only)	C14	CU8002	Chip C, C2012B1H103K	VR302	RH0037	VRCVR-42A-471AW1D
R20	RK3050	Chip R, MCR03 10kΩ (T only)	C15	CU8003	Chip C, C2012Y1E104Z	TC304	CT0012	Trimmer C., CTZ-10AW
R21	RK3065	Chip R, MCR03 180kΩ	C16	CU8003	Chip C, C2012Y1E104Z	TC305	CT0012	Trimmer C., CTZ-10AW
R22	RK3056	Chip R, MCR03 33kΩ	C17	CU3035	Chip C, CM105W5R102K	QB0007	QB0007	Core V5F-TH2. 6×2. 8S14
R23	RK3052	Chip R, MCR03 15kΩ	C18	CU3023	Chip C, CM105CH101K	L301	QK0078	Air Core Coil, 0.4-1.5×1.5T
R24	RK3049	Chip R, MCR03 8.2kΩ (E only)	C19	CU3054	Chip C, CM105W5R223K	L302	QK0078	Air Core Coil, 0.4-1.5×1.5T
R25	RK3050	Chip R, MCR03 10kΩ	C20	CU3035	Chip C, CM105W5R102K	L303	QK0079	Air Core Coil, 0.4-2.6×6T
R26	RK3050	Chip R, MCR03 10kΩ	C21	CU3052	Chip C, CM105W5R103K	L304	QK0079	Air Core Coil, 0.4-2.6×6T
R27	RK3038	Chip R, MCR03 1kΩ	C22	CU3031	Chip C, CM105W5R471K	L305	QK0079	Air Core Coil, 0.4-2.6×6T
R28	RK3062	Chip R, MCR03 100kΩ	C24	CE0056	Electrolytic Condenser, 100SW	L306	QA0065	Coil QA0065
R29	RK3059	Chip R, MCR03 56kΩ	C30	CU3056	Chip C, CM105Y5V473Z (E only)	L307	QC0003	Chip L, MLF32161ROM
R30	RK3066	Chip R, MCR03 220kΩ	J1	UJ0016	Jack, HSJ1423-01-050	L308	QA0065	Coil QA0065
R31	RK3018	Chip R, MCR03 22Ω		LD0010	LCD Unit, LU3X-188A	L309	QA0065	Coil QA0065
R32	RK3050	Chip R, MCR03 10kΩ		UP0170	CPU Board	L310	QC0039	Chip L, NL32252T1ROM
R33	RK3058	Chip R, MCR03 47kΩ		YZ0061	UL Tape, 10mm × 1mm	L311	QA0065	Coil QA0064
R34	RK3046	Chip R, MCR03 4.7kΩ		TT1001	Elastic Tube, Φ0.7 × 1mm	L312	QA0065	Coil QA0064
R35	RK3058	Chip R, MCR03 47kΩ	VCO Unit			L313	QA0065	Coil QA0064
R36	RK3058	Chip R, MCR03 47kΩ	Q104	XT0030	Transistor, 2SC3356-T1	L314	QK0012	Air Core Coil, 0.4-2.0×2.5T
R37	RK3058	Chip R, MCR03 47kΩ	Q106	XT0030	Transistor, 2SC3356-T1	L315	QC0003	Chip L, MLF32161ROM
R38	RK3034	Chip R, MCR03 470Ω	Q107	XT0090	Transistor, 2SC2411KT146Q	L316	QK0079	Air Core Coil, 0.4-2.6×6T
R39	RK3034	Chip R, MCR03 470Ω	D102	XD0077	Varicap, 1SV161-TPH2	L317	QC0003	Chip L, MLF32161ROM
R40	RK3038	Chip R, MCR03 1kΩ	D103	XD0077	Varicap, 1SV161-TPH2	L318	QC0009	Chip L, MLFR10M
R41	RK3038	Chip R, MCR03 1kΩ	L102	QC0010	ChipL, MLF3216E100M	L319	QC0003	Chip L, MLF32161ROM
R42	RK3034	Chip R, MCR03 470Ω	L103	QC0003	ChipL, MLF3216E100M	L320	QC0009	Chip L, MLFR10M
R43	RK3034	Chip R, MCR03 470Ω	L104	QC0010	ChipL, MLF3216E100M	R302	RK3046	Chip R, MCR03 4.7kΩ
R44	RK3034	Chip R, MCR03 470Ω	L105	QC0010	ChipL, MLF3216E100M	R303	RK3046	Chip R, MCR03 4.7kΩ
R45	RK3034	Chip R, MCR03 470Ω	L106	QA0063	Coil, QA0063	R304	RK3074	Chip R, MCR03 1MΩ
R46	RK3038	Chip R, MCR03 1kΩ	L107	QK0081	Air Core Coil, 0.4-1.5×4T	R305	RK3062	Chip R, MCR03 100kΩ
R47	RK3038	Chip R, MCR03 1kΩ		UT0019	PC Board Terminal, CK-1-2	R306	RK3022	Chip R, MCR03 47Ω
R48	RK3038	Chip R, MCR03 1kΩ		TS0032A	VCO Case	R307	RK3026	Chip R, MCR03 22kΩ
R49	RK3038	Chip R, MCR03 1kΩ	R109	RK3030	Chip R, MCR03 220Ω	R308	RK3074	Chip R, MCR03 1MΩ
R50	RK3038	Chip R, MCR03 1kΩ	R110	RK3026	Chip R, MCR03 100Ω	R309	RK3074	Chip R, MCR03 1MΩ
R51	RK3038	Chip R, MCR03 1kΩ	R111	RK3022	Chip R, MCR03 47Ω			
R52	RK3038	Chip R, MCR03 1kΩ	R112	RK3046	Chip R, MCR03 4.7kΩ			
R53	RK3038	Chip R, MCR03 1kΩ	R113	RK3054	Chip R, MCR03 22kΩ			
R54	RK3102	Chip R, MCR03 20kΩ (T only)	R114	RK3038	Chip R, MCR03 1kΩ			
R55	RK3102	Chip R, MCR03 20kΩ (T only)	R115	RK3026	Chip R, MCR03 100Ω			
			R116	RK3062	Chip R, MCR03 100kΩ			
			R117	RK3038	Chip R, MCR03 1kΩ			

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
R310	RK3050	Chip R, MCR03 10kΩ	C357	CU3052	Chip C, CM105W5R103K	Q216	XU0027	Transistor, FMA7
R311	RK3056	Chip R, MCR03 33kΩ	C359	CU3023	Chip C, CM105CH101K	Q217	XU0026	Transistor, FMG2
R312	RK3026	Chip R, MCR03 100Ω	C360	CU3035	Chip C, CM105W5R102K	Q218	XU0027	Transistor, FMA7
R313	RK3026	Chip R, MCR03 100Ω	C362	CU3052	Chip C, CM105W5R103K	Q219	XU0026	Transistor, FMG2
R314	RK3070	Chip R, MCR03 470kΩ	C363	CU3011	Chip C, CM105CH100K	Q220	XU0026	Transistor, FMG2
R315	RK3030	Chip R, MCR03 220Ω	C364	CU3035	Chip C, CM105W5R102K	Q221	XT0088	Transistor, 2SA1213 Y
R316	RK3038	Chip R, MCR03 1kΩ	C365	CU3052	Chip C, CM105W5R103K	Q222	XT0037	Transistor, 2SC2412K R
R317	RK3038	Chip R, MCR03 1kΩ	C366	CU3005	Chip C, CM105CH040C	X'tal	XQ0039	X'tal, 54.595MHz (UM-1)
R327	RK3038	Chip R, MCR03 1kΩ	C367	CU3035	Chip C, CM105W5R102K	FIL	XC0004	455KHz Filter, CFUM455E
R328	RK3038	Chip R, MCR03 1kΩ	C368	CU3052	Chip C, CM105W5R103K	VR201	RV0014	VR, RK09722115R1211-10KB
R329	RK3064	Chip R, MCR03 150kΩ	C369	CU3015	Chip C, CM105CH220K	VR202	RH0061	VR, MVR32HXBRN472
R330	RK3026	Chip R, MCR03 100Ω	C370	CU3052	Chip C, CM105W5R103K	VR203	RH0060	VR, MVR32HXBRN473
R331	RK3038	Chip R, MCR03 1kΩ	C371	CU3011	Chip C, CM105CH100K	VR204	RH0060	VR, MVR32HXBRN473
R332	RK0130	Chip R, MCR10 4.7Ω	C372	CU3035	Chip C, CM105W5R102K	VR205	RH0060	VR, MVR32HXBRN473
R333	RK3034	Chip R, MCR03 470Ω	C373	CU3035	Chip C, CM105W5R102K	ENC	URO004	Rortary Encoder, SRBM1L L20-18
R334	RK3034	Chip R, MCR03 470Ω	C374	CU3035	Chip C, CM105W5R102K	L201	QC0132	Chip L, NL322522T-R68J-3
R335	RK3022	Chip R, MCR03 47Ω	C378	CU3035	Chip C, CM105W5R102K	L202	QA0044	Detection Coil, QA0044
R336	RK3050	Chip R, MCR03 10kΩ	C380	CU3023	Chip C, CM105CH101K	J201	UJ0015	DC Jack, HEC1781-01-020
R337	RK3046	Chip R, MCR03 4.7kΩ	C381	CU3016	Chip C, CM105CH270K	J202	UJ0017	MIC Jack, HJS2079-01-010
R338	RK3038	Chip R, MCR03 1kΩ	C382	CU3016	Chip C, CM105CH270K	TH201	XS0007	Thermistor, TD5-C230D
R341	RK3022	Chip R, MCR03 47Ω	C383	CU3052	Chip C, CM105W5R103K	R201	RK3056	Chip R, MCR03EZJ333
R342	RK3026	Chip R, MCR03 100Ω	C384	CS0057	Chip Tantal C, TMC0J225TR	R202	RK3062	Chip R, MCR03EZJ104
R343	RK3038	Chip R, MCR03 1kΩ	C385	CU3052	Chip C, CM105W5R103K	R203	RK3038	Chip R, MCR03EZJ102
R344	RK3054	Chip R, MCR03 22kΩ	C386	CS0209	Chip Tantal C, TMC0J106TR	R204	RK3056	Chip R, MCR03EZJ333
R345	RK3054	Chip R, MCR03 22kΩ	C387	CS0057	Chip Tantal C, TMC0J225TR	R205	RK3058	Chip R, MCR03EZJ473
R346	RK3054	Chip R, MCR03 22kΩ	C388	CU3035	Chip C, CM105W5R102K	R206	RK3044	Chip R, MCR03EZJ332
R347	RK3050	Chip R, MCR03 10kΩ	C389	CU3011	Chip C, CM105CH100K	R207	RK3050	Chip R, MCR03EZJ103
R348	RK3050	Chip R, MCR03 10kΩ	C390	CU3056	Chip C, CM105YSV473Z	R208	RK3062	Chip R, MCR03EZJ104
R349	RK3050	Chip R, MCR03 10kΩ	C391	CS0209	Chip Tantal C, TMC0J106TR	R210	RK3042	Chip R, MCR03EZJ222
R350	RK3038	Chip R, MCR03 1kΩ	C392	CU3035	Chip C, CM105W5R102K	R211	RK3070	Chip R, MCR03EZJ474
R351	RK3026	Chip R, MCR03 100Ω	C393	CU3035	Chip C, CM105W5R102K	R212	RK3042	Chip R, MCR03EZJ222
R352	RK3025	Chip R, MCR03 82Ω	C394	CU3035	Chip C, CM105W5R102K	R213	RK3038	Chip R, MCR03EZJ102
R353	RK3014	Chip R, MCR03 10Ω	C397	CU3015	Chip C, CM105CH220K	R214	RK3054	Chip R, MCR03EZJ223
R354	RK3054	Chip R, MCR03 22kΩ	C398	CU3052	Chip C, CM105W5R103K	R215	RK3050	Chip R, MCR03EZJ103
R355	RK3026	Chip R, MCR03 100Ω	C401	CU3052	Chip C, CM105W5R103K	R216	RK3022	Chip R, MCR03EZJ470
R358	RK3026	Chip R, MCR03 100Ω	C402	CU3052	Chip C, CM105W5R103K	R217	RK3050	Chip R, MCR03EZJ103
R359	RK3030	Chip R, MCR03 220Ω	C404	CU3035	Chip C, CM105W5R102K	R218	RK3071	Chip R, MCR03EZJ564
R360	RK3038	Chip R, MCR03 1kΩ	X'tal	XQ0022	X'tal, 12.8MHz UM-1	R219	RK3054	Chip R, MCR03EZJ223
R361	RK3026	Chip R, MCR03 100Ω	XF12	XF0003	X'tal Filter, 55.05MHz (55M15A)	R220	RK3022	Chip R, MCR03EZJ470
R362	RK3042	Chip R, MCR03 2.2kΩ		UE0029A	Antenna Connector, (with Connector Nut)	R221	RK3042	Chip R, MCR03EZJ222
R363	RK3074	Chip R, MCR03 1MΩ	CN301	UE0100	Connector, 52030-1610	R222	RK3066	Chip R, MCR03EZJ224
R365	RK3001	Chip R, MCR03 0Ω	CN302	UE0039	Housing, TZL-P02P-C1	R223	RK3042	Chip R, MCR03EZJ222
C301	CU3004	Chip C, CM105CH030C	SW301	US0015	Slide Switch, HSW0880-01-210	R224	RK3062	Chip R, MCR03EZJ104
C302	CU3005	Chip C, CM105CH040C		TZ0021	Insulating Paper	R225	RK3054	Chip R, MCR03EZJ223
C304	CU3035	Chip C, CM105W5R102K		Ed6005	LITHIUM BATTERY	R226	RK3058	Chip R, MCR03EZJ473
C305	CU3015	Chip C, CM105CH220K	IF Unit			R227	RK3062	Chip R, MCR03EZJ104
C306	CU3019	Chip C, CM105CH470K	IC201	XA0070	IC, MC33619	R228	RK3070	Chip R, MCR03EZJ474
C308	CU3016	Chip C, CM105CH270K	IC202	XA0061	IC, NJM386M	R229	RK3046	Chip R, MCR03EZJ472
C310	CU3035	Chip C, CM105W5R102K	IC203	XA0068	IC, M5218FP	R230	RK3042	Chip R, MCR03EZJ222
C311	CU3035	Chip C, CM105W5R102K	IC204	XA0104	IC, M5236ML	R231	RK3058	Chip R, MCR03EZJ473
C312	CU3052	Chip C, CM105W5R103K	D201	XD0108	Diode, MA704	R232	RK3050	Chip R, MCR03EZJ103
C313	CU3016	Chip C, CM105CH270K	D202	XD0118	Diode, MA716	R233	RK3070	Chip R, MCR03EZJ474
C314	CU3021	Chip C, CM105CH680K	D203	XD0119	Diode, MA718	R234	RK3058	Chip R, MCR03EZJ473
C315	CU3052	Chip C, CM105W5R103K	D204	XD0108	Diode, MA704	R235	RK3050	Chip R, MCR03EZJ103
C316	CU3035	Chip C, CM105W5R102K	D205	XD0040	Diode, DAN202K	R236	RK3046	Chip R, MCR03EZJ472
C317	CU3052	Chip C, CM105W5R103K	D206	XD0040	Diode, DAN202K	R237	RK3067	Chip R, MCR03EZJ274
C318	CU3052	Chip C, CM105W5R103K	D207	XD0104	Zener Diode, 02C26.2Y	R238	RK3042	Chip R, MCR03EZJ222
C319	CU3035	Chip C, CM105W5R102K	D208	XD0091	Diode, 1MN10	R239	RK3058	Chip R, MCR03EZJ473
C320	CU3021	Chip C, CM105CH680K	D209	XD0041	Diode, DAP202K	R240	RK3050	Chip R, MCR03EZJ103
C321	CU3023	Chip C, CM105CH101K	D210	XD0107	Diode, G3B	R241	RK3032	Chip R, MCR03EZJ331
C322	CU3052	Chip C, CM105W5R103K	D211	XD0040	Diode, DAN202K	R242	RK3046	Chip R, MCR03EZJ472
C323	CU3021	Chip C, CM105CH680K	D212	XD0108	Diode, MA704	R243	RK3028	Chip R, MCR03EZJ151
C324	CU3018	Chip C, CM105CH390K	Q201	XT0037	Transistor, 2SC2412K R	R244	RK3062	Chip R, MCR03EZJ104
C325	CU3003	Chip C, CM105CH020C	Q202	XT0081	Transistor, 2SC2714 Y	R245	RK3050	Chip R, MCR03EZJ103
C326	CU3035	Chip C, CM105W5R102K	Q203	XT0037	Transistor, 2SC2412K R	R246	RK3050	Chip R, MCR03EZJ103
C328	CU3052	Chip C, CM105W5R103K	Q204	XT0036	Transistor, 2SC2413K P	R247	RK3050	Chip R, MCR03EZJ103
C329	CU3006	Chip C, CM105CH050C	Q205	XT0036	Transistor, 2SC2413K P	R249	RK3042	Chip R, MCR03EZJ222
C330	CU3005	Chip C, CM105CH040C	Q206	XT0037	Transistor, 2SC2412K R	R250	RK3046	Chip R, MCR03EZJ472
C331	CU3035	Chip C, CM105W5R102K	Q207	XT0037	Transistor, 2SC2412K R	R251	RK3050	Chip R, MCR03EZJ103
C332	CU3052	Chip C, CM105W5R103K	Q208	XU0021	Transistor, FMC3	R252	RK3050	Chip R, MCR03EZJ103
C333	CU3052	Chip C, CM105W5R103K	Q209	XT0037	Transistor, 2SC2412K R	R253	RK3050	Chip R, MCR03EZJ103
C348	CU3011	Chip C, CM105CH100K	Q210	XT0088	Transistor, 2SA1213 Y	R254	RK3066	Chip R, MCR03EZJ224
C349	CU3035	Chip C, CM105W5R102K	Q211	XT0037	Transistor, 2SC2412K R	R255	RK3022	Chip R, MCR03EZJ470
C350	CU3011	Chip C, CM105CH100K	Q212	XU0026	Transistor, FMG2	R256	RK3062	Chip R, MCR03EZJ104
C351	CU3011	Chip C, CM105CH100K	Q213	XT0088	Transistor, 2SA1213 Y			
C352	CU3035	Chip C, CM105W5R102K	Q214	XU0027	Transistor, FMA7			
C353	CS0050	Chip Tantal C, TMC1A475TR	Q215	XU0026	Transistor, FMG2			
C354	CS0068	Chip Tantal C, TMC1E475TR						
C355	CU3052	Chip C, CM105W5R103K						
C356	CU3035	Chip C, CM105W5R102K						

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
R257	RK3062	Chip R. MCR03EZJ104	C255	CU3023	Chip C. CM105CH101K50V			
R260	RK3059	Chip R. MCR03EZJ563	C257	CU3027	Chip C. CM105SL221K50V			
R261	RK3066	Chip R. MCR03EZJ224	C258	CU3053	Chip C. CM105W5R102K50V			
R262	RK3050	Chip R. MCR03EZJ103	C259	CU3053	Chip C. CM105W5R102K50V			
R263	RK3065	Chip R. MCR03EZJ184	C260	CU3031	Chip C. CM105W5R471K50V			
R264	RK3067	Chip R. MCR03EZJ274	C261	CU3031	Chip C. CM105W5R471K50V			
R265	RK3058	Chip R. MCR03EZJ473	C262	CS0209	Chip TantalC. TMCMB0J106M			
R266	RK3050	Chip R. MCR03EZJ103	C263	CS0069	Chip TantalC. TMCSA1V154M			
R267	RK3050	Chip R. MCR03EZJ103	C264	CS0209	Chip TantalC. TMCMB0J106M			
R268	RK3046	Chip R. MCR03EZJ472	C265	CU3043	Chip C. CM105W5R472K50V			
R269	RK3029	Chip R. MCR03EZJ181	C266	CU3019	Chip C. CM105CH470K50V			
R270	RK0105	Chip R. MCR10EZJ2R2E	C267	CU3052	Chip C. CM105W5R103K25V			
R271	RK3062	Chip R. MCR03EZJ104	C268	CE0307	Chip Electrolytic C. ECEVOJA470P			
R272	RK3058	Chip R. MCR03EZJ473	C269	CU3053	Chip C. CM105W5R102K50V			
R273	RK3038	Chip R. MCR03EZJ102	C270	CU3053	Chip C. CM105W5R102K50V			
R274	RK3034	Chip R. MCR03EZJ471	C271	CS0049	Chip TantalC. TMCSA1C105M			
R275	RK3034	Chip R. MCR03EZJ471	C272	CU3053	Chip C. CM105W5R102K50V			
R276	RK0105	Chip R. MCR10EZJ2R2E	C273	CU3053	Chip C. CM105W5R102K50V			
R277	RK3050	Chip R. MCR03EZJ103	C274	CU3053	Chip C. CM105W5R102K50V			
R278	RK3014	Chip R. MCR03EZJ100	C275	CE0315	Chip Electrolytic C. ECEV1CA470P			
R279	RK3029	Chip R. MCR03EZJ181	C276	CU3053	Chip C. CM105W5R102K50V			
R280	RK3054	Chip R. MCR03EZJ223	C277	CS0049	Chip TantalC. TMCSA1C105M			
R289	RK1018	Chip R. MCR18EZJ101E	C278	CS0209	Chip TantalC. TMCMB0J106M			
R290	RK3066	Chip R. MCR03EZJ224	C279	CU3053	Chip C. CM105W5R102K50V			
R291	RK3044	Chip R. MCR03EZJ332	C280	CE0315	Chip Electrolytic C. ECEV1CA470P			
R292	RK3050	Chip R. MCR03EZJ103	C281	CU3053	Chip C. CM105W5R102K50V			
R293	RK3070	Chip R. MCR03EZJ474	C282	CU3053	Chip C. CM105W5R102K50V			
			C283	CU3053	Chip C. CM105W5R102K50V			
C201	CS0057	Chip Tantal C. TMCSA0J225M	C285	CU3052	Chip C. CM105W5R103K25V			
C202	CU3052	Chip C. CM105W5R103K25V	C286	CU3053	Chip C. CM105W5R102K50V			
C203	CU3052	Chip C. CM105W5R103K25V	C287	CU3053	Chip C. CM105W5R102K50V			
C204	CU3052	Chip C. CM105W5R103K25V	C288	CU3052	Chip C. CM105W5R103K25V			
C205	CU3052	Chip C. CM105W5R103K25V	C289	CU3052	Chip C. CM105W5R103K25V			
C206	CU8003	Chip C. CC2012JF1E104	C290	CU3053	Chip C. CM105W5R102K50V			
C207	CU8003	Chip C. CC2012JF1E104	C291	CS0235	Chip Tantal C. TMCSA1V334M			
C208	CU8003	Chip C. CC2012JF1E104	C292	CU8003	Chip C. CC2012JF1E104			
C209	CU3052	Chip C. CM105W5R103K25V	C293	CU8003	Chip C. CC2012JF1E104			
C210	CU3017	Chip C. CM105CH330K50V	C294	CE0308	Chip Electrolytic C. ECEVOJA101P			
C211	CU3053	Chip C. CM105W5R102K50V	C295	CU3023	Chip C. CM105CH101K50V			
C212	CU3053	Chip C. CM105W5R102K50V	C296	CU3060	Chip C. CM105CH221K50V			
C213	CU3053	Chip C. CM105W5R102K50V	C297	CU8003	Chip C. CC2012JF1E104			
C214	CU3053	Chip C. CM105W5R102K50V	C298	CU3053	Chip C. CM105Y5V333Z25V			
C215	CU3052	Chip C. CM105W5R103K25V	C299	CU3053	Chip C. CM105Y5V333Z25V			
C216	CU3019	Chip C. CM105CH470K50V						
C217	CU3006	Chip C. CM105CH050C50V	CN201	UE0101	Conetor. 52030-2810			
C218	CU3013	Chip C. CM105CH150K50V	CN202	UE0100	Conetor. 52030-1610			
C219	CU3053	Chip C. CM105W5R102K50V	CN203	UE0098	Conetor. 52207-1090			
C220	CU3019	Chip C. CM105CH470K50V						
C221	CS0059	Chip Tantal C. TMCSC0J226M						
C222	CU8003	Chip C. CC2012JF1E104						
C223	CU8003	Chip C. CC2012JF1E104						
C224	CU8003	Chip C. CC2012JF1E104						
C225	CU3053	Chip C. CM105W5R102K50V						
C226	CU3061	Chip C. CM105CH271K50V						
C227	CU8003	Chip C. CC2012JF1E104						
C228	CU3053	Chip C. CM105W5R102K50V						
C229	CU3052	Chip C. CM105W5R103K25V						
C230	CU3053	Chip C. CM105W5R102K50V						
C231	CU3053	Chip C. CM105W5R102K50V						
C232	CS0063	Chip Tantal C. TMCSA1V104M						
C233	CU3039	Chip C. CM105W5R222K50V						
C234	CU3053	Chip C. CM105W5R102K50V						
C236	CS0050	Chip Tantal C. TMCSA1A475M						
C237	CS0063	Chip Tantal C. TMCSA1V104M						
C238	CU3054	Chip C. CM105W5R223K25V						
C239	CU3056	Chip C. CM105Y5V473Z25V						
C240	CU3056	Chip C. CM105Y5V473Z25V						
C241	CU3054	Chip C. CM105W5R223K25V						
C242	CU3052	Chip C. CM105W5R103K25V						
C243	CS0049	Chip Tantal C. TMCSA1C105M						
C244	CE0308	Chip Electrolytic C. ECEVOJA101P						
C245	CU3054	Chip C. CM105W5R223K25V						
C246	CU3054	Chip C. CM105W5R223K25V						
C247	CU3031	Chip C. CM105W5R471K50V						
C248	CU3031	Chip C. CM105W5R471K50V						
C249	CU3031	Chip C. CM105W5R471K50V						
C250	CE0056	Electrolytic C. 16MV100SW						
C251	CU3031	Chip C. CM105W5R471K50V						
C252	CU3031	Chip C. CM105W5R471K50V						
C253	CS0049	Chip TantalC. TMCSA1C105M						
C254	CU3052	Chip C. CM105W5R103K25V						

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■ CABINET PARTS LOCATION



UT0022

Ref. No.	Part Code	Part Name and Number
Mechanical Parts		
1	NK0019A	Volume Knob
2	NW0004A	Squelch Knob
3	NK0018A	Dial Knob
4	DP0040	LCD Panel
5	KU0078	Upper Panel
6	DD0007	U/D Knob
7	FG0048	EP Rubber
8	DV0003A	SP Metal Net
9	TG0007	Speaker Sheet
10	KM0058A	Front Case
11	FG0047	DC Rubber
12	NB0027	Release Knob
13	FM0036	IF Earth Board
14	N/A	N/A
15	FG0046B	Silicon Key
16	ST0020	Speaker Stabilizer
17	UT0022	Terminal(+)
18	FM0037	CPU Earth Board
19	ES0005	Speaker
20	NS0002	H/L Knob
21	DD0006	PTT Cover
22	TS0036	Modul Shielding Board
23	UE0029A	Antenna Conector
24	FM0033	Antenna Eath Board
25	KB0030	Rear Case
26	UT0021	Terminal(-)
27	FM0038	LCD Earth Board

Screws		
1	AN0012	Dial Nut
2	AF0013	M2+4
3	AN0004	M2 Nut
4	AP0003	Self Tapping M2+16
5	AF0014	M2. 6+3. 5
6	AB0001	M2. 6+6

■ ADJUSTMENT

1. Transmitting Unit [DJ-162TD]

Item	Adjustment Point	Adjustment Method	Spec
1. Frequency adjustment	TC304 (RF PCB)	Set the unit in the transmission mode at 146.03MHz and adjustment TC304. (Transceiver tester, counter)	146.03MHz \pm 50Hz
2. TX Power adjustment	VR301 (RF PCB) (Hi Power) VR302 (RF PCB) (Lo Power)	Adjustment VR301 so that TX power becomes 3W at 146.03MHz. Adjustment VR302 so that TX power becomes 300mW at 146.03MHz.	3.0W \pm 0.1W 300mW \pm 50mW
3. Modulation degree adjustment	VR204 (IF PCB)	Input a signal of 1kHz/50mV into The Mic jack transmitting at 146.03MHz and adjust VR204 so that you obtain 4.7kHz/Dev. in the transmission mode.	4.7kHz \pm 0.1kHz
4. Subaudible tone	VR203 (IF PCB)	Adjust 88.5kHz by VR203 so that you obtain 800Hz/Dev.	800Hz \pm 100Hz
5. DTMF.	VR205 (IF PCB)	Push <input type="checkbox"/> in the transmission mode and adjust VR203 so that you obtain 3.1kHz/Dev.	3.1kHz \pm 0.1kHz

2. Receiving Unit [DJ-162TD]

Item	Adjustment Point	Adjustment Method	Spec
1. VCO P/D Voltage adjustment	L106 (VCO)	Adjust L106 so that P/D voltage is 2.0V at 145.03MHz (DC Voltmeter) in the transmission mode.	2.0V
2. Detection Coil adjustment	L202 (IF PCB)	Input 1kHz, 3.5kHz/Dev. +66dB μ at 146.05MHz and adjust L202 so that detection power becomes maximum.	
3. VHF FRONT END adjustment	L306, L308, L309, TC305, L311, L312 (RF PCB)	At 146.03MHz and adjust L306, L308, L309, TC305, L311, and L312, so that 12dB SINAD sensitivity becomes maximum.	under -9dB μ (EMF)
4. S-meter adjustment	VR202 (IF PCB)	Input a signal of 10dB μ from transceiver tester at 146.03MHz Turn VR202 so that Full-bar begins to light.	10dB μ \pm 1dB μ (EMF)

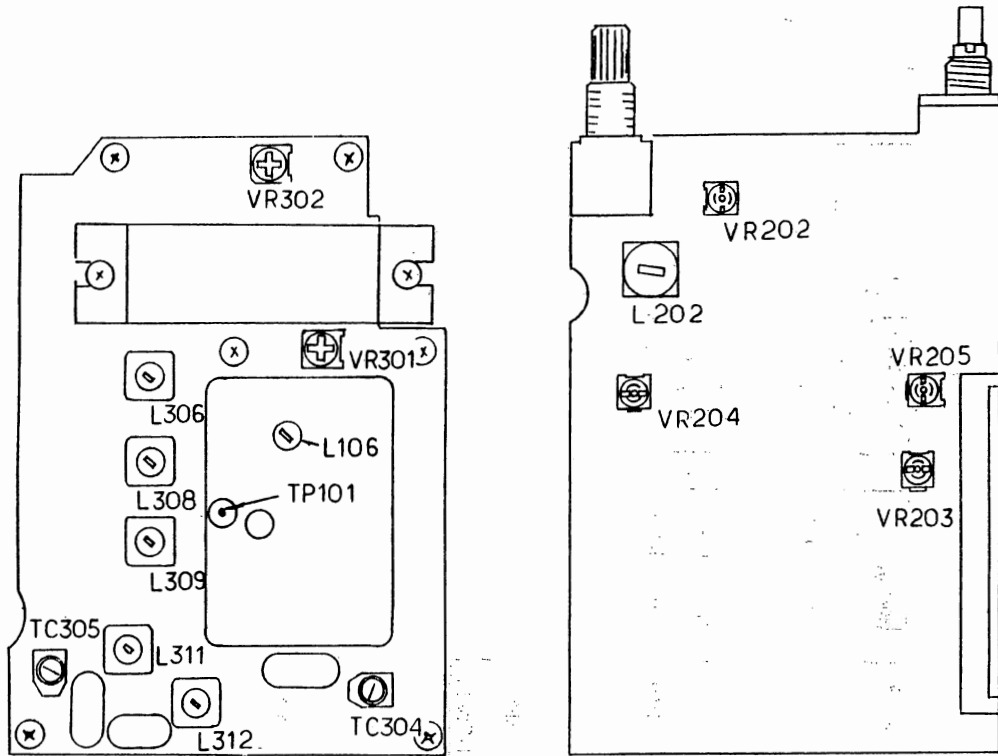
1. Transmitting Unit [DJ-162ED]

Item	Adjustment Point	Adjustment Method	Spec
1. Frequency adjustment	TC304 (RF PCB)	Set the unit in the transmission mode at 145.03MHz and adjustment TC304. (Transceiver tester, counter)	145.03MHz \pm 50Hz
2. TX Power adjustment	VR301 (RF PCB) (Hi Power) VR302 (RF PCB) (Lo Power)	Adjustment VR301 so that TX power becomes 3W at 145.99MHz. Adjustment VR302 so that TX power becomes 300mW at 145.99MHz.	3.1W \pm 0.1W 300mW \pm 50mW
3. Modulation degree adjustment	VR204 (IF PCB)	Input a signal of 1kHz/50mV into The Mic jack transmitting at 145.03MHz and adjust VR204 so that you obtain 4.7kHz/Dev in the transmission mode.	4.7kHz \pm 0.1kHz
4. Subaudible tone	VR203 (IF PCB)	Transmit at 145.03MHz and adjust VR203 to obtain a frequency modulation of 3.0kHz, making sure that tone burst 1750Hz within a range of 1750Hz \pm 20Hz.	3.0kHz \pm 0.5kHz
5. DTMF.	VR205 (IF PCB)	Push [1] in the transmission mode and adjust VR205 so that you obtain 3.1kHz/Dev.	3.1kHz \pm 0.1kHz

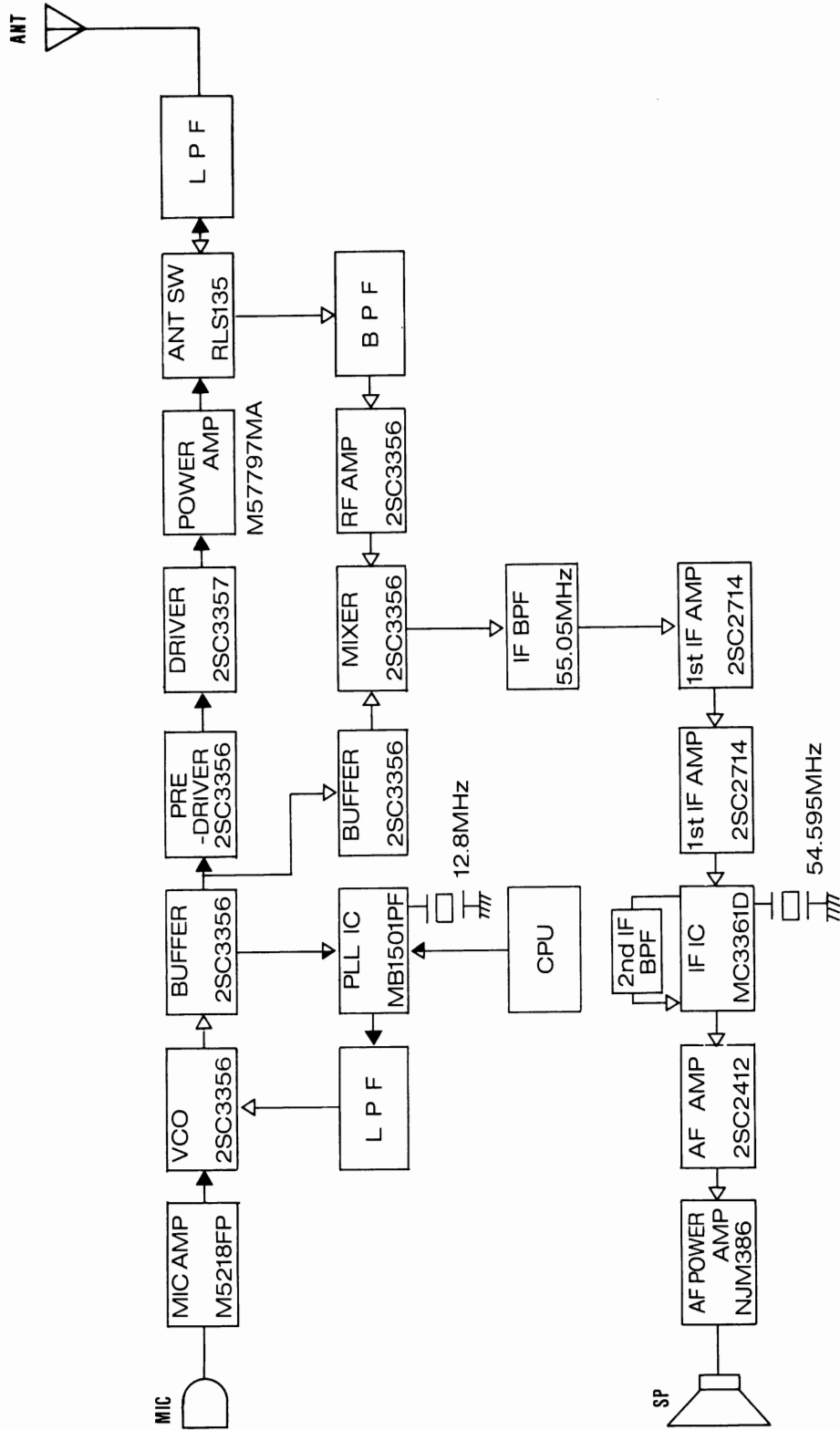
2. Receiving Unit [DJ-162ED]

Item	Adjustment Point	Adjustment Method	Spec
1. VCO P/D Voltage adjustment	L106 (VCO)	Adjust L106 so that P/D Voltage is 2.0V at 145.03MHz (DC Voltmeter) in the transmission mode.	2.0V \pm 0.1V
2. Detection Coil adjustment	L202 (IF PCB)	Input 1kHz, 3.5kHz/Dev. +66dB μ at 145.03MHz and adjust L202 so that detection power becomes maximum.	
3. VHF FRONT END adjustment	L306, L308, L309, TC305, L311, L312 (RF PCB)	At 145.95MHz and adjust L306, L308, L309, TC305, L311, and L312, so that 12dB SINAD sensitivity becomes maximum.	under -9dB μ (EMF)
4. S-meter adjustment	VR202 (IF PCB)	Input a signal of 10dB μ from transceiver tester at 145.95MHz Turn VR202 so that Full-bar begins to tight.	10dB μ \pm 1dB μ (EMF)

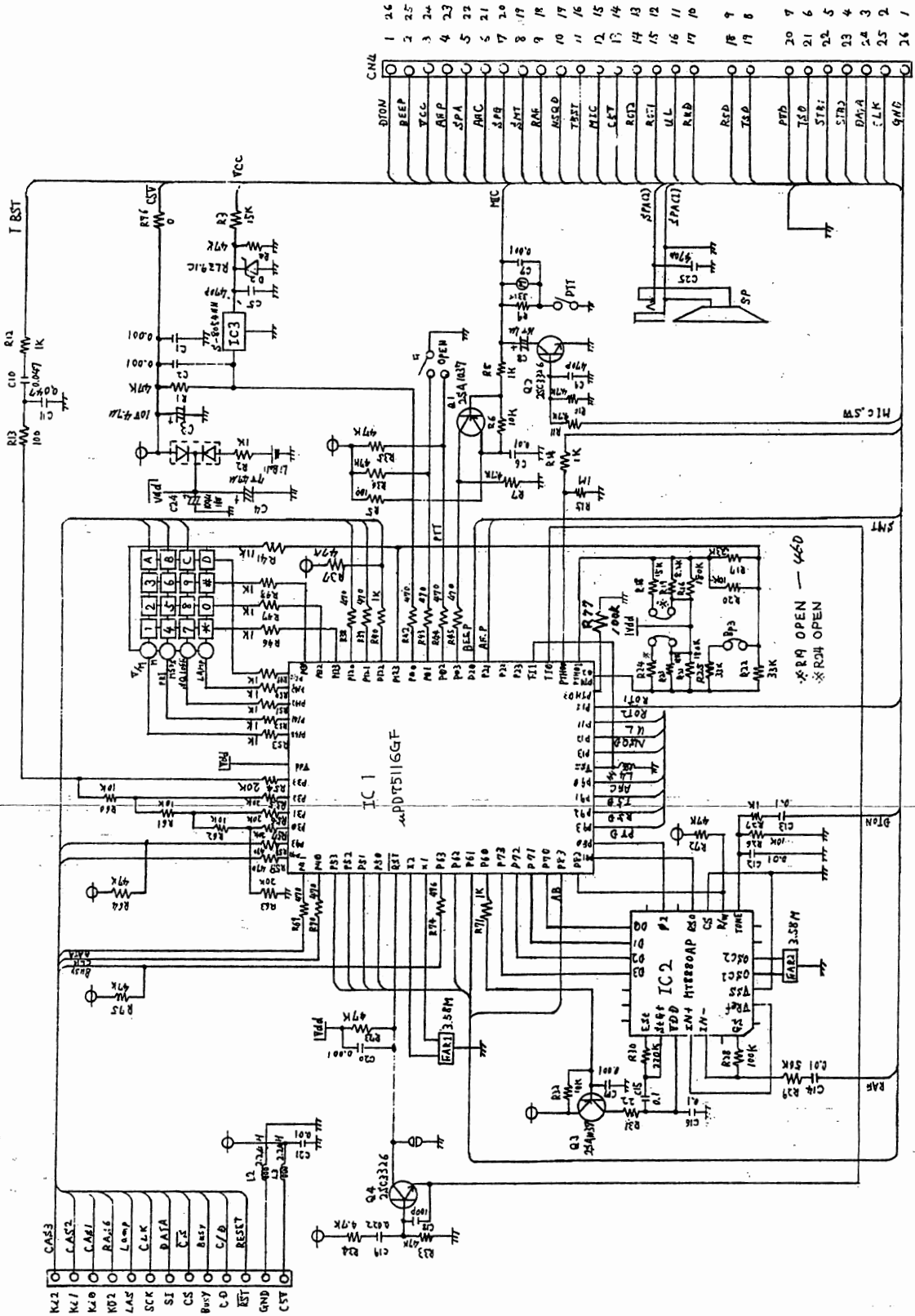
■ ADJUSTMENT



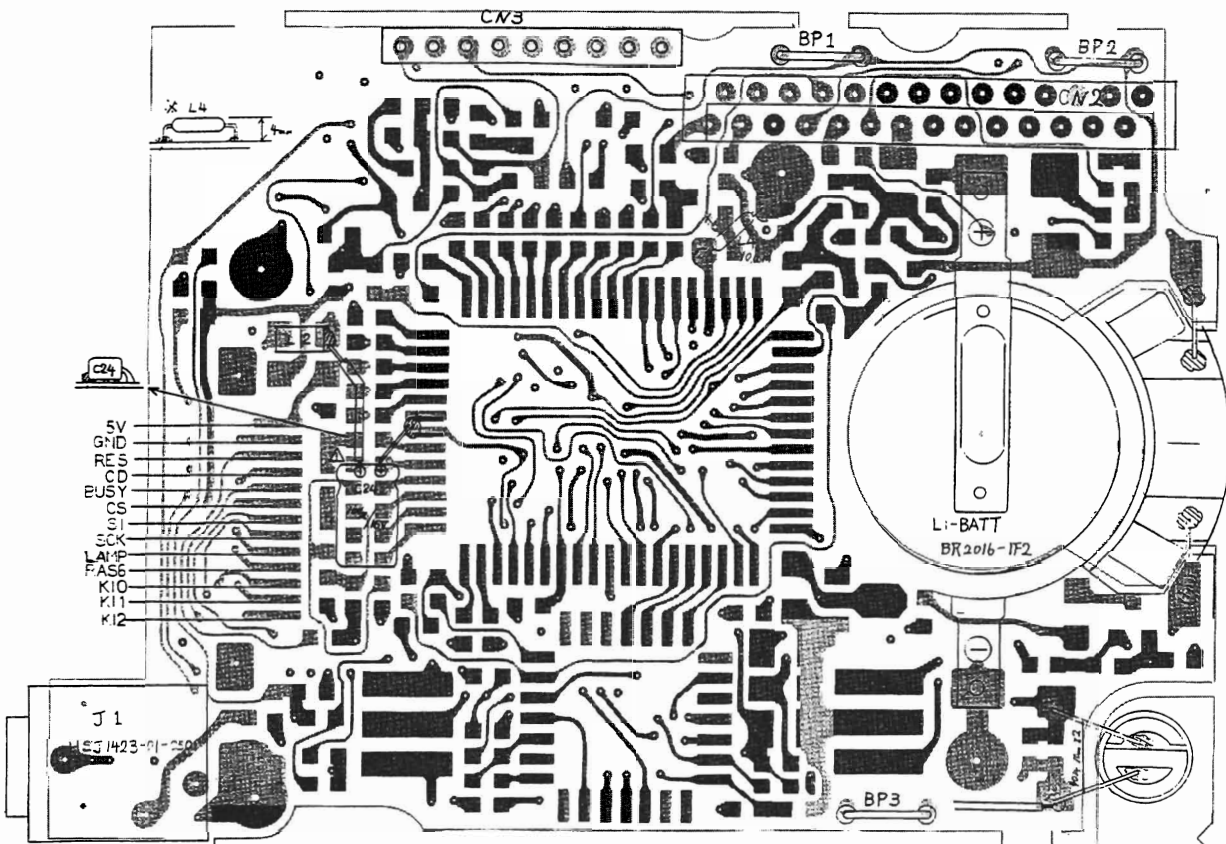
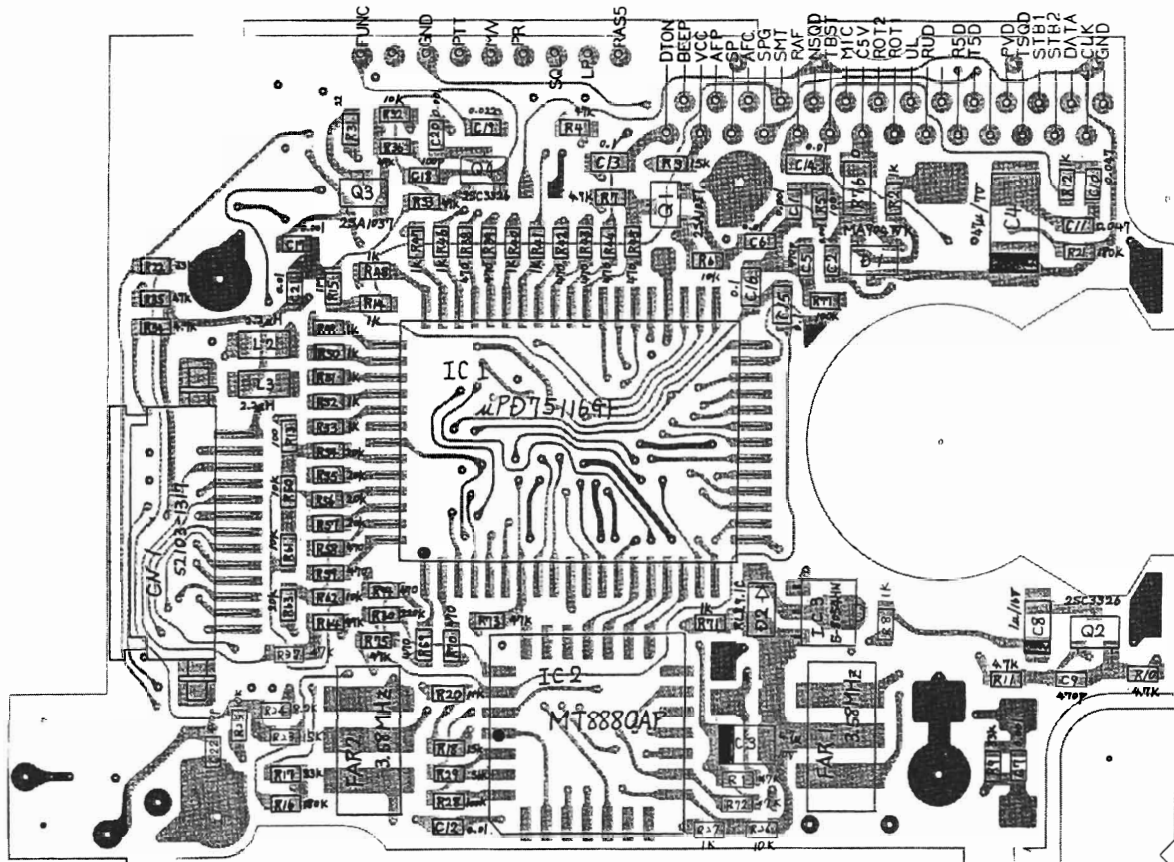
■ BLOCK DIAGRAM



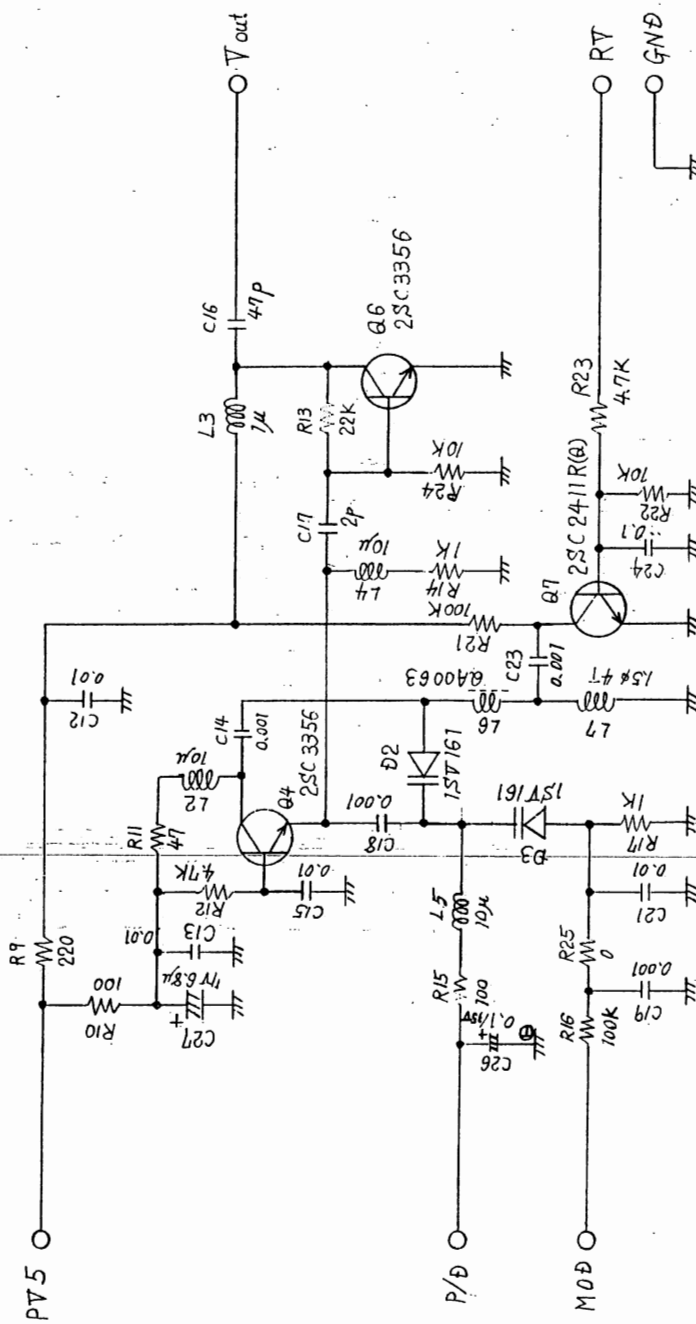
■ SCHEMATIC DIAGRAM OF CPU UNIT



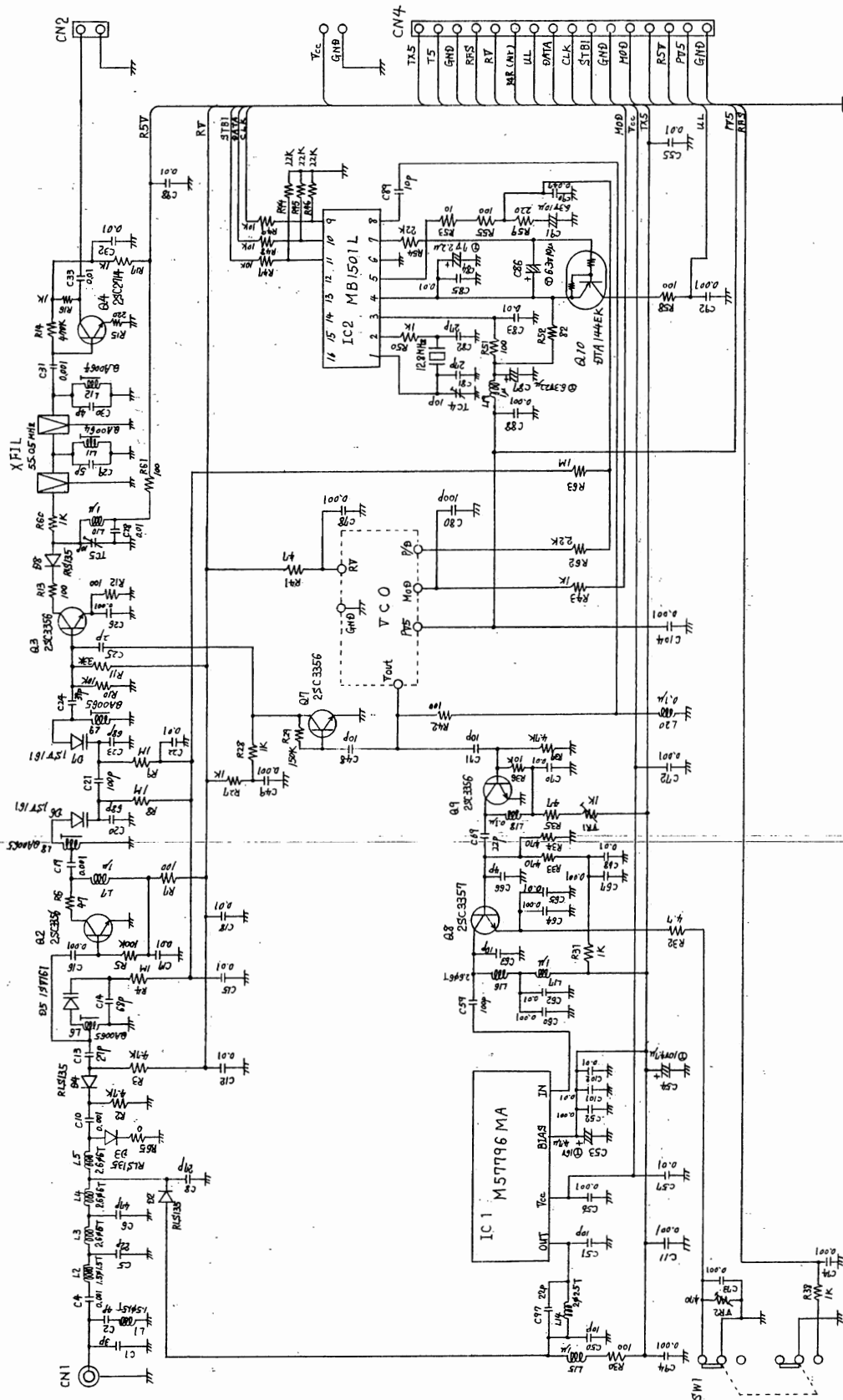
■ CPU PC BOARDS

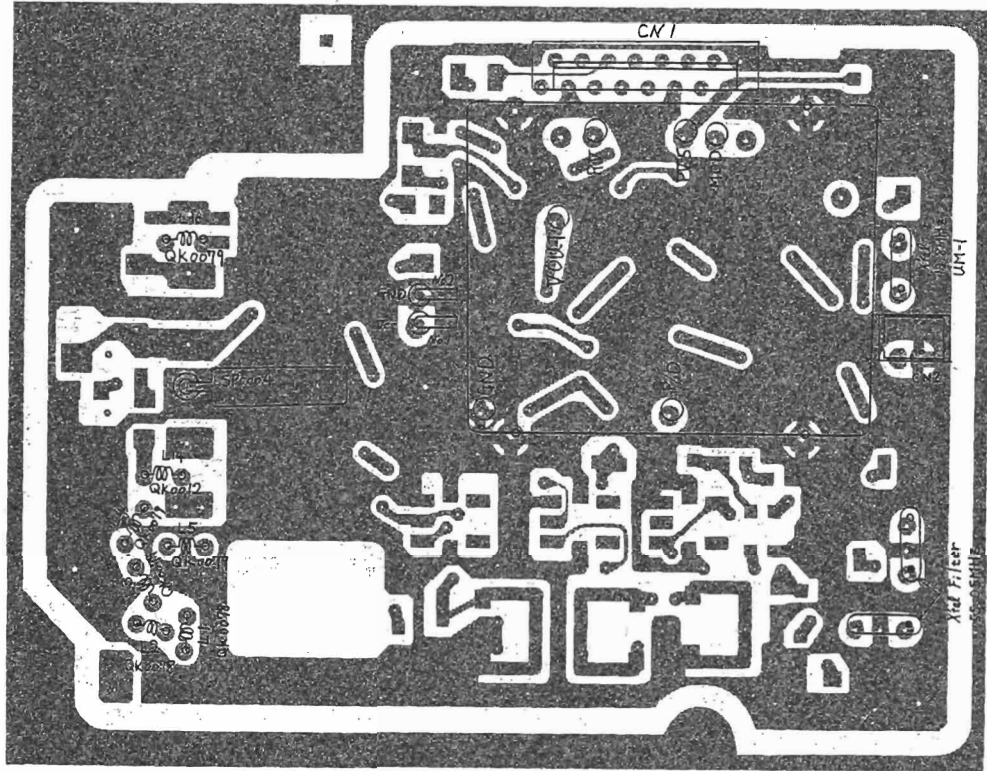


■ SCHEMATIC DIAGRAM OF VCO UNIT

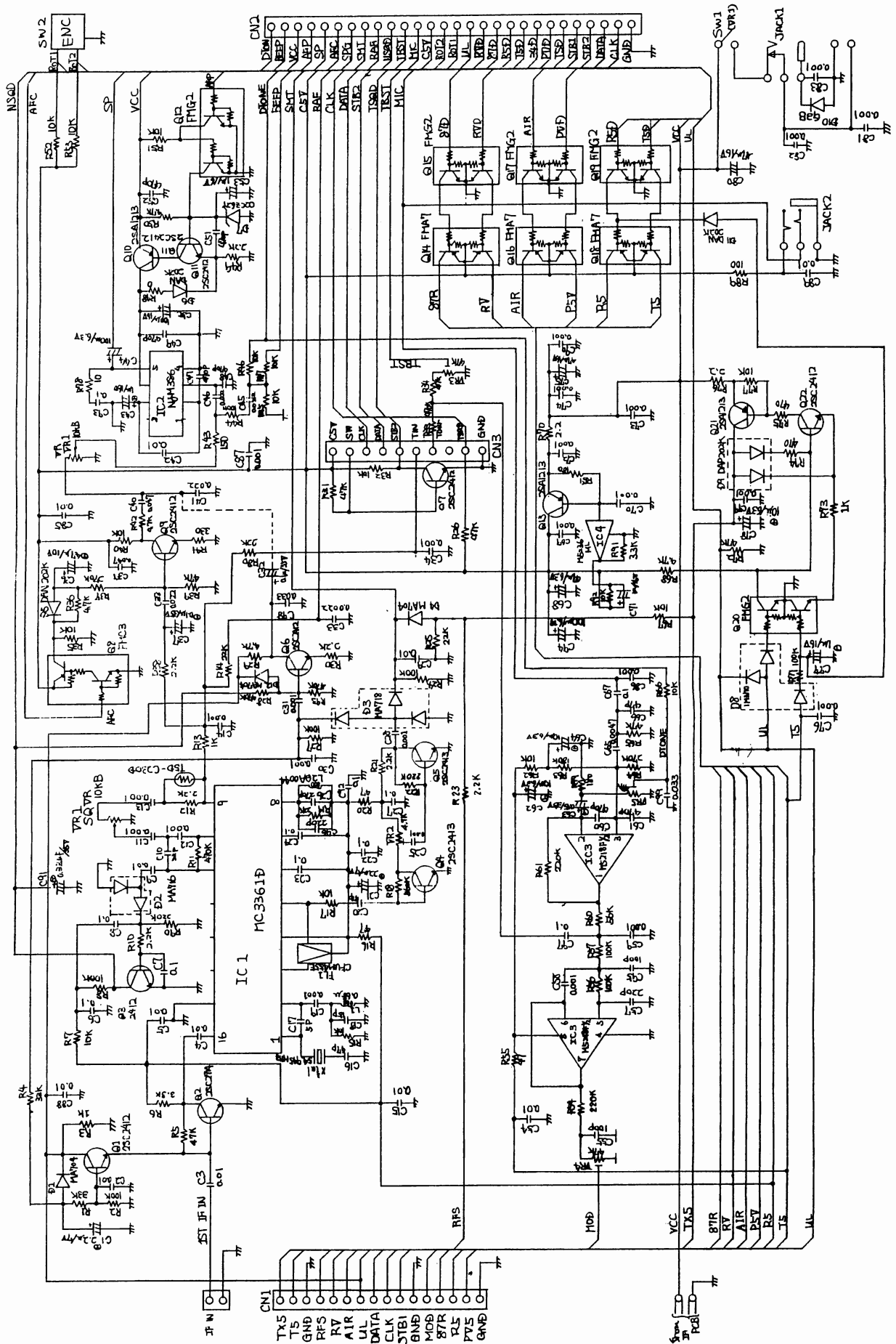


SCHEMATIC DIAGRAM OF RF UNIT

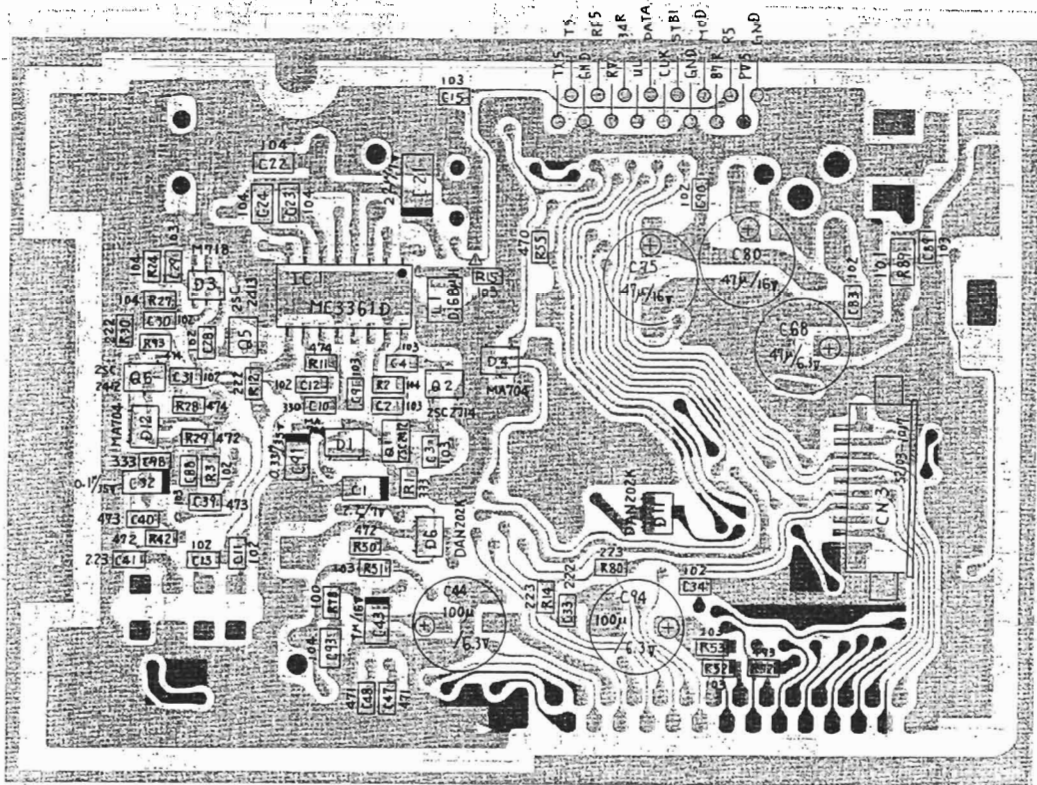
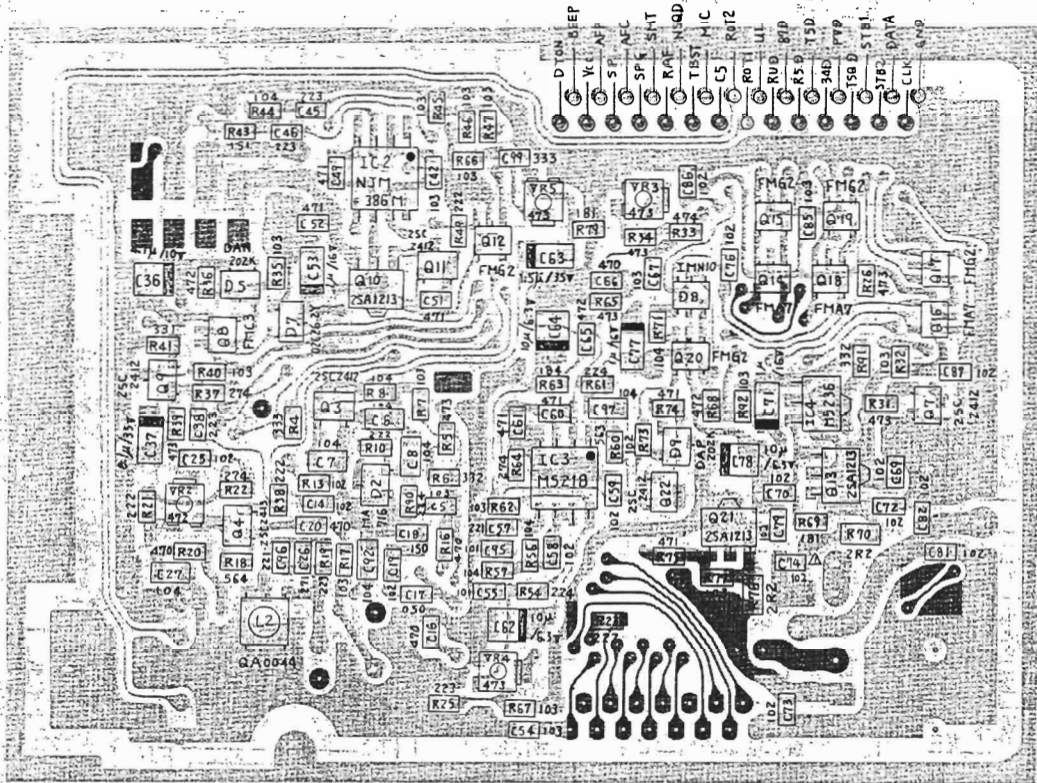


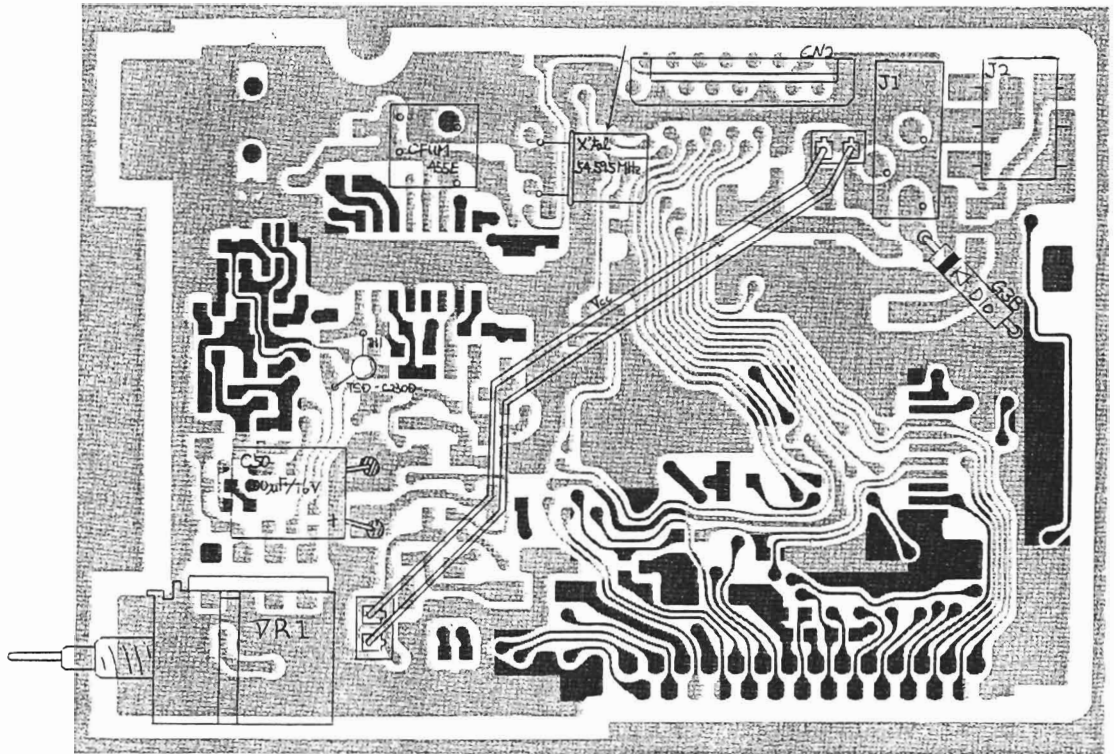
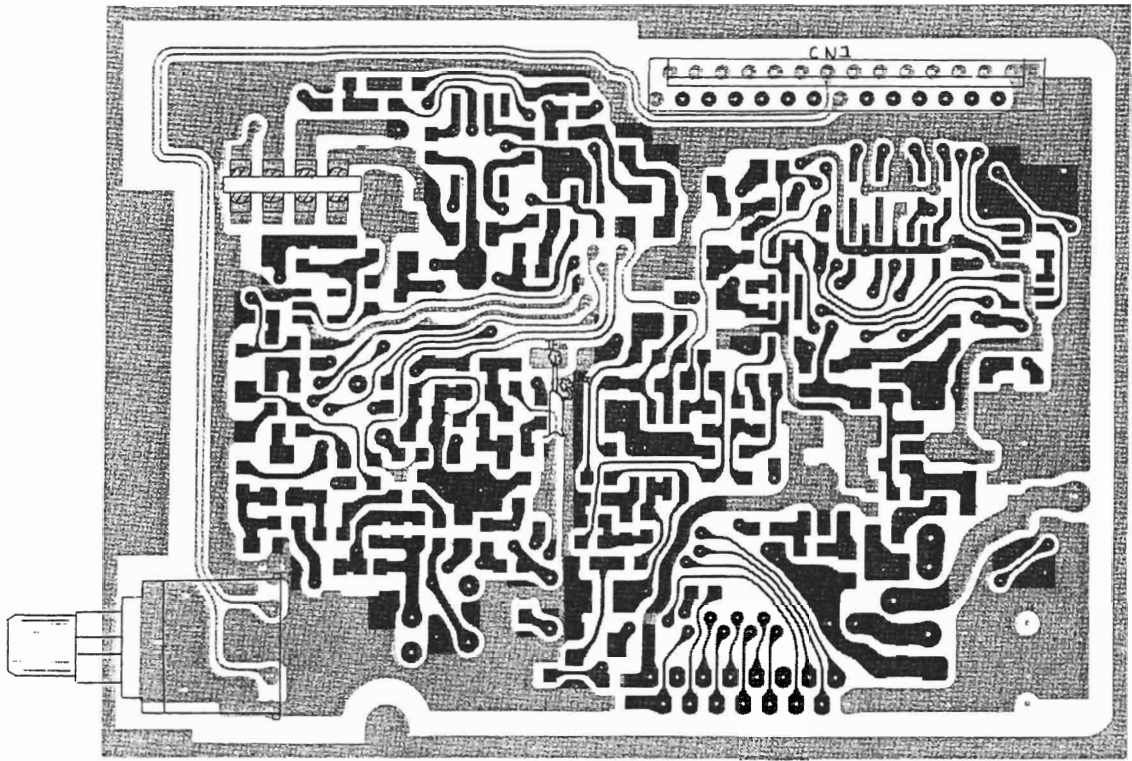


SCHEMATIC DIAGRAM OF IF UNIT



IF PC BOARDS





ALINCO ELECTRONICS INC.

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