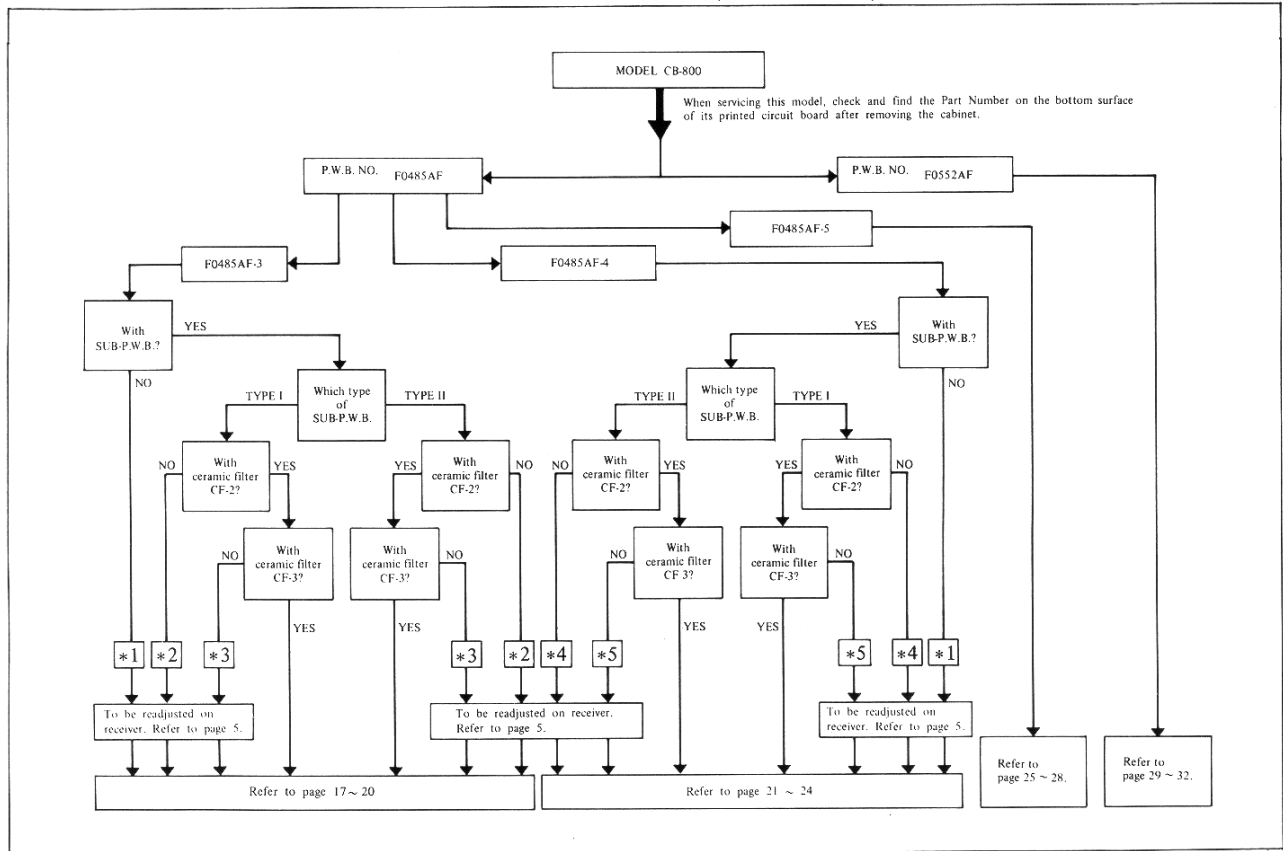


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NOTES:

- *1. Refer the original schematic diagram and wiring side board of service manual which is previous published. It is occasionally necessary to improve some performance such as intermodulation or ignition noises by the case of customer's request. In this case the improvement shall be made referring to the manual from page 33 to page 38. After these improvement, it is necessary to readjustment on Receiver section.
- *2. In case of modification by adding two filters; CF-2 and CF-3, the reference note is shown on NOTE-1) of page 20. This time the readjustment of Receiver section is required.
- *3. In case of modification by adding one ceramic filter; CF-3, the reference note is shown on NOTE-2), page 20. This time the readjustment of Receiver section is required.
- *4. In case of adding ceramic filter CF-2 and CF-3, the reference note is shown on NOTE-1), page 24. This time the readjustment of Receiver section is required.
- *5. In case of adding ceramic filter CF-3, the reference note is shown on NOTE-2), page 24. This time the readjustment of Receiver section is required.

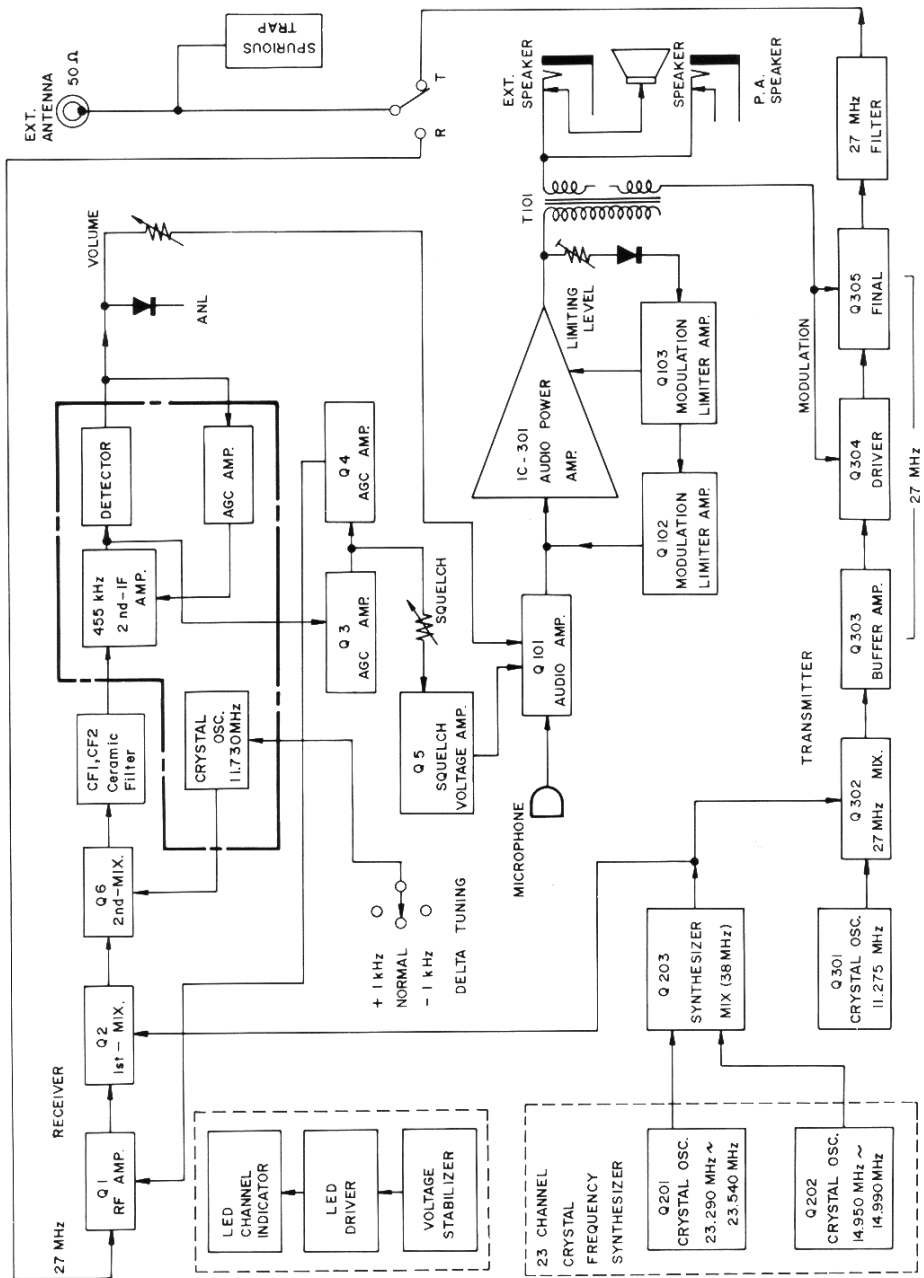
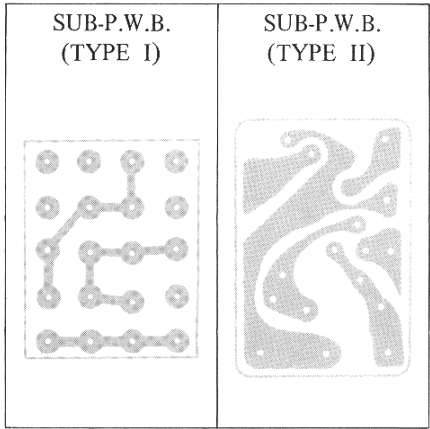
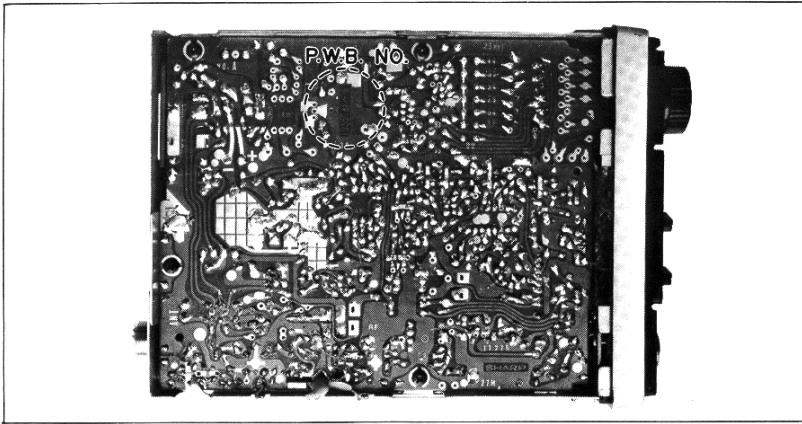


Figure 1 BLOCK DIAGRAM

GENERAL DESCRIPTION (Refer to Figure 1)

RECEIVER SECTION

An input signal sent from the antenna is applied to the 1st-mixer of transistor Q2 via the RF amplifier of transistor Q1, and an oscillator signal sent from transistor Q203 is also applied to the 1st-mixer of transistor Q2. In this stage the above-mentioned input signal is converted to 1st-IF signal of 11.275 MHz.

The 1st-IF signal (11.275 MHz) is applied to the 2nd-mixer of transistor Q6 via the transformers T3 and T4 to be converted to 2nd-IF signal of 455 kHz. The 2nd-IF signal is applied to the pin ⑦ of IC-1 via the transformer T5 and ceramic filters CF1 and CF2. (The 2nd-IF signal is amplified between the pin ⑦ and pin ⑧ of IC-1 and it is also detected between the pin ⑫ and pin ⑪).

The detected output signal developed at the pin ⑪ of IC-1 is further applied to IC-301 consisting of drive circuit and power amplifier via audio amplifier of transistor Q101.

TRANSMITTER SECTION

The audio signal from the microphone is applied through the audio amplifier Q101 and the output IC-301 to the final stage Q305 and the drive stage Q304.

The carrier signal synthesized in the oscillator Q201, Q202, Q301 and mixer Q203, Q302 is supplied to the final amplifier Q305 where it is modulated with the audio signal and applied to the antenna for transmission.

SYNTHESIZER CRYSTAL COMBINATION TABLE

Frequency of Transmitter

A group + **B** group – 11.275 MHz

1st Local Oscillator Frequency of Receiver

A group + **B** group

2nd Local Oscillator Frequency of Receiver

Delta Tuning Center Frequency 11.730 MHz

Delta Tuning + Center Frequency + 1.0 kHz

Delta Tuning – Center Frequency – 1.0 kHz

Channel	A Group	B Group	A + B	A + B – 11.275 MHz
1	23.290 MHz	14.950(MHz)	38.240(MHz)	26.965(MHz)
2	"	14.960	38.250	26.975
3	"	14.970	38.260	26.985
4	"	14.990	38.280	27.005
5	23.340 MHz	14.950	38.290	27.015
6	"	14.960	38.300	27.025
7	"	14.970	38.310	27.035
8	"	14.990	38.330	27.055
9	23.390 MHz	14.950	38.340	27.065
10	"	14.960	38.350	27.075
11	"	14.970	38.360	27.085
12	"	14.990	38.380	27.105
13	23.440 MHz	14.950	38.390	27.115
14	"	14.960	38.400	27.125
15	"	14.970	38.410	27.135
16	"	14.990	38.430	27.155
17	23.490 MHz	14.950	38.440	27.165
18	"	14.960	38.450	27.175
19	"	14.970	38.460	27.185
20	"	14.990	38.480	27.205
21	23.540 MHz	14.950	38.490	27.215
22	"	14.960	38.500	27.225
23	"	14.990	38.530	27.255

ALIGNMENT

EQUIPMENT REQUIRED

Signal Generator:	400kHz to 500kHz and 25MHz to 30MHz band 1000Hz mod. AM
DC Milliammeter:	0 to 500mA DC with π -network, RF filter
Audio Outputmeter:	0 to 5000mW, with 8 ohm dummy load
RF V.T.V.M.:	0 to 100MHz, 0 to 800mV
RF Outputmeter:	0 to 5W at 27MHz, 50 ohm
DC Voltmeter:	0 to 3/15V DC
Synchroscope:	0 to 30MHz
Audio Signal Generator:	1kHz (sine wave)
AC V.T.V.M.:	0 to 100mV (1kHz)
Frequency Counter:	0 to 40MHz
Field Strength Meter:	25MHz to 30MHz band, 52MHz to 56MHz band, 79MHz to 83MHz band

RECEIVER ALIGNMENT

Should it become necessary at any time to check the receiver alignment of this set proceed as follows:

- 1) Connect a 50 ohm signal generator to the external antenna socket.
 - 2) The power supply should be 13.8V DC.
1. Synthesizer Alignment
 - 1) Connect the frequency counter to test point 1 (TP1) through the capacitor 5PF.
 - 2) Adjust the channel selector switch of the set to channel 3.
 - 3) Adjust the oscillator coil T201 so that the frequency counter reads 14.970MHz. At this time stop 23MHz oscillation by short-circuiting the secondary side of 23MHz oscillator coil L201.
 - 4) Next, set the channel selector switch to channel 13.
 - 5) Adjust the oscillator coil L201 so that the frequency counter reads 23.440MHz. At this time stop 14MHz oscillation by short-circuiting the secondary side of 14MHz oscillator coil T201.
 - 6) Disconnect the frequency counter from TP1 after completion of adjustment.
 - 7) Connect the RF V.T.V.M. and frequency counter to test point 2 (TP2).
 - 8) Adjust the 38MHz filter coil T202 so that RF voltage reaches its maximum (550 to 700mV).
 2. Second Local Oscillator Alignment
 - 1) Connect the frequency counter to the test point 4 (TP4) through the 5PF capacitor.
 - 2) Adjust the second oscillator coil (T6) so that the frequency on TP4 is just 11.730MHz (150 ~ 250mV).
 3. First IF and Second IF Alignment
 - 1) Connect the audio output meter across the speaker voice coil lugs.
 - 2) Set the signal generator to 11.275MHz modulated 30% at 1000Hz, and connect it to the base of Q2 1st mixer transistor through the dummy (0.01MFD).
 - 3) The ground lead of the generator should be connected to the ground of external antenna socket.
 - 4) Adjust the 1st IF transformer T4 and T3 and 2nd IF transformer T5 for maximum indication on the audio output meter.
 4. RF Alignment
 - 1) Connect the audio output meter across the speaker voice coil lugs.
 - 2) Set the signal generator to 27.105MHz, modulated 30% at 1000Hz, and connect it to the external antenna socket.
 - 3) Set the channel selector switch to the position CHANNEL 12.
 - 4) Adjust RF coil T2 and antenna coil T1 for maximum indication on the audio output meter.
 5. After these adjustments repeat steps 2,3 and 4 until the best results are obtained.

TRANSMITTER ALIGNMENT

Should it become necessary at any time to check the transmitter alignment of this set, proceed as follows:

- 1) Connect DC milliammeter through RF filter (27MHz) to test point (A) and (B).
 - 2) The power supply should be 13.8V DC.
 - 3) Connect a 50 ohm RF wattmeter to the external antenna socket.
 - 4) Before adjusting the surface of core should be identical with the top of the bobbin.
1. Oscillator (11.275MHz) Alignment
 - 1) Connect the frequency counter to the test point 2 (TP2) through the 5PF capacitor.
 - 2) Adjust the 11.275MHz oscillator coil T301 so that the frequency on the TP2 is just 11.275MHz. (0.8 ~ 1.5V) (then the channel selector switch is blank position.)
 - 3) After adjustment, leave frequency counter and set the channel selector switch "13" position.
 2. Mixer Alignment

Adjust the 27MHz filter coil (T302) so that the driver current is at maximum.
 3. Buffer Amplifier Alignment

Adjust the buffer coil (T303) so that the driver current is at maximum.
 4. Driver Alignment

Adjust the driver coil (T304) so that the driver current is at the dip point.
 5. Matching Alignment

Adjust the matching coil (L302) so that the collector current should be 370mA.
 6. π -Filter Alignment

Adjust the π -filter coil (L303) to obtain the maximum RF output.
 7. After these adjustments repeat steps 3, 4, 5 and 6 until the best results are obtained.
 8. Trap Coil Alignment
 - 1) Set the field strength meter to about 54MHz, and connect it to the external antenna socket through the dummy.
 - 2) Adjust the trap coil L305 so that the 2nd harmonic spurious response (54MHz) is at minimum.
 - 3) Set the field strength meter to about 81MHz, and connect it to the external antenna socket through the dummy.
 - 4) Adjust the trap coil L304 so that the 3rd harmonic spurious response (81MHz) is at minimum.
 9. Modulation Alignment
 - 1) Connect a dummy resistor (50 ohm, 5W) across the external antenna socket.
 - 2) Connect a loop (1 ~ 2 turn) across the synchroscope and allow the loop to come near the dummy resistor.
 - 3) Connect the audio signal generator (1000Hz, 6mV) to the microphone socket.
 - 4) Depress the PRESS-TO-TALK switch on the microphone and adjust the variable resistor (R112) so that the wave form on the synchroscope becomes as illustrated in Figure ②.

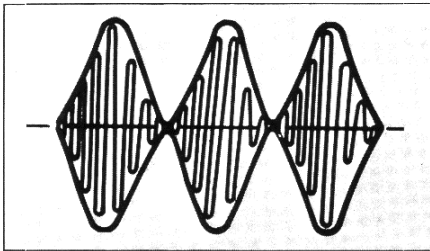


Figure ②

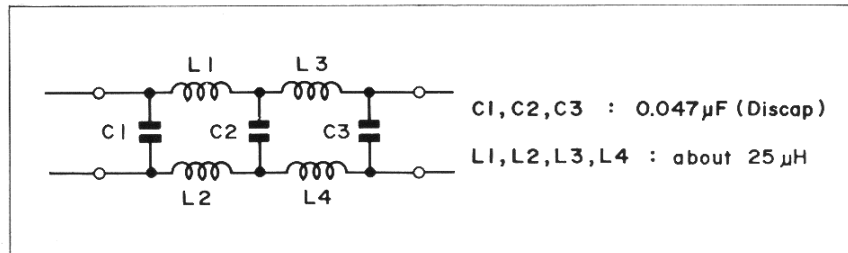


Figure 3 RF FILTER

SIGNAL/RF POWER METER ADJUSTMENT

1. Signal meter
 - 1) Adjust the channel selector switch of the set to channel 13.
 - 2) Connect the signal generator to external antenna socket directly.
 - 3) Adjust the attenuator of signal generator to approx. 0dB, and oscillation frequency of signal generator to 27.115MHz for tuning to frequency of the set. Next, adjust the attenuator of signal generator to 40dB. In this case rotate volume control counter-clockwise until sound volume reaches appropriate level, if AF output is large.
 - 4) Adjust variable resistor (R19) so that the meter reads S9.
2. RF Power Meter
 - 1) Connect the RF wattmeter (5W, 50 ohms) to external antenna socket.
 - 2) Depress the PRESS-TO-TALK switch of microphone to allow transmission, and make sure transmitted power reaches 3 watts or so.
 - 3) Adjust variable resistor (R27) so that the meter reads 3 in RF graduation.

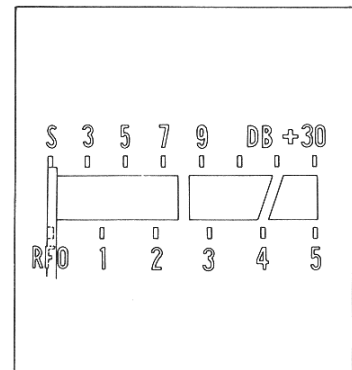
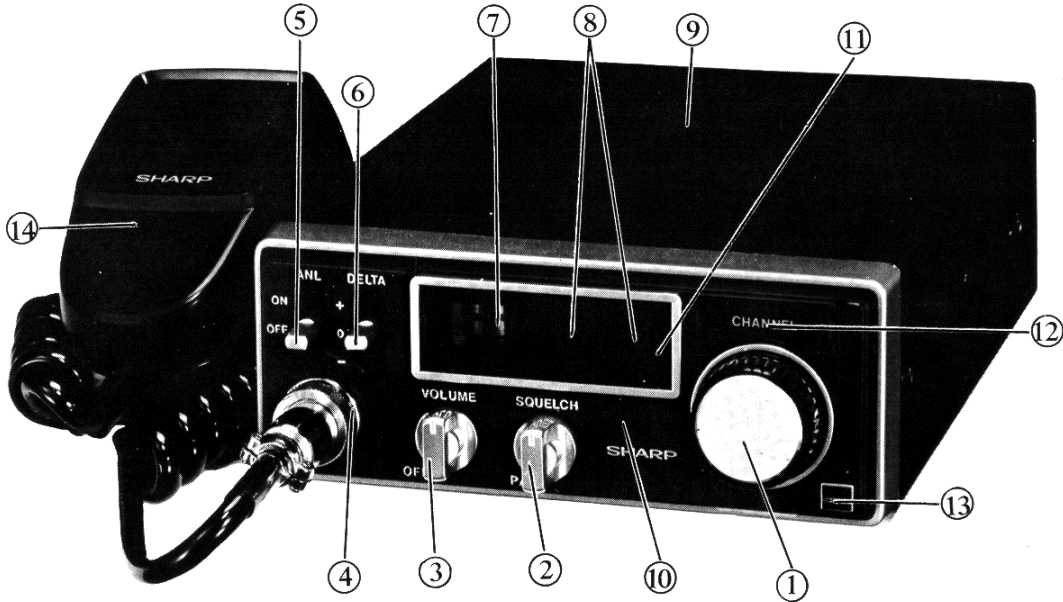


Figure 4 S/RF POWER METER (ME601)

FRONT PARTS LAYOUT



- | | |
|-------------------------------------------------|-------------------------------------------------------|
| ① Channel Selector Knob (JKNBN0299AFSA) | ⑨ Cabinet (GCAB-3016AFSA) |
| ② Squelch/P.A. Switch knob (JKNBN0300AFSA) | ⑩ Front Panel (GWAKP1057AFSA) |
| ③ Off-On/Volume Knob (JKNBN0300AFSA) | ⑪ Decoration Plate, Channel Indicator (HDECQ0051AFSA) |
| ④ Microphone Socket (QSOCZ2456AFZZ) | ⑫ Channel Indication Metal (HINDM1079AFSA) |
| ⑤ A.N.L. Switch Knob (JKNBM0219AFSA) | ⑬ "SHARP" Emblem (HINDM1080AFSA) |
| ⑥ Delta Fine Tuning Switch Knob (JKNBM0219AFSA) | ⑭ Microphone Assembly (RMICD0205AFZZ) |
| ⑦ S/R/F Power Meter (RMTRE0057AFZZ) | |
| ⑧ Channel Indicator, LED (VHPGL-8R04/-1) | |

Figure 5 FRONT PARTS LAYOUT

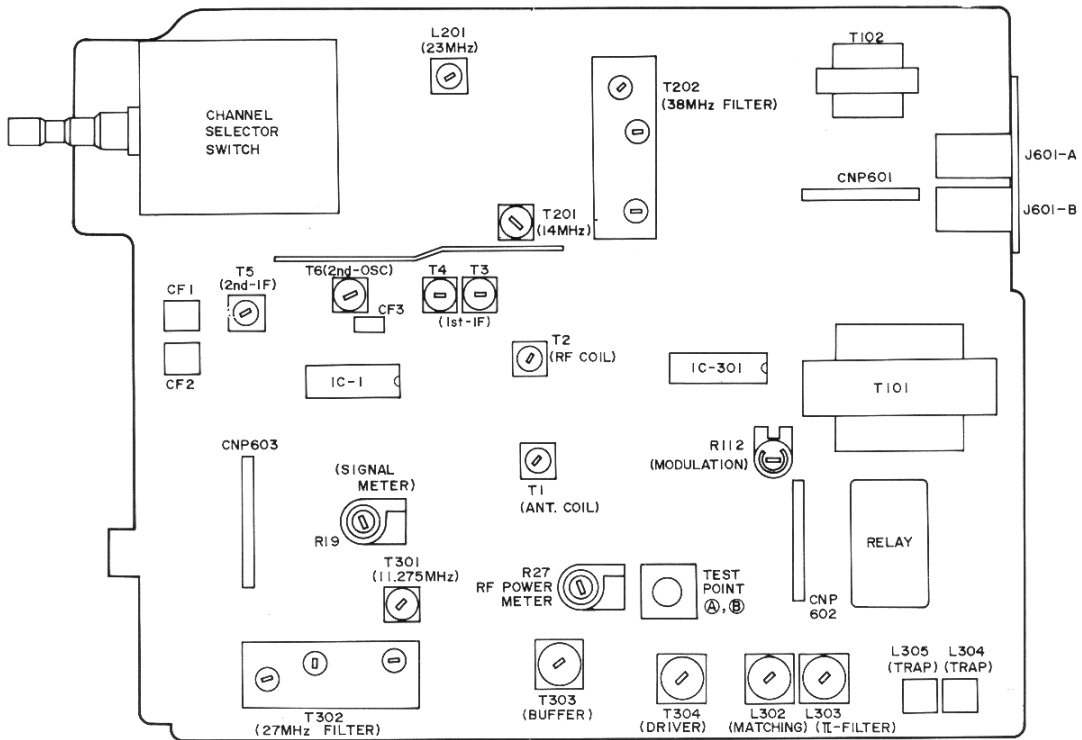
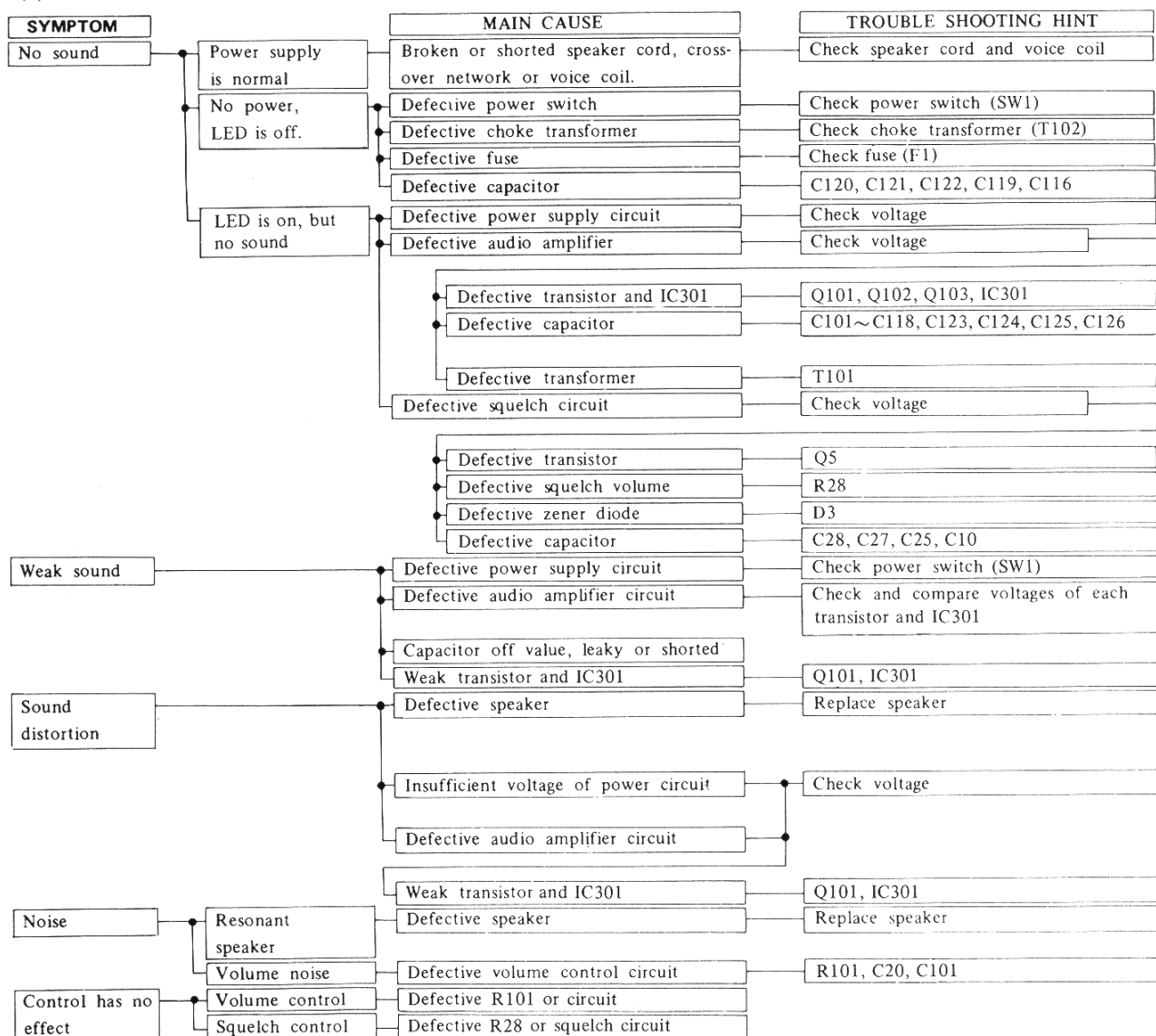


Figure 6 ALIGNMENT POINTS (P.W.B. NO. F0552AF)

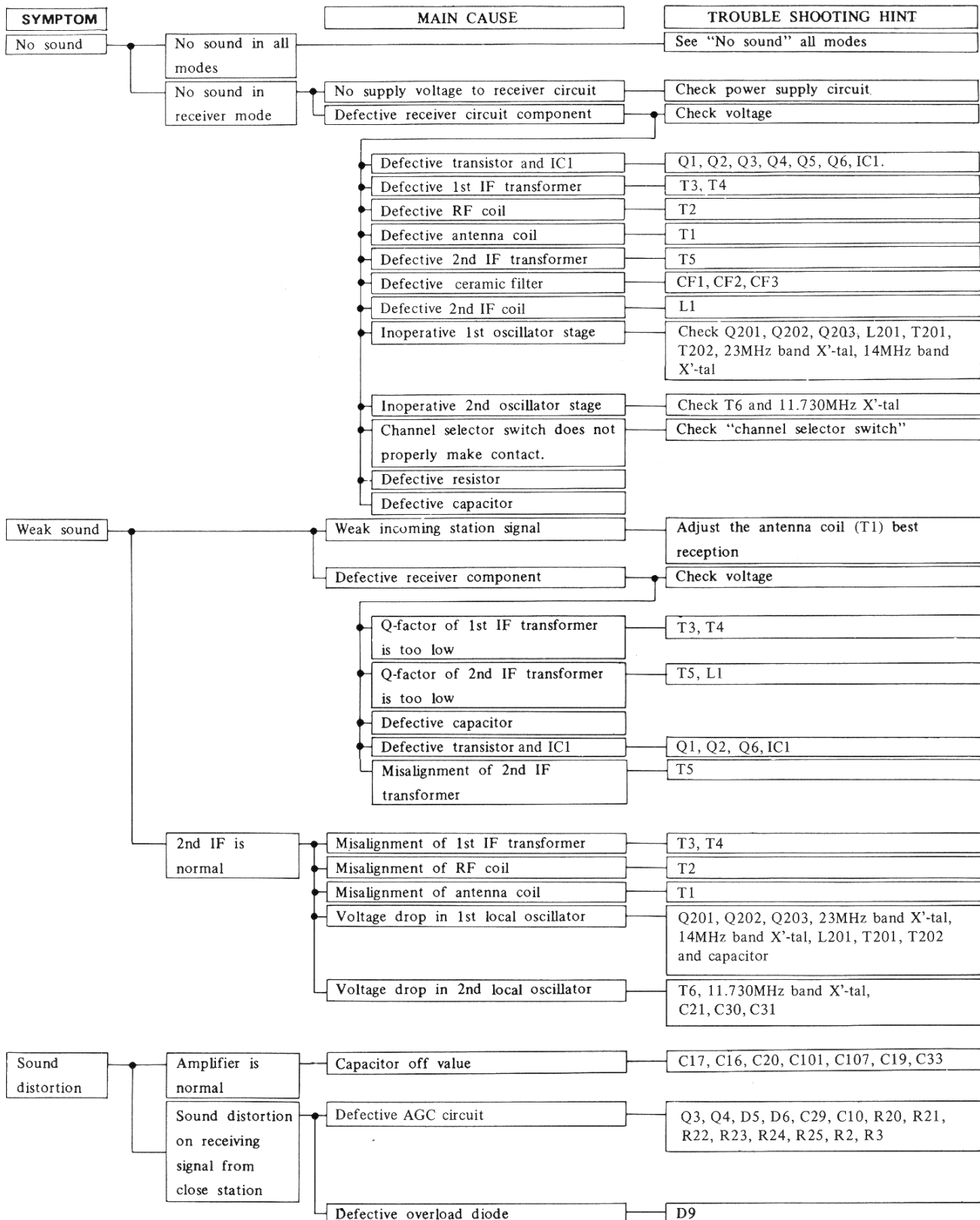
TROUBLE SHOOTING GUIDE (1)

(1) ALL OPERATIONAL MODES



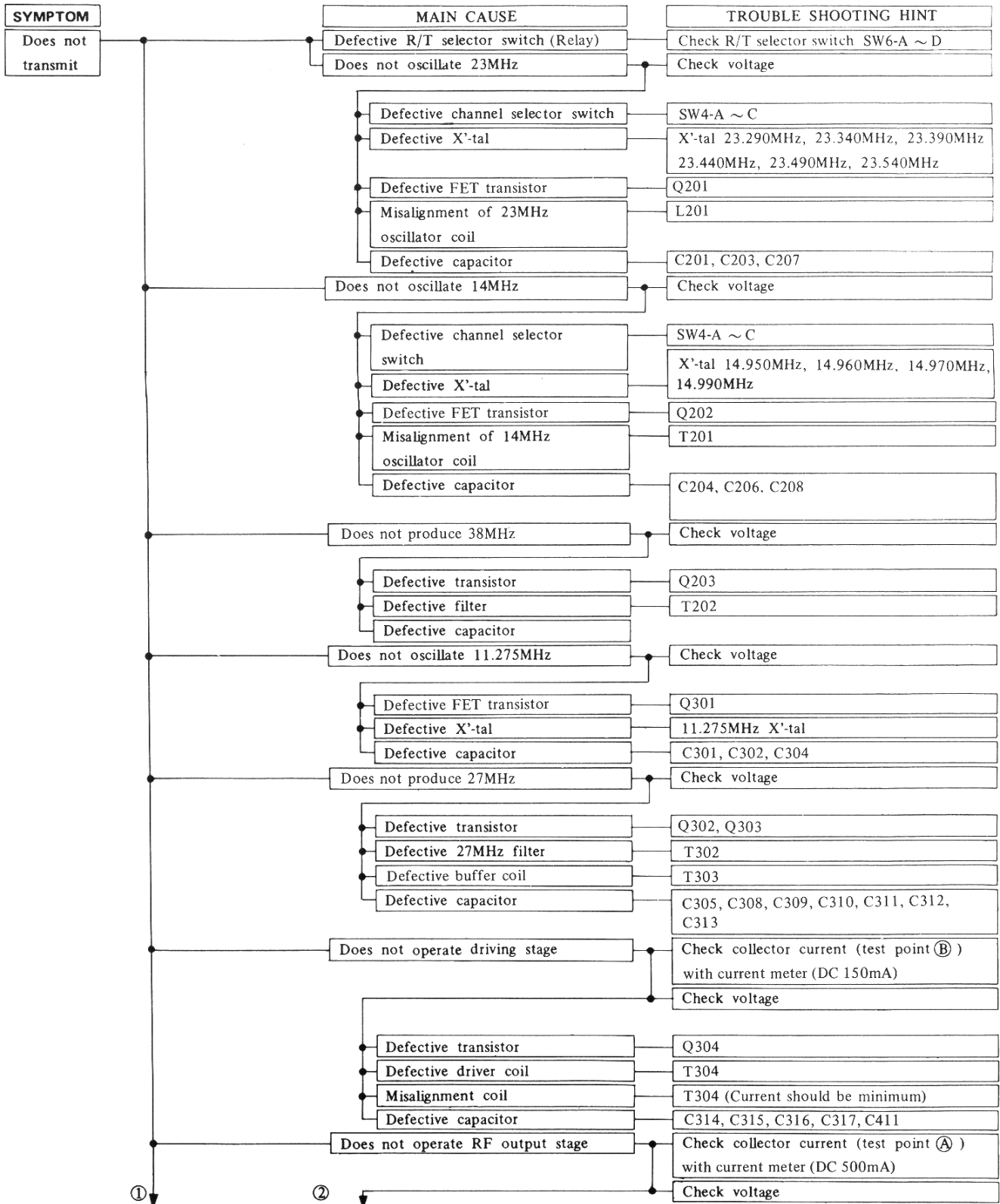
TROUBLE SHOOTING GUIDE (2)

(2) RECEIVER SECTION

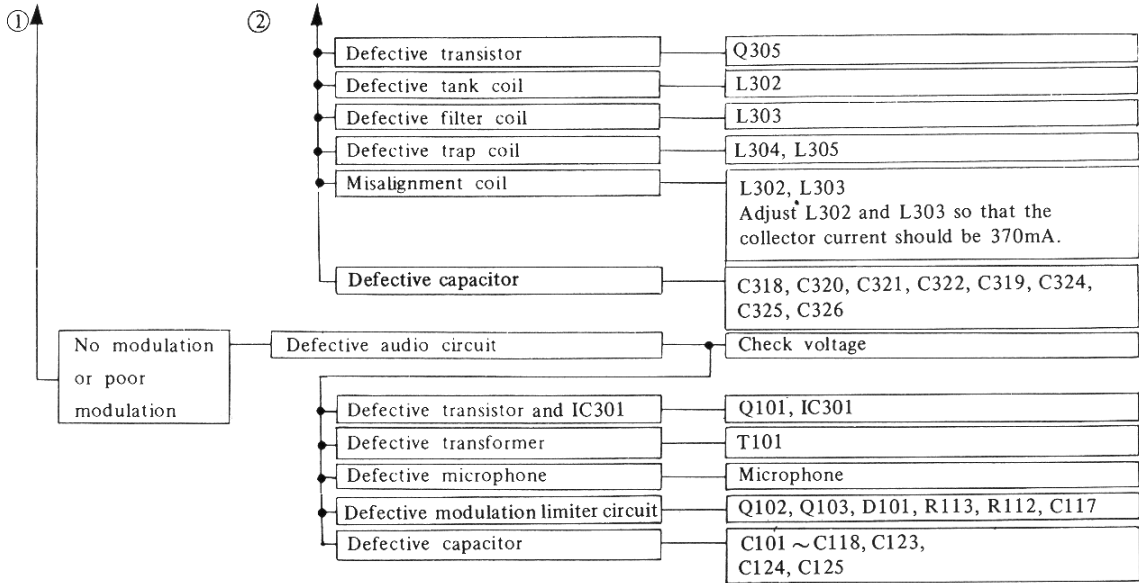


TROUBLE SHOOTING GUIDE (3)

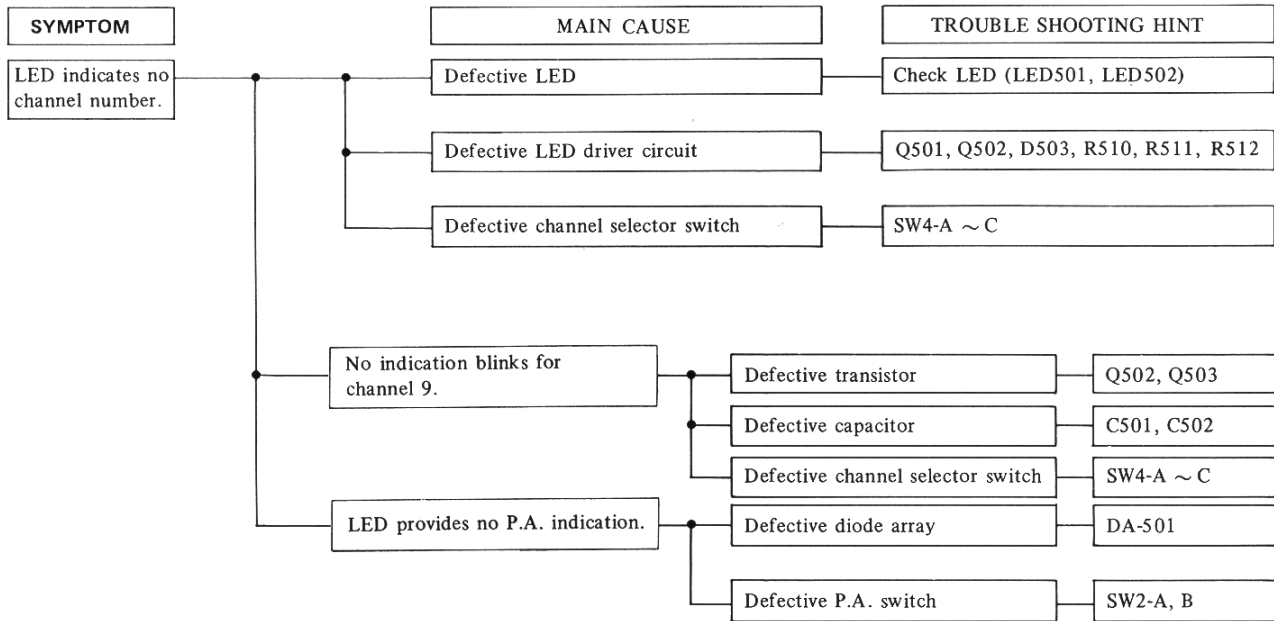
(3) TRANSMITTER SECTION



TROUBLE SHOOTING GUIDE (4)



(4) CHANNEL INDICATOR



Connection table of channel selector switch (SW4-C) for each channel.

3rd(SW4-C) CHANNEL	a	b	c	d	e	f	g	9	10	20
1		⊙	○							
2	⊙	⊙		○	○		⊙			
3	⊙	⊙	○	○			⊙			
4		⊙	○			⊙	⊙			
5	⊙		○	○		⊙	⊙			
6			○	○	○	⊙	⊙			
7	⊙	⊙	○							
8	⊙	⊙	○	○	○	⊙	⊙			
9	⊙	⊙	○			⊙	⊙	○		
10	⊙	⊙	○	○	○	⊙			○	
11		⊙	○							○
12	⊙	⊙		○	○		⊙			○
13	⊙	⊙	○	○			⊙			○
14		⊙	○			⊙	⊙			○
15	⊙		○	○		⊙	⊙			○
16			○	○	○	⊙	⊙			○
17	⊙	⊙	○							○
18	⊙	⊙	○	○	○	⊙	⊙			○
19	⊙	⊙	○			⊙	⊙			○
20	⊙	⊙	○	○	○	⊙				○
21		⊙	○							○
22	⊙	⊙		○	○		⊙			○
23	⊙	⊙	○	○		⊙				○
24										

NOTES:

1. Terminal marked circle connected with terminal C5.
2. Terminal marked double-circle connected with terminal C6.

QSW-R0125AFZZ

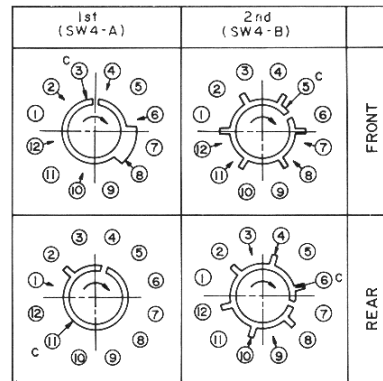
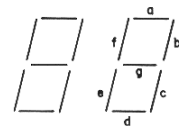
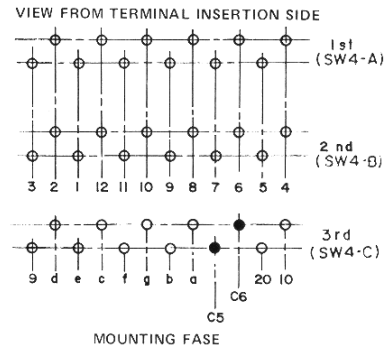
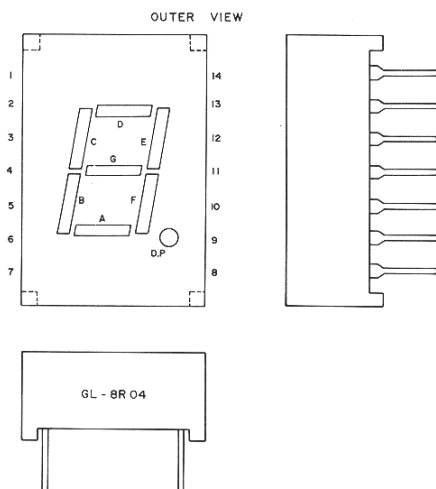


Figure 7 CHANNEL SELECTOR SWITCH

VHPGL-8R04/-1



Terminals Connection Diagram

PIN	FUNCTION	PIN	FUNCTION
1	Anode D	14	Cathode
2	Anode C	13	Anode E
3	Cathode	12	No Pin
4	No Pin	11	Anode G
5	No Pin	10	Anode F
6	No Pin	9	Anode D.P
7	Anode B	8	Anode A

Figure 8 CHANNEL INDICATOR (LED)

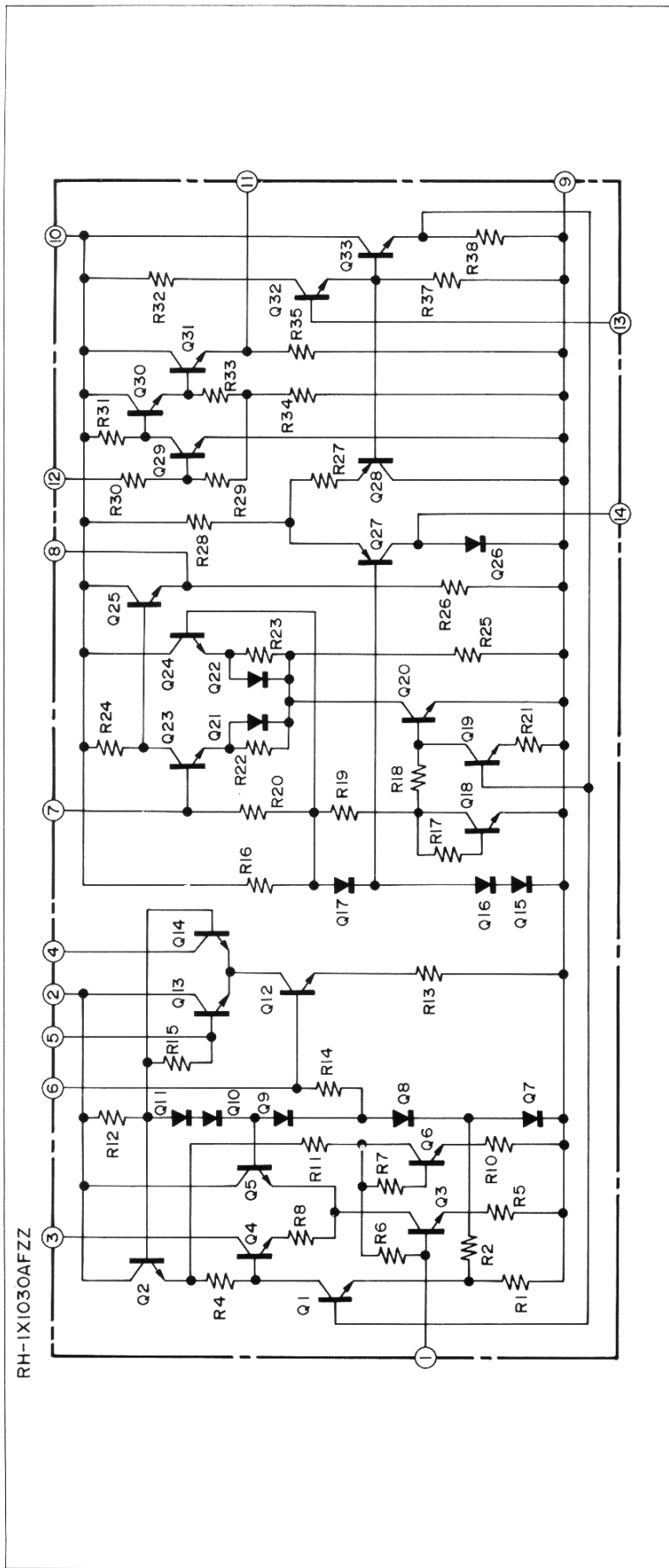


Figure 9 EQUIVALENT CIRCUIT OF IC1

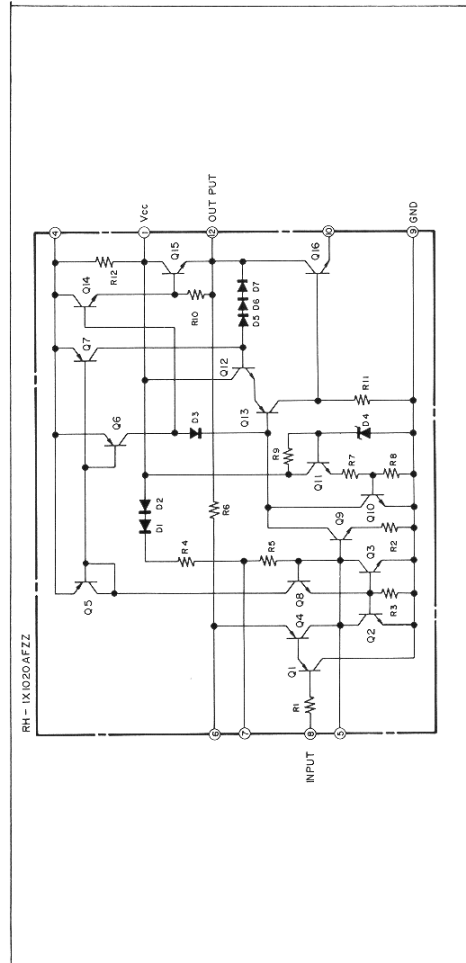


Figure 10 EQUIVALENT CIRCUIT OF IC301

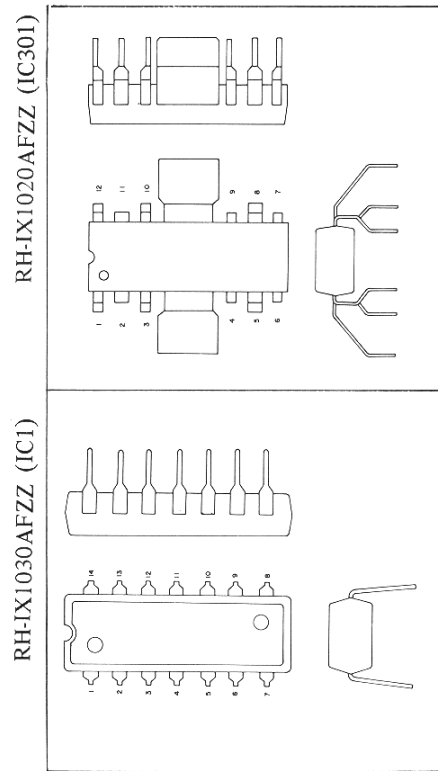


Figure 11 IC BASING

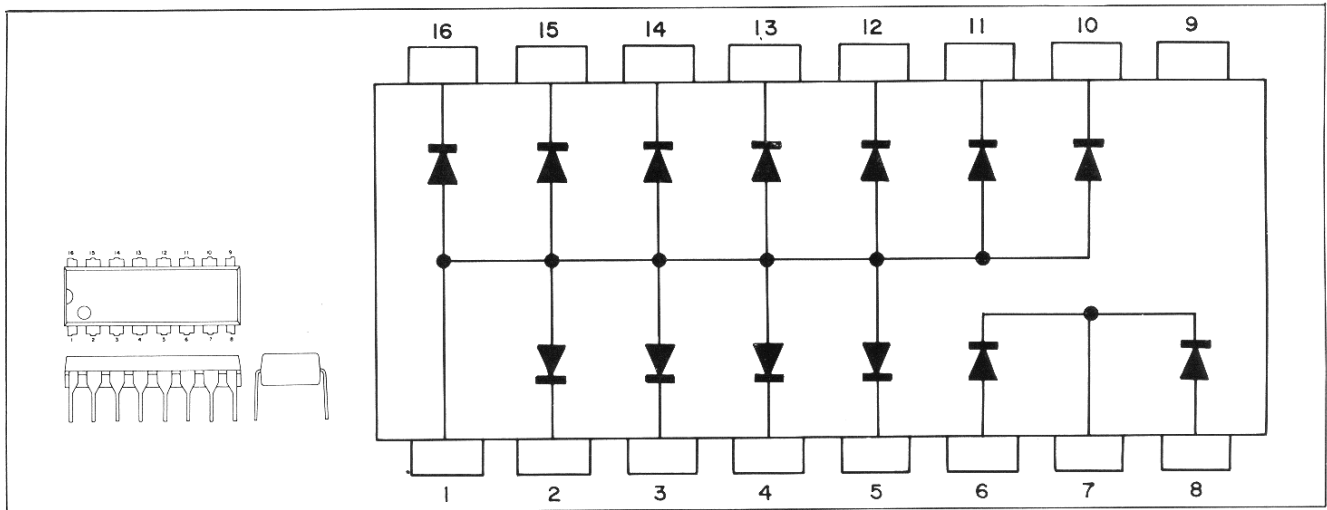


Figure 12 DIODE ARRAY (DA501)

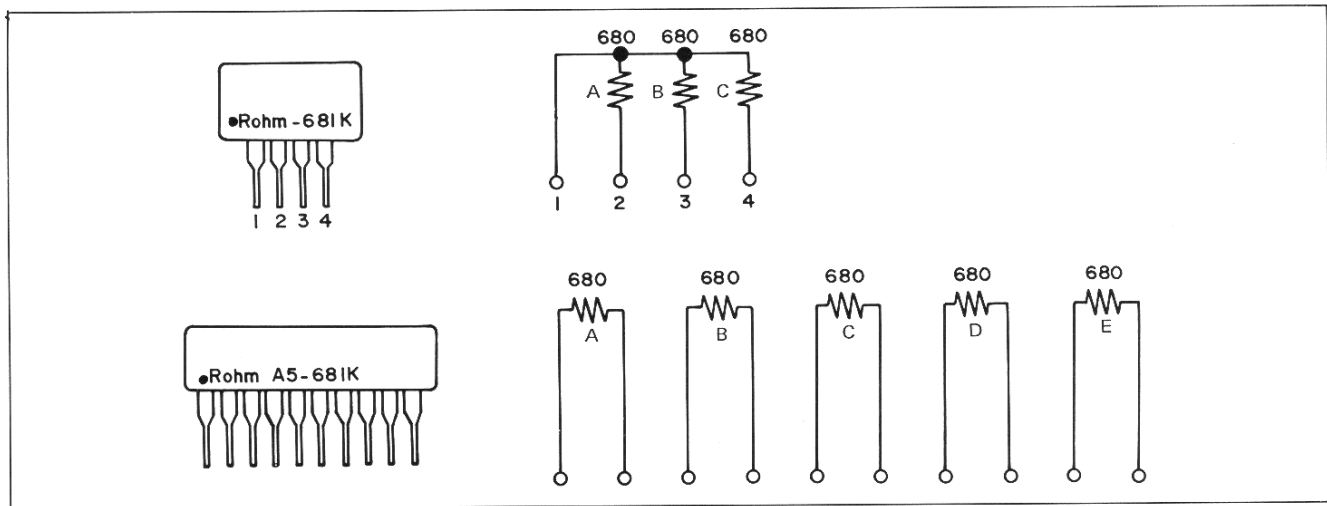


Figure 13 RESISTOR ARRAY

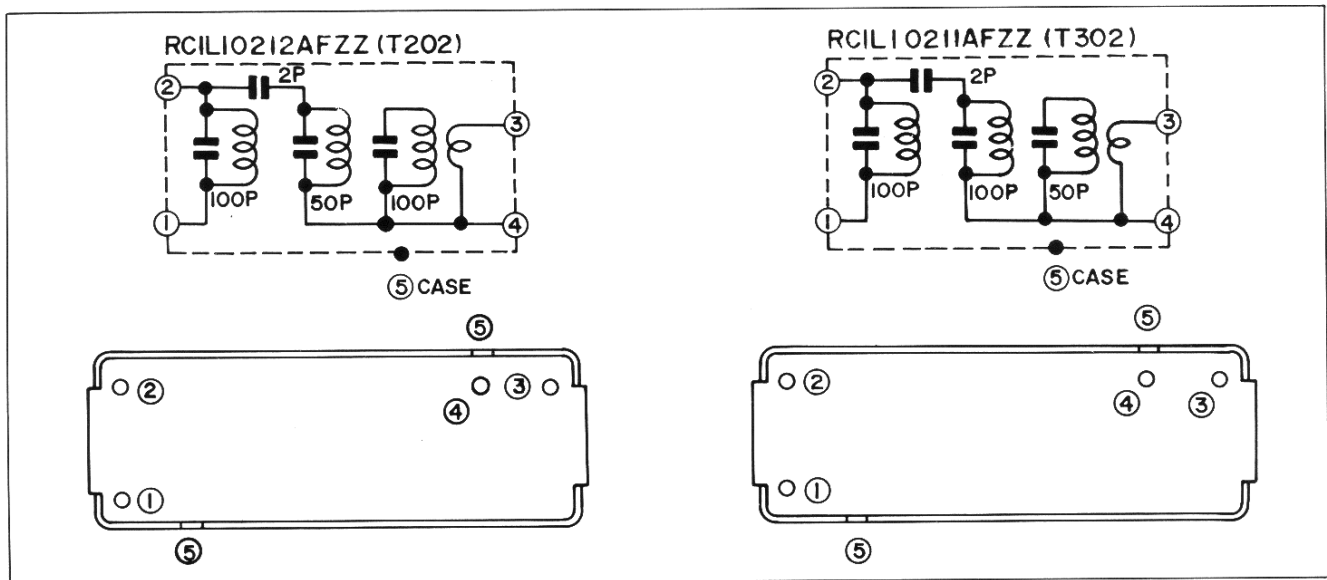
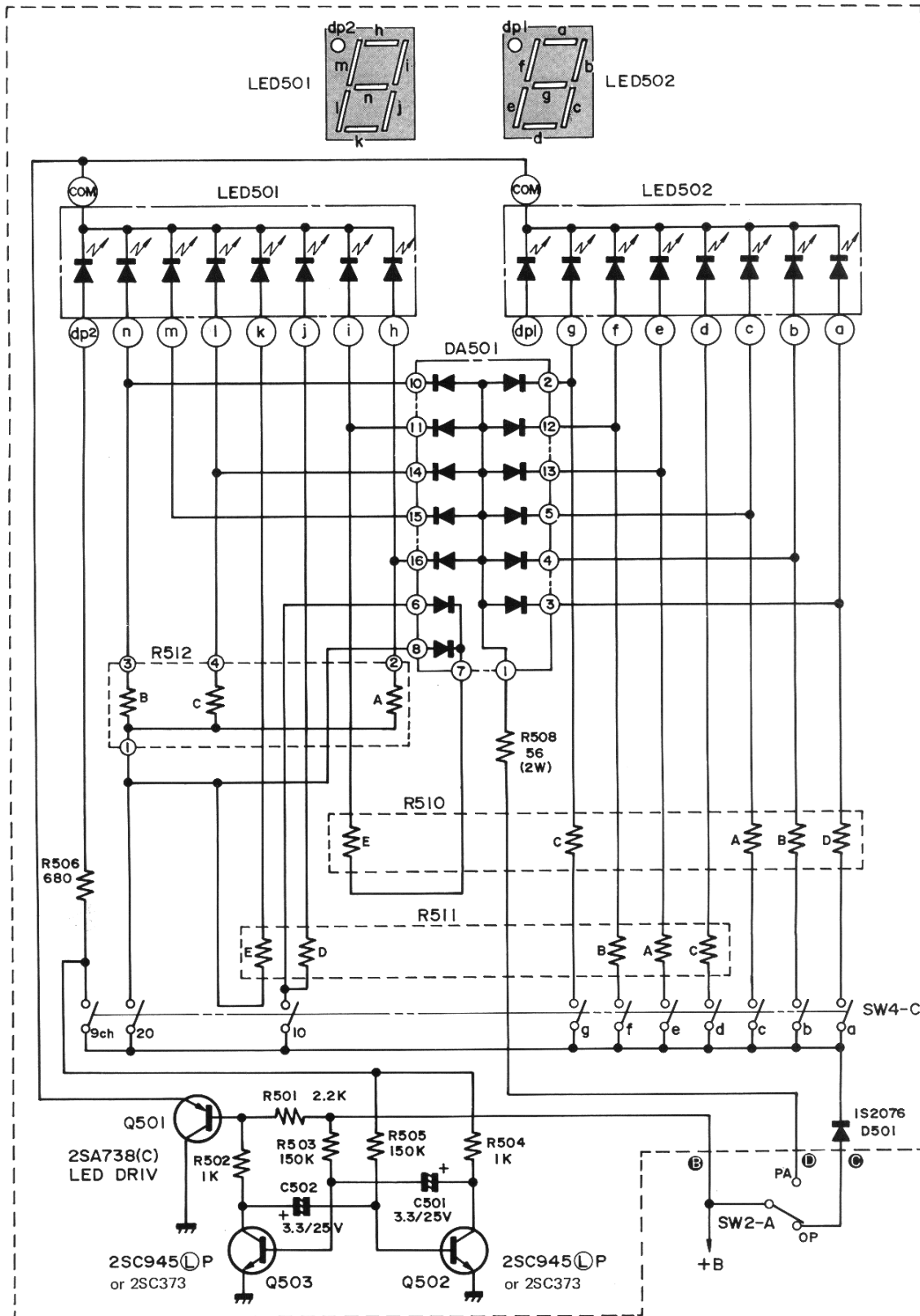


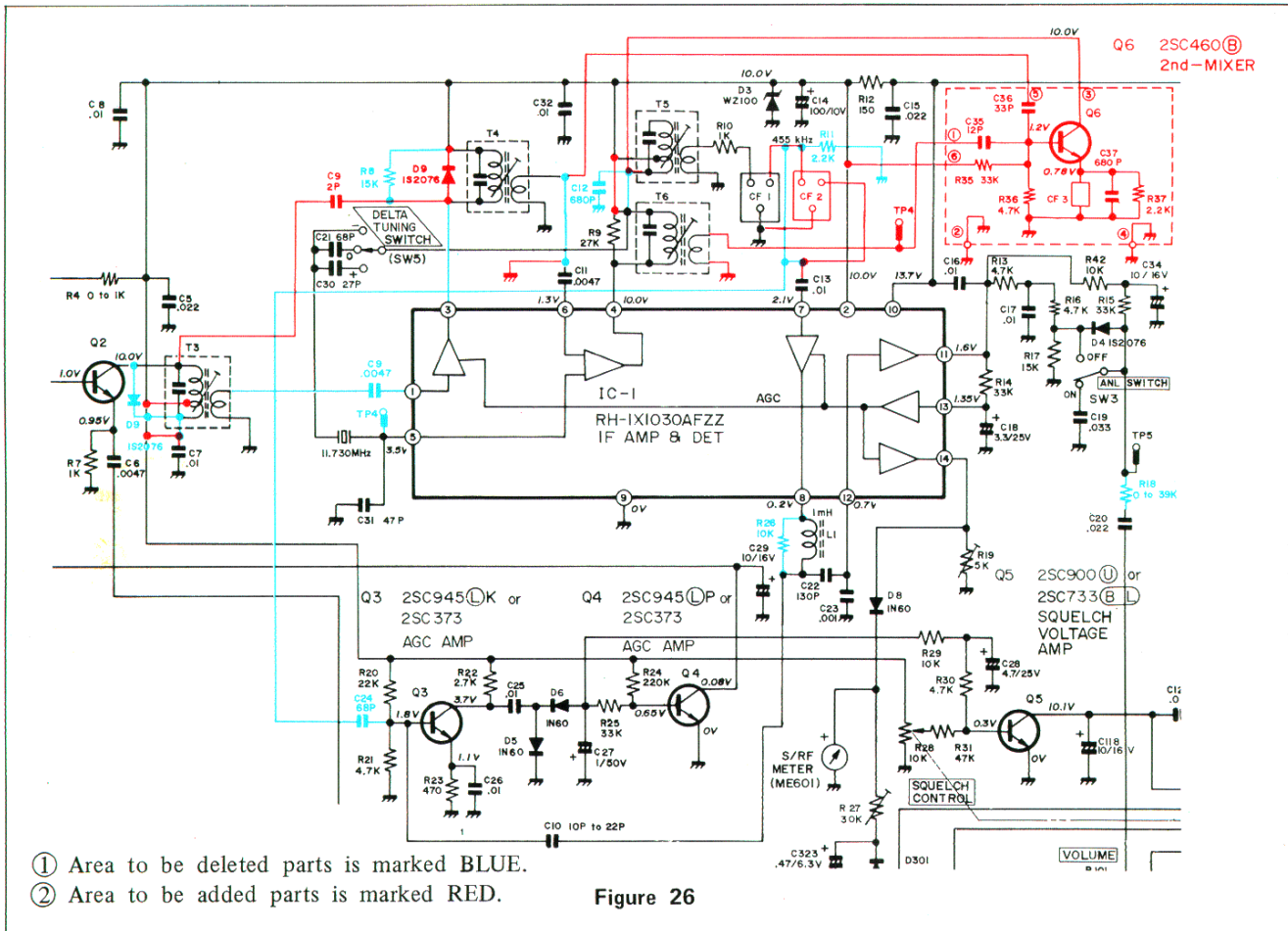
Figure 14 TRANSFORMERS (T202 and T302) BASING



(Specifications or wiring diagrams of this model are subject to change for the improvement without prior notice.)

Figure 17 CHANNEL INDICATOR (LED) CIRCUIT

If some customer requires the improvement concerning intermodulation (for example; cross talking, other channel interference, cross modulation, blocking appears, etc.), the following modification decreases that interference.



PARTS TO BE DELETED

REF. NO.	PART NO.
D9	VHD1S2076//-1
C9	VCKYPU1HB472M
C11	VCKYPU1HB472M
C12	VCCSPU1HL681J
C24	VCCSPU1HL680J
R8	VRD-SU2EY153K
R11	VRD-ST2EY222K
R18	VRD-ST2EY103K
R26	VRD-SU2EY103K
TP4 (Test Point)	QLUGP0105AGZZ

PARTS TO BE ADDED

REF. NO.	PART NO.	DESCRIPTION
	DUNTZ0258AF01	SUB-P.W.B. Assembly
	QPWBF0542AFZZ	Printed Wiring Board, SUB
Q6	VS2SC460-B/-1	Transistor, 2nd-Mixer (2SC460 (B))
CF-3	RFILA0001AFZZ	Ceramic Filter, 455kHz
C35	VCCSPU1HL120J	12PF, 50V, ±5%, Ceramic
C36	VCCSPU1HL330J	33PF, 50V, ±5%, Ceramic
C37	VCCSPU1HL681J	680PF, 50V, ±5%, Ceramic
R35	VRD-SU2EY333K	33K ohm, 1/4W, ±10%, Carbon
R36	VRD-SU2EY472K	4.7K ohm, 1/4W, ±10%, Carbon
R37	VRD-SU2EY222K	2.2K ohm, 1/4W, ±10%, Carbon
CF-2	RFILA0050AFZZ	Ceramic Filter, 2nd-IF, 455kHz
D9	VHD1S2076//-1	Diode, Overload
C9	VCCSPU1HL2R0C	2PF, 50V, ±0.25PF, Ceramic
C11	VCKYPU1HB472M	.0047MFD, 50V, ±20%, Ceramic
C128	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar

Ⓐ DELETING PARTS/PRINTED CIRCUIT PATTERN TO BE CUT

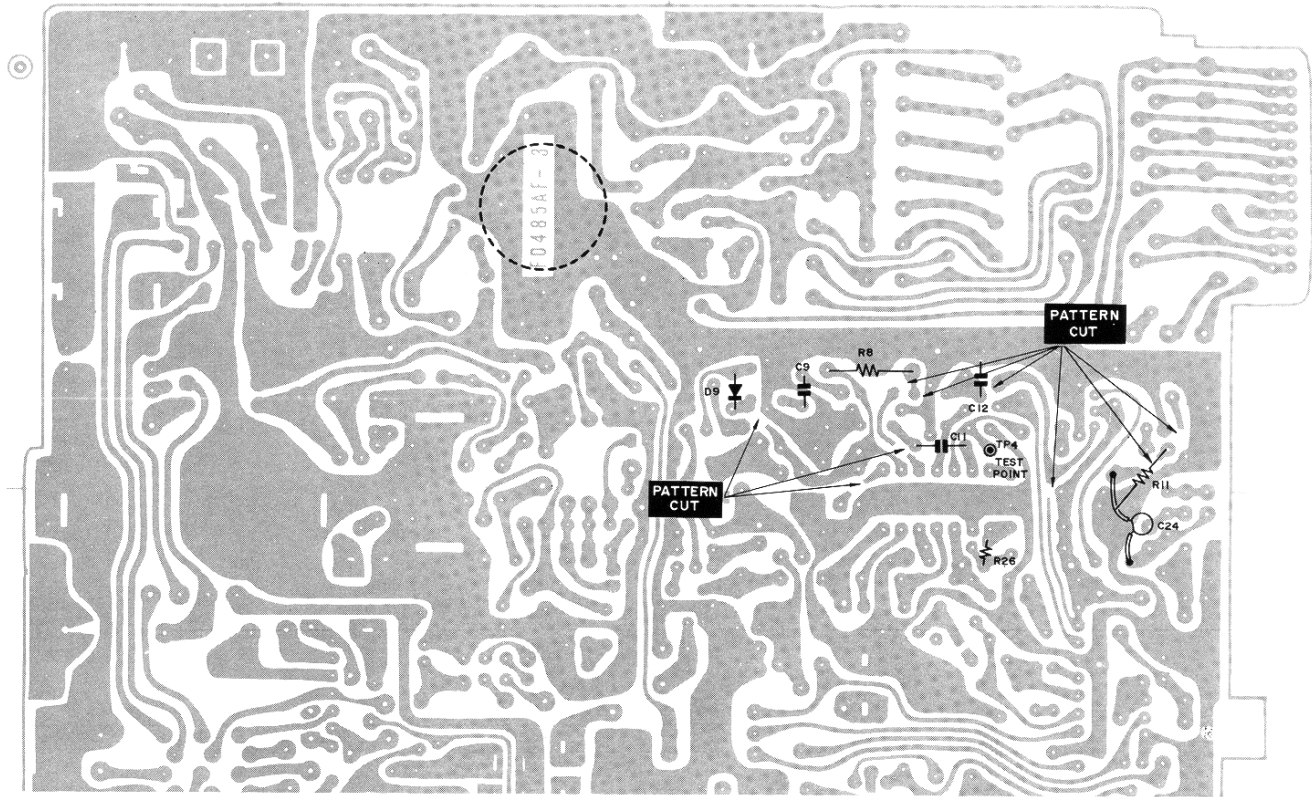


Figure 27

Ⓑ ADDING PARTS/CONNECTION ON P.W.B.

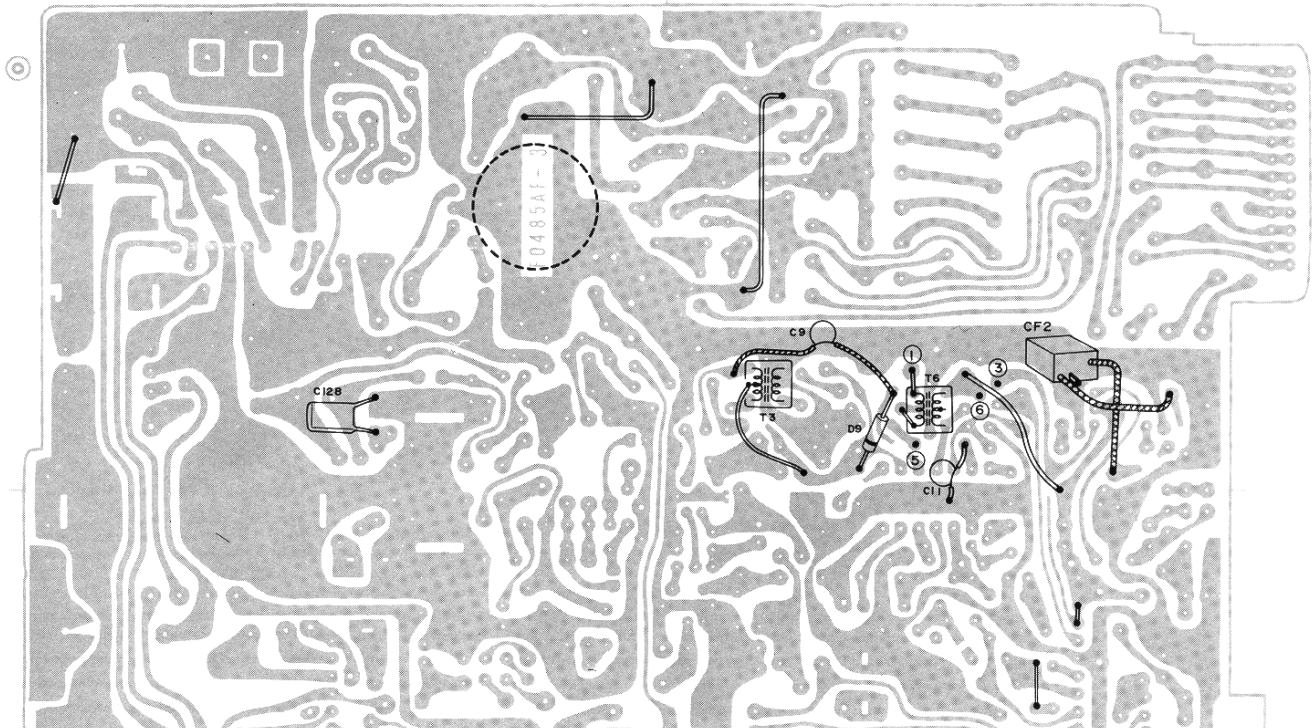


Figure 28

© CONNECTION OF SUB-P.W.B.

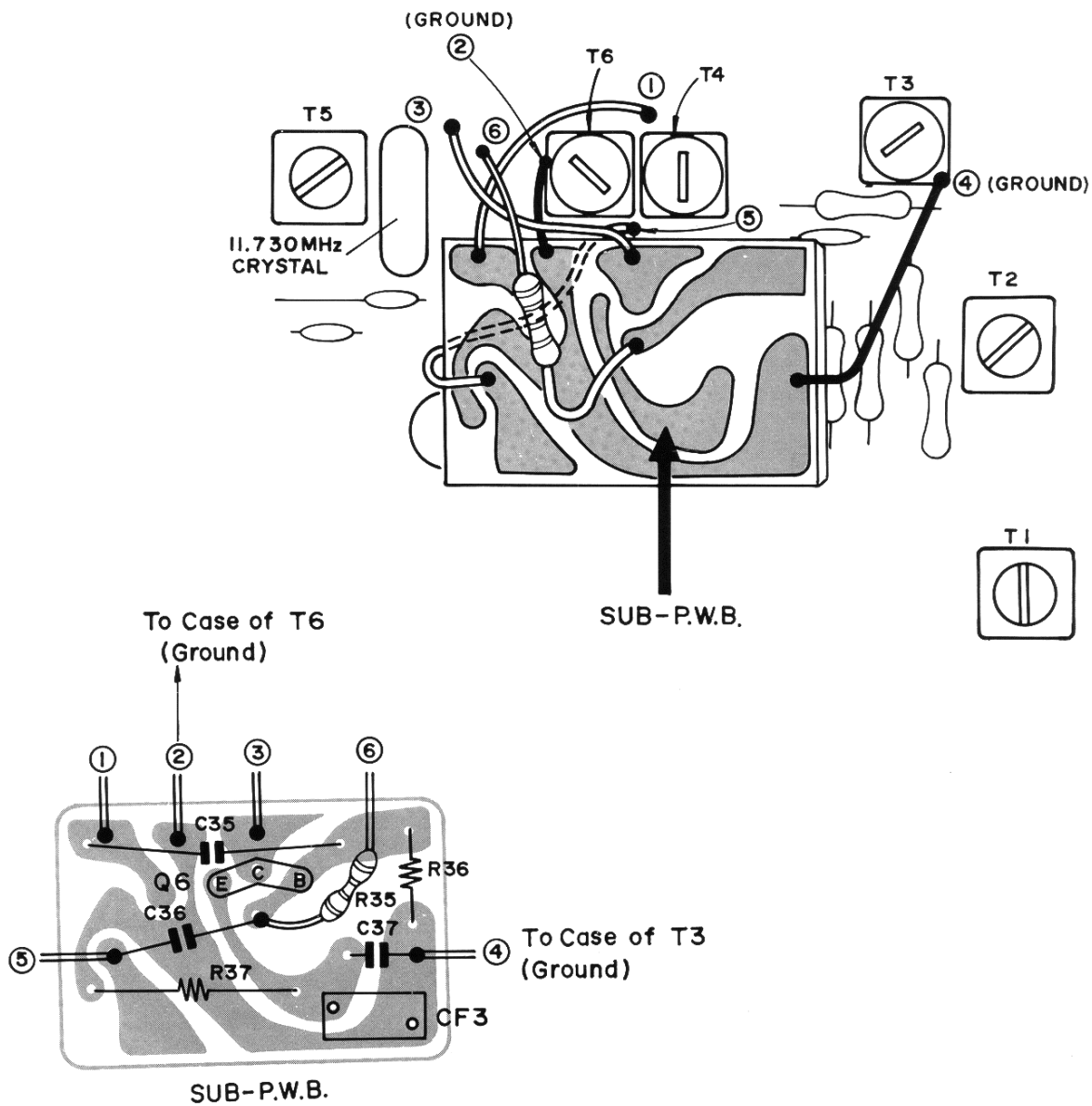


Figure 29

Ⓐ DELETING PARTS/PRINTED CIRCUIT PATTERN TO BE CUT

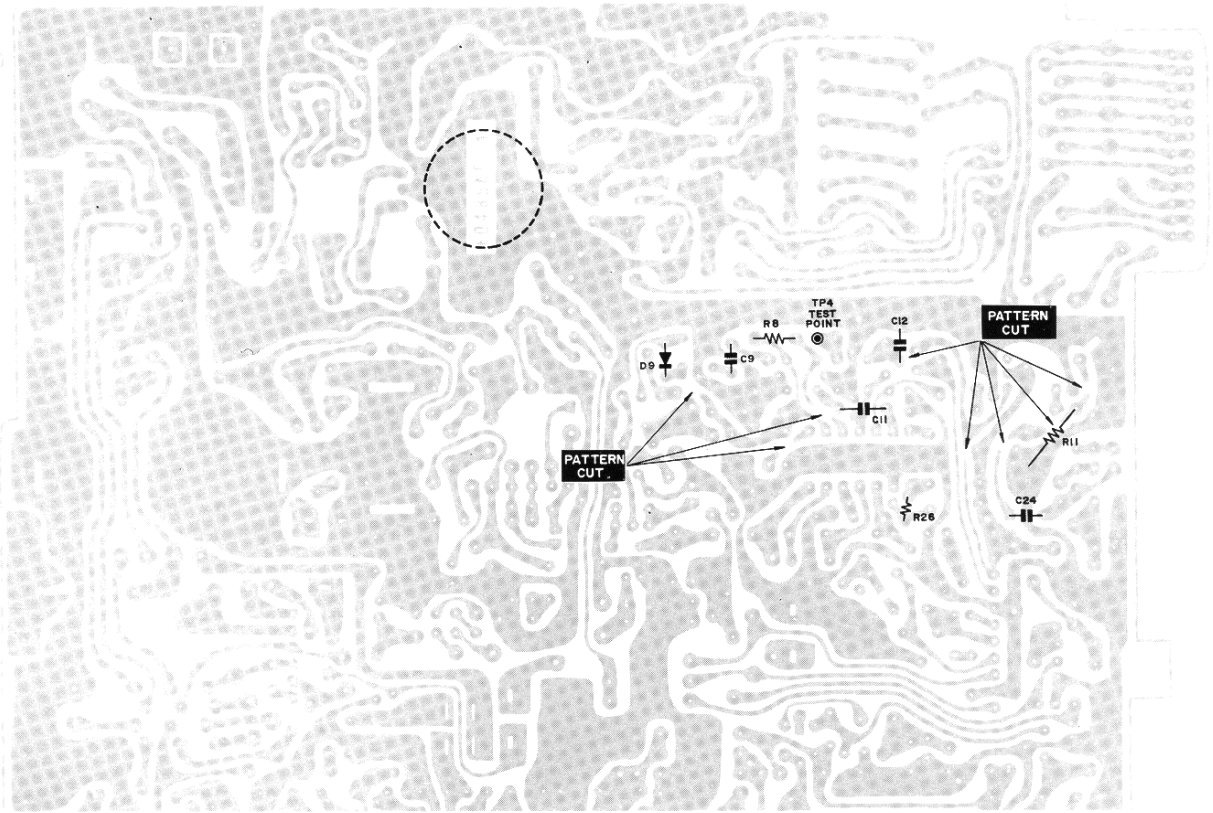


Figure 30

Ⓑ ADDING PARTS/CONNECTION ON P.W.B.

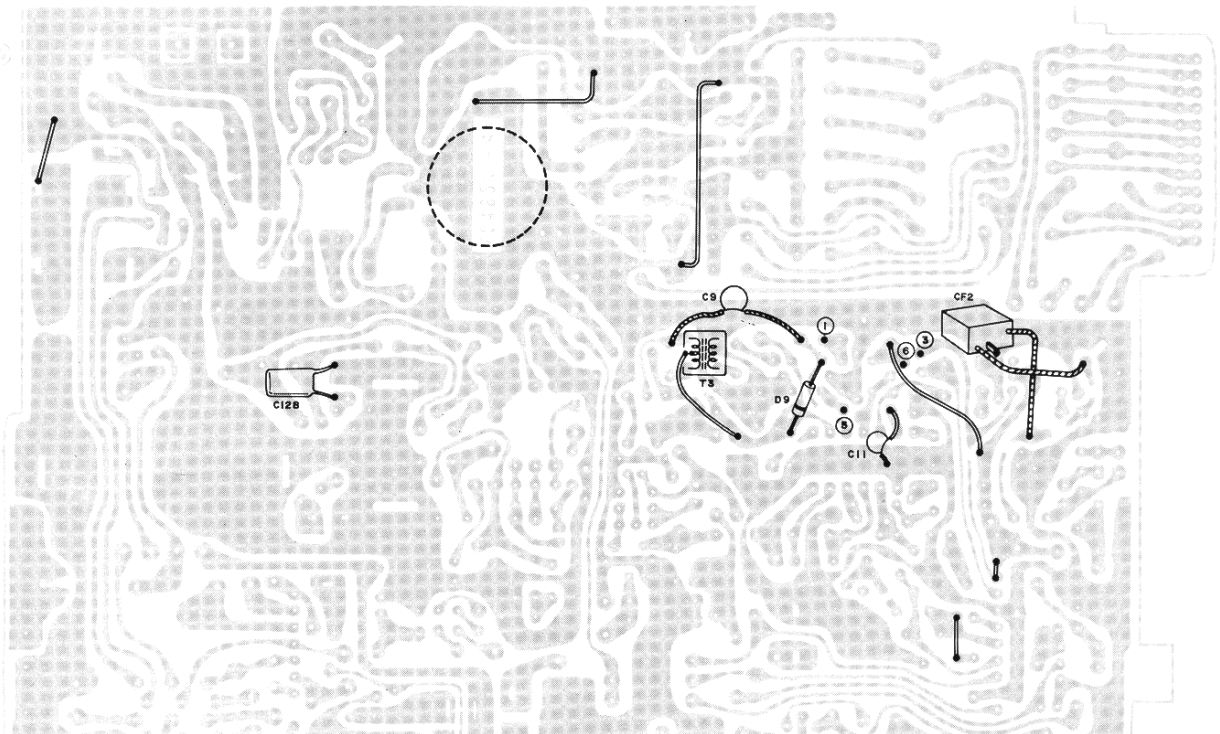


Figure 31

© CONNECTION OF SUB-P.W.B.

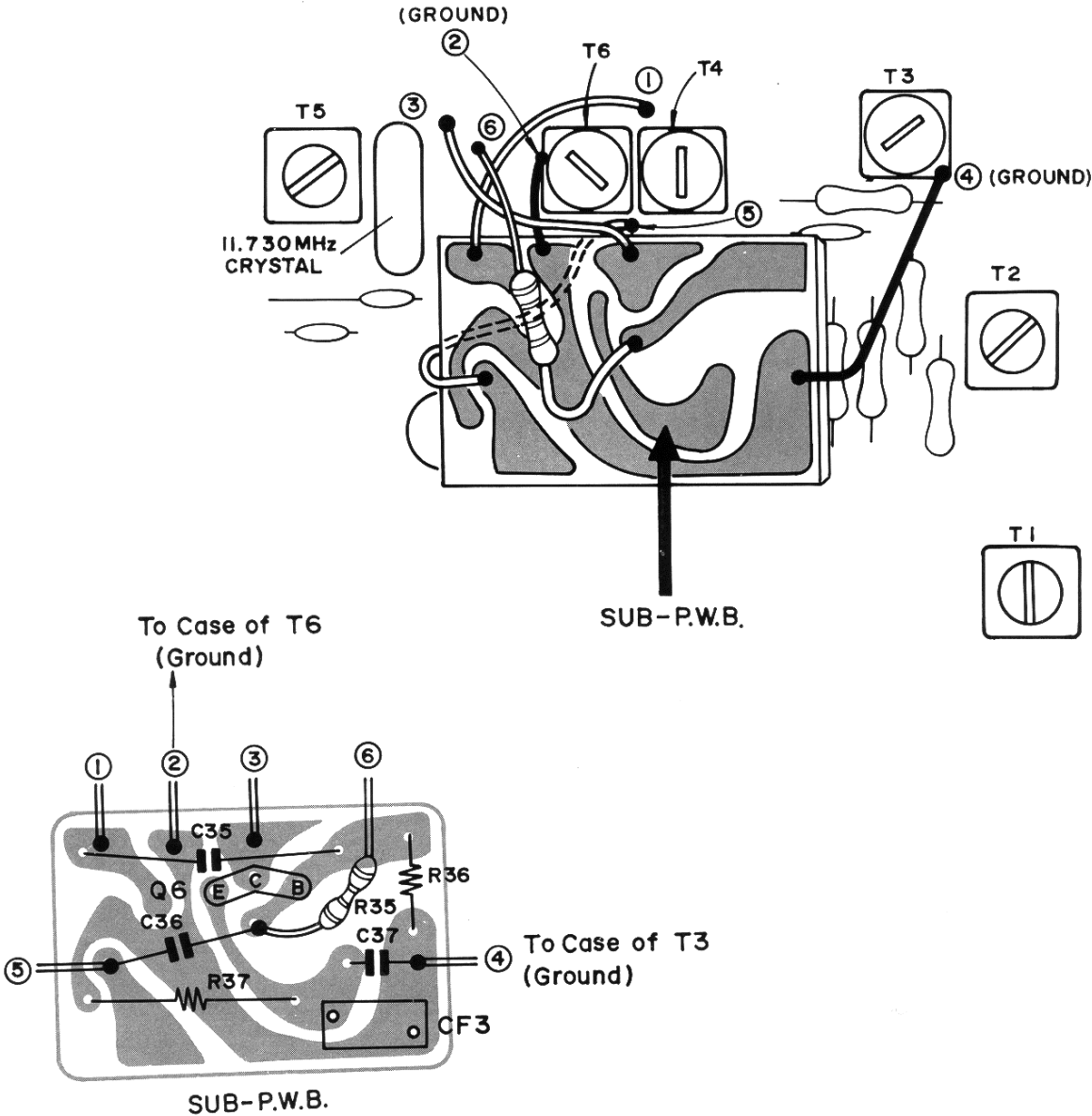


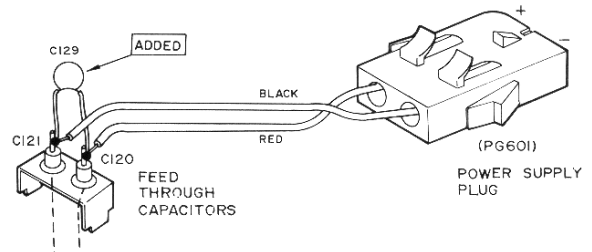
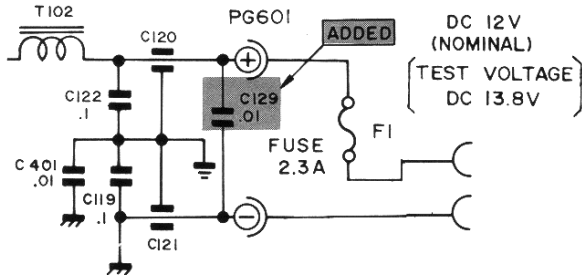
Figure 32

TECHNICAL INFORMATION

The improvement of ignition noise characteristics for CB units depending on Car Category, modification shall be made by change of circuit as follows.

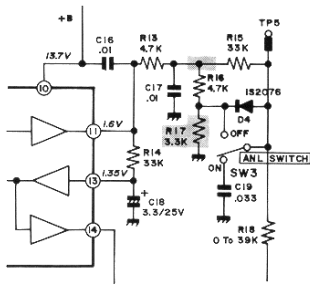
For P.W.B. NO. F0485AF-3 and -4

- (A) Addition of the capacitor C129 (VCKZPU1HF103Z) (for reduction of noise from power supply cable)

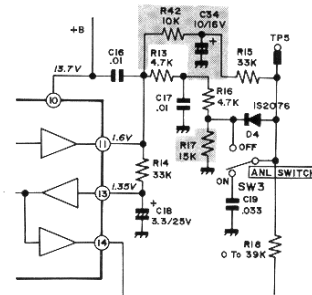


- (B) Change of the ANL circuit
(for reduction noises from Antenna)

ORIGINAL

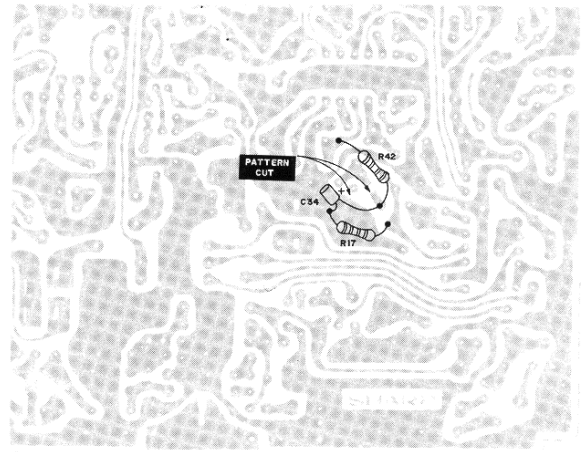


MODIFIED



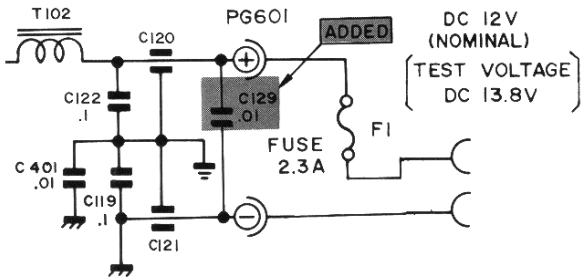
PARTS LIST

REF. NO.	PARTS TO BE DELETED	PARTS TO BE ADDED
	PART NO.	PART NO.
R17	VRD-SU2EY332K	VRD-ST2EY153K
R42	_____	VRD-ST2EY103K
C34	_____	VCEAAU1CW106Y

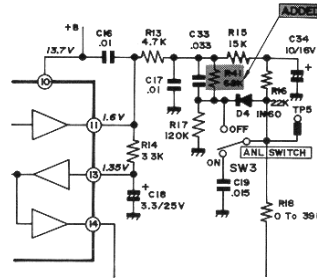


For P.W.B. NO. F0485AF-5 and F0552AF

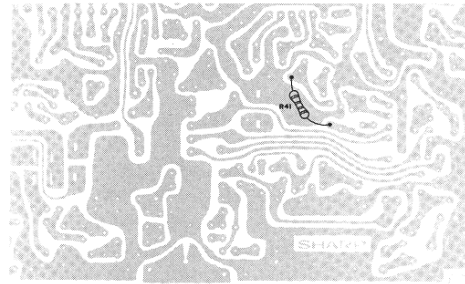
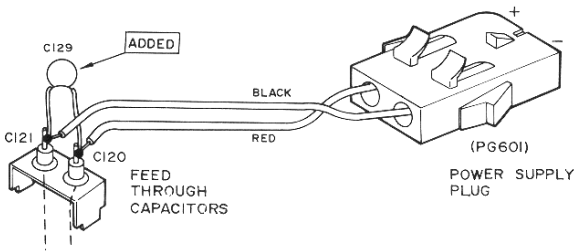
(A) Addition of the capacitor C129 (VCKZPU1HF103Z)
(for reduction of noise from power supply cable)



(B) Change of the ANL circuit
(for reduction noises from Antenna)

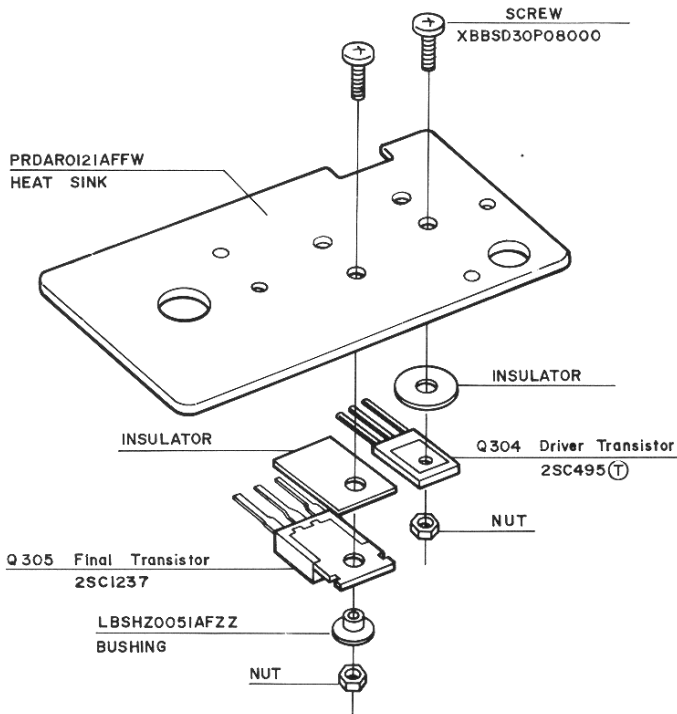


Addition of a resistor R41. (VRD-ST2EY683K)



HOW TO SET THE TRANSISTOR Q305

For P.W.B. NO. F0485AF-3, -4 and -5



For P.W.B. NO. F0552AF

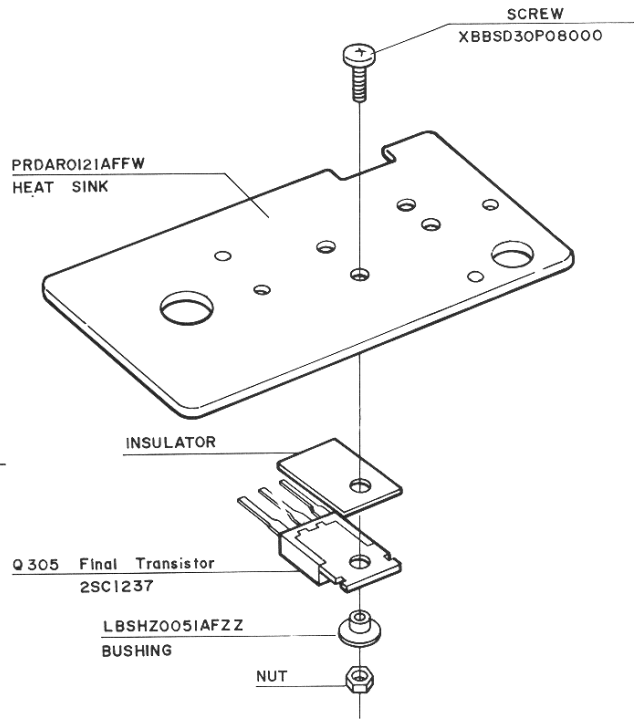


Figure 33 HOW TO SET THE TRANSISTOR Q305

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
INTEGRATED CIRCUITS					
IC1	RH-IX1030AFZZ	2nd-IF Amplifier and Detector	D4	VHD1S2076// -1 or VHD1N60//// -1	ANL (Automatic Noise Limiter) (1S2076 or 1N60)
IC301	RH-IX1020AFZZ	Driver and Audio Amplifier	D5	VHD1S2076// -1	AGC Detector (1N60)
			D6	VHD1N60//// -1	AGC Detector (1N60)
			D7	VHD1S1885// -1	Static Protector (1S2076)
			D8	VHD1N60//// -1	S (Signal) Meter (1N60)
			D9	VHD1S2076// -1	Overload (1S2076)
			D9	VHD1N60//// -1	Overload (1N60)
			D101	VHD1N60//// -1	Modulation Detector (1N60)
			D102	VHD1S1885// -1	Circuit Protector (1S1885)
			D301	VHD1N60//// -1 or VHD1S2076// -1	RF Power Meter (1N60 or 1S2076)
			D501	VHD1S2076// -1	Detector, LED Indication (1S2076)
			DA501	RH-IX1031AFZZ	Diode Array, LED Indication
			*LED501	VHPGL-8R04/-1	Light Emitting Diode, Channel Indicator, 8 Segment
			*LED502	VHPGL-8R04/-1	Light Emitting Diode, Channel Indicator, 8 Segment
			* Replace only with matched pairs.		
TRANSISTORS					
Q1	VS2SC1675M/-1 or VS2SC784-R/1F	RF Amplifier (2SC1675 (M) or 2SC784 (R))			
Q2	VS2SC1675M/-1 or VS2SC394-Y/-1	1st-mixer (2SC1675 (M) or 2SC394 (Y))			
Q3	VS2SC945LK/-1 or VS2SC373-G/-1	AGC Amplifier (2SC945 (L) K or 2SC373)			
Q4	VS2SC945LP/-1 or VS2SC373-G/-1	AGC Amplifier (2SC945 (L) P or 2SC373)			
Q5	VS2SC900-U/-1 or VS2SC733-B/-1	Squelch Voltage Amplifier (2SC900 (U) or 2SC733 (BL))			
Q6	VS2SC460-B/-1	2nd-mixer (2SC460 (B))			
Q101	VS2SC945LP/-1	AF Amplifier (2SC945 (L) P)			
Q102	VS2SD227-V/-1 or VS2SC735-Y/-1	Modulation Limiter Amplifier (2SD227 (V) or 2SC735 (Y))			
Q103	VS2SC945LP/-1 or VS2SC373-G/-1	Modulation Limiter Amplifier (2SC945 (L) P or 2SC373)			
Q201	VS2SK49-F// -1	Synthesizer, FET, Crystal (23 MHz) Oscillator (2SK49 (F))			
Q202	VS2SK49-F// -1	Synthesizer, FET, Crystal (14MHz) Oscillator (2SK49 (F))			
Q203	VS2SC945LP/-1 or VS2SC394-Y/-1	Synthesizer, Mixer (38MHz) (2SC945 (L) P or 2SC394 (Y))			
Q301	VS2SK49-F// -1	Transmitter, FET, Crystal (11.275MHz) Oscillator (2SK49 (F))			
Q302	VS2SC945LP/-1 or VS2SC735-Y/-1	Transmitter, 27MHz Mixer (2SC945 (L) P or 2SC735 (Y))			
Q303	VS2SC1166-Y/-1 or VS2SC1166-O/-1	Transmitter, Buffer Amplifier (2SC1166 (Y) or (O))			
Q304	VS2SC495-T/-1	Transmitter, Driver (2SC495 (T))			
Q305	VS2SC1237-1F	Transmitter, Final (2SC1237)			
Q501	VS2SA738-C/-1	LED Regulator (2SA738 (C))			
Q502	VS2SC945LP/-1 or VS2SC373-G/-1	Multivibrator, LED (2SC945 (L) P or 2SC373)			
Q503	VS2SC945LP/-1 or VS2SC373-G/-1	Multivibrator, LED (2SC945 (L) P or 2SC373)			
DIODES					
D1	VHD1S2076// -1	Static Protector (1S2076)	T1	RCILA0377AFZZ	Antenna
D2	VHD1S2076// -1	Static Protector (1S2076)	T2	RCILR0304AFZZ	RF
D3	VHEWZ-100//1F	Zener Diode, Voltage Regulator (10V ± 0.5V)	T3	RCILIO210AFZZ	1st-IF (11.275MHz)
			T4	RCILIO210AFZZ	1st-IF (11.275MHz)
			T5	RCILIO154AFZZ	2nd-IF (455kHz)
CERAMIC FILTER					
CF1	RFILA0050AFZZ or RFILA0052AFZZ	455kHz, 2nd-IF			
CF2	RFILA0050AFZZ or RFILA0052AFZZ	455kHz, 2nd-IF			
CF3	RFILA0001AFZZ	455kHz			
COILS					
L1	RCILZ0014AGZZ	2nd-IF, 1mH			
L101	RCILC0023AFZZ	AF Choke			
L201	RCILA0377AFZZ	Synthesizer, 23MHz Oscillator			
L202	RCILC0024AFZZ	OSC Choke			
L301	RCILC0011AFZZ	RF Choke			
L302	RCILR0135AFZZ	Transmitter, Matching			
L303	RCILR0055AFZZ	Transmitter, π-Filter			
L304	RCILC0055AFZZ	Trap, 81MHz			
L305	RCILC0055AFZZ	Trap, 54MHz			
TRANSFORMERS					

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
T6	RCILIO210AFZZ	2nd Local Oscillator (11.730MHz)	C101	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar
T101	RTRNM0050AFZZ	Output and Modulation	C102	VCQYKU1HM102M	.001MFD, 50V, ±20%, Mylar
T102	RTRNC0003AFZZ	Power Choke	C104	VCQYKU1HM103M	.01MFD, 50V, ±20%, Mylar
T201	RCILB0378AFZZ	Synthesizer, 14MHz Oscillator	C106	VCQYKU1HM223M	.022MFD, 50V, ±20%, Mylar
T202	RCILIO212AFZZ	Synthesizer, 38MHz Filter	C107	VCQYKU1HM222M	.0022MFD, 50V, ±20%, Mylar
T301	RCILB0378AFZZ	Transmitter, 11.275MHz Oscillator	C108	VCQYKU1HM103M	.01MFD, 50V, ±20%, Mylar
T302	RCILIO211AFZZ	Transmitter, 27MHz Filter	C109	VCQYKU1HM222M	.0022MFD, 50V, ±20%, Mylar
T303	RCILB0221AFZZ	Transmitter, Buffer	C119	VCKZPU1HF104Z	.1MFD
T304	RCILR0037AFZZ	Transmitter, Driver	C120, C121	RC-KZ1006AFZZ or RC-KZ1009AFZZ	Feed Through Capacitors with Bracket

CRYSTALS

RCRSB0005AFZZ	14.950MHz
RCRSB0006AFZZ	14.960MHz
RCRSB0007AFZZ	14.970MHz
RCRSB0008AFZZ	14.990MHz
RCRSB0009AFZZ	23.290MHz
RCRSB0010AFZZ	23.340MHz
RCRSB0011AFZZ	23.390MHz
RCRSB0012AFZZ	23.440MHz
RCRSB0013AFZZ	23.490MHz
RCRSB0014AFZZ	23.540MHz
RCRSB0015AFZZ	11.275MHz
RCRSB0016AFZZ	11.730MHz

CAPACITORS

(Unless otherwise specified capacitors are 50V, +80 -20%, Ceramic Type.)

C1	VCKZPU1HF103Z	.01MFD	C301	VCCSPU1HL560J	56PF, 50V, ±5%, Ceramic
C2	VCKZPU1HF103Z	.01MFD	C302	VCCSPU1HL680J	68PF, 50V, ±5%, Ceramic
C3	VCKZPU1HF103Z	.01MFD	C302	VCKZPU1HF103Z	.01MFD
C4	VCKZPU1HF103Z	.01MFD	C304	VCCSPU1HL330J	33PF, 50V, ±5%, Ceramic
C5	VCKZPU1HF223Z	.022MFD	C305	VCCSPU1HL101J	100PF, 50V, ±5%, Ceramic
C6	VCKYPU1HB472M	.0047MFD, 50V, ±20%, Ceramic	C308	VCKZPU1HF103Z	.01MFD
C7	VCKZPU1HF103Z	.01MFD	C309	VCKZPU1HF103Z	.01MFD
C8	VCKZPU1HF103Z	.01MFD	C310	VCKZPU1HF103Z	.01MFD
C9	VCCSPU1HL2R0C	2PF, 50V, ±0.25PF, Ceramic	C311	VCCSPU1HL180J	18PF, 50V, ±5%, Ceramic
C10	VCCSPU1HL100F	10PF, 50V, ±1PF, Ceramic	C312	VCKZPU1HF103Z	.01MFD
C10	VCCSPU1HL220J	22PF, 50V, ±5%, Ceramic	C313	VCKZPU1HF103Z	.01MFD
C11	VCKYPU1HB472M	.0047MFD, 50V, ±20%, Ceramic	C314	VCCSPU1HL221J	220PF, 50V, ±5%, Ceramic
C13	VCKZPU1HF103Z	.01MFD	C315	VCCSPU1HL331J	330PF, 50V, ±5%, Ceramic
C15	VCKZPU1HF223Z	.022MFD	C315	VCCSPU1HL471J	470PF, 50V, ±5%, Ceramic
C16	VCKZPU1HF103Z	.01MFD	C316	VCCSPU1HL220J	22PF, 50V, ±5%, Ceramic
C17	VCQYKU1HM103M	.01MFD, 50V, ±20%, Mylar	C316	VCCSPU1HL390J	39PF, 50V, ±5%, Ceramic
C19	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar	C317	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic
C19	VCQYKU1HM153M	.015MFD, 50V, ±20%, Mylar	C318	VCCSPU1HL511J	510PF, 50V, ±5%, Ceramic
C20	VCQYKU1HM223M	.022MFD, 50V, ±20%, Mylar	C319	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic
C21	VCCSPU1HL680J	68PF, 50V, ±5%, Ceramic	C320	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic
C22	VCCSPU1HL121J	120PF, 50V, ±5%, Ceramic	C321	VCCSBU1HL181J	180PF, 50V, ±5%, Ceramic
C22	VCCSPU1HL131J	130PF, 50V, ±5%, Ceramic	C321	VCCSPU1HL221J	220PF, 50V, ±5%, Ceramic
C23	VCKYPU1HB102M	.001MFD, 50V, ±20%, Ceramic	C322	VCCSPU1HL680J	68PF, 50V, ±5%, Ceramic
C25	VCKZPU1HF103Z	.01MFD	C324	VCCSPU1HL220J	22PF, 50V, ±5%, Ceramic
C26	VCKZPU1HF103Z	.01MFD	C325	VCCSPU1HL680J	68PF, 50V, ±5%, Ceramic
C30	VCCSPU1HL270J	27PF, 50V, ±5%, Ceramic	C326	VCKZPU1HF103Z	.01MFD
C31	VCCSPU1HL470J	47PF, 50V, ±5%, Ceramic	C328	VCCSPU1HL100F	10PF, 50V, ±1PF, Ceramic
C32	VCKZPU1HF103Z	.01MFD	C401	VCKZPU1HF103Z	.01MFD
C33	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar	C402	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic
C35	VCCSPU1HL120J	12PF, 50V, ±5%, Ceramic	C403	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic
C36	VCCSPU1HL330J	33PF, 50V, ±5%, Ceramic	C404	VCKZPU1HF103Z	.01MFD
C37	VCCSPU1HL681J	680PF, 50V, ±5%, Ceramic	C405	VCKZPU1HF103Z	.01MFD
C38	VCCSPU1HL330J	33PF, 50V, ±5%, Ceramic	C406	VCKZPU1HF103Z	.01MFD
C39	VCCSPU1HL101J	100PF, 50V, ±5%, Ceramic			

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
C407	VCKZPU1HF103Z	.01MFD	R21	VRD-ST2EE223J	22K ohm
C408	VCKZPU1HF103Z	.01MFD	R22	VRD-ST2EE272J	2.7K ohm
C409	VCKZPU1HF103Z	.01MFD	R23	VRD-ST2EE471J	470 ohm
C410	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic	R24	VRD-ST2EE224J	220K ohm
C411	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic	R25	VRD-ST2EE333J	33K ohm
C412	VCKZPU1HF103Z	.01MFD	R27	RVR-M0010AFZZ	30K (B) ohm, Pot., RF Power Meter Adjust
C412	VCKZPU1HF103Z	.01MFD	R28/ SW2-A, } B	RVR-B0131AFZZ	10K (B) ohm, Squelch/P.A. Switch
C412	VCKYPU1SD103Z	.01MFD (Z5T), 30V, +80 -20%, Ceramic	R29	VRD-ST2EE103J	10K ohm
ELECTROLYTIC CAPACITORS					
C14	VCEAAU1AW107Y	100MFD, 10V, +50 -10%	R30	VRD-ST2EE472J	4.7K ohm
C18	VCEAAU1EW335Y	3.3MFD, 25V, +50 -10%	R31	VRD-ST2EE473J	47K ohm
C27	VCEAAU1HW105Y	1MFD, 50V, +50 -10%	R35	VRD-SU2EY333K	33K ohm, 1/4W, ±10%, Carbon
C28	VCEAAU1EW475Y	4.7MFD, 25V, +50 -10%	R36	VRD-SU2EY472K	4.7K ohm, 1/4W, ±10%, Carbon
C29	VCEAAU1CW106Y	10MFD, 16V, +50 -10%	R37	VRD-SU2EY222K	2.2K ohm, 1/4W, ±10%, Carbon
C34	VCEAAU1CW106Y	10MFD, 16V, +50 -10%	R38	VRD-ST2EY222K	2.2K ohm, 1/4W, ±10%, Carbon
C103	VCEAAU1EW475Y	4.7MFD, 25V, +50 -10%	R39	VRD-ST2EE473J	47K ohm
C105	VCEAAU1CW106Y	10MFD, 16V, +50 -10%	R41	VRD-ST2EY683K	68K ohm, 1/4W, ±10%, Carbon
C110	VCEAAU1CW476Y	47MFD, 16V, +50 -10%	R42	VRD-ST2EY103K	10K ohm, 1/4W, ±10%, Carbon
C111	VCEAAU1AW336Y	33MFD, 10V, +50 -10%	R98	VRD-ST2HA470K	47 ohm, 1/2W, ±10%, Carbon
C112	VCEALU1HW104M	.1MFD, 50V, ±20%	R101/ } SW1	RVR-D0103AFZZ	5K (D) ohm, Off-On/Volume Control
C113	VCEAAU1CW476Y	47MFD, 16V, +50 -10%	R102	VRD-ST2EE331J	330 ohm
C114	VCEALU1HW104M	.1MFD, 50V, ±20%	R104	VRD-ST2EE154J	150K ohm
C115	VCEAAU1AW477Y	470MFD, 10V, +50 -10%	R105	VRD-ST2EE153J	15K ohm
C116	VCEAAU1CW108Y	1000MFD, 16V, +50 -10%	R106	VRD-ST2EE102J	1K ohm
C117	VCEAAU1EW335Y	3.3MFD, 25V, +50 -10%	R107	VRD-ST2EE103J	10K ohm
C118	VCEAAU1CW106Y	10MFD, 16V, +50 -10%	R108	VRD-ST2EE331J	330 ohm
C126	VCEAAU1HW105Y	1MFD, 50V, +50 -10%	R109	VRD-ST2EE222J	2.2K ohm
C215	VCEAAU1CW476Y	47MFD, 16V, +50 -10%	R110	VRD-ST2EE333J	33K ohm
C323	VCAAKU0XA474M	.47MFD, 6.3V, ±20%, Aluminum	R111	VRD-ST2EE2R2J	2.2 ohm
C501	VCEAAU1EW335Y	3.3MFD, 25V, +50 -10%	R112	RVR-M0116AFZZ	1K (B) ohm, Modulation Level Adjust
C502	VCEAAU1EW335Y	3.3MFD, 25V, +50 -10%	R113	VRD-ST2EE103J	10K ohm
RESISTORS					
(Unless otherwise specified resistors are 1/4W, ±5%, Carbon Type.)					
R1	VRD-ST2EE562J	5.6K ohm	R114	VRD-SU2EY222K	2.2K ohm, 1/4W, ±10%, Carbon
R2	VRD-ST2EE152J	1.5K ohm	R115	VRD-ST2EE220J	22 ohm
R3	VRD-ST2EE102J	1K ohm	R201	VRD-ST2EE105J	1 Meg ohm
R4	VRD-ST2EE102J	1K ohm	R202	VRD-ST2EE105J	1 Meg ohm
R5	VRD-ST2EE333J	33K ohm	R203	VRD-ST2EE223J	22K ohm
R6	VRD-ST2EE472J	4.7K ohm	R204	VRD-ST2EE472J	4.7K ohm
R7	VRD-ST2EE102J	1K ohm	R205	VRD-ST2EE331J	330 ohm
R9	VRD-SU2EY153K	15K ohm, 1/4W, ±10%, Carbon	R206	VRD-ST2EE470J	47 ohm
R9	VRD-SU2EY273K	27K ohm, 1/4W, ±10%, Carbon	R207	VRD-SU2EY102K	1K ohm, 1/4W, ±10%, Carbon
R10	VRD-ST2EE102J	1K ohm	R301	VRD-ST2EE105J	1 Meg ohm
R12	VRD-SU2EY151K	150 ohm, 1/4W, ±10%, Carbon	R302	VRD-SU2EY102K	1K ohm, 1/4W, ±10%, Carbon
R13	VRD-SU2EY472K	4.7K ohm, 1/4W, ±10%, Carbon	R304	VRD-ST2EE223J	22K ohm
R14	VRD-SU2EY333K	33K ohm, 1/4W, ±10%, Carbon	R305	VRD-ST2EE102J	1K ohm
R15	VRD-SU2EY333K	33K ohm, 1/4W, ±10%, Carbon	R306	VRD-ST2EE101J	100 ohm
R15	VRD-SU2EY153K	15K ohm, 1/4W, ±10%, Carbon	R307	VRD-ST2EE470J	47 ohm
R16	VRD-SU2EY472K	4.7K ohm, 1/4W, ±10%, Carbon	R308	VRD-ST2EE223J	22K ohm
R16	VRD-ST2EY223K	22K ohm, 1/4W, ±10%, Carbon	R309	VRD-ST2EE332J	3.3K ohm
R17	VRD-SU2EY332K	3.3K ohm, 1/4W, ±10%, Carbon	R310	VRD-ST2EE101J	100 ohm
R17	VRD-ST2EY153K	15K ohm, 1/4W, ±10%, Carbon	R311	VRD-ST2EE101J	100 ohm
R17	VRD-SU2EY124K	120K ohm, 1/4W, ±10%, Carbon	R312	VRD-SU2EY680K	68 ohm, 1/4W, ±10%, Carbon
R18	VRD-ST2EY103K	10K ohm, 1/4W, ±10%, Carbon	R314	VRD-ST2HA471J	470 ohm, 1/2W, ±5%, Carbon
R19	RVR-M0119AFZZ	5K (B) ohm, Pot., S (Signal) Meter Adjust	R315	VRD-ST2EE332J	3.3K ohm
R20	VRD-ST2EE223J	22K ohm	R316	VRD-ST2EE682J	6.8K ohm
R20	VRD-ST2EE224J	220K ohm	R318	VRD-ST2HA470K	47 ohm, 1/2W, ±10%, Carbon
R21	VRD-ST2EE472J	4.7K ohm	R501	VRD-ST2EE222J	2.2K ohm
			R502	VRD-ST2EE102J	1K ohm
			R503	VRD-ST2EE154J	150K ohm
			R504	VRD-ST2EE102J	1K ohm
			R505	VRD-ST2EE154J	150K ohm
			R506	VRD-ST2EE681J	680 ohm
			R508	VRS-PT3DB560K	56 ohm, 2W, ±10%, Oxide Film

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
R510-A ~E	RMPTC0001AFZZ	Resistor Array, 680 ohm x 5		QPWBF0542AFZZ	Printed Wiring Board, Sub
R511-A ~E	RMPTC0001AFZZ	Resistor Array, 680 ohm x 5		QPWBF0552AFZZ	Printed Wiring Board, Main
R512-A ~C	RMPTC0002AFZZ	Resistor Array, 680 ohm x 3		QPWBE0066AFZZ	Printed Wiring Board, Channel Indication (LED)
				QPWBF0487AFZZ	Printed Wiring Board, Volume Control
			CNS601 -A ~ E	QCNCW-0138AFZZ	Connection Cord with Socket Assembly
			CNS602	QCNCW-0143AFZZ	Connection Cord with Socket, Speaker
			CNS603	QCNCW-0140AFZZ	Connection Cord with Socket, Microphone
			CNP601	QCNCM0806SGZZ	Plug, 8 Pin
			CNP602	QCNCM0806SGZZ	Plug, 8 Pin
			CNP603	QCNCM0902AGZZ	Plug, 9 Pin
			CNP604	QCNCM097HAFZZ	Plug, 8 Pin
			CNP605	QCNCM098KAFZZ	Plug, 10 Pin
			SO601	QSOCZ2453AFZZ	Socket, External Antenna, 50 ohms
			SO602	QSOCZ2456AFZZ	Socket, Microphone
			PG601	QSOCZ2454AFZZ	Plug, Power Supply
			PG602	QPLGZ1250AFZZ	Plug, Connecting, P.W. Board
			(A), (B)	QSOCE0401AFZZ	Socket, Test Point
				QPLGE0403AGZZ	Plug, Test Point
				QFSHJ9052AFZZ	Power Supply Cord with Fuse Holder and Socket
			SW1/ R101	RVR-D0103AFZZ	Off-On/Volume (5K ohm) Control
			SW2-A, B/R28	RVR-B0131AFZZ	P.A. Switch/Squelch (10K ohm)
			SW3	QSW-B0028AGZZ	Switch, ANL
			SW4-A ~C	QSW-R0125AFZZ	Switch, Channel Selector
			SW5	QSW-B0003AFZZ	Switch, Delta Fine Tuning
			SW6-A ~D/ RY101	RRLYZ0007AFZZ	Relay with Receiver/Transmitter Switch
			C120, C121	RC-KZ1006AFZZ or RC-KZ1009AFZZ	Feed Through Capacitors with Bracket
			PL1	RLMPM0058AFZZ	Lamp, Meter Illumination (14V, 80mA)
			ME601	RMTRE0057AFZZ	Meter, S/RF Power
				RMICD0205AFZZ	Microphone Assembly (with Press-to-talk Switch)
				XBBSC30W08000	Screw (3φ x 8 mm), Plus and Minus
				XNESD50-40000	Nut (5φ)
				XWHSD30-05000	Washer (3φ)
				XWHSD50-05000	Washer (5φ)
				XWSSJ50-13000	Spring Washer (5φ)
			SP601	VSP0080P-208A	Speaker, 8 ohms
			F1	QFS-A232AAFNA	Fuse, 2.3A

MISCELLANEOUS

GCAB-3016AFSA	Cabinet	
GWAKP1057AFSA	Front Panel	
HDECQ0051AFSA	Decoration Plate, Channel Indicator	
HINDM1079AFSA	Indication Metal, Channel	
HINDM1080AFSA	Emblem, SHARP	
JKNBN0299AFSA	Knob, Channel Selector	
JKNBN0300AFSA	Knob, Off-On/Volume and Squelch/P.A. Switch	
JKNBM0219AFSA	Knob, A.N.L. Switch and Delta Fine Tuning Switch	
JHNDM1052AFFW	Mobile Mounting Bracket	
LX-WZ3017CEFN	Washer, P.W. Board	
LBSHZ0051AFZZ	Bushing, Transistor Q305	
LCHSM0236AFFW	Chassis, Main	
LCHSZ0050AFZZ	Chassis, Front	
LX-NZ0052AFFD	Nut, Front Chassis	
LANGS0053AFFW	Bracket, Speaker	
LX-BZ0021AGFD	Bolt (5φ x 8 mm)	
LX-BZ0053AFFD	Bolt (5φ x 10 mm)	
PGUMM0002AF00	Rubber Washer, Mounting Bracket	
PHAG-8001AFFC	Hanger, Microphone	
PMLT-0114AFZZ	Sponge, Speaker	
PCOVP8151AF00	Cover, A.N.L. and Delta Fine Tuning Switches	
PCOVM3050AFFW	Hole Cover, Rear Chassis	
PFLT-0132AF00	Felt, Front Panel	
PRDAR0121AFFW	Heat Sink, Transistor Q304 and Q305	
PRDAR0006SGFW	Heat Sink, Transistor Q501	
PRDAR0122AFFW	Heat Sink, IC301	
PGUMM0028AG00	Spacer, Meter Lamp, Rubber	
PCAPH0001AGZZ	Cap, A.N.L. Switch	
PRDAR0129AFFW	Heat Sink, Transistor Q304	
PSLDM3117AFFW	Shield Plate	
PZETF0121AFZZ	Insulator, Speaker Bracket	
J601-A, B	Jack, External Speaker (J601-A) and P.A. Speaker (J601-B)	
	QPWBF0485AFZZ	Printed Wiring Board, Main