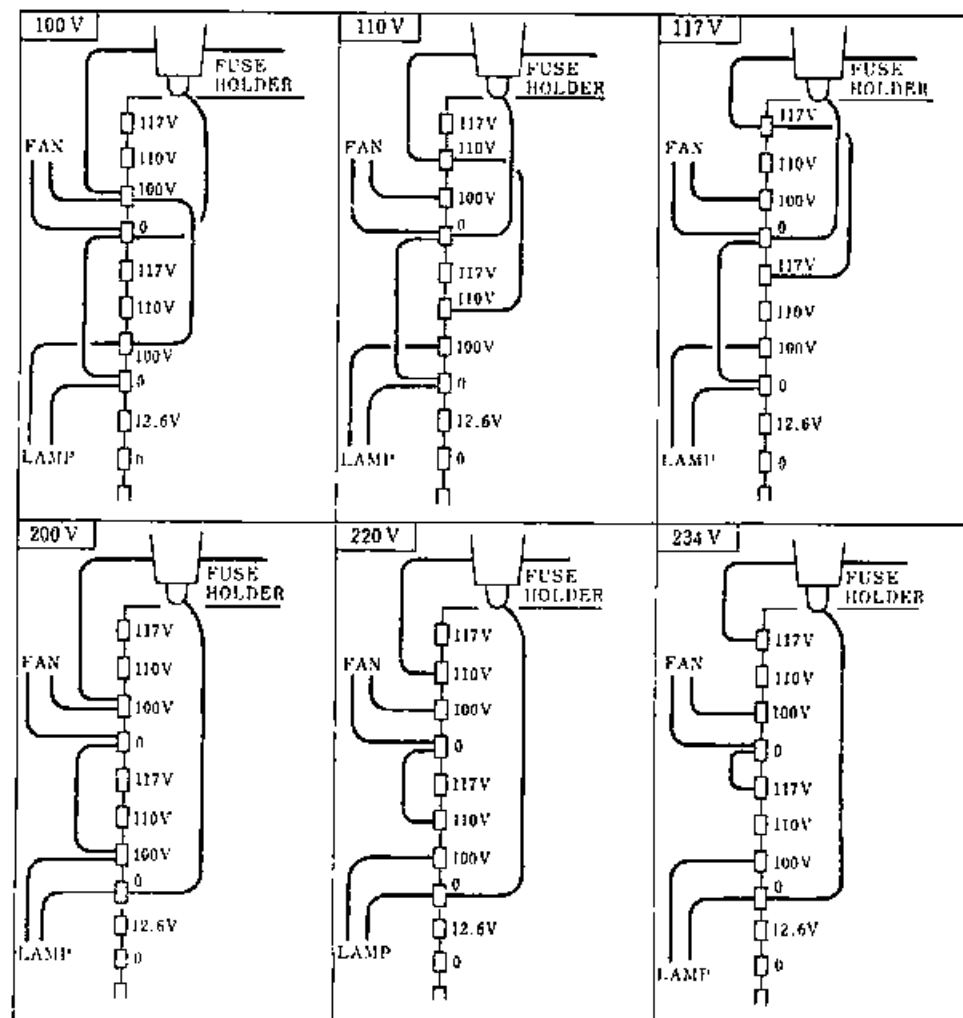




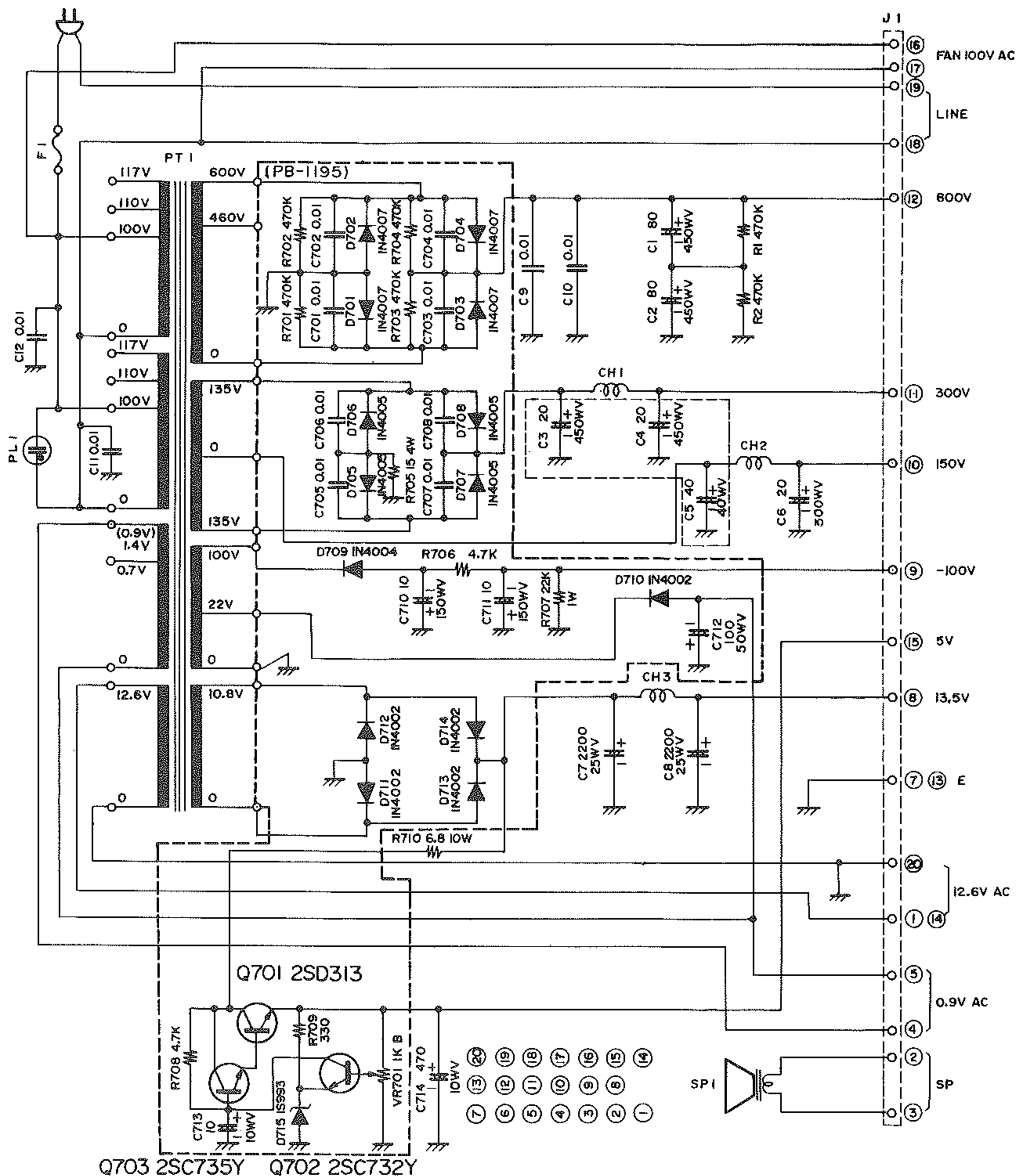
POWER TRANSFORMER CONNECTION

FP-501 電源部

FT-501 用の各種電源、スピーカーなどは、専用の電源部としてFP-501及びFP501Sがあります。全体の回路は第7図及び第8図のようになっており、一次入力電圧は100V, 110V, 117V, 200V, 220V, 234Vで使うことができます。

FP-501とFT-501は付属の電源ケーブル（長さ70cm）で接続するようになっています。電源ケーブル両端のコネクターには向きがあります（ピンは7本ずつ3列に並んでいる、ただし中央の一行はピンが6本）ので、差し込むときは注意してください。コネクターを引き抜くときはストッパー（両側の板バネ）を押えたうえで、まっすぐにうしろへ引いてください。

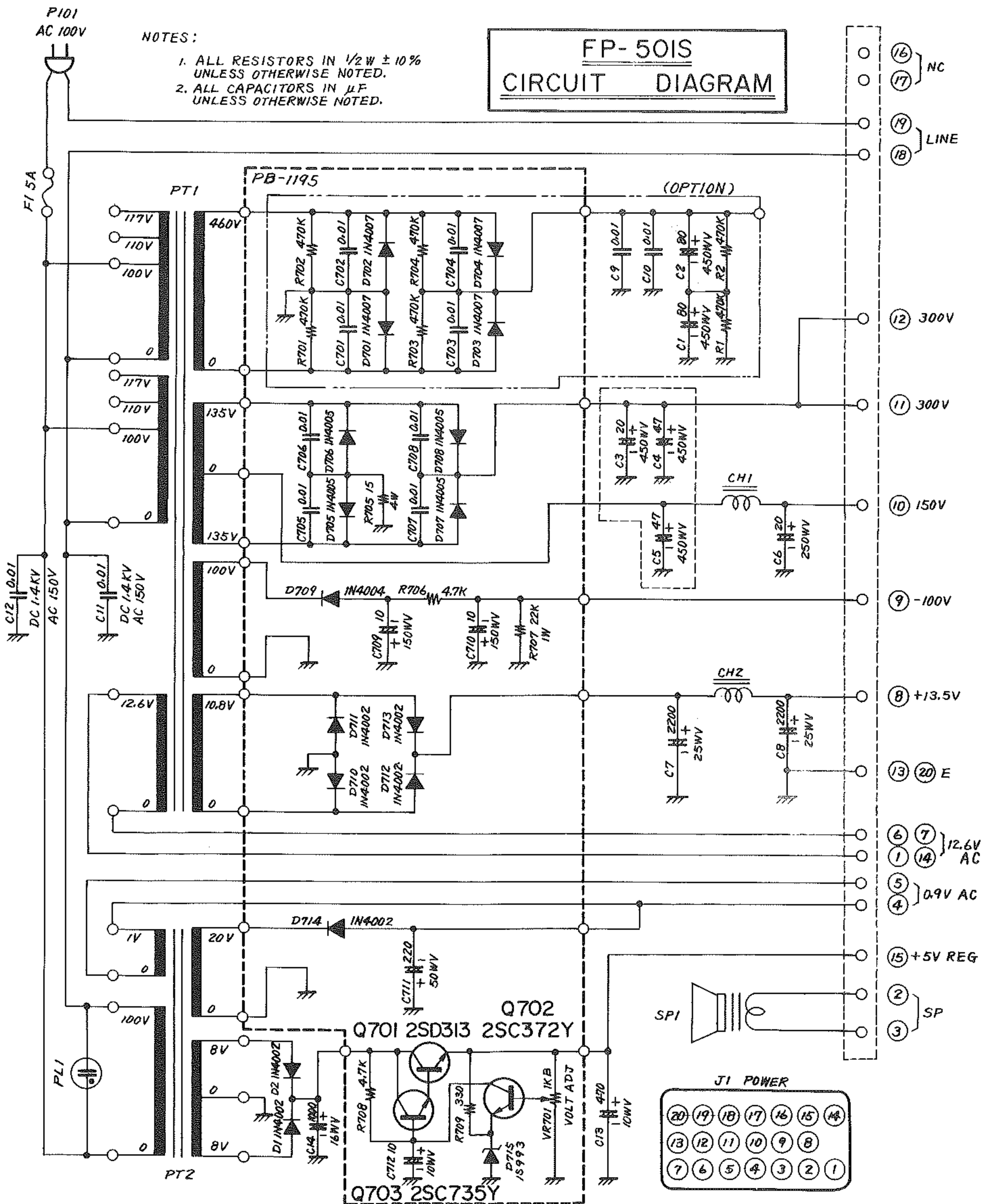
内蔵スピーカーは15×10cmの、ボイス・コイルのインピーダンスが4Ωのものを使っています。



NOTES:

1. ALL RESISTORS IN Ω 1/2W $\pm$ 10% UNLESS OTHERWISE NOTED.
2. ALL CAPACITORS IN μ F UNLESS OTHERWISE NOTED.

FP-501
CIRCUIT DIAGRAM



VOLTAGE CHART

- NOTE : (1) Values are DC voltage unless noted.
 (2) *values are DC voltage measured with VTVM.
 (3) ▲values are AC voltage.
 (4) Band Switch set to 80 meter and Mode Switch to SSB Normal position.

TUBE

	V1 (6CB6)		V2 (6U8)		V3 (6BZ6)		V4 (6EJ7)		V5 (6GK6)		V6 (6KD6)		V7 (6KD6)	
	R	T	R	T	R	T	R	T	R	T	R	T	R	T
1	0	0	170	168	0.5	-18	0	2	0	8	6.0▲	6.0▲	E	E
2	3.4	3.4	0	-75	2.0	0	-80	0	-80	0	0	0.02	0	0.02
3	E	E	120	168	12.0▲	12.0▲	0	2	E	E	175	170	175	170
4	6.0▲	6.0▲	6.0▲	6.0▲	6.0▲	6.0▲	E	E	6.0▲	6.0▲	E	E	E	E
5	165	165	E	E	170	168	6.0▲	6.0▲	12.0▲	12.0▲	-80	-45	-80	-45
6	172	172	175	170	102	0	E	E	NC	NC	NC	NC	NC	NC
7	E	E	3.6	0	E	E	360	310	370	330	NC	NC	NC	NC
8			10	0			0	110	330	280	NC	NC	NC	NC
9			4.7	-70			E	E	E	E	-80	-45	-80	-45
10											E	E	E	E
11											175	170	175	170
12											12.0▲	12.0▲	6.0▲	6.0▲
P											820	760	820	760

IF UNIT (PB-1142)

	Q101 (2SC710D)		Q105 (2SC711D)		Q106 (2SC710D)		Q107 (2SC711D)	
	R	T	R	T	R	T	R	T
E	3.0	3.0	0	1.85	0	0	0.4	0
C	9.0	9.0	0	8.5	0	0	9.0	0
B	0.54	0.54	0	2.25	0	0	0.6	0.5

	Q108 (2SC711D)		Q109 (2SA628A)		Q110 (2SC711D)		Q111 (2SC711D)	
	R	T	R	T	R	T	R	T
E	0	0	0.65	0	1.25	3.0	0.04	0.04
C	7.6	0	0.55	-25	12.0	14.0	14.0	14.0
B	0.4	0	E	E	1.8	2.4	0.54	0.54

	Q104 (2SK19GR)		Q112 (2SK34E)		Q113 (2SK34E)			
	R	T	R	T	R	T		
D	0	8.4	7.4	7.4	0.54	0.54		
G	0	0	0	0	0	0		
S	0	1.4	3.6	3.6	E	E		

パーツリストについてのご注意

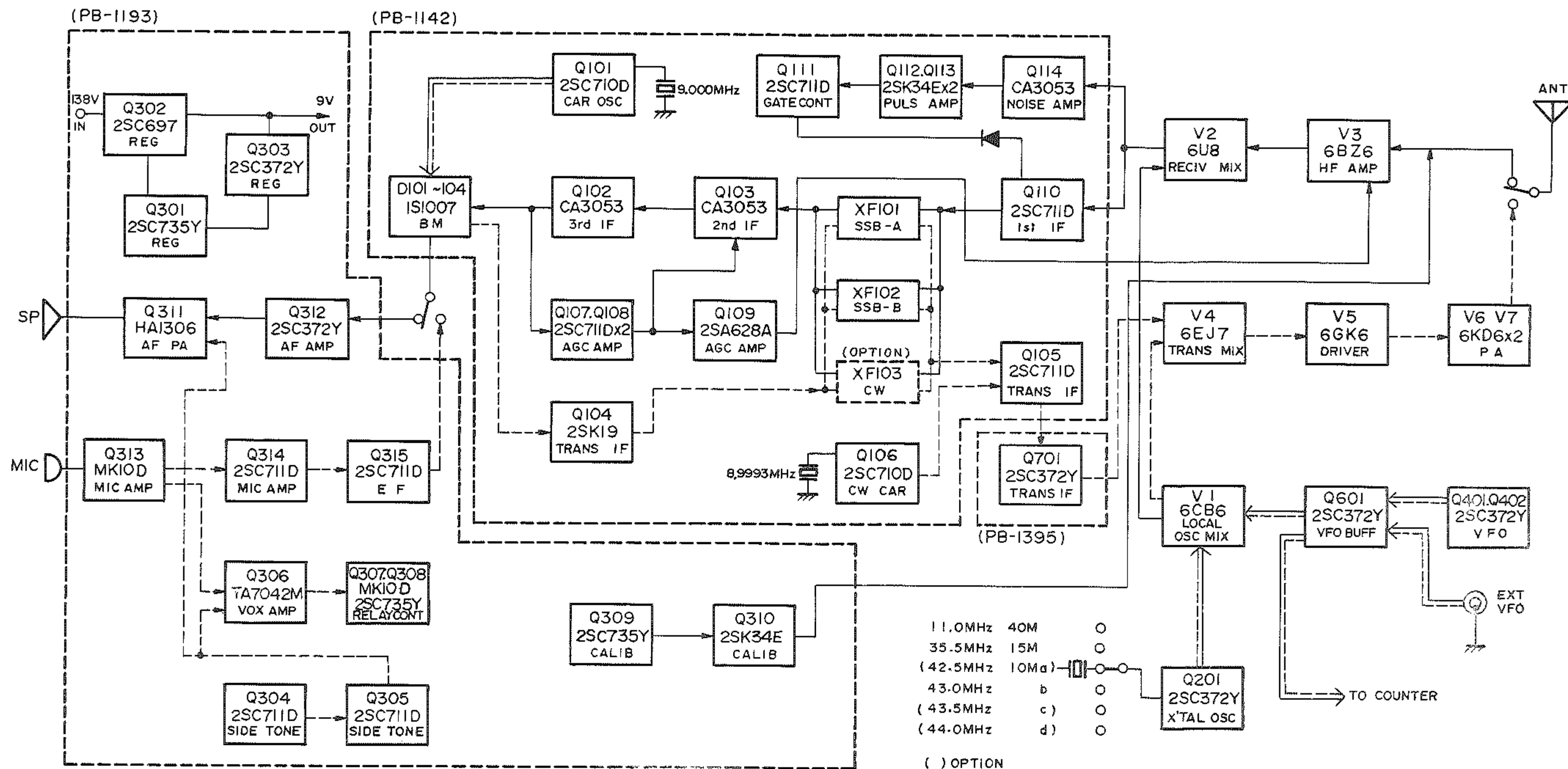
本機の部品番号はユニットごとに1から始まっています。従って部品についてご照会いただく場合は、ユニット名と部品番号をあわせてご指定ください。

MAIN CHASSES			25, 27, 34, 54	$\frac{1}{2}$ W	56 Ω
V-VACUUM TUBE			16, 45	$\frac{1}{2}$ W	100 Ω
1	6CB6		28	$\frac{1}{2}$ W	150 Ω
2	6U8		21	$\frac{1}{2}$ W	180 Ω
3	6BZ6		1	$\frac{1}{2}$ W	330 Ω
4	6EJ7		57	$\frac{1}{2}$ W	390 Ω
5	6GK6		46	$\frac{1}{2}$ W	560 Ω
6, 7	6KD6		53	$\frac{1}{2}$ W	680 Ω
D-DIODE			2, 3, 8, 9, 31, 56	$\frac{1}{2}$ W	1K Ω
			5	$\frac{1}{2}$ W	1.5K Ω
1	1S1943		24, 30, 38	$\frac{1}{2}$ W	2.2K Ω
2, 3, 5	1S1941		33, 41, 48, 49	$\frac{1}{2}$ W	10K Ω
4, 6	1S188FM		15, 52, 55	$\frac{1}{2}$ W	15K Ω
15	1S1007		22, 40, 43	$\frac{1}{2}$ W	22K Ω
L-INDUCTOR			47, 60	$\frac{1}{2}$ W	27K Ω
			12, 14, 39	$\frac{1}{2}$ W	33K Ω
24	MICRO-L	270 μ H	4, 10, 26, 42	$\frac{1}{2}$ W	47K Ω
25, 26, 27, 32,	TV245	250 μ H	7, 13, 20, 58	$\frac{1}{2}$ W	100K Ω
33		1.8 μ H	11, 17	$\frac{1}{2}$ W	470K Ω
34		10 μ H	32	$\frac{1}{2}$ W	1M Ω
C-CAPACITOR			6	$\frac{1}{2}$ W	2.7M Ω
			18	$\frac{1}{2}$ W	3.3M Ω
1017	500WV	3P	44	1W	10 Ω
65	500WV	5P	35, 36	1W	56 Ω
4, 42	500WV	8P	51	3W	47K
35, 38, 59	500WV	10P	29	5W	4.7K
25, 28, 29	500WV	15P	59	7W	8K
9, 26, 1028	500WV	20P	S-SWITCH		
49	500WV	30P			
27, 36, 37, 70, 1015	500WV	50P	1	BAND SW1	6-12-5
5, 6	500WV	60P	2	BAND SW2	6-4
69, 100	500WV	80P	3	UNI SW	5-11-15
7, 8, 13~15, 21, 41, 1018	500WV	100P	4, 5	UNI SW	5-10-15
23, 48	500WV	150P	VR-POTENTIOMETER		
24, 34	500WV	200P			
68	500WV	250P	2	(VOX)	10K Ω A 24 ϕ
22	500WV	280P	3	(ANTI TRIP)	10K Ω B 24 ϕ
47	500WV	300P	4	(RELAY)	30 Ω B 24 ϕ
40, 62	500WV	350P	5	(DELAY)	2 M Ω B 24 ϕ
1023	500WV	360P	6, 7	(AF/RF)	5KA/20KA 24 ϕ
1, 66	500WV	500P	1, 8	(MIC/CAR)	1KB/10KA 16 ϕ
63, 1024, 1025	500WV	680P	9	(CLARI)	50K Ω B 24 ϕ
39, 67	500WV	1000P	10	(BIAS)	20K Ω B 24 ϕ
CERAMIC DISC			11	(CLARI ADJ)	50K Ω B 10 ϕ
			12	(CALIB)	50K Ω B 16 ϕ
10	50WV	0.001 μ	J-JACK		
19, 30, 44, 93, 94, 1007	50WV	0.01 μ			
1008, 1021, 1027,			1, 2	SG7814	3P
57, 58, 71, 72, 74, 81~83,	50WV	0.047 μ	3, 7, 9, 14, 15	RCA CN7017	
85~91, 95, 98, 99, 1006, 1020			4	PA603B	11P
53	500WV	0.001 μ	5	SA602B	11P
2, 3, 11, 12, 16~18, 20, 31	500WV	0.01 μ	8	JSO239	
32, 43, 45, 54~56, 75,			10	MC20SM	
77, 79, 92, 96, 1001, 1003,			11	128-15-10-181P	
1009~1014, 1019, 1026,			12	SG7615	
UL			16, 17	4PGT	
			VS-VACUUM TUBE SOCKET		
61, 76, 78, 80, 84, 1005	1.4KV	0.0047 μ			
50	MICA	1KV	1, 3	314Y-M	7P
51	3KV	50P	2, 4	SB-1222	9P
1016	3KV	200P	5	S9-241Y-04	9P
60	3KV	0.001 μ	6, 7	SB0703	12P
52	OIL	250V	RL-RELAY		
1022,	AC220V	1 μ			
64	3KV	100P	1	12V	AE3271
ELECTROLYTIC			2	12V	RAB-12D-11
			FAN		
97	25V	100 μ			
1002	150V	1 μ	1	FC-75B	
R-RESISTOR			METER		
50,	$\frac{1}{4}$ W	390 Ω	1		0.5mA/0.5A

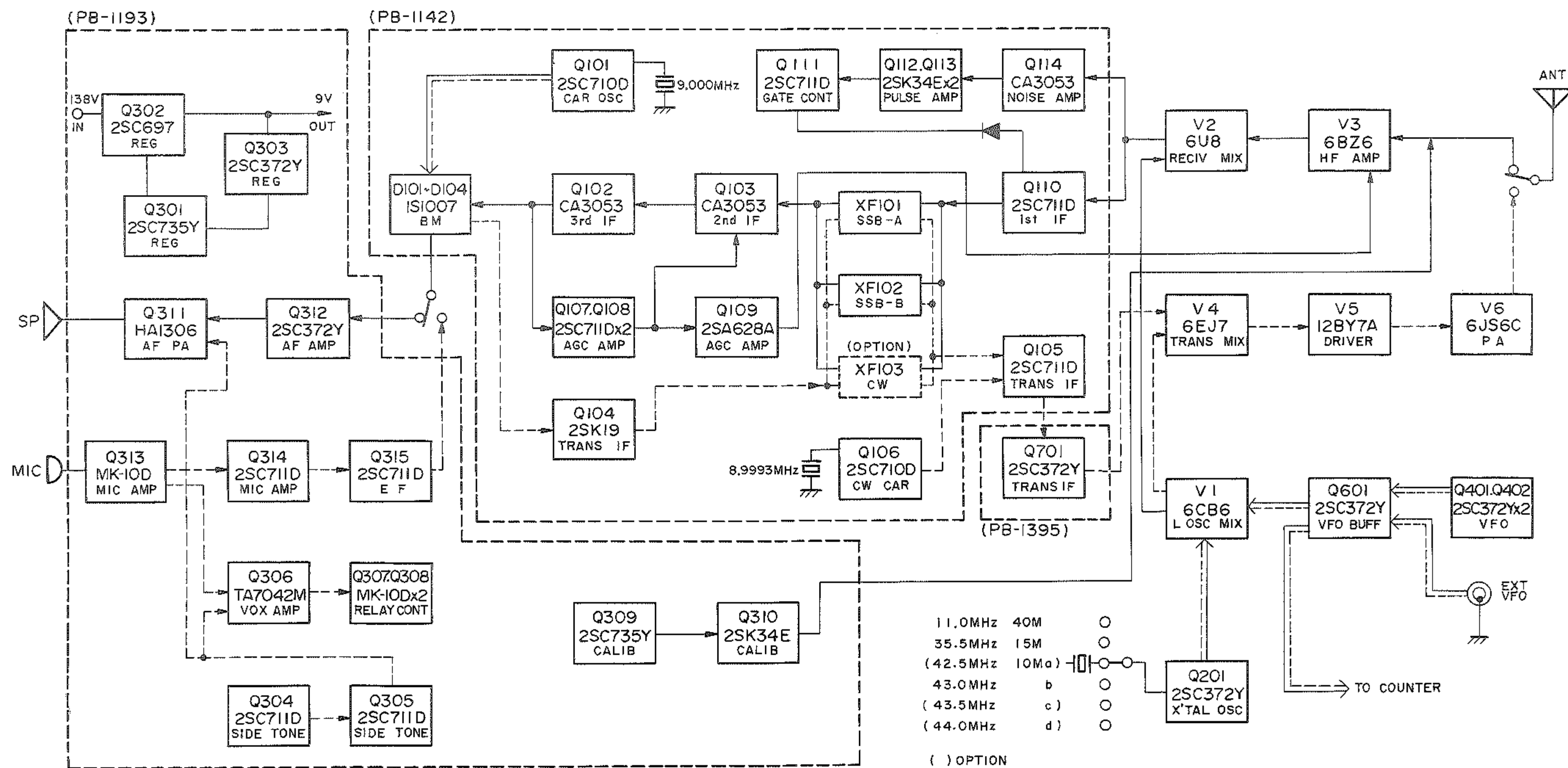
VC-VARIABLE CAPACITOR			167~169	¼W	15KΩ
1	B-535		134, 145, 150	¼W	22KΩ
2	RT-18B-300VC	300P	172	¼W	33KΩ
3	B1240DS	330P×2	119, 129, 125	¼W	47KΩ
TC-TRIMMER			102, 127, 137, 142, 146,	¼W	100KΩ
1, 3	CERAMIC	10P	161, 162, 164		
2	CERAMIC	50P	147		
4	AIR	1.5KV10P		¼W	470KΩ
PL-PILOT LAMP					
1, 2	SWAN	16V0.15A	C-CAPACITOR		
3	LED TLR-104		DIPPED MICA		
			162, 174	50WV	1P
			102, 152	50WV	15P
			117, 124	50WV	20P
IF UNIT			104, 110, 150, 153,	50WV	30P
Q-FET, TRANSISTOR & IC			164, 170, 171, 175		
109	2SA628A		103, 151	50WV	40P
101, 106	2SC710D		166, 176, 177	50WV	50P
105, 107, 108, 110, 111	2SC711D		111, 148, 165, 179, 180	50WV	100P
104	2SK19GR				
112, 113	2SK34E		163	DISC 500WV	0.01μ
102, 103, 114	CA3053		106, 116, 123, 125, 127,	50WV	0.001μ
			131~136; 140, 141, 147		
D-DIODE			105, 109, 112~115		
101~115, 123	1S1007		118~122, 126, 128~130		
116	1S334		137~139, 142, 144~146,	50WV	0.01μ
117~122	1S1555		149, 154, 156, 167~169,		
			172, 173, 184, 189, 190,		
L-INDUCTOR			194		
101~113		250μH	101, 107, 108, 185~188,	50WV	0.047μ
			191~193		
VR-POTENTIOMETER			MYLAR		
101		200Ω B 10φ	143, 178	50WV	0.2μ
103		1KΩ B 10φ	ELECTROLYTIC		
105		2KΩ B 10φ	155, 160, 181, 182	10WV	10μ
102, 107		5KΩ B 10φ	161	50WV	10μ
104		10KΩ B 10φ	183	10WV	100μ
106		20KΩ B 10φ	SOLID-ELECT.		
			158	10WV	1μ
TC-TRIMMER			157	10WV	2.2μ
101, 103	CERAMIC	20P			
102	CERAMIC	50P			
X-CRYSTAL			AF UNIT		
101	HC-18/U	9000KHZ	PCB		
102	HC-18/U	8999.3KHZ	PB-1193	AF BOARD	
XF-CRYSTAL FILTER			Q-FET, TRANSISTOR & IC		
101	SSB FILTER A		312	2SC372Y	
102	SSB FILTER B		303, 304, 305	2SC373	
			302	2SC697	
J-PIN CONNECTOR			314, 315	2SC711D	
101, 102		128-15-10-181P	301, 308, 309	2SC735Y	
			310	2SK34E	
PB-P.C.B			307, 313	MK-10D	
PB-1142	IF BOARD		311	HA-1306	
			306	TA-7042M	
R-RESISTOR					
144	¼W	56Ω	D-DIODE		
104, 115, 122~124, 129,	¼W	100Ω	302	6V ZENNER	WZ06
158, 166			301	11V	BZ-110
107~110, 165	¼W	220Ω	3~3~306	SiD	1S1941
152	¼W	270Ω	307, 308	SiD	1S1555
131	¼W	330Ω	303		
128, 132, 135, 153	¼W	470Ω	VR-POTENTIOMETER		
116, 151, 154	¼W	560Ω	301	500ΩB	10φ
139	¼W	680Ω	302	10KΩB	10φ
101, 113, 117, 138, 156	¼W	1KΩ			
112, 114, 118, 155, 157, 160	¼W	2.2KΩ	X-CRYSTAL		
111	¼W	3.3KΩ	301	HC-13/U	100KHZ
173	¼W	3.9KΩ	TC-TRIMMER		
121, 126, 13 , 149, 163	¼W	4.7KΩ	301	CERAMIC	50P40
159	¼W	8.2KΩ			
103, 133, 136, 141, 143,	¼W	10KΩ	R-RESISTOR		
148, 170,			334	¼W	39Ω

301, 330	$\frac{1}{4}W$	100 Ω	502, 505, 508, 511	SN7475N
339	$\frac{1}{4}W$	150 Ω	522, 525	SN7486N
304, 318, 340	$\frac{1}{4}W$	220 Ω	503, 506, 509, 512, 513	SN7090N
302, 332, 353	$\frac{1}{4}W$	470 Ω	516~520	
303, 305	$\frac{1}{4}W$	680 Ω		
310~312, 316, 319, 322, 336, 345, 351	$\frac{1}{4}W$	1K Ω	Q-FET, TRANSISTOR	
320, 324, 347, 354	$\frac{1}{4}W$	2.2K Ω	509, 510	2SA628A
315, 349	$\frac{1}{4}W$	3.3K Ω	501~503, 506, 508	2SC373
306, 307, 321, 338, 341, 343, 346	$\frac{1}{4}W$	4.7K Ω	504, 505	2SC735Y
309, 344	$\frac{1}{4}W$	5.6K Ω	507	2SK19GR
326, 355	$\frac{1}{4}W$	6.8K Ω	D-DIODE	
328, 333, 335, 350	$\frac{1}{4}W$	10K Ω	501~542	1S188FM
323	$\frac{1}{4}W$	15K Ω	543, 544	Varactor GW-11
348	$\frac{1}{4}W$	22K Ω	RB-RESISTOR BLOCK	
308	$\frac{1}{4}W$	27K Ω	501~505	100K Ω
313, 314, 337, 342	$\frac{1}{4}W$	47K Ω	TC-TRIMMER	
352	$\frac{1}{4}W$	68K Ω	501	360P
317, 329, 331	$\frac{1}{4}W$	100K Ω	X-CRYSTAL	
327	$\frac{1}{4}W$	470K Ω	501	HC-6/U 1MHZ
325	$\frac{1}{4}W$	1M Ω	502	HC-18/U 11.25MHZ
ELECROLYTIC			503	HC-18/U 12.0MHZ
C-CAPACITOR			J-JACK	
ELECTROYITIC			501	RCA CN7017 MHz
312, 346, 347, 350	10WV	1 μ	R-RESISTOR	
349	10WV	4.7 μ	515	$\frac{1}{4}W$ 39 Ω
301, 305, 308, 313, 315, 316, 320, 344, 356, 357	10WV	10 μ	512, 513, 516, 521, 527, 530, 542~544	$\frac{1}{4}W$ 100 Ω
311, 345, 351	10WV	33 μ	501	$\frac{1}{4}W$ 220 Ω
333	10WV	47 μ	511, 520, 524	$\frac{1}{4}W$ 470 Ω
337, 358	10WV	100 μ	531	$\frac{1}{4}W$ 820 Ω
336	16WV	100 μ	503, 505, 528	$\frac{1}{4}W$ 1K Ω
330, 331	16WV	220 μ	534, 535	$\frac{1}{4}W$ 1.5K Ω
SOLID-ELECT.			540, 541	$\frac{1}{4}W$ 2.2K Ω
352	10WV	2.2 μ	510, 519	$\frac{1}{4}W$ 3.9K Ω
MYLAR			514	$\frac{1}{4}W$ 4.7K Ω
334, 335	50WV	0.001 μ	504	$\frac{1}{4}W$ 5.6K Ω
341	50WV	0.003 μ	502, 506, 507, 522, 523, 526, 533, 536, 537	$\frac{1}{4}W$ 10K Ω
306, 314, 318, 343	50WV	0.01 μ	509, 518	$\frac{1}{4}W$ 27K Ω
302~304, 317, 340	50WV	0.022 μ	508, 517	$\frac{1}{4}W$ 33K Ω
319, 322, 332	50WV	0.047 μ	525	$\frac{1}{4}W$ 39K Ω
307, 321, 339, 342	50WV	0.1 μ	532	$\frac{1}{4}W$ 47K Ω
310	DISC 50WV	0.001 μ	529, 538, 539	$\frac{1}{4}W$ 100K Ω
309, 323, 326, 338, 353, 354	50WV	0.01 μ	545	1W 1 Ω
359~361	50WV	0.047 μ	C-CAPACITOR	
DIPPED MICA			501, 557, 577, 578 DISC	50WV 0.01 μ
329	50WV	5P	507, 509~511, 513,	50WV 0.047 μ
328	50WV	30P	516, 518, 520, 521,	
324	50WV	100P	525, 530, 531,	
325	50WV	250P	537~556, 571~576	
348	50WV	680P	579, 580	
327	50WV	2000P	MYLAR	
J-JACK			503	50WV 0.003 μ
301, 302	128-15-10-181P		DIPPED MICA	
303	128-10-10-181P		528, 534, 536	50WV 5P
L-INDUCTOR			532	50WV 30P
301, 302	4mH		514, 519, 526	50WV 50P
COUNTER UNIT			527	50WV 80P
PB-P.C.B			517, 524, 529, 533, 535	50WV 100P
PB-1201 COUNTER BOARD			508, 512	50WV 120P
V-DISPLAY TUBE			522	50WV 150P
501~506 DG12M			502, 523	50WV 200P
IC-DEGITAL IC			505	50WV 300P
501, 504, 507, 510, 526	μ PB249D		504	50WV 350P
514, 523	SN7400N		506, 515	50WV 470P
524	SN7403N		LOCAL OSC UNIT	
521	SN7404N		PB-P.C.B	
515	SN7472N		PB-1141	OSC BOARD

Q-TRANSISTOR			408, 410	$\frac{1}{4}$ W	220 Ω
201	2SC372Y		405, 409	$\frac{1}{4}$ W	2.2K Ω
TC-TRIMMER			402	$\frac{1}{4}$ W	3.3K Ω
201 ~ 206	CERAMIC	20P32	406	$\frac{1}{4}$ W	8.2K Ω
X-CRYSTAL			401	$\frac{1}{4}$ W	10K Ω
201	HC-18/U	11.0MHZ	403	$\frac{1}{4}$ W	18K Ω
202	HC-18/U	35.5MHZ	407	$\frac{1}{4}$ W	22K Ω
204	HC-18/U	43.0MHZ	404	$\frac{1}{4}$ W	33K Ω
XS-CRYSTAL SOCKET			C-CAPACITOR		
201 ~ 203	SD0105		DIPPED MICA		
S-SWITCH			402	50WV	8P
2	SRGL-6-4		403, 417	50WV	20P
R-RESISTOR			406	50WV	30P
203	$\frac{1}{4}$ W	330 Ω	410	50WV	50P
201	$\frac{1}{4}$ W	4.7K Ω	408	50WV	250P
202	$\frac{1}{4}$ W	22K Ω	409	50WV	470P
C-CAPACITOR			415		680P
DIPPED MICA			CERAMIC UJ		
201	50WV	10P	413		5P
204	50WV	150P	414		7P
202	DISC 50WV	0.01 μ	404		20P
203, 205, 206	50WV	0.047 μ	401, 405, 407, 411, DISC	50WV	0.01
			416, 418 ~ 421		
			422	50WV	0.047
VFO BUFF UNIT					
PB-P.C.B					
PB-1196	BUFF BOARD				
Q-TRANSISTOR					
601	2SC372Y				
L-INDUCTOR					
603		10 μ H			
R-RESISTOR					
607	$\frac{1}{4}$ W	100 Ω			
604	$\frac{1}{4}$ W	150 Ω			
606	$\frac{1}{4}$ W	1.5K Ω			
601	$\frac{1}{4}$ W	3.3K Ω			
605	$\frac{1}{4}$ W	22K Ω			
602	$\frac{1}{4}$ W	27K Ω			
C-CAPACITOR					
DIPPED MICA					
607, 610	50WV	60P			
611	50WV	70P			
609	50WV	170P			
606	50WV	350P			
608	50WV	470P			
601 ~ 605	DISC 50WV	0.01 μ			
VFO UNIT					
PB-P.C.B					
PB-1199	OSC BOARD				
Q-TRANSISTOR					
401, 402	2SC372Y				
D-DIODE					
401	Varactor	1S145			
L-INDUCTOR					
402		250 μ H			
TC-TRIMMER					
401	KC-30P	30P			
402	MC-10 $\times$ 2	10P $\times$ 2			
VC-VARIABLE CAPACITOR					
401	B5240 DS111				
R-RESISTOR					
411, 412	$\frac{1}{4}$ W	100 Ω			



FT-501 BLOCK DIAGRAM



FT-501S BLOCK DIAGRAM

(PB-1201)

V501~V506
DG-12M

2SA628A 2SA628A

Q509 Q510

IC526

IC510

IC507

IC504

IC501

IC523-2

IC524-3

IC523-1

IC523-3

IC522-2

IC522-1

IC522-3

IC522-4

IC508

IC505

IC502

IC509

IC506

IC503

IC511

IC512

IC520

IC519

IC518

IC513

IC517

IC516

IC515

IC521-6

IC521-4

IC521-3

IC514-4

IC514-3

IC521-2

IC514-2

IC514-1

Q501 2SC373

Q502 2SC373

Q506 2SC373

Q507 2SK19

Q508 2SC373

Q503 2SC373

Q504 2SC735Y

Q505 2SC735Y

IC501, 504, 507, 510, 526. ———— uPB249D

IC502, 505, 508, 511. ———— SN7475N

IC503, 506, 509, 512, 513, 516, 517, 518, 519, 520. ———— SN7490N

IC514, 523. ———— SN7400N

IC515. ———— SN7472N

IC521. ———— SN7404N

IC522, 525. ———— SN7486N

IC524. ———— SN7403N

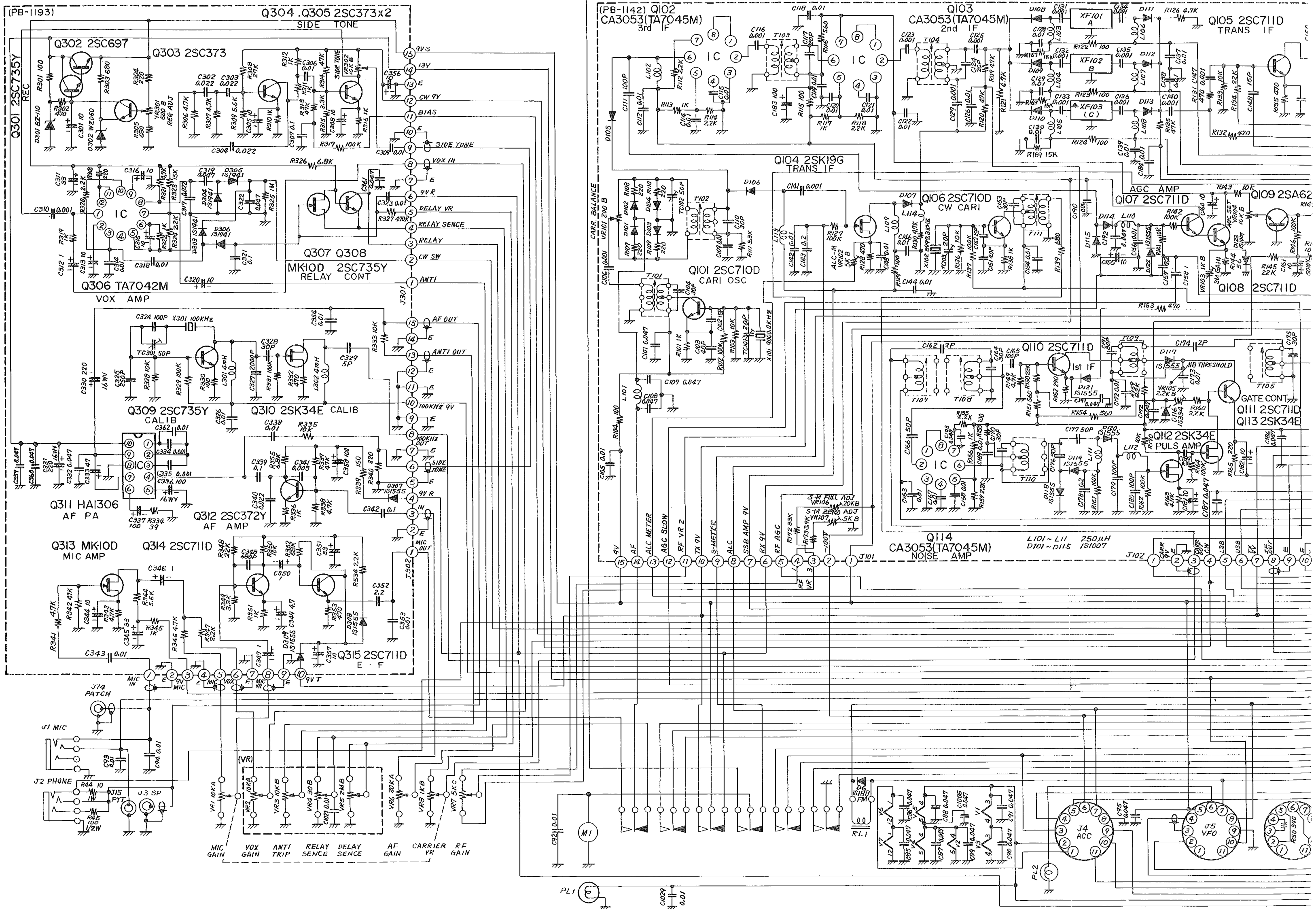
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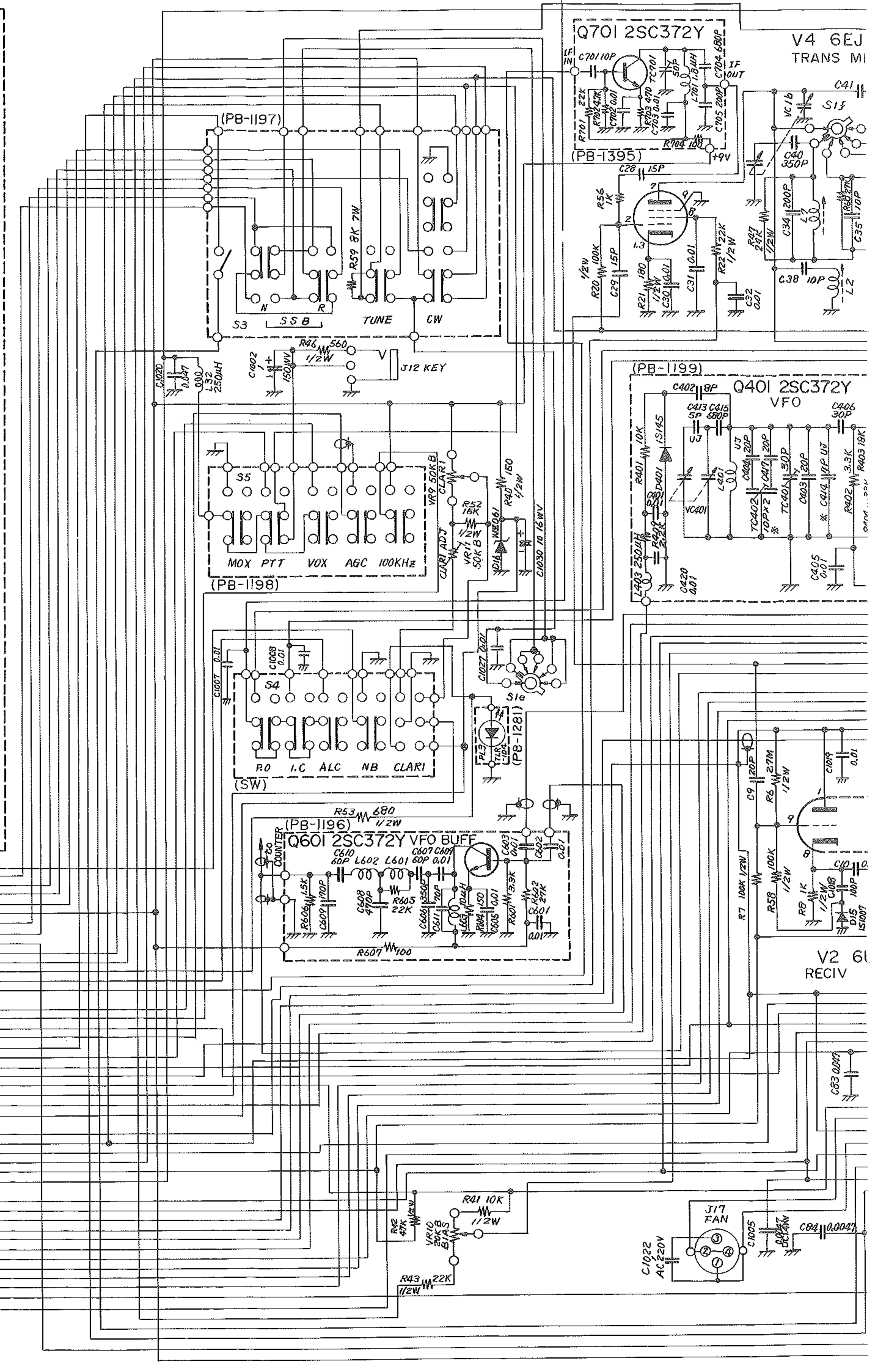
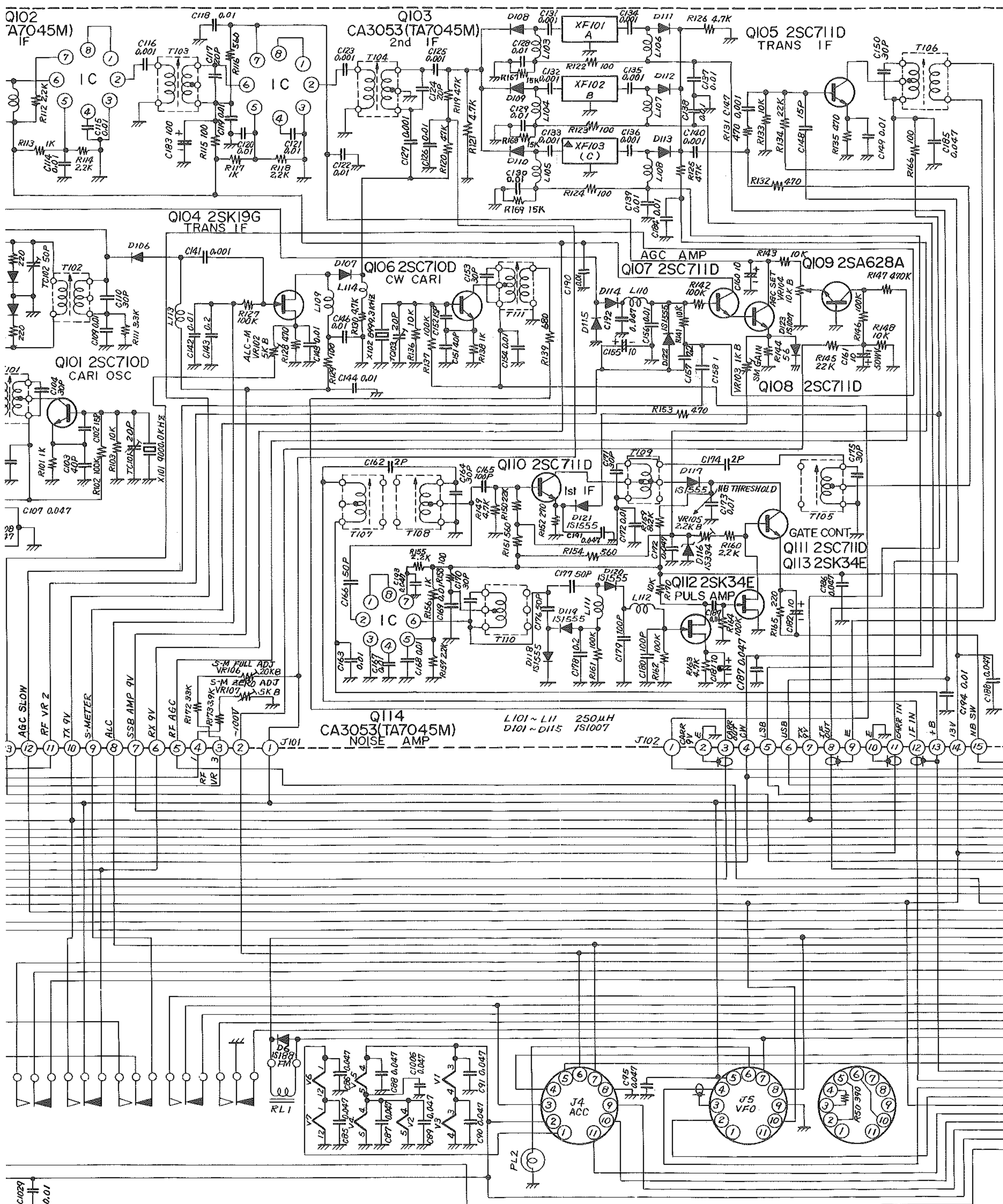
1. ALL RESISTORS IN OHM 1/4W $\pm 10\%$ UNLESS OTHERWISE NOTED.

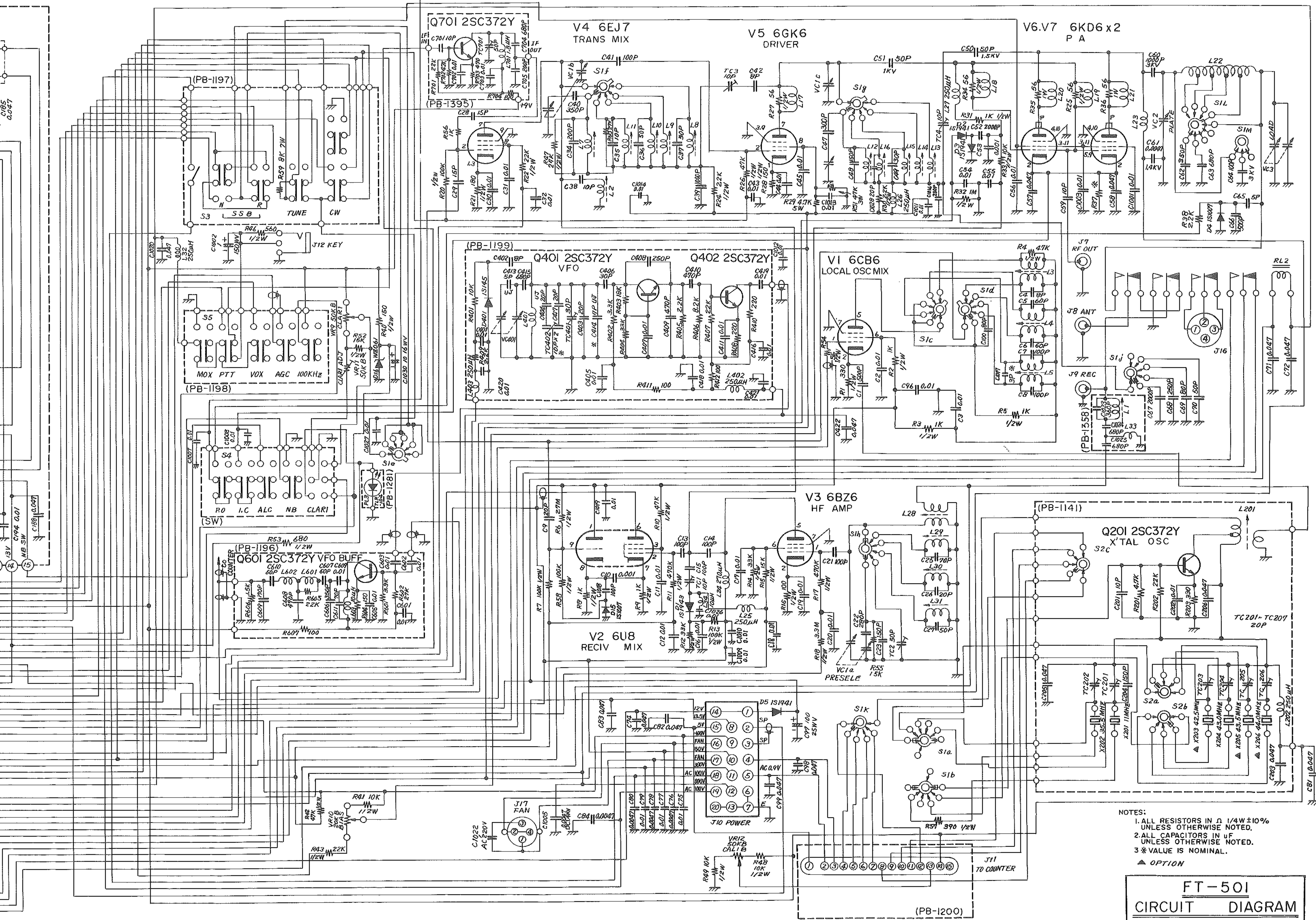
2. ALL CAPACITORS IN μF UNLESS OTHERWISE NOTED.

FT-501
COUNTER UNIT DIAGRAM

FT-501
COUNTER UNIT DIAGRAM







NOTES:
1. ALL RESISTORS IN Ω 1/4W $\pm 10\%$ UNLESS OTHERWISE NOTED.
2. ALL CAPACITORS IN μF UNLESS OTHERWISE NOTED.
3. * VALUE IS NOMINAL.
▲ OPTION

FT-501
CIRCUIT DIAGRAM