

# DJ-160T/E DJ-460T/E

## Service Manual

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**ALINCO ELECTRONICS INC.**

# ■ SPECIFICATIONS

## ■ General

Frequency Range..... DJ-160T 144.00 — 148.00MHz  
 DJ-160E 144.00 — 146.00MHz  
 DJ-460T 440.00 — 450.00MHz  
 DJ-460E 430.00 — 440.00MHz

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 $\mu$

Selectivity..... More than  $\pm 7.5$ kHz at -6dB  
 Less than  $\pm 15$ kHz 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.....  $\pm 5$ kHz

Harmonic Suppression..... -60dB

Microphone..... Built-in electret condenser

RF POWER OUTPUT TABLE		
Battery	Hi	Lo
EBP-10N	2W	Approx. $\times 0.2$ W
EBP-12N	5W	Approx. $\times 0.5$ W

Specifications subject to change without notice.

# ■ PARTS LIST (DJ-160T/E)

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
<b>CPU Unit</b>			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	R57	RK3038	Chip R, MCR03 1kΩ (E only)	R123	RK3046	Chip R, MCR03 4.7kΩ
IC3	XA0106	S-8054HN-TI	R58	RK3034	Chip R, MCR03 470Ω	R124	RK3050	Chip R, MCR03 10kΩ
Q1	XT0038	Transistor, 2SA1037KT146R	R59	RK3034	Chip R, MCR03 470Ω	R125	RK0107	Chip R, MCR10 0Ω (T only)
Q2	XT0077	Transistor, 2SC3326ATE85L	R60	RK3050	Chip R, MCR03 10kΩ (T only)	C112	CU3052	Chip C, CM105W5R103K
Q3	XT0038	Transistor, 2SA1037KT146R	R60	RK3001	Chip R, MCR03 0Ω (E only)	C113	CU3052	Chip C, CM105W5R103K
Q4	XT0077	Transistor, 2SC3326ATE85L	R61	RK3050	Chip R, MCR03 10kΩ (T only)	C114	CU3035	Chip C, CM105W5R102K
D1	XD0120	Diode MA704WKTX	R61	RK3001	Chip R, MCR03 0Ω (E only)	C115	CU3052	Chip C, CM105W5R103K
D2	XD0121	Diode RLZ9.1CTE-11	R62	RK3050	Chip R, MCR03 10kΩ (T only)	C116	CU3019	Chip C, CM105CH470K
FAR1	XB0001	FAR-C4CA-0358000K01	R62	RK3001	Chip R, MCR03 0Ω (E only)	C117	CU3003	Chip C, CM105CH020C
FAR2	XB0001	FAR-C4CA-0358000K01	R63	RK3102	Chip R, MCR03 20kΩ (T only)	C118	CU3035	Chip C, CM105W5R102K
CN1	UE0099	Connector 52103-1317	R64	RK3058	Chip R, MCR03 47kΩ	C119	CU3035	Chip C, CM105W5R102K
CN2	UE0101	Connector 52030-2810	R69	RK3034	Chip R, MCR03 470Ω	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, TMC01V104TR
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	<b>RF Unit</b>		
R2	RK3038	Chip R, MCR03 1kΩ	R75	RK3058	Chip R, MCR03 47kΩ	OIC301	XA0044	IC, M57796MA
R3	RK3052	Chip R, MCR03 15kΩ	R76	RK1107	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, TMC0A475TR	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
R14	RK3038	Chip R, MCR03 1kΩ (E only)	C10	CU3056	Chip C, CM105Y5V473Z (T only)	D304	XD0066	Diode, RLS135-TE11
R15	RK3038	Chip R, MCR03 1kΩ	C10	CU2012	Chip C, C2012B1H103K (E only)	D305	XD0077	Varicap, 1SV161-TPH2
R16	RK3074	Chip R, MCR03 1MΩ	C11	CU3056	Chip C, CM105Y5V473Z (E only)	D306	XD0077	Varicap, 1SV161-TPH2
R17	RK3065	Chip R, MCR03 180kΩ	C11	CU2012	Chip C, C2012B1H103K (E only)	D307	XD0077	Varicap, 1SV161-TPH2
R18	RK3052	Chip R, MCR03 15kΩ	C12	CU3052	Chip C, CM105W5R103K	D308	XD0066	Diode, RLS135-TE11
R19	RK3049	Chip R, MCR03 8.2kΩ (E only)	C13	CU8003	Chip C, C2012Y1E104Z	VR301	RH0036	VRCVR-42A-102AW10
R20	RK3050	Chip R, MCR03 10kΩ (T only)	C14	CU8002	Chip C, C2012B1H103K	VR302	RH0037	VRCVR-42A-471AW1D
R21	RK3065	Chip R, MCR03 180kΩ	C15	CU8003	Chip C, C2012Y1E104Z	TC304	CT0012	Trimmer C., CTZ-10AW
R22	RK3056	Chip R, MCR03 33kΩ	C16	CU8003	Chip C, C2012Y1E104Z	TC305	CT0012	Trimmer C., CTZ-10AW
R23	RK3052	Chip R, MCR03 15kΩ	C17	CU3035	Chip C, CM105W5R102K	QB0007	Q80007	Core V5F-TH2.6×2.8S14
R24	RK3049	Chip R, MCR03 8.2kΩ (E only)	C18	CU3023	Chip C, CM105CH101K	L301	QK0078	Air Core Coil, 0.4-1.5×1.5T
R25	RK3050	Chip R, MCR03 10kΩ	C19	CU3054	Chip C, CM105W5R223K	L302	QK0078	Air Core Coil, 0.4-1.5×1.5T
R26	RK3050	Chip R, MCR03 10kΩ	C20	CU3035	Chip C, CM105W5R102K	L303	QK0079	Air Core Coil, 0.4-2.6×6T
R27	RK3038	Chip R, MCR03 1kΩ	C21	CU3052	Chip C, CM105W5R103K	L304	QK0079	Air Core Coil, 0.4-2.6×6T
R28	RK3062	Chip R, MCR03 100kΩ	C22	CU3031	Chip C, CM105W5R471K	L305	QK0079	Air Core Coil, 0.4-2.6×6T
R29	RK3059	Chip R, MCR03 56kΩ	C24	CE0056	Electrolytic Condenser, 100SW	L306	QA0065	Coil QA0065
R30	RK3066	Chip R, MCR03 220kΩ	C30	CU3056	Chip C, CM105Y5V473Z (E only)	L307	QC0003	Chip L, MLF32161ROM
R31	RK3018	Chip R, MCR03 22Ω	J1	UJ0016	Jack, HSJ1423-01-05Q	L308	QA0065	Coil QA0065
R32	RK3050	Chip R, MCR03 10kΩ		EL0010	LCD Unit, LU3X-188A	L309	QA0065	Coil QA0065
R33	RK3058	Chip R, MCR03 47kΩ		UP0170	CPU Board	L310	QC0039	Chip L, NL322522T1ROM
R34	RK3046	Chip R, MCR03 4.7kΩ		YZ0061	UL Tape, 10mm × 1mm	L311	QA0065	Coil QA0064
R35	RK3058	Chip R, MCR03 47kΩ		TT1001	Elastic Tube, Ø0.7 × 1mm	L312	QA0065	Coil QA0064
R36	RK3058	Chip R, MCR03 47kΩ	<b>VCO Unit</b>			L313	QA0012	Air Core Coil, 0.4-2.0×2.5T
R37	RK3058	Chip R, MCR03 47kΩ	Q104	XT0030	Transistor, 2SC3356-T1	L315	QC0003	Chip L, MLF32161ROM
R38	RK3034	Chip R, MCR03 470Ω	Q106	XT0030	Transistor, 2SC3356-T1	L316	QK0079	Air Core Coil, 0.4-2.6×6T
R39	RK3034	Chip R, MCR03 470Ω	Q107	XT0090	Transistor, 2SC2411KT146Q	L317	QC0003	Chip L, MLF32161ROM
R40	RK3038	Chip R, MCR03 1kΩ	D102	XD0077	Varicap, 1SV161-TPH2	L318	QC0009	Chip L, MLFR10M
R41	RK3038	Chip R, MCR03 1kΩ	D103	XD0077	Varicap, 1SV161-TPH2	L319	QC0003	Chip L, MLF32161ROM
R42	RK3034	Chip R, MCR03 470Ω	L102	QC0010	ChipL, MLF3216E100M	L320	QC0009	Chip L, MLFR10M
R43	RK3034	Chip R, MCR03 470Ω	L103	QC0003	ChipL, MLF3216E1ROM	R302	RK3046	Chip R, MCR03 4.7kΩ
R44	RK3034	Chip R, MCR03 470Ω	L104	QC0010	ChipL, MLF3216E100M	R303	RK3046	Chip R, MCR03 4.7kΩ
R45	RK3034	Chip R, MCR03 470Ω	L105	QC0010	ChipL, MLF3216E100M	R304	RK3074	Chip R, MCR03 1MΩ
R46	RK3038	Chip R, MCR03 1kΩ	L106	QA0063	Coil, QA0063	R305	RK3062	Chip R, MCR03 100kΩ
R47	RK3038	Chip R, MCR03 1kΩ	L107	QK0081	Air Core Coil, 0.4-1.5×4T	R306	RK3022	Chip R, MCR03 47Ω
R48	RK3038	Chip R, MCR03 1kΩ		UT0019	PC Board Terminal, CK-1-2	R307	RK3026	Chip R, MCR03 100Ω
R49	RK3038	Chip R, MCR03 1kΩ		TS0032A	VCO Case	R308	RK3074	Chip R, MCR03 1MΩ
R50	RK3038	Chip R, MCR03 1kΩ	R109	RK3030	Chip R, MCR03 220Ω	R309	RK3074	Chip R, MCR03 1MΩ
R51	RK3038	Chip R, MCR03 1kΩ	R110	RK3026	Chip R, MCR03 100Ω			
R52	RK3038	Chip R, MCR03 1kΩ	R111	RK3022	Chip R, MCR03 47Ω			
R53	RK3038	Chip R, MCR03 1kΩ	R112	RK3046	Chip R, MCR03 4.7kΩ			
R54	RK3102	Chip R, MCR03 20kΩ (T only)	R113	RK3054	Chip R, MCR03 22kΩ			
R55	RK3102	Chip R, MCR03 20kΩ (T only)	R114	RK3038	Chip R, MCR03 1kΩ			
			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	Q219	XU0026	Transistor, FMG2T98
R311	RK3056	Chip R, MCR03 33kΩ	C359	CU3023	Chip C, CM105CH101K	Q220	XU0026	Transistor, FMG2T98
R312	RK3026	Chip R, MCR03 100Ω	C360	CU3035	Chip C, CM105W5R102K	Q221	XT0088	Transistor, 2SA1213TE85L
R313	RK3026	Chip R, MCR03 100Ω	C362	CU3052	Chip C, CM105W5R103K	Q222	XT0037	Transistor, 2SC2412KT146R
R314	RK3070	Chip R, MCR03 470kΩ	C363	CU3011	Chip C, CM105CH100K	X'tal	X00039	X'tal, 54.595MHz UM-1
R315	RK3030	Chip R, MCR03 220Ω	C364	CU3035	Chip C, CM105W5R102K	FIL	XC0004	445K Filter, CFUM445E
R316	RK3038	Chip R, MCR03 1kΩ	C365	CU3052	Chip C, CM105W5R103K	VR201	RV0014	VR, RK09722115R12i1, 10KB×2
R317	RK3038	Chip R, MCR03 1kΩ	C366	CU3005	Chip C, CM105CH040C	VR202	RH0059	VR, MVR32HXB223
R327	RK3038	Chip R, MCR03 1kΩ	C367	CU3035	Chip C, CM105W5R102K	VR203	RH0060	VR, MVR32HXB473
R328	RK3038	Chip R, MCR03 1kΩ	C368	CU3052	Chip C, CM105W5R103K	VR204	RH0060	VR, MVR32HXB473
R329	RK3064	Chip R, MCR03 150kΩ	C369	CU3015	Chip C, CM105CH220K	VR205	RH0060	VR, MVR32HXB473
R330	RK3026	Chip R, MCR03 100Ω	C370	CU3052	Chip C, CM105W5R103K	R ENC	UR0004	Rotary Encoder, SRBMIL
R331	RK3038	Chip R, MCR03 1kΩ	C371	CU3011	Chip C, CM105CH100K	L 201	QC0037	Chip L, NL322522T-R68M
R332	RK0130	Chip R, MCR10 4.7Ω	C372	CU3035	Chip C, CM105W5R102K	L 202	QA0044	Detection Coil, QA0044
R333	RK3034	Chip R, MCR03 470Ω	C373	CU3035	Chip C, CM105W5R102K	J201	UJ0015	DC Jack, HEC1781-01-020
R334	RK3034	Chip R, MCR03 470Ω	C374	CU3035	Chip C, CM105W5R102K	J202	UJ0017	MIC Jack, HSJ2079-01-010
R335	RK3022	Chip R, MCR03 47Ω	C378	CU3035	Chip C, CM105W5R102K	TH201	XS0007	Thermistor, TD5-C2300
R336	RK3050	Chip R, MCR03 10kΩ	C380	CU3023	Chip C, CM105CH101K	R205	RK3072	Chip R, MCR03 680kΩ
R337	RK3046	Chip R, MCR03 4.7kΩ	C381	CU3016	Chip C, CM105CH270K	R206	RK3038	Chip R, MCR03 1kΩ
R338	RK3038	Chip R, MCR03 1kΩ	C382	CU3016	Chip C, CM105CH270K	R207	RK3050	Chip R, MCR03 10kΩ
R341	RK3022	Chip R, MCR03 47Ω	C383	CU3052	Chip C, CM105W5R103K	R208	RK3062	Chip R, MCR03 100kΩ
R342	RK3026	Chip R, MCR03 100Ω	C384	CS0057	Chip Tantal C, TMC0J225TR	R210	RK3042	Chip R, MCR03 2.2kΩ
R343	RK3038	Chip R, MCR03 1kΩ	C385	CU3052	Chip C, CM105W5R103K	R211	RK3070	Chip R, MCR03 470kΩ
R344	RK3054	Chip R, MCR03 22kΩ	C386	CS0209	Chip Tantal C, TMC0J106TR	R212	RK3042	Chip R, MCR03 2.2kΩ
R345	RK3054	Chip R, MCR03 22kΩ	C387	CS0057	Chip Tantal C, TMC0J225TR	R213	RK3038	Chip R, MCR03 1kΩ
R346	RK3054	Chip R, MCR03 22kΩ	C388	CU3035	Chip C, CM105W5R102K	R214	RK3054	Chip R, MCR03 22kΩ
R347	RK3050	Chip R, MCR03 10kΩ	C389	CU3011	Chip C, CM105CH100K	R215	RK3050	Chip R, MCR03 10kΩ
R348	RK3050	Chip R, MCR03 10kΩ	C390	CU3056	Chip C, CM105Y5V473Z	R216	RK3022	Chip R, MCR03 47Ω
R349	RK3050	Chip R, MCR03 10kΩ	C391	CS0209	Chip Tantal C, TMC0J106TR	R217	RK3050	Chip R, MCR03 10kΩ
R350	RK3038	Chip R, MCR03 1kΩ	C392	CU3035	Chip C, CM105W5R102K	R218	RK3071	Chip R, MCR03 560kΩ
R351	RK3026	Chip R, MCR03 100Ω	C394	CU3035	Chip C, CM105W5R102K	R219	RK3054	Chip R, MCR03 22kΩ
R352	RK3025	Chip R, MCR03 82Ω	C397	CU3015	Chip C, CM105CH220K	R220	RK3022	Chip R, MCR03 47Ω
R353	RK3014	Chip R, MCR03 10Ω	C398	CU3052	Chip C, CM105W5R103K	R221	RK3042	Chip R, MCR03 2.2kΩ
R354	RK3054	Chip R, MCR03 22kΩ	C401	CU3052	Chip C, CM105W5R103K	R222	RK3062	Chip R, MCR03 100kΩ
R355	RK3026	Chip R, MCR03 100Ω	C402	CU3052	Chip C, CM105W5R103K	R223	RK3041	Chip R, MCR03 1.8kΩ
R358	RK3026	Chip R, MCR03 100Ω	C404	CU3035	Chip C, CM105W5R102K	R224	RK3062	Chip R, MCR03 100kΩ
R359	RK3030	Chip R, MCR03 220Ω	X'tal	X00022	X'tal, 12.8MHzUM-i	R225	RK3054	Chip R, MCR03 22kΩ
R360	RK3038	Chip R, MCR03 1kΩ	XF12	XF0003	X'tal Filter, 55.05MHz (55M15A)	R226	RK3058	Chip R, MCR03 47kΩ
R361	RK3026	Chip R, MCR03 100Ω		UE0029A	Antenna Connector, (with Connector Nut)	R231	RK3058	Chip R, MCR03 47kΩ
R362	RK3042	Chip R, MCR03 2.2kΩ	CN301	UE0100	Connector, 52030-1610	R232	RK3050	Chip R, MCR03 10kΩ
R363	RK3074	Chip R, MCR03 1MΩ	CN302	UE0039	Housing, TZL-P02P-C1	R233	RK3070	Chip R, MCR03 470kΩ
R365	RK3001	Chip R, MCR03 0Ω	SW301	US0015	Slide Switch, HSW0880-01-210	R234	RK3058	Chip R, MCR03 47kΩ
C301	CU3004	Chip C, CM105CH030C		TZ0021	Insulating Paper	R235	RK3050	Chip R, MCR03 10kΩ
C302	CU3005	Chip C, CM105CH040C	<b>IF Unit</b>			R236	RK3046	Chip R, MCR03 4.7kΩ
C304	CU3035	Chip C, CM105W5R102K	IC201	XA0070	IC, MC3361D	R237	RK3067	Chip R, MCR03 270kΩ
C305	CU3015	Chip C, CM105CH220K	IC202	XA0061	IC, NJM386M	R238	RK3042	Chip R, MCR03 2.2kΩ
C306	CU3019	Chip C, CM105CH470K	IC203	XA0068	IC, M5218FP-T01-1	R239	RK3058	Chip R, MCR03 47kΩ
C308	CU3016	Chip C, CM105CH270K	IC204	XA0104	IC, M5236ML-73A	R240	RK3050	Chip R, MCR03 10kΩ
C310	CU3035	Chip C, CM105W5R102K	D202	XD0118	Diode, MA716TW	R241	RK3032	Chip R, MCR03 330Ω
C311	CU3035	Chip C, CM105W5R102K	D203	XD0119	Diode, MA718TX	R242	RK3046	Chip R, MCR03 4.7kΩ
C312	CU3052	Chip C, CM105W5R103K	D204	XD0108	Diode, MA704TX	R243	RK3028	Chip R, MCR03 150Ω
C313	CU3016	Chip C, CM105CH270K	D205	XD0040	Diode, DAN202KT96	R244	RK3062	Chip R, MCR03 100kΩ
C314	CU3021	Chip C, CM105CH680K	D206	XD0040	Diode, DAN202KT96	R245	RK3050	Chip R, MCR03 10kΩ
C315	CU3052	Chip C, CM105W5R103K	D207	XD0104	Zener Diode, 02CZ6. 2YTE85L	R246	RK3050	Chip R, MCR03 10kΩ
C316	CU3035	Chip C, CM105W5R102K	D208	XD0091	Diode, IMN10	R247	RK3050	Chip R, MCR03 10kΩ
C317	CU3052	Chip C, CM105W5R103K	D209	XD0041	Diode, DAP202KT96	R249	RK3042	Chip R, MCR03 2.2kΩ
C318	CU3052	Chip C, CM105W5R103K	D210	XD0107	Diode, G3B	R250	RK3046	Chip R, MCR03 4.7kΩ
C319	CU3035	Chip C, CM105W5R102K	D211	XD0040	Diode, DAN202KT96	R251	RK3050	Chip R, MCR03 10kΩ
C320	CU3021	Chip C, CM105CH680K	Q202	XT0081	Transistor, 2SC174YTE85L	R252	RK3050	Chip R, MCR03 10kΩ
C321	CU3023	Chip C, CM105CH101K	Q203	XT0037	Transistor, 2SC2412KT146R	R253	RK3050	Chip R, MCR03 10kΩ
C322	CU3052	Chip C, CM105W5R103K	Q204	XT0036	Transistor, 2SC2413KT146R	R254	RK3066	Chip R, MCR03 220kΩ
C323	CU3021	Chip C, CM105CH680K	Q205	XT0036	Transistor, 2SC2413KT146R	R255	RK3022	Chip R, MCR03 47Ω
C324	CU3018	Chip C, CM105CH390K	Q207	XT0037	Transistor, 2SC2412KT146R	R256	RK3062	Chip R, MCR03 100kΩ
C325	CU3003	Chip C, CM105CH020C	Q208	XU0021	Transistor, FMC3T98	R257	RK3062	Chip R, MCR03 100kΩ
C326	CU3035	Chip C, CM105W5R102K	Q209	XT0037	Transistor, 2SC2412KT146R	R260	RK3059	Chip R, MCR03 56kΩ
C328	CU3052	Chip C, CM105W5R103K	Q210	XT0088	Transistor, 2SA1213TE85L	R261	RK3066	Chip R, MCR03 220kΩ
C329	CU3006	Chip C, CM105CH050C	Q211	XT0037	Transistor, 2SC2412KT146R	R262	RK3050	Chip R, MCR03 10kΩ
C330	CU3005	Chip C, CM105CH040C	Q212	XU0026	Transistor, FMG2T98	R263	RK3065	Chip R, MCR03 180kΩ
C331	CU3035	Chip C, CM105W5R102K	Q213	XT0088	Transistor, 2SA1213TE85L	R264	RK3067	Chip R, MCR03 270kΩ
C332	CU3052	Chip C, CM105W5R103K	Q214	XU0027	Transistor, FMA7T98	R265	RK3058	Chip R, MCR03 47kΩ
C333	CU3052	Chip C, CM105W5R103K	Q215	XU0026	Transistor, FMG2T98	R266	RK3050	Chip R, MCR03 10kΩ
C348	CU3011	Chip C, CM105CH100K	Q216	XU0027	Transistor, FMA7T98	R267	RK3050	Chip R, MCR03 10kΩ
C349	CU3035	Chip C, CM105W5R102K	Q217	XU0026	Transistor, FMG2T98	R268	RK3046	Chip R, MCR03 4.7kΩ
C350	CU3011	Chip C, CM105CH100K	Q218	XU0027	Transistor, FMA7T98	R269	RK3029	Chip R, MCR03 180Ω
C351	CU3011	Chip C, CM105CH100K				R270	RK0105	Chip R, MCR10 2.2Ω
C352	CU3035	Chip C, CM105W5R102K						
C353	CS0050	Chip Tantal C, TMC1A475TR						
C354	CS0068	Chip Tantal C, TMC1E475TR						
C355	CU3052	Chip C, CM105W5R103K						
C356	CU3035	Chip C, CM105W5R102K						

■ PARTS LIST (DJ-460T/E)

Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
R271	RK3062	Chip R, MCR03 100kΩ	C271	CS0049	Chip Tantal C, TMC1C105TR	<b>CPU Unit</b>		
R272	RK3058	Chip R, MCR03 47kΩ	C272	CU3035	Chip C, CM105W5R102K			
R273	RK3038	Chip R, MCR03 1kΩ	C273	CU3035	Chip C, CM105W5R102K	IC2	XA0107	IC, MT8880AP
R274	RK3034	Chip R, MCR03 470Ω	C274	CU3035	Chip C, CM105W5R102K	IC3	XA0106	IC, S-8054HN-T1
R275	RK3034	Chip R, MCR03 470Ω	C275	CE0315	Electrolytic Chip Capacitors, 16V 47μF	Q1	XT0038	Transistor, 2SA1037KT146R
R276	RK0105	Chip R, MCR10 2.2Ω	C276	CU3035	Chip C, CM105W5R102K	Q2	XT0077	Transistor, 2SC3326ATE85L
R277	RK3050	Chip R, MCR03 10kΩ	C277	CS0049	Chip Tantal C, TMC1C105TR	Q3	XT0038	Transistor, 2SA1037KT146R
R278	RK3014	Chip R, MCR03 10Ω	C278	CS0209	Chip Tantal C, TMC0J106TR	Q4	XT0077	Transistor, 2SC3326ATE85L
R279	RK3029	Chip R, MCR03 180Ω	C279	CU3035	Chip C, CM105W5R102K	D1	XD0120	Diode, MA704WKTW
R280	RK3054	Chip R, MCR03 22kΩ	C280	CE0315	Electrolytic Chip Capacitors, 16V 47μF	D2	XD0121	Diode, RLZ9.1CTE11
R289	RK1018	Chip R, MCR18 100Ω	C281	CU3035	Chip C, CM105W5R102K	FAR1	XB0001	FAR-C4CA-358000K01
R290	RK3066	Chip R, MCR03 220kΩ	C282	CU3035	Chip C, CM105W5R102K	FAR2	XB0001	FAR-C4CA-358000K01
R291	RK3044	Chip R, MCR03 3.3kΩ	C283	CU3035	Chip C, CM105W5R102K	CN1	UE0099	Connector, 52103-1317
R292	RK3050	Chip R, MCR03 10kΩ	C285	CU3052	Chip C, CM105W5R103K	CN2	UE0101	Connector, 52030-2810
C203	CU3052	Chip C, CM105W5R103K	C286	CU3035	Chip C, CM105W5R102K	CN3	UE0102	Base with Post, 9P2mm
C204	CU3052	Chip C, CM105W5R103K	C287	CU3035	Chip C, CM105W5R102K	L2	QC0016	Chip L, MLF3216A2R2M
C205	CU3052	Chip C, CM105W5R103K	C288	CU3052	Chip C, CM105W5R103K	L3	QC0016	Chip L, MLF3216A2R2M
C206	CU8003	Chip C, C2012Y1E104Z	C289	CU3052	Chip C, CM105W5R103K	R1	RK3058	Chip R, MCR03 47kΩ
C207	CU8003	Chip C, C2012Y1E104Z	C290	CU3035	Chip C, CM105W5R102K	R2	RK3038	Chip R, MCR03 1kΩ
C208	CU8003	Chip C, C2012Y1E104Z	C292	CU8003	Chip C, C2012Y1E104Z	R3	RK3052	Chip R, MCR03 15kΩ
C209	CU3052	Chip C, CM105W5R103K	C293	CU8003	Chip C, C2012Y1E104Z	R5	RK3026	Chip R, MCR03 100Ω
C210	CU3017	Chip C, CM105CH330K	C294	CE0308	Electrolytic Chip Capacitors, 6.3V 100μF	R6	RK3050	Chip R, MCR03 10kΩ
C211	CU3035	Chip C, CM105W5R102K	C295	CU3023	Chip C, CM105CH101K	R7	RK3046	Chip R, MCR03 4.7kΩ
C212	CU3035	Chip C, CM105W5R102K	C296	CU3060	Chip C, CM105CH221K	R8	RK3038	Chip R, MCR03 1kΩ
C213	CU3035	Chip C, CM105W5R102K	C297	CU8003	Chip C, C2012Y1E104Z	R9	RK3056	Chip R, MCR03 33kΩ
C214	CU3035	Chip C, CM105W5R102K	C299	CU3053	Chip C, CM105Y5V333Z	R10	RK3046	Chip R, MCR03 4.7kΩ
C215	CU3052	Chip C, CM105W5R103K	CN201	UE0101	Connector, 52030-2810	R11	RK3046	Chip R, MCR03 4.7kΩ
C216	CU3019	Chip C, CM105CH470K	CN202	UE0100	Connector, 52030-1610	R12	RK3038	Chip R, MCR03 1kΩ
C217	CU3006	Chip C, CM105CH050C	CN203	UE0098	Connector, 52103-1017	R13	RK3050	Chip R, MCR03 10kΩ (T only)
C218	CU3013	Chip C, CM105CH150K				R14	RK3038	Chip R, MCR03 1kΩ (E only)
C219	CU3035	Chip C, CM105W5R102K				R15	RK3038	Chip R, MCR03 1kΩ
C220	CU3019	Chip C, CM105CH470K				R16	RK3074	Chip R, MCR03 1MΩ
C221	CS0059	Chip Tantal C, TMC0J226TR				R17	RK3065	Chip R, MCR03 180kΩ
C222	CU8003	Chip C, C2012Y1E104Z				R18	RK3056	Chip R, MCR03 33kΩ
C223	CU8003	Chip C, C2012Y1E104Z				R19	RK3052	Chip R, MCR03 15kΩ
C224	CU8003	Chip C, C2012Y1E104Z				R20	RK3049	Chip R, MCR03 8.2kΩ (E only)
C225	CU3035	Chip C, CM105W5R102K				R21	RK3050	Chip R, MCR03 10kΩ (T only)
C226	CU3061	Chip C, CM105CH271K				R22	RK3065	Chip R, MCR03 180kΩ
C227	CU8003	Chip C, C2012Y1E104Z				R24	RK3049	Chip R, MCR03 8.2kΩ (E only)
C228	CU3035	Chip C, CM105W5R102K				R25	RK3050	Chip R, MCR03 10kΩ
C229	CU3052	Chip C, CM105W5R103K				R26	RK3050	Chip R, MCR03 10kΩ
C233	CU3039	Chip C, CM105W5R222K				R27	RK3038	Chip R, MCR03 1kΩ
C234	CU3035	Chip C, CM105W5R102K				R28	RK3062	Chip R, MCR03 100kΩ
C236	CS0050	Chip Tantal C, TMC1A475TR				R29	RK3059	Chip R, MCR03 56kΩ
C237	CS0063	Chip Tantal C, TMC1V104TR				R30	RK3066	Chip R, MCR03 220kΩ
C238	CU3054	Chip C, CM105W5R223K				R31	RK3018	Chip R, MCR0 22Ω
C239	CU3056	Chip C, CM105Y5V473Z				R32	RK3050	Chip R, MCR03 10kΩ
C240	CU3056	Chip C, CM105Y5V473Z				R33	RK3058	Chip R, MCR03 47kΩ
C241	CU3054	Chip C, CM105W5R223K				R34	RK3046	Chip R, MCR03 4.7kΩ
C242	CU3052	Chip C, CM105W5R103K				R35	RK3058	Chip R, MCR03 47kΩ
C243	CS0049	Chip Tantal C, TMC1C105TR				R36	RK3058	Chip R, MCR03 47kΩ
C244	CE0308	Electrolytic Chip Capacitors, 6.3V 100μF				R37	RK3058	Chip R, MCR03 47kΩ
C245	CU3054	Chip C, CM105W5R223K				R38	RK3034	Chip R, MCR03 470Ω
C246	CU3054	Chip C, CM105W5R223K				R39	RK3034	Chip R, MCR03 470Ω
C247	CU3031	Chip C, CM105W5R471K				R4	RK3058	Chip R, MCR03 47kΩ
C248	CU3031	Chip C, CM105W5R471K				R40	RK3038	Chip R, MCR03 1kΩ
C249	CU3031	Chip C, CM105W5R471K				R41	RK3038	Chip R, MCR03 1kΩ
C250	CE0056	Electrolytic Condenser, 16MV100SW				R42	RK3034	Chip R, MCR03 470Ω
C251	CU3031	Chip C, CM105W5R471K				R43	RK3034	Chip R, MCR03 470Ω
C252	CU3031	Chip C, CM105W5R471K				R44	RK3034	Chip R, MCR03 470Ω
C253	CS0049	Chip Tantal C, TMC1C105TR				R45	RK3034	Chip R, MCR03 470Ω
C254	CU3052	Chip C, CM105W5R103K				R46	RK3038	Chip R, MCR03 1kΩ
C255	CU3023	Chip C, CM105CH101K				R47	RK3038	Chip R, MCR03 1kΩ
C257	CU3060	Chip C, CM105CH221K				R48	RK3038	Chip R, MCR03 1kΩ
C258	CU3035	Chip C, CM105W5R102K				R49	RK3038	Chip R, MCR03 1kΩ
C259	CU3035	Chip C, CM105W5R102K				R50	RK3038	Chip R, MCR03 1kΩ
C260	CU3031	Chip C, CM105W5R471K				R51	RK3038	Chip R, MCR03 1kΩ
C261	CU3031	Chip C, CM105W5R471K				R52	RK3038	Chip R, MCR03 1kΩ
C262	CS0209	Chip Tantal C, TMC0J106TR				R53	RK3038	Chip R, MCR03 1kΩ
C263	CS0069	Chip Tantal C, TMC1V154TR				R54	RK3102	Chip R, MCR03 20kΩ (T only)
C264	CS0209	Chip Tantal C, TMC0J106TR				R55	RK3102	Chip R, MCR03 20kΩ (T only)
C265	CU3043	Chip C, CM105W5R472K						
C266	CU3019	Chip C, CM105CH470K						
C267	CU3052	Chip C, CM105W5R103K						
C268	CE0307	Electrolytic Chip Capacitors, 6.3V 47μF						
C269	CU3035	Chip C, CM105W5R102K						
C270	CU3035	Chip C, CM105W5R102K						

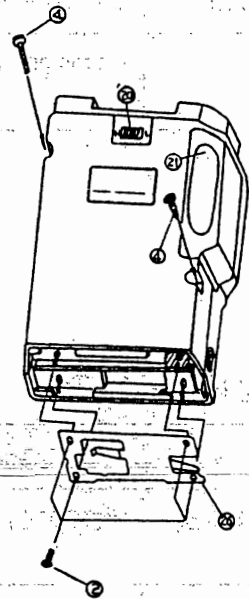
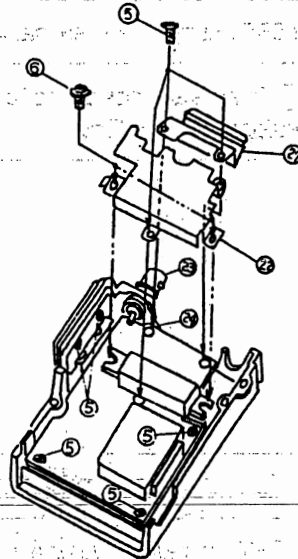
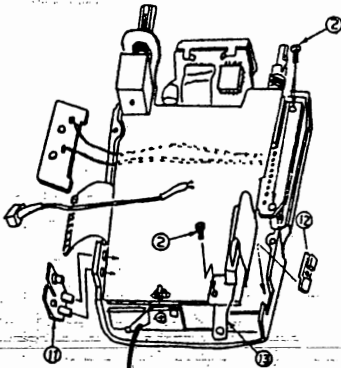
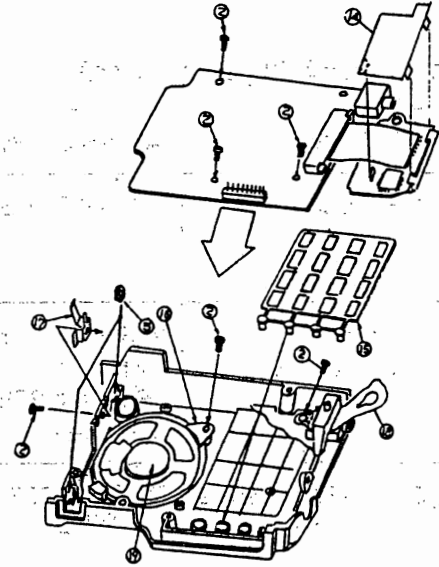
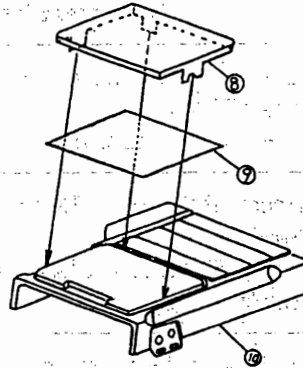
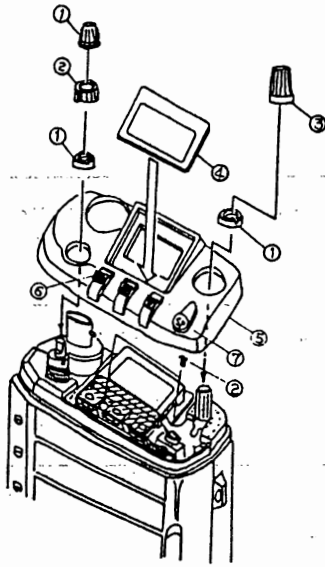
Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
R56	RK3102	Chip R, MCR03 20kΩ (T only)		UT0019	PC Board Terminal, CK-1-2	L302	QK0012	Air Core Coil, 0.4-2.0×2.5T
R57	RK3102	Chip R, MCR03 20kΩ (T only)				L303	QK0012	Air Core Coil, 0.4-2.0×2.5T
R57	RK3038	Chip R, MCR03 1kΩ (E only)		TS0032A	VCO Case,	L304	QK0012	Air Core Coil, 0.4-2.0×2.5T
R58	RK3034	Chip R, MCR03 470Ω				L305	QA0064	Case Coil, QA0064
R59	RK3034	Chip R, MCR03 470Ω	R107	RK3042	Chip R, MCR03 2.2kΩ	L306	QA0064	Case Coil, QA0064
R60	RK3050	Chip R, MCR03 10kΩ (T only)	R108	RK3042	Chip R, MCR03 2.2kΩ	L307	QC0039	Chip L, NL322522T-1R0M
R60	RK3001	Chip R, MCR03 0kΩ (E only)	R109	RK3032	Chip R, MCR03 330Ω	L308	QK0070	Air Core Coil, 0.4-1.6×2.5T
R61	RK3050	Chip R, MCR03 10kΩ (T only)	R110	RK3028	Chip R, MCR03 150Ω	L309	QC0003	Chip L, MLF3216-1R0M
R61	RK3001	Chip R, MCR03 0kΩ (E only)	R111	RK3050	Chip R, MCR03 10kΩ	L310	QC0090	Chip L, MLF3216-4R7M
R62	RK3050	Chip R, MCR03 10kΩ (T only)	R112	RK3048	Chip R, MCR03 6.8kΩ	L311	QK0070	Air Core Coil, 0.4-1.6×2.5T
R62	RK3001	Chip R, MCR03 0kΩ (E only)	R113	RK3022	Chip R, MCR03 47Ω	L312	QC0090	Chip L, MLF3216-4R7M
R63	RK3102	Chip R, MCR03 20kΩ (T only)	R114	RK3042	Chip R, MCR03 2.2kΩ	L313	QK0052	Air Core Coil, 0.4-1.5×5.0T
R64	RK3058	Chip R, MCR03 47kΩ	R115	RK3042	Chip R, MCR03 2.2kΩ	L314	QC0016	Chip L, MLF3216-2R2M
R69	RK3034	Chip R, MCR03 470Ω	R116	RK3050	Chip R, MCR03 10kΩ	L315	QC0003	Chip L, MLF3216-1R0M
R70	RK3034	Chip R, MCR03 470Ω	R117	RK3032	Chip R, MCR03 330Ω	L316	QC0016	Chip L, MLF3216-2R2M
R71	RK3038	Chip R, MCR03 1kΩ	R118	RK3028	Chip R, MCR03 150Ω	R305	RK3062	Chip R, MCR03 100kΩ
R72	RK3058	Chip R, MCR03 47kΩ	R119	RK3050	Chip R, MCR03 10kΩ	R306	RK3014	Chip R, MCR03 10Ω
R73	RK3058	Chip R, MCR03 47kΩ	R120	RK3046	Chip R, MCR03 4.7kΩ	R307	RK3030	Chip R, MCR03 220Ω
R74	RK3034	Chip R, MCR03 470Ω	R121	RK3022	Chip R, MCR03 47Ω	R310	RK3050	Chip R, MCR03 10kΩ
R75	RK3058	Chip R, MCR03 47kΩ	R122	RK3051	Chip R, MCR03 12kΩ	R311	RK3056	Chip R, MCR03 33kΩ
R76	RK1107	Chip R, MCR18 0Ω	R123	RK3046	Chip R, MCR03 4.7kΩ	R312	RK3030	Chip R, MCR03 220Ω
			R124	RK3022	Chip R, MCR03 47Ω	R314	RK3050	Chip R, MCR03 10kΩ
C1	CU3035	Chip C, CM105W5R102K				R315	RK3030	Chip R, MCR03 220Ω
C2	CU3035	Chip C, CM105W5R102K	C101	CU3035	Chip C, CM105W5R102K	R316	RK3034	Chip R, MCR03 470Ω
C3	CS0050	Chip Tantal C, TMC1A475TR	C111	CU3027	Chip C, CM105SL221K	R317	RK3038	Chip R, MCR03 1kΩ
C4	CS0053	Chip Tantal C, TMC0J476TR	C112	CU3057	Chip C, CM105CH130J	R327	RK3038	Chip R, MCR03 1kΩ
C5	CU3031	Chip C, CM105W5R471K	C113	CU3008	Chip C, CM105CH070C	R328	RK3034	Chip R, MCR03 470Ω
C6	CU3052	Chip C, CM105W5R103K	C114	CU3002	Chip C, CM105CH010C	R329	RK3064	Chip R, MCR03 150kΩ
C7	CU3035	Chip C, CM105W5R102K	C115	CU3035	Chip C, CM105W5R102K	R330	RK3026	Chip R, MCR03 100Ω
C8	CS0049	Chip Tantal C, TMC1C105TR	C116	CU3035	Chip C, CM105W5R102K	R331	RK3038	Chip R, MCR03 1kΩ
C9	CU3031	Chip C, CM105W5R471K	C117	CS0057	Chip Tantal C, TMC0J225TR	R332	RK0106	Chip R, MCR10 3.3kΩ (T only)
C10	CU3059	Chip C, CM105Y5V104Z (T only)	C118	CU3035	Chip C, CM105W5R102K	R332	RK0105	Chip R, MCR10 2.2kΩ (E only)
C10	CU3052	Chip C, CM105W5R103K (E only)	C119	CU3017	Chip C, CM105CH330K	R333	RK3034	Chip R, MCR03 470Ω
C10	CU3052	Chip C, CM105W5R103K (E only)	C120	CU3005	Chip C, CM105CH040C	R334	RK3034	Chip R, MCR03 470Ω
C11	CU3059	Chip C, CM105Y5V104Z (T only)	C121	CU3002	Chip C, CM105CH010C	R335	RK3026	Chip R, MCR03 100Ω
C12	CU3052	Chip C, CM105W5R103K	C122	CU3011	Chip C, CM105CH100K	R336	RK3050	Chip R, MCR03 10kΩ
C13	CU8003	Chip C, C2012Y1E104Z	C123	CU3010	Chip C, CM105CH090C	R337	RK3046	Chip R, MCR03 4.7kΩ
C14	CU8002	Chip C, C2012B1H103K	C124	CU3002	Chip C, CM105CH010C	R338	RK3038	Chip R, MCR03 1kΩ
C15	CU8003	Chip C, C2012Y1E104Z	C125	CU3035	Chip C, CM105W5R102K	R342	RK3038	Chip R, MCR03 1kΩ
C16	CU8003	Chip C, C2012Y1E104Z	C126	CU3035	Chip C, CM105W5R102K	R343	RK3054	Chip R, MCR03 22kΩ
C17	CU3035	Chip C, CM105W5R102K	C127	CS0049	Chip Tantal C, TMC1C105TR	R344	RK3054	Chip R, MCR03 22kΩ
C18	CU3023	Chip C, CM105CH101K	C128	CU3035	Chip C, CM105W5R102K	R345	RK3054	Chip R, MCR03 22kΩ
C19	CU3054	Chip C, CM105W5R223K	C129	CU3035	Chip C, CM105W5R102K	R346	RK3050	Chip R, MCR03 10kΩ
C20	CU3035	Chip C, CM105W5R102K	C130	CU3035	Chip C, CM105W5R102K	R347	RK3050	Chip R, MCR03 10kΩ
C21	CU3052	Chip C, CM105W5R103K				R348	RK3050	Chip R, MCR03 10kΩ
C23	CS0070	Chip Tantal C, TMC1C335TR (E only)				R349	RK3038	Chip R, MCR03 1kΩ
C24	CE0056	Electrolytic Condenser, 16M100SW	<b>RF Unit</b>			R350	RK3026	Chip R, MCR03 100Ω
C25	CS0063	Chip Tantal C, TMC1V104TR (E only)	IC301	XA0069	IC., M57797MA	R351	RK3025	Chip R, MCR03 82Ω
C30	CU3056	Chip C, CH105Y1V104Z (E only)	IC302	XA0103	IC., MB1501PF-G-BND-TF	R352	RK3026	Chip R, MCR03 100Ω
J1	UJ0016	Jack, HSJ1423-01-050	Q302	XT0030	Transistor, 2SC3356-T1 (R24orR25)	R353	RK3054	Chip R, MCR03 22kΩ
	EL0010	LCD Unit, LUX188A	Q303	XT0030	Transistor, 2SC3356-T1 (R24orR25)	R354	RK3034	Chip R, MCR03 470Ω
	UP0170	CPU Board,	Q304	XE0015	FET., 2SK302YTE85	R355	RK3050	Chip R, MCR03 10kΩ
	YZ0061	UL Tape, 10mm × 1mm	Q307	XT0030	Transistor, 2SC3356-T1 (R24orR25)	R356	RK3042	Chip R, MCR03 2.2kΩ
	TT1001	Elastick Tube, Φ0.7 × 1mm	Q308	XT0048	Transistor, 2SC3357-T1 (REorRF)	R357	RK3026	Chip R, MCR03 100Ω
	ED0005	LITHIUM BATTERY	Q309	XT0030	Transistor, 2SC3356-T1 (R24orR25)	R358	RK3042	Chip R, MCR03 2.2kΩ
<b>VCO Unit</b>			Q310	XU0017	Transistor, DTA144EKT146	R359	RK3050	Chip R, MCR03 10kΩ
Q103	XT0035	Transistor, 2SC3429-TE85L	Q308	XT0048	Transistor, 2SC3357-T1 (REorRF)	R360	RK3001	Chip R, MCR03 0Ω
Q104	XT0035	Transistor, 2SC3429-TE85L	Q309	XT0030	Transistor, 2SC3356-T1 (R24orR25)	R363	RK3034	Chip R, MCR03 470Ω
Q105	XT0030	Transistor, 2SC3356-T1 (R24orR25)	Q310	XU0017	Transistor, DTA144EKT146	R364	RK3022	Chip R, MCR03 47Ω
D102	XD0098	Varicap, 1SV153-TPH2	D302	XD0066	Diode, RLS135-TE11	R366	RK3026	Chip R, MCR03 100Ω
D103	XD0098	Varicap, 1SV153-TPH2	D303	XD0066	Diode, RLS135-TE11	R367	RK3034	Chip R, MCR03 470Ω
D104	XD0098	Varicap, 1SV153-TPH2	D308	XD0066	Diode, RLS135-TE11	R368	RK3001	Chip R, MCR03 0Ω
D105	XD0098	Varicap, 1SV153-TPH2	D311	XD0061	Diode, DA204KT96	C302	CU3013	Chip C, CM105CH150K
D106	XD0098	Varicap, 1SV153-TPH2	D304	XD0103	Diode, 1SS226TE85L	C304	CU3012	Chip C, CM105CH120K
D107	XD0040	Diode, DAN202KT96				C305	CU3007	Chip C, CM105CH050C
L103	QK0048	Air Core Coil, 0.5-2.2Φ × 4.5T	VR301	RH0037	VR., CVR-42A-471AW1D	C306	CU3012	Chip C, CM105CH120K
L104	QC0039	Chip L, NL322522T-1R0M	VR302	RH0037	VR., CVR-42A-471AW1D	C307	CU3012	Chip C, CM105CH120K
L105	QK0082	Air Core Coil, 0.5-2.0Φ × 3.5T	TC301	CT0012	Torima C, CTZ-10AW	C309	CU3035	Chip C, CM105W5R102K
L106	QC0039	Chip L, NL322522T-1R0M	TC302	CT0012	Torima C, CTZ-10AW	C310	CU3006	Chip C, CM105CH050C
L107	QC0067	Chip L, NL322522T-R10M	TC303	CT0031	Torima C, CTZ-05AW	C311	CU3035	Chip C, CM105W5R102K
			TC307	CT0012	Torima C, CTZ-10AW	C312	CU3006	Chip C, CM105CH050C
			L301	QK0012	Air Core Coil, 0.4-2.0×2.5T	C315	CU3013	Chip C, CM105CH150K
						C316	CU3035	Chip C, CM105W5R102K
						C317	CU3035	Chip C, CM105W5R102K
						C319	CU3002	Chip C, CM105CH010C
						C323	CU3031	Chip C, CM105W5R471K
						C324	CU3002	Chip C, CM105CH010C



Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number	Ref. No.	Part Code	Part Name and Number
C218	CU3013	Chip C, CM105CH150K	C297	CU8003	Chip C, C2012Y1E104Z			
C219	CU3035	Chip C, CM105W5R102K	C298	CS0059	Chip Tantal C, TMC0J226TR			
C220	CU3019	Chip C, CM105CH470K	C299	CU3053	Chip C, CM105Y5V333Z			
C221	CS0059	Chip Tantal C, TMC0J226TR						
C222	CU8003	Chip C, C2012Y1E104Z	CN201	UE0101	Connector, 52030-2810			
C223	CU8003	Chip C, C2012Y1E104Z	CN202	UE0100	Connector, 52030-1610			
C224	CU8003	Chip C, C2012Y1E104Z	CN203	UE0098	Connector, 52103-1017			
C225	CU3035	Chip C, CM105W5R102K						
C226	CU3061	Chip C, CM105CH271K						
C227	CU8003	Chip C, C2012Y1E104Z						
C228	CU3035	Chip C, CM105W5R102K						
C229	CU3052	Chip C, CM105W5R103K						
C233	CU3039	Chip C, CM105W5R222K						
C234	CU3035	Chip C, CM105W5R102K						
C236	CS0050	Chip Tantal C, TMC1A475TR						
C237	CS0063	Chip Tantal C, TMC1V104TR						
C238	CU3054	Chip C, CM105W5R223K						
C239	CU3056	Chip C, CM105Y5V473Z						
C240	CU3056	Chip C, CM105Y5V473Z						
C241	CU3054	Chip C, CM105W5R223K						
C242	CU3052	Chip C, CM105W5R103K						
C243	CS0049	Chip Tantal C, TMC1C105TR						
C244	CE0308	Electrolytic Chip Capacitors, 6.3V 100 $\mu$ F						
C245	CU3054	Chip C, CM105W5R223K						
C246	CU3054	Chip C, CM105W5R223K						
C247	CU3031	Chip C, CM105W5R471K						
C248	CU3031	Chip C, CM105W5R471K						
C249	CU3031	Chip C, CM105W5R471K						
C250	CE0056	Electrolytic Condenser, 16MV100SW						
C251	CU3031	Chip C, CM105W5R471K						
C252	CU3031	Chip C, CM105W5R471K						
C253	CS0049	Chip Tantal C, TMC1C105TR						
C254	CU3052	Chip C, CM105W5R103K						
C255	CU3023	Chip C, CM105CH101K						
C257	CU3060	Chip C, CM105CH221K						
C258	CU3035	Chip C, CM105W5R102K						
C259	CU3035	Chip C, CM105W5R102K						
C260	CU3031	Chip C, CM105W5R471K						
C261	CU3031	Chip C, CM105W5R471K						
C262	CS0209	Chip Tantal C, TMC0J106TR						
C263	CS0069	Chip Tantal C, TMC1V154TR						
C264	CS0209	Chip Tantal C, TMC0J106TR						
C265	CU3043	Chip C, CM105W5R472K						
C266	CU3019	Chip C, CM105CH470K						
C267	CU3052	Chip C, CM105W5R103K						
C268	CE0307	Electrolytic Chip Capacitors, 6.3V 47 $\mu$ F						
C269	CU3035	Chip C, CM105W5R102K						
C270	CU3035	Chip C, CM105W5R102K						
C271	CS0049	Chip Tantal C, TMC1C105TR						
C272	CU3035	Chip C, CM105W5R102K						
C273	CU3035	Chip C, CM105W5R102K						
C274	CU3035	Chip C, CM105W5R102K						
C275	CE0315	Electrolytic Chip Capacitors, 16V 47 $\mu$ F						
C276	CU3035	Chip C, CM105W5R102K						
C277	CS0049	Chip Tantal C, TMC1C105TR						
C278	CS0209	Chip Tantal C, TMC0J106TR						
C279	CU3035	Chip C, CM105W5R102K						
C280	CE0315	Electrolytic Chip Capacitors, 16V 47 $\mu$ F						
C281	CU3035	Chip C, CM105W5R102K						
C282	CU3035	Chip C, CM105W5R102K						
C283	CU3035	Chip C, CM105W5R102K						
C285	CU3052	Chip C, CM105W5R103K						
C286	CU3035	Chip C, CM105W5R102K						
C287	CU3035	Chip C, CM105W5R102K						
C288	CU3052	Chip C, CM105W5R103K						
C289	CU3052	Chip C, CM105W5R103K						
C290	CU3035	Chip C, CM105W5R102K						
C292	CU8003	Chip C, C2012Y1E104Z						
C293	CU8003	Chip C, C2012Y1E104Z						
C294	CE0308	Electrolytic Chip Capacitors, 6.3V 100 $\mu$ F						
C295	CU3023	Chip C, CM105CH101K						
C296	CU3060	Chip C, CM105CH221K						



# ■ CABINET PARTS LOCATION



UT0022

Ref. No.	Part Code		Part Name and Number.
<b>Mechanical Parts</b>			
	DJ-160T/E	DJ460T/E	
1	NK0019	NK0019	Volume Knob
2	NW0004	NW0004	Squelch Knob
3	NK0018	NK0018	Dial Knob
4	DP0040	DP0040	LCD Panel
5	KU0066	KU0067	Upper Panel
6	DD0007	DD0007	U/D Knob
7	FG0048	FG0048	EP Rubber
8	DV0003	DV0003	SP Metal Net
9	TG0005	TG0004	Speaker Sheet
10	KM0058	KM0058	Front Case
11	FG0047	FG0047	DC Rubber
12	NB0027	NB0027	Release Knob
13	FM0036	FM0036	IF Earth Board
14		FM0040A	LCD Earth Board
15	FG0046A	FG0046A	Silicon Key
16	ST0020	ST0020	Speaker Stabilizer
17	UT0021	UT0021	Terminal(+)
18	FM0037	FM0037	CPU Earth Board
19	ES0005	ES0005	Speaker
20	NS0002	NS0002	H/L Knob
21	DD0006	DD0006	PTT Cover
22	TS0036	TS0034	Module Shielding Wire
23	UE0029A	UE0029A	Antenna Connector
24	FM0033	FM0033	Antenna Earth Board
25	KB0030	KB0030	Rear Case
26	UT0022	UT0022	Terminal(-)
27	FM0038		LCD Earth Board

Screws		
DJ-160T/E, DJ460T/E		
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 (DJ-160T/E)

### 1. Transmitting Unit (DJ-160T)

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.	4.8kHz $\pm$ 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 <b>1</b> in the transmission mode and adjust VR203 so that you obtain 3.1kHz/Dev.	3.1kHz $\pm$ 0.1kHz

### 2. Receiving Unit (DJ-160T)

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 146.03MHz (DC Voltmeter) in the transmission mode.	2.0V
2. Detection Coil adjustment	L202 (IF PCB)	Input 1kHz, 3.5kHz/Dev. +66dB $\mu$ 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 $\mu$
4. S-meter adjustment	VR202 (IF PCB)	Input a signal of 17dB $\mu$ from transceiver tester at 145.03MHz Turn VR202 so that Full-bar begins to tight.	17dB $\mu$ $\pm$ 1dB $\mu$

## 1. Transmitting Unit (DJ-160E)

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 <input type="checkbox"/> in the transmission mode and adjust VR205 so that you obtain 3.1kHz/Dev.	3.1kHz $\pm$ 0.1kHz

## 2. Receiving Unit (DJ-160E)

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 $\mu$ 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 $\mu$
4. S-meter adjustment	VR202 (IF PCB)	Input a signal of 17dB $\mu$ from transceiver tester at 145.95MHz Turn VR202 so that Full-bar begins to light.	17dB $\mu$ $\pm$ 1dB $\mu$

## ■ ADJUSTMENT (DJ-460T/E)

### 1. Transmitting Unit (DJ-460T)

Item	Adjustment Point	Adjustment Method	Spec
1. Frequency adjustment	TC307 (RF PCB)	Set the unit in the transmission mode at 445.03MHz and adjustment TC307. (Transceiver tester, counter)	445.03MHz $\pm$ 50Hz
2. TX Power adjustment	VR301 (RF PCB) (Hi Power) VR302 (RF PCB) (Lo Power)	Adjustment VR301 so that TX power becomes 3.1W at 445.03MHz. Adjustment VR302 so that TX power becomes 300mW at 445.03MHz.	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 445.03MHz 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 VR205 so that you obtain 3.1kHz/Dev.	3.1kHz $\pm$ 0.1kHz

### 2. Receiving Unit (DJ-460T)

Item	Adjustment Point	Adjustment Method	Spec
1. VCO P/D Voltage adjustment	TX—L105 RX—L103	Adjust L105 so that P/D Voltage is 1.2V at 440.00MHz (DC Voltmeter) in the transmission mode. Adjust L103 so that P/D Voltage is 1.9V at 440.00MHz (DC Voltmeter) in the reception mode.	1.2V $\pm$ 0.3V 1.9V $\pm$ 0.3V
2. Detection Coil adjustment	L202 (IF PCB)	Input 1kHz, 3.5kHz/Dev. +66dB $\mu$ at 445.03MHz and adjust L202 so that detection power becomes maximum.	
3. UHF FRONT END adjustment	TC301, TC302, TC303, L305, L306	At 445.03MHz and adjust TC301, TC302, TC303, L305 and L306, so that 12dB SINAD sensitivity becomes maximum.	under -9dB $\mu$
4. S-meter adjustment	VR202 (IF PCB)	Input a signal of 6dB $\mu$ from transceiver tester at 445.03MHz Turn VR202 so that Full-bar begins to right.	6dB $\mu$ $\pm$ 1dB $\mu$

## 1. Transmitting Unit (DJ-460E)

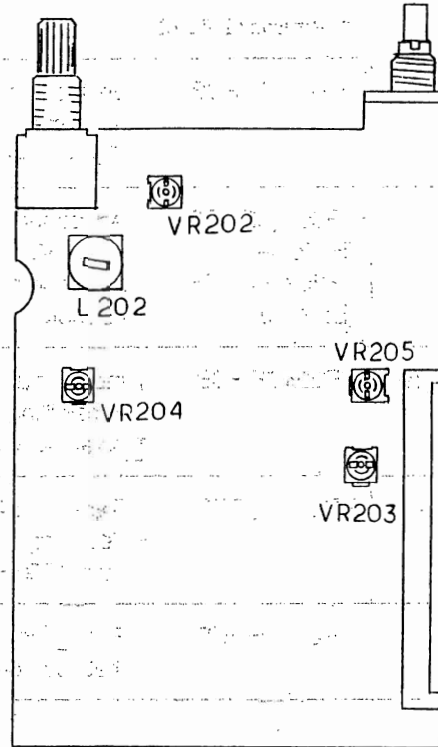
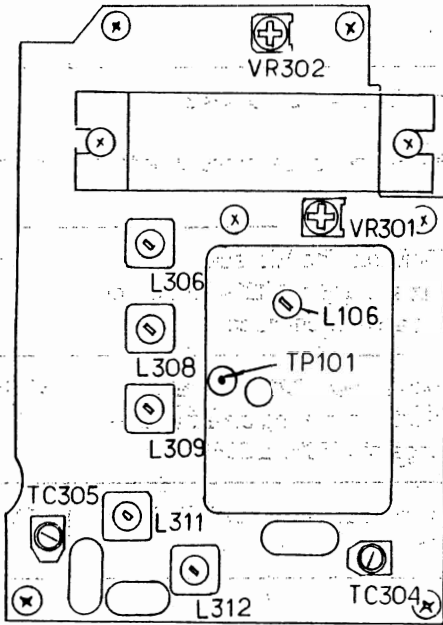
Item	Adjustment Point	Adjustment Method	Spec
1. Frequency adjustment	TC307 (RF PCB)	Set the unit in the transmission mode at 435.03MHz and adjustment TC307. (Transceiver tester, counter)	435.03MHz $\pm$ 50Hz
2. TX Power adjustment	VR301 (RF PCB) (Hi Power) VR302 (RF PCB) (Lo Power)	Adjustment VR301 so that TX power becomes 3.1W at 435.03MHz. Adjustment VR302 so that RX power becomes 300mW at 435.03MHz.	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 435.03MHz 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 435.03MHz 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 <input type="checkbox"/> in the transmission mode and adjust VR205 so that you obtain 3.1kHz/Dev.	3.1kHz $\pm$ 0.1kHz

## 2. Receiving Unit (DJ-460E)

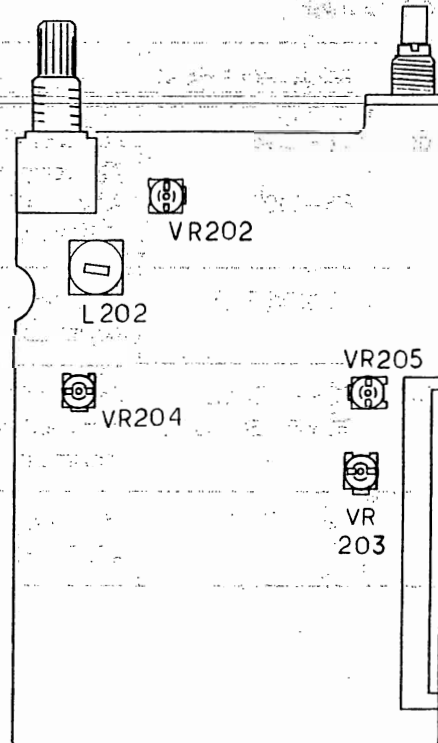
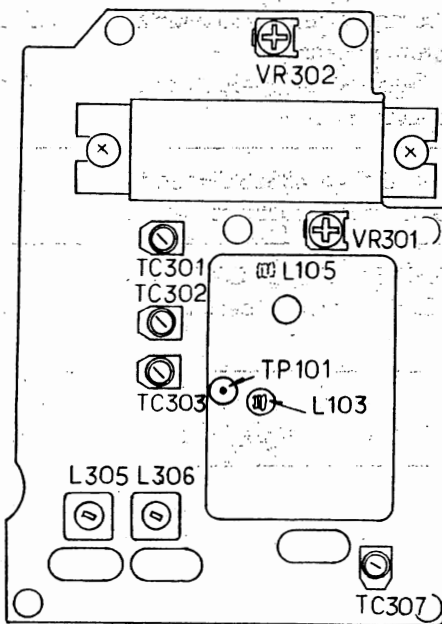
Item	Adjustment Point	Adjustment Method	Spec
1. VCO P/D Voltage adjustment	TX—L105 RX—L103	Adjust L105 so that P/D Voltage is 0.8V at 430.00MHz (DC Voltmeter) in the transmission mode. Adjust L103 so that P/D Voltage is 1.3V at 430.00MHz (DC Voltmeter) in the reception mode.	0.8V $\pm$ 0.3V 1.3V $\pm$ 0.1V
2. Detection Coil adjustment	L202 (IF PCB)	Input 1kHz, 3.5kHz/Dev. +66dB $\mu$ at 435.03MHz and adjust L202 so that detection power becomes maximum.	
3. UHF FRONT END adjustment	TC301, TC302, TC303, L305, L306	At 435.03MHz and adjust TC301, TC302, TC303, L305 and L306, so that 12dB SINAD sensitivity becomes maximum.	under $-9$ dB $\mu$
4. S-meter adjustment	VR202 (IF PCB)	Input a signal of +6dB $\mu$ from transceiver tester at 435.03MHz Turn VR202 so that Full-bar begins to right.	+6dB $\mu$ $\pm$ 1dB $\mu$

# ■ ADJUSTMENT

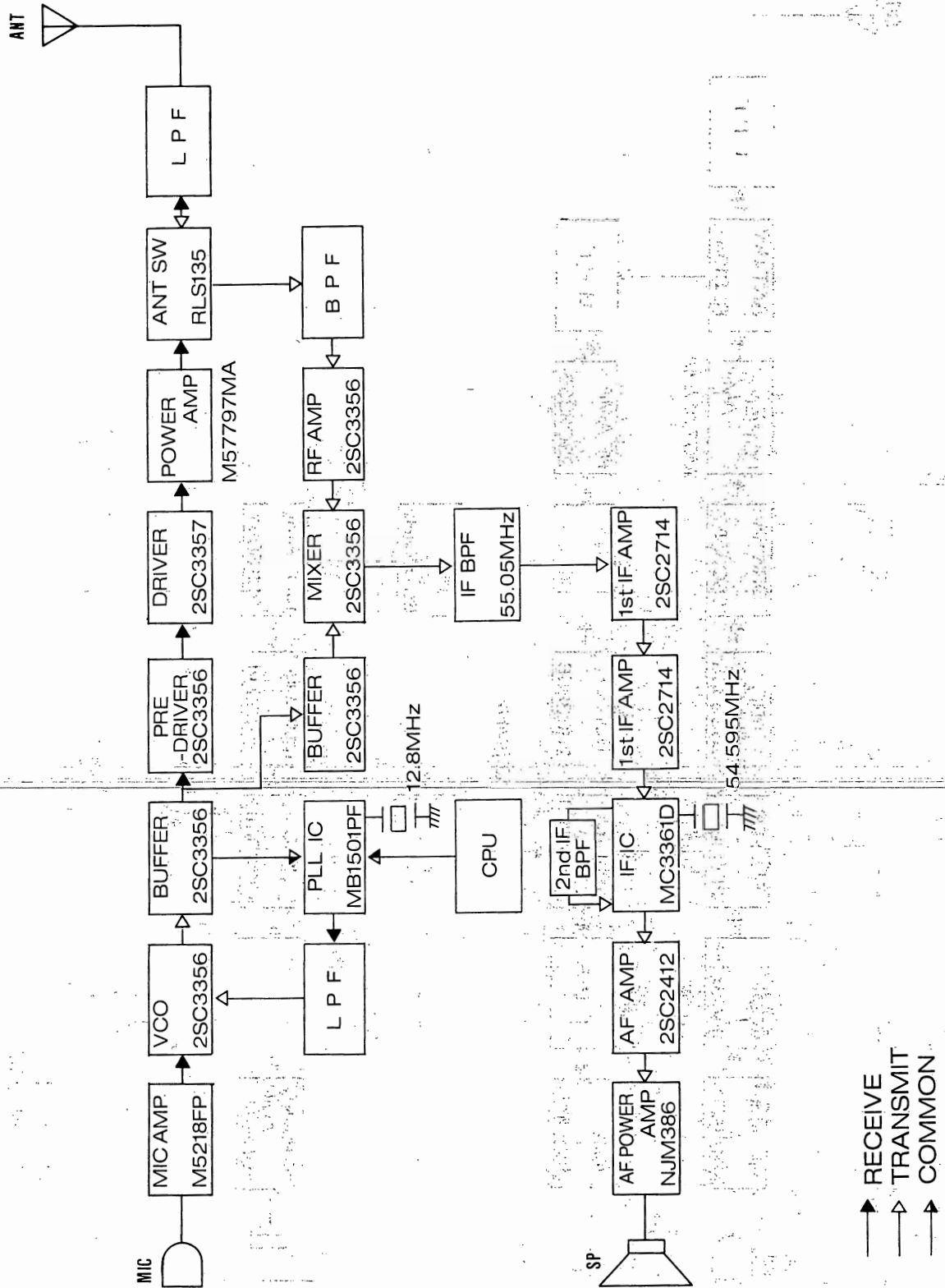
(DJ-160T/E)



(DJ-460T/E)

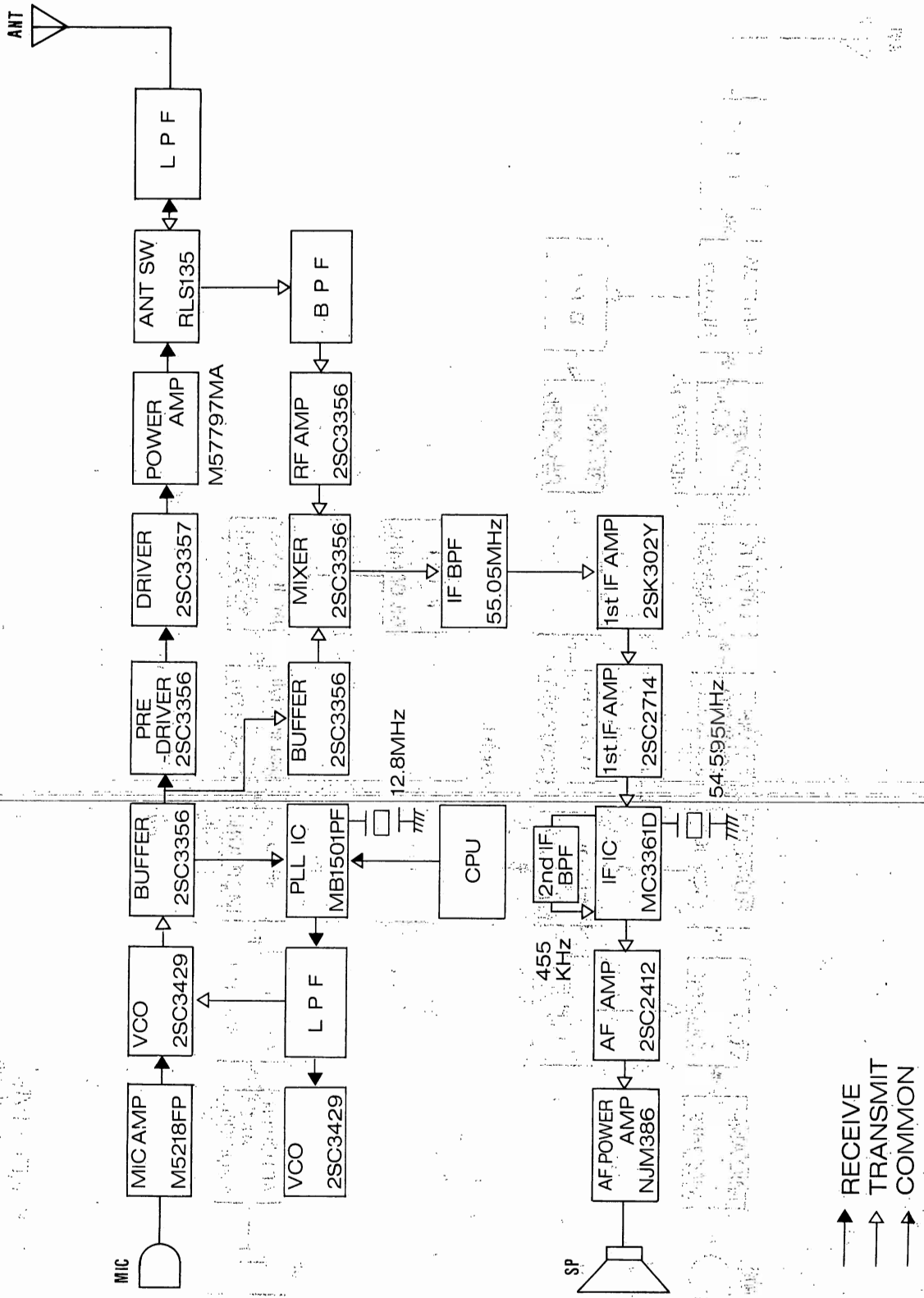


# ■ BLOCK DIAGRAM (DJ-160T/E)



- ↑ RECEIVE
- TRANSMIT
- COMMON

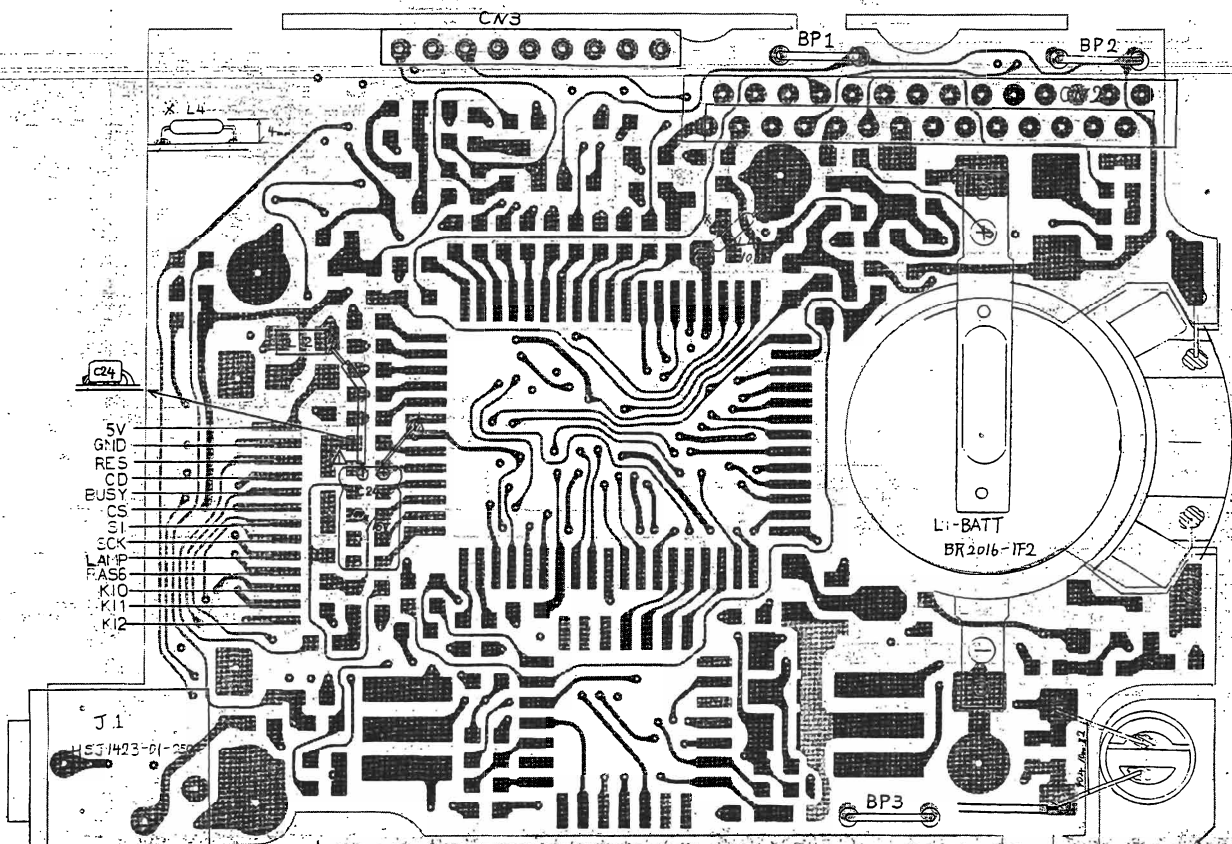
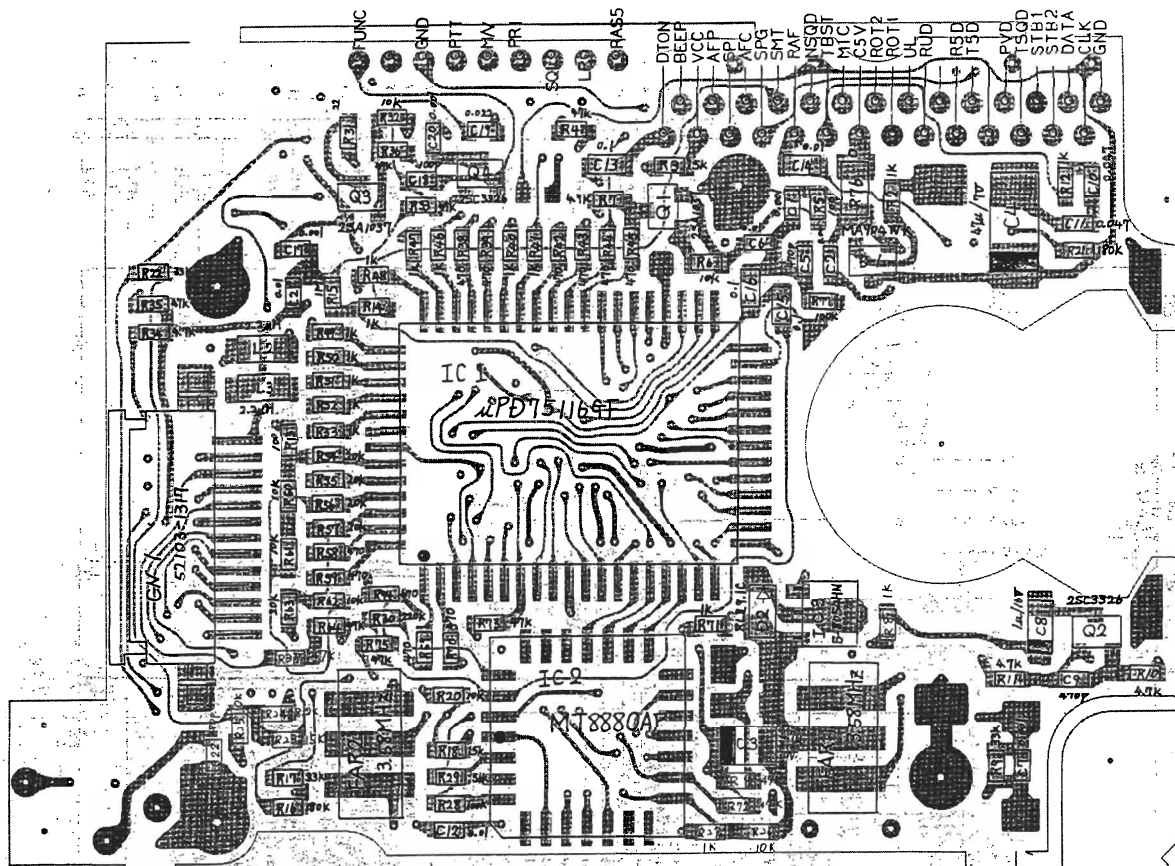
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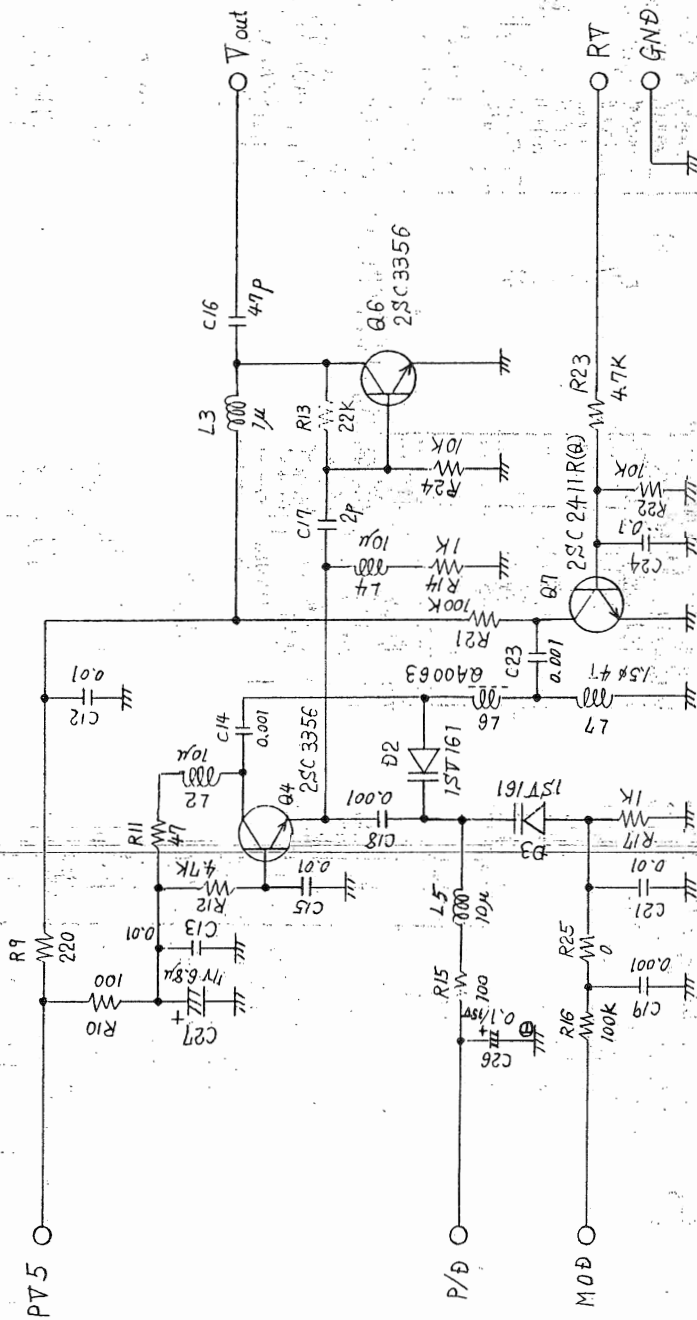


■ CPU PC BOARDS (DJ-160T/E) (DJ-460T/E)



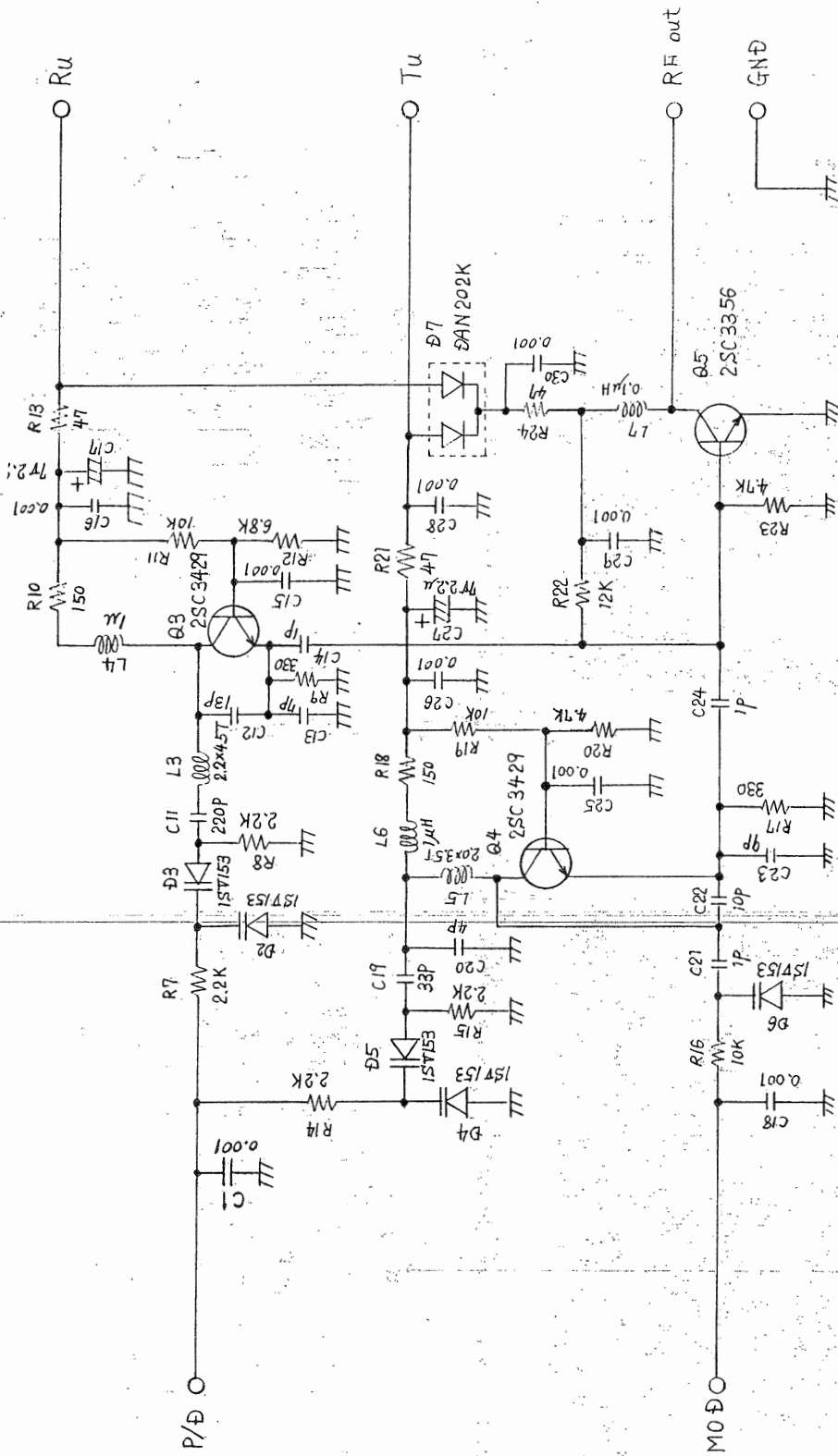


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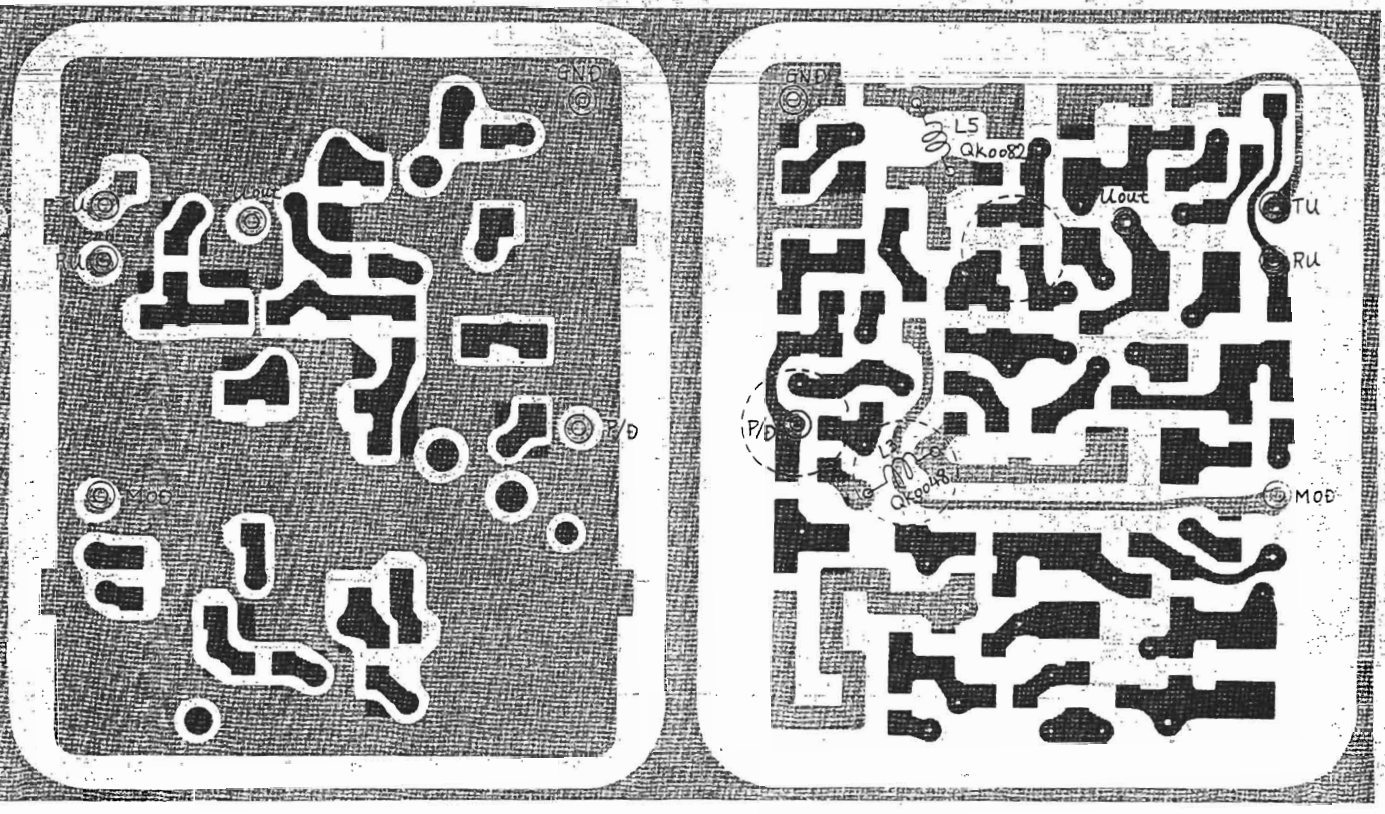
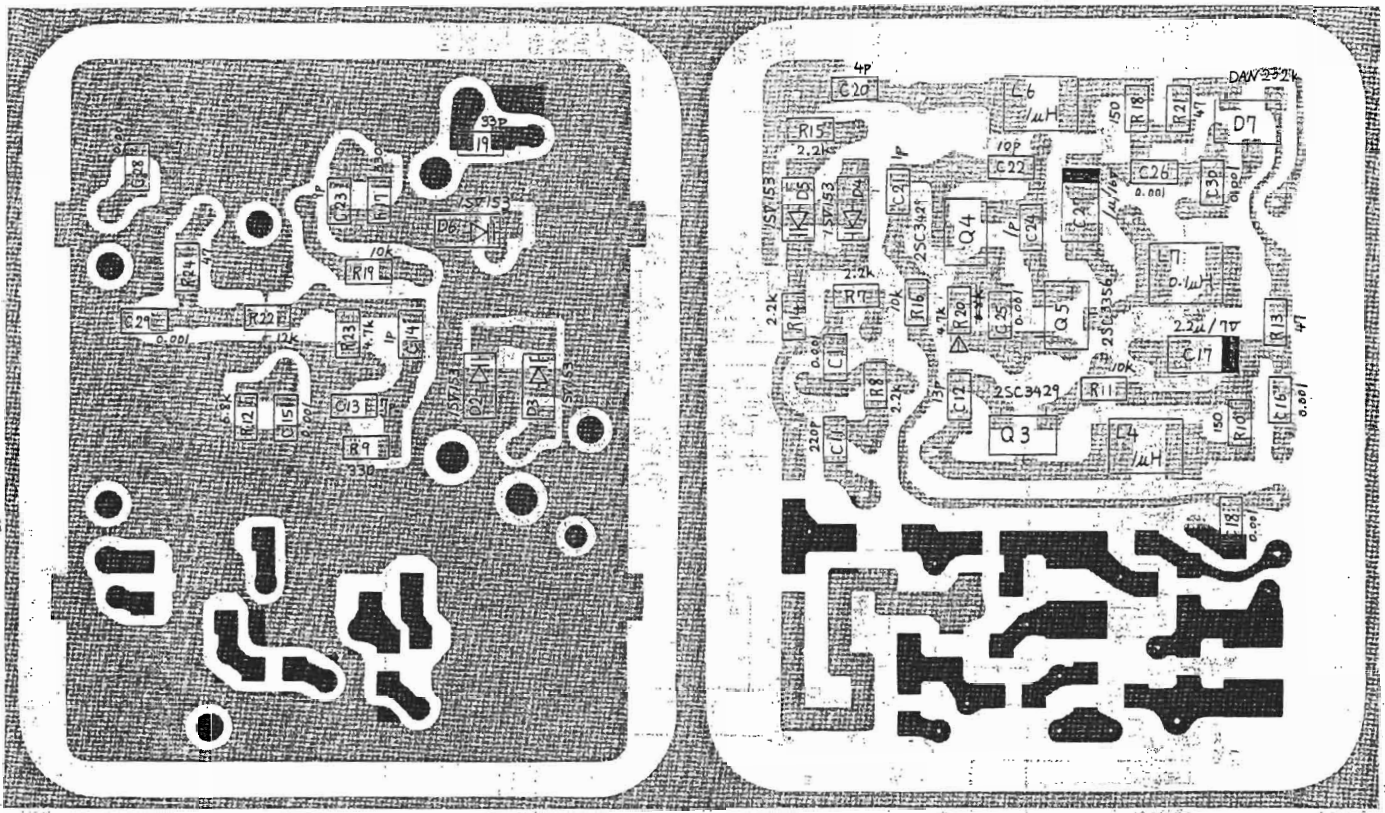


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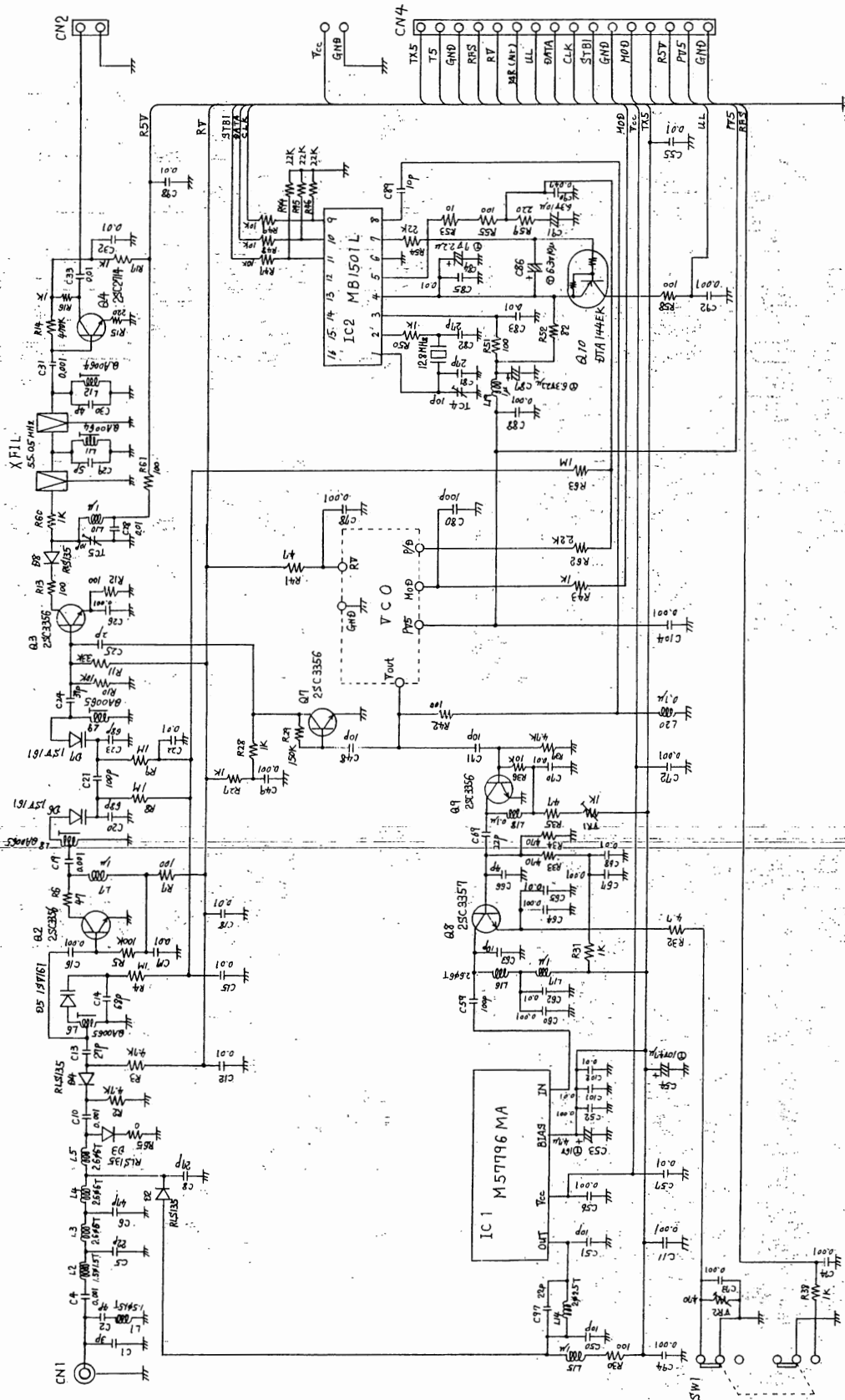


■ VCO PC BOARDS (DJ-460T/E)

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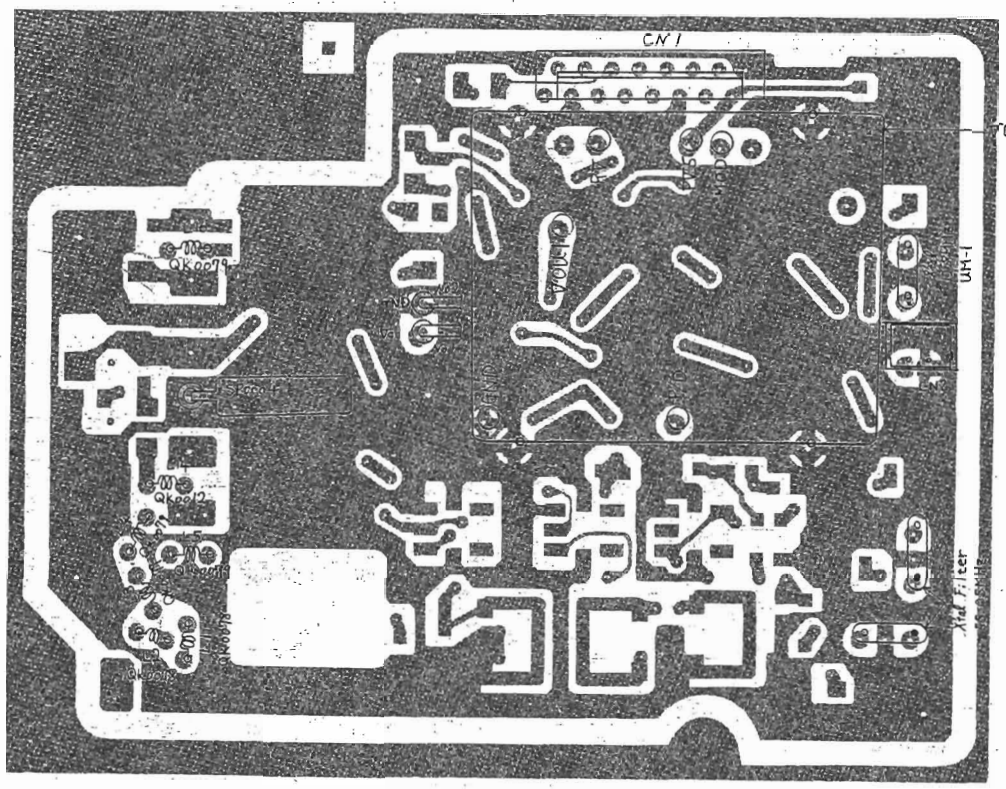


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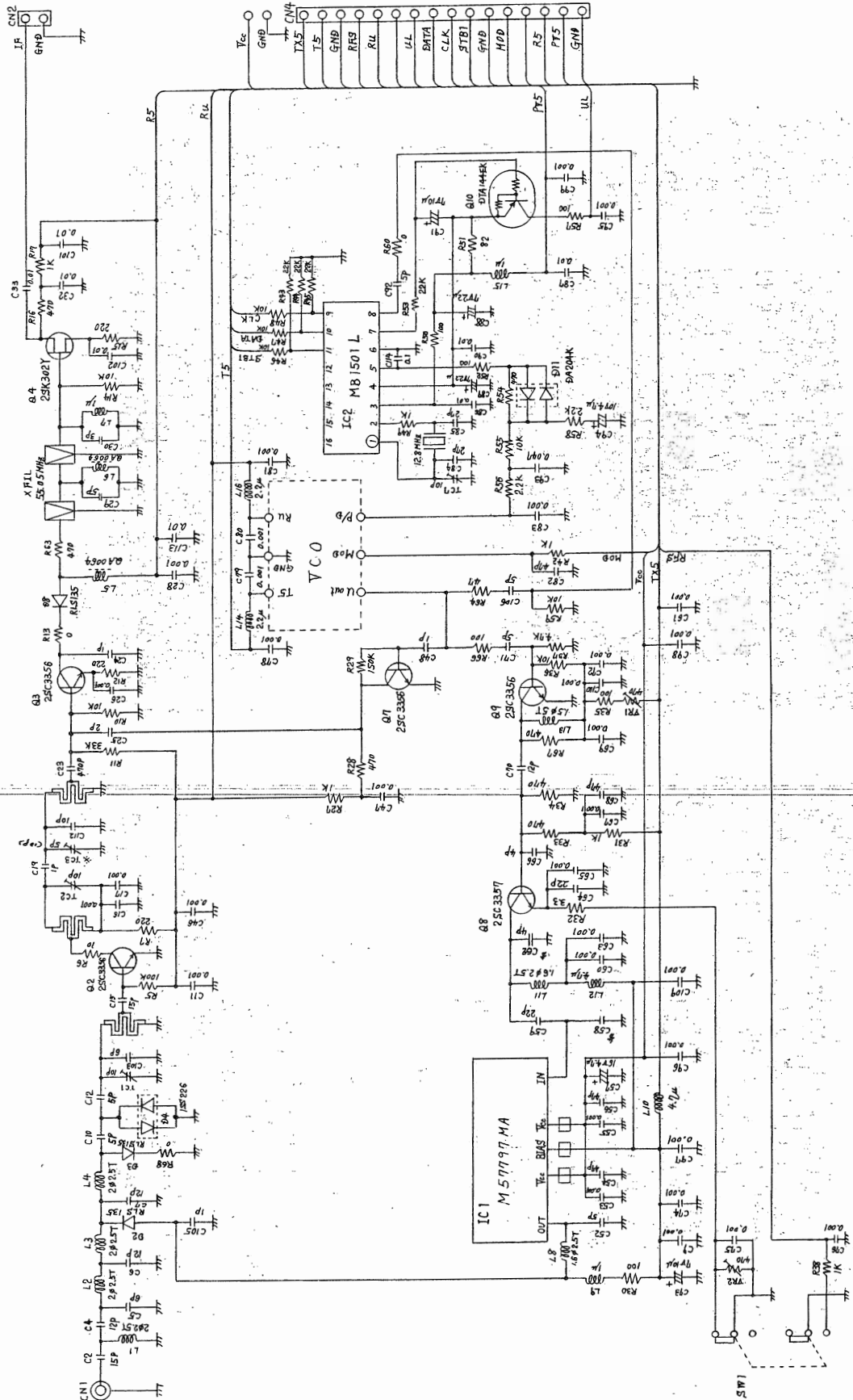






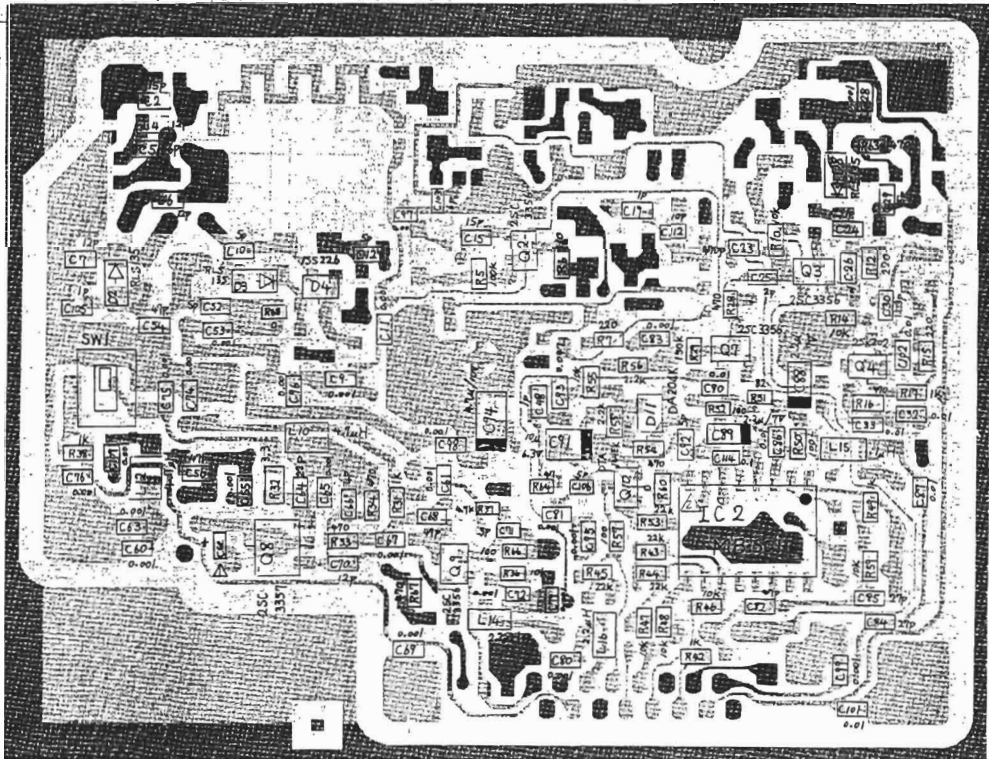
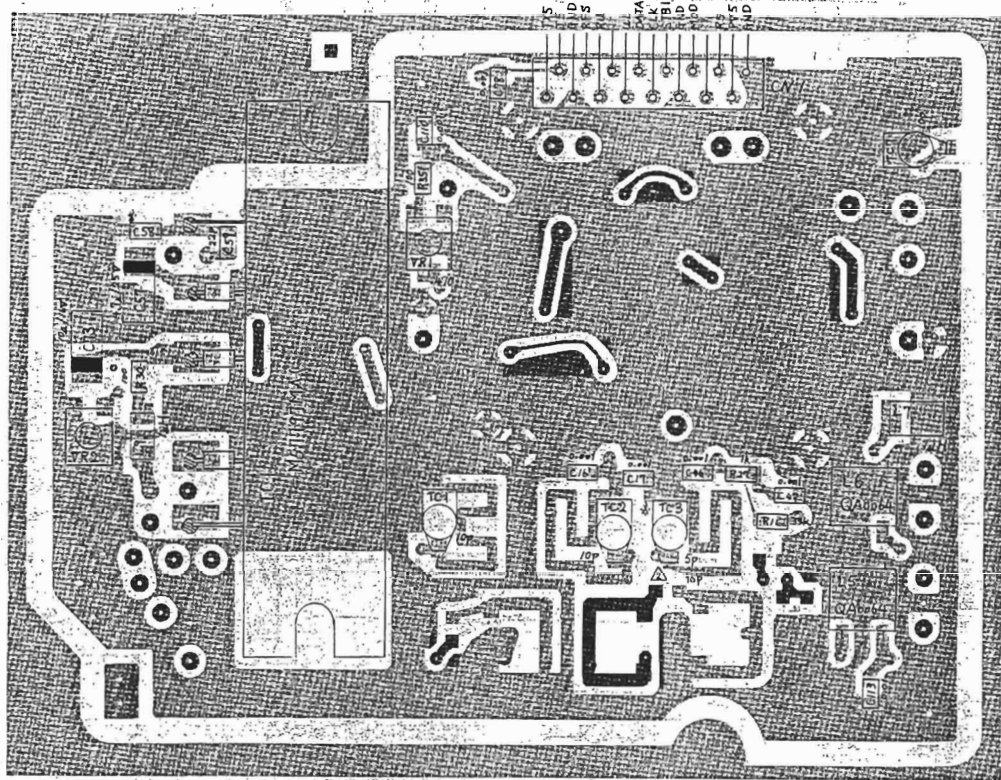


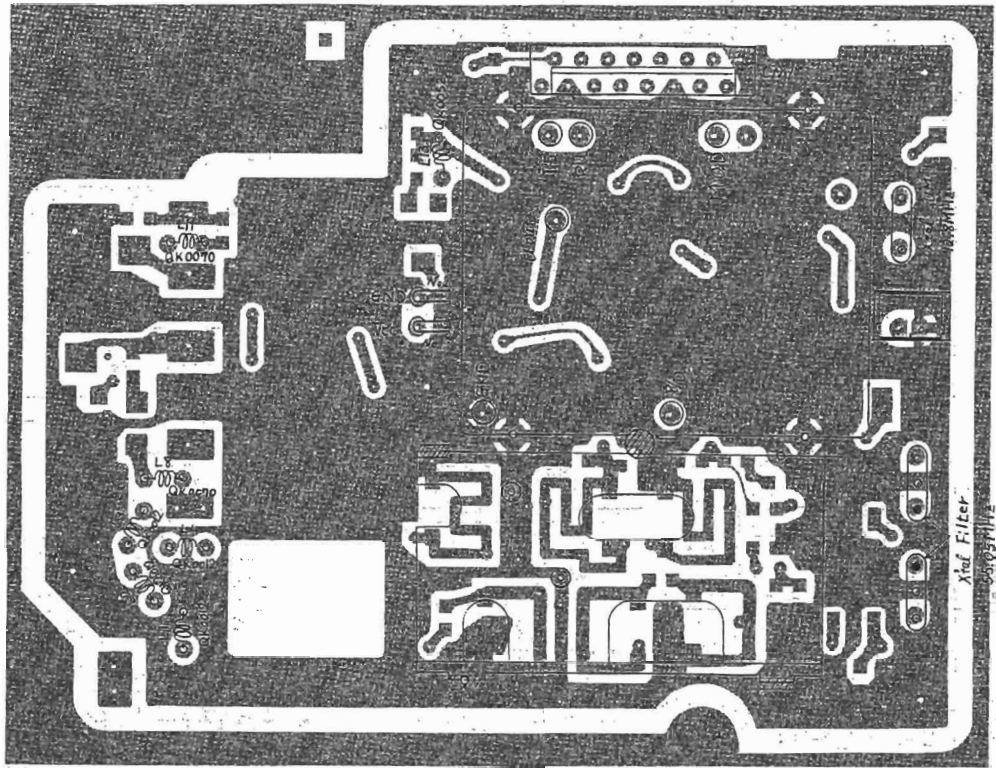
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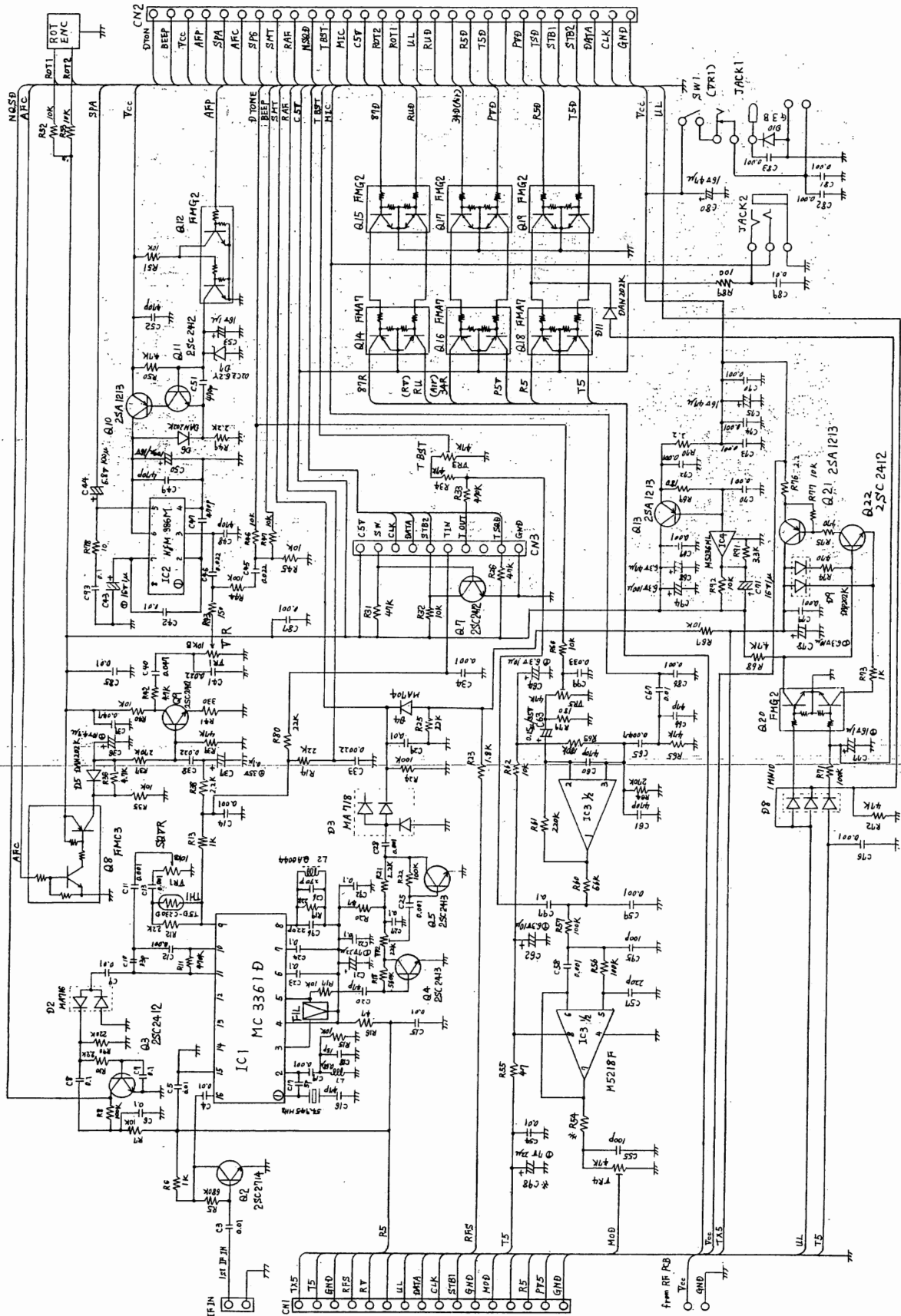
RF PC BOARDS (DJ-460T/E)

TECHNICAL DRAWING

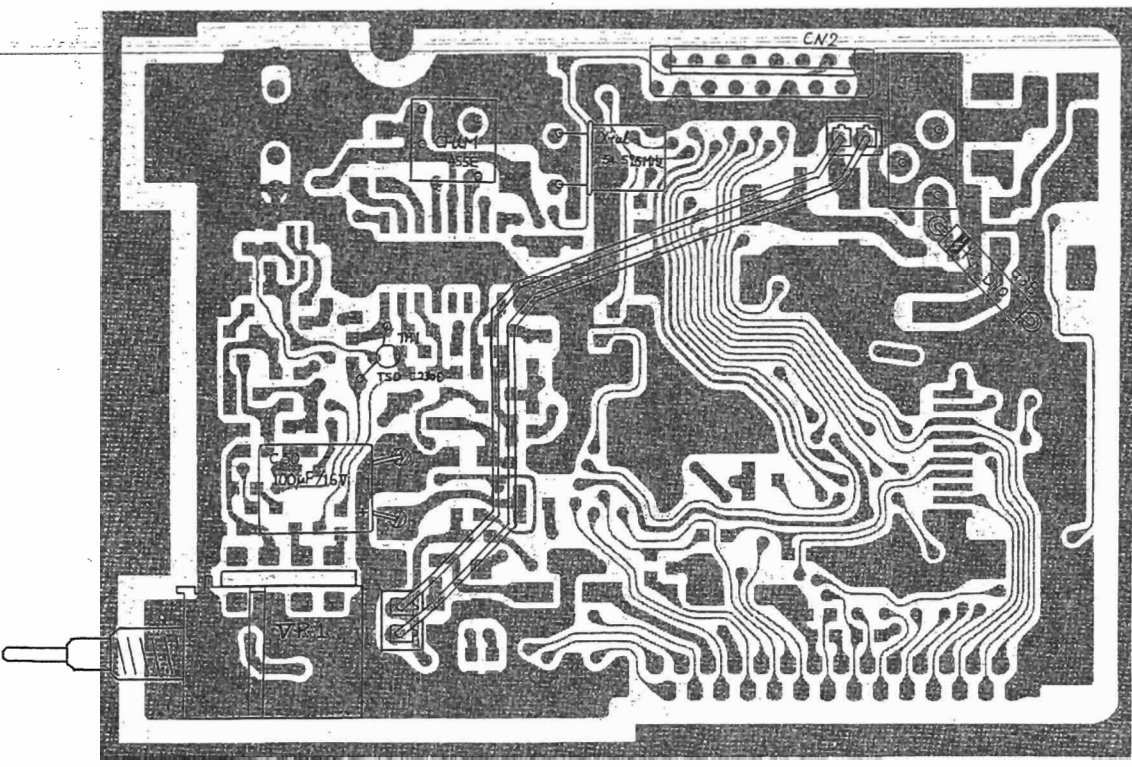
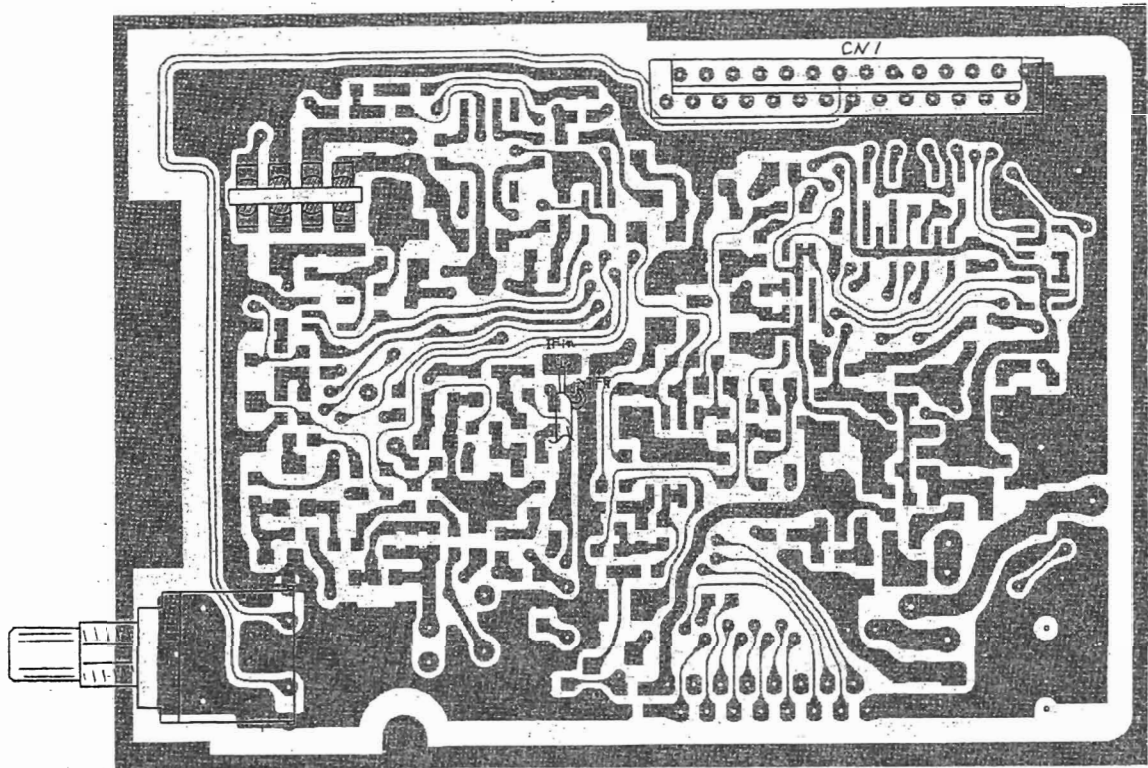




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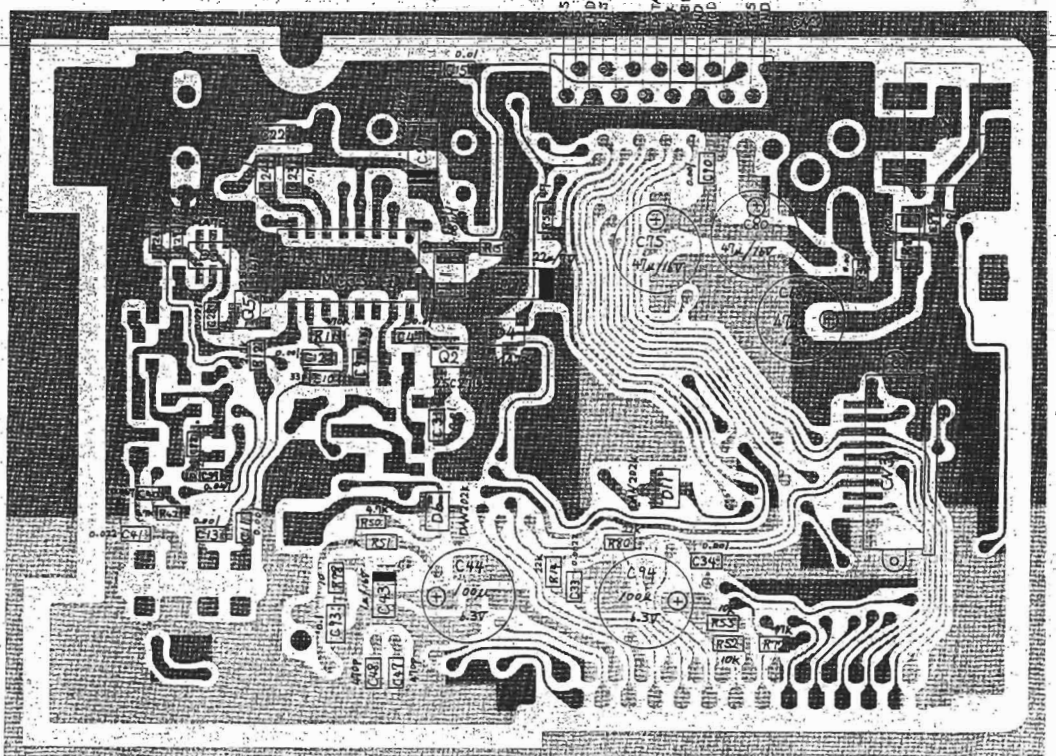
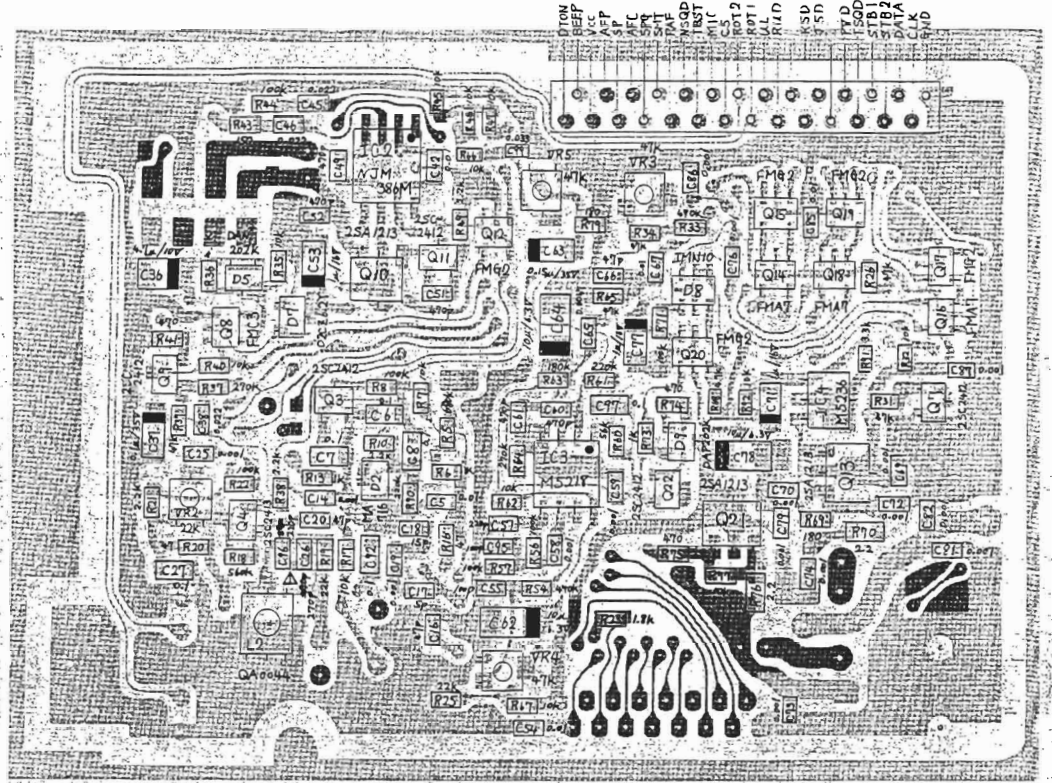




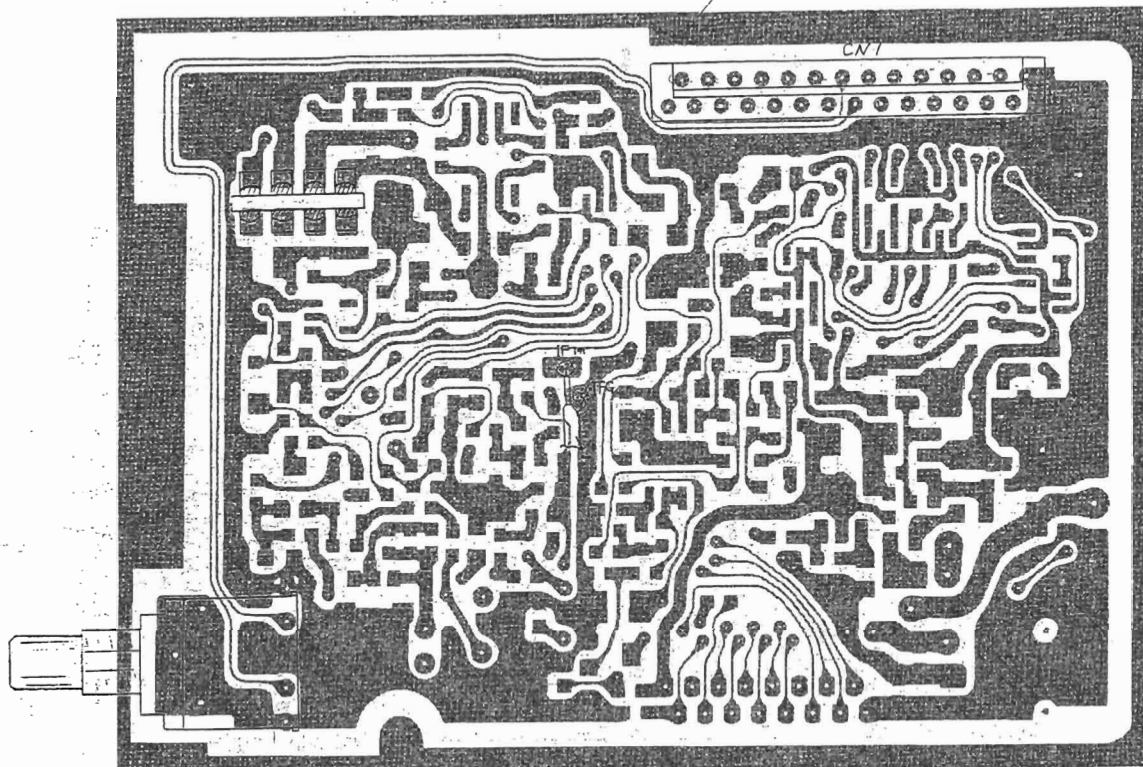




■ IF PC BOARDS (DJ-460T/E)



WA 0027



WA 0026

