



23 Channel CB Transceiver

MODEL CB-550U

Power Supply Unit

MODEL AD-111

CB-550U

SPECIFICATIONS

Transmitter section

DC Power input	5W (maximum)
Frequency range	27MHz Citizens Band
Channels	23chs. Crystal controlled Synthesizer
Type of crystal	HC-18U ± 0.005% tolerance (at -4°F ~ +140°F)
Transmitter modulation ..	100% (maximum)
Range boost	Yields high average modulation at average voice levels
Antenna matching	Nominal 50 ohms
Carrier deviation	Not greater than ±800Hz nominal on (exceeds F.C.C., D.O.C., etc. requirements)
Harmonic suppression	Exceeds 50dB

Receiver section

Audio power output	2 Watts per channel, min. RMS, at 8 ohms from 400Hz to 1.3 kHz, with no more than 10% total harmonic distortion.
Sensitivity	0.7μv/m for 10dB S + N/N ratio at 30% at 1000Hz modulation
Channels	23chs. Crystal controlled Synthesizer
Type of crystal	HC-18U ± 0.005% tolerance (at -4°F ~ +140°F)
Selectivity	6dB down at ±3kHz; 50dB down at ±10kHz.
Intermediate frequency ..	1st IF: 11.275MHz, 2nd IF: 455kHz

Circuit type	Dual conversion superheterodyne: crystal frequency synthesizer provides 23 crystal controlled transmit and receive channels. Delta tuning of ±1.5kHz on each channels plus mechanical filter.
Auxiliary circuits	Automatic noise limiter (ANL), Variable squelch

General

Power source	DC 12.0V Nominal (DC 10.8 to 15.6V) negative or positive ground
Antenna	50 ohm external antenna for car or base operation.
Speaker	2¾" x 2¾" P.D.S. 8-ohm Imp.
Microphone	Press talk dynamic microphone (500 ohm)
Accessories	Microphone hanger. Mobile mounting bracket. (L-type) Mounting screws. DC power cable (2.2 amp. fused)
Dimensions	2"(H) x 5-3/4"(W) x 7-3/4"(D)
Weight	4 lbs.

AD-111

Power source:	120V, 60 Hz
Output:	12V DC, 1.0 Ampere
Dimensions:	5-1/2"(W) x 3"(H) x 6-3/8"(D)
Weight:	3.6 lbs.

SHARP ELECTRONICS CORPORATION

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U.S. Subsidiary of SHARP Corporation, Osaka, Japan

GENERAL DESCRIPTION (Refer to Figure 1)

RECEIVER

The input from the antenna is applied through the RF amplifier Q1 to the 1st converter Q2. The input signal is mixed with the oscillator signal from Q5 and applied to the second converter Q6 which has converted with the oscillator signal from Q9. The IF output from Q8 is detected by the diode (D7) and applied to the audio amplifier Q12 and A.V.C. amplifier. The amplified audio signal is applied through the driver Q13 and the push-pull output Q14, 15.

TRANSMITTER

The audio signal from the microphone is applied through the audio amplifier Q12, 13 and the output Q14, 15 to the final stage Q20 and the drive stage Q19.

The carrier signal synthesized in the oscillator Q3, Q4, Q16 and mixer Q5, Q17 is supplied to the final amplifier Q20 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 + 1.5 kHz

Delta Tuning - Center Frequency - 1.5 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 500mV
RF Outputmeter :	0 to 5W at 27MHz. 50 ohm
DC Voltmeter :	0 to 3/15V DC
Oscilloscope:	
Audio Signal Generator:	

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
Adjust the 14MHz oscillator coil (L8), 23MHz oscillator coil (L4), and 38MHz filter coil (L5, L6, L7) so that the voltage on TP1 are at maximum.
 2. Second Local Oscillator Alignment
Adjust the second oscillator coil (T5) so that the voltage on TP2 is about 160mV.
 3. 455kHz-IF Alignment (Refer to Figure (A))
 - 1) Connect the audio output meter across the speaker voice coil lugs.
 - 2) Set the signal generator to 455kHz, modulated 30% at 1000Hz, and connect it to test point TP2 through the dummy (0.04 MFD + 5K ohm in series)
 - 3) The ground lead of the generator should be connected to the ground of EXT. antenna socket.
 - 4) Adjust IF transformer T2, T3, T4 and MF1 for maximum indication on the output meter, reducing the signal generator to maintain mid-scale deflection at needed.
 4. First IF Alignment
 - 1) Leave all connections and settings as in step 3.
 - 2) Set the signal generator to 11.275MHz modulated 30% at 1000Hz, and connect it to test point TP1 through the dummy (0.01MFD)
 - 3) Adjust the 1st IF transformer T1 and coil L3 for maximum indication on the output meter.
 5. RF Alignment
 - 1) Leave all connections and settings as in step 3.
 - 2) Set the signal generator to 27MHz, modulated 30% at 1000Hz, and connect it to the antenna.
 - 3) Adjust RF coils L2 and L1 for maximum indication on the output meter.
 6. After these adjustments repeat steps 3, 4 and 5 until the best results are obtained.

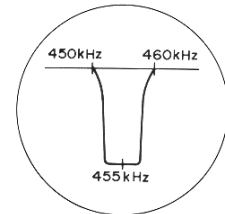


Figure (A)

TRANSMITTER ALIGNMENT

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

- 1) Connect DC milliammeter thru 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 antenna socket.
 - 4) Before adjusting the surface of core should be identical with the top of the bobbin.
1. Oscillator Alignment
Adjust the 27MHz filter coil (L9, L10, L11, L12) so that the driver current is at maximum.
 2. Transmitter Amplifier Alignment
Adjust T6 so that the driver current is at maximum.
 3. Driver Alignment
Adjust the driver coil (T7) so that the driver current is at minimum.
 4. Matching Alignment
Adjust the matching coil (L14) so that the collector current should be 370mA.
 5. π -Filter Alignment
Adjust the π -filter coil (L15) to obtain the maximum RF output.

6. Modulation Alignment

- 1) Connect a dummy resistor (50 ohm, 5W) across the external antenna socket.
- 2) Connect a loop (1 ~ 2 turn) across the oscilloscope and allow the loop to come near the dummy resistor.
- 3) Connect the audio signal generator (1000Hz, 6mV) to the test points (TP-11 and TP-12) on the P.W. board.
- 4) Depress the PUSH-TO-TALK switch on the microphone and adjust the variable resistor (R74) so that the wave form on the oscilloscope becomes as illustrated in Figure (B) .

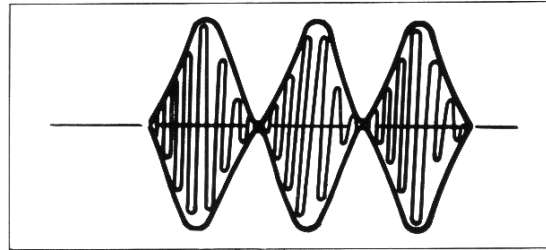
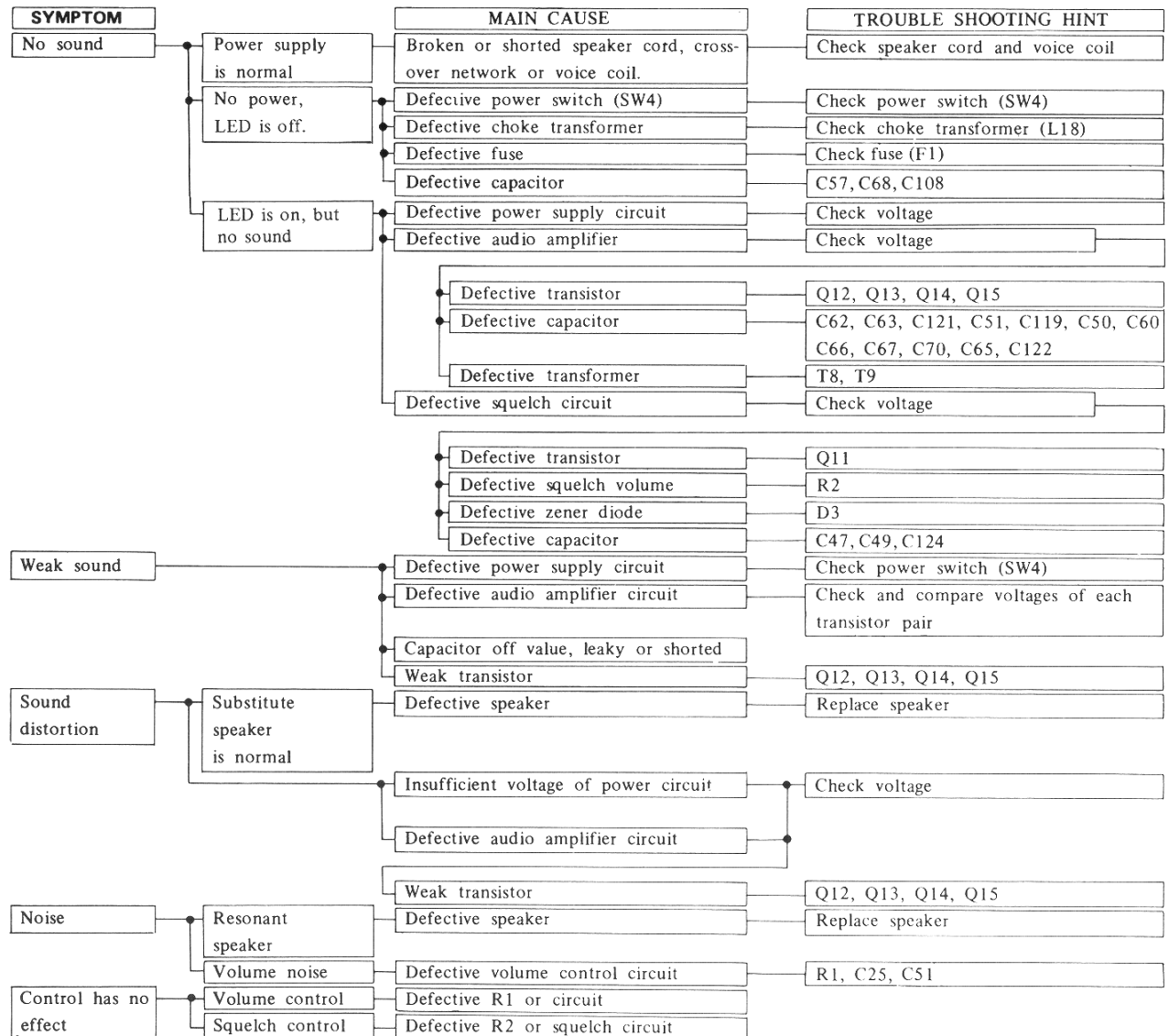


Figure (B)

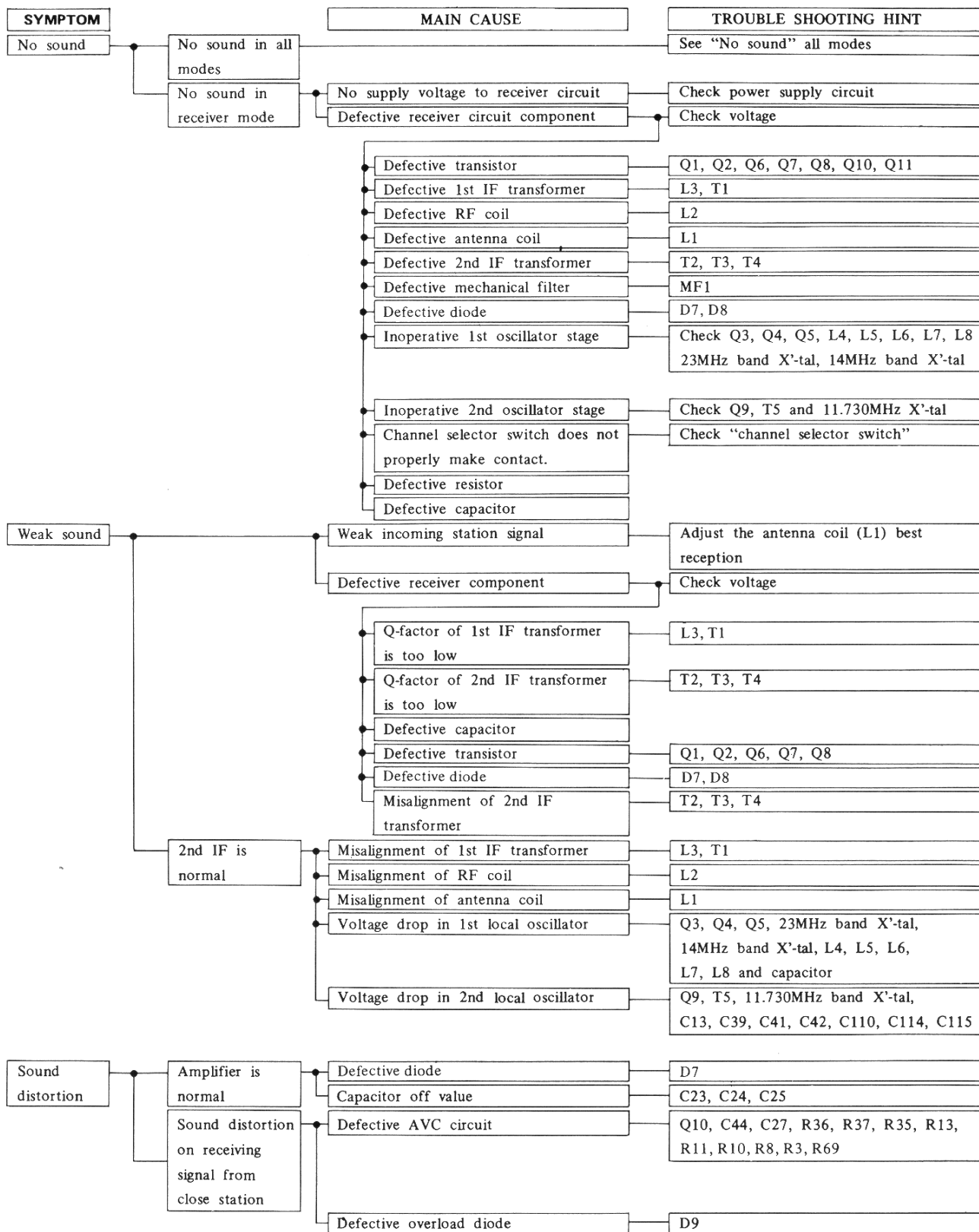
TROUBLE SHOOTING GUIDE (1)

(1) ALL OPERATIONAL MODES



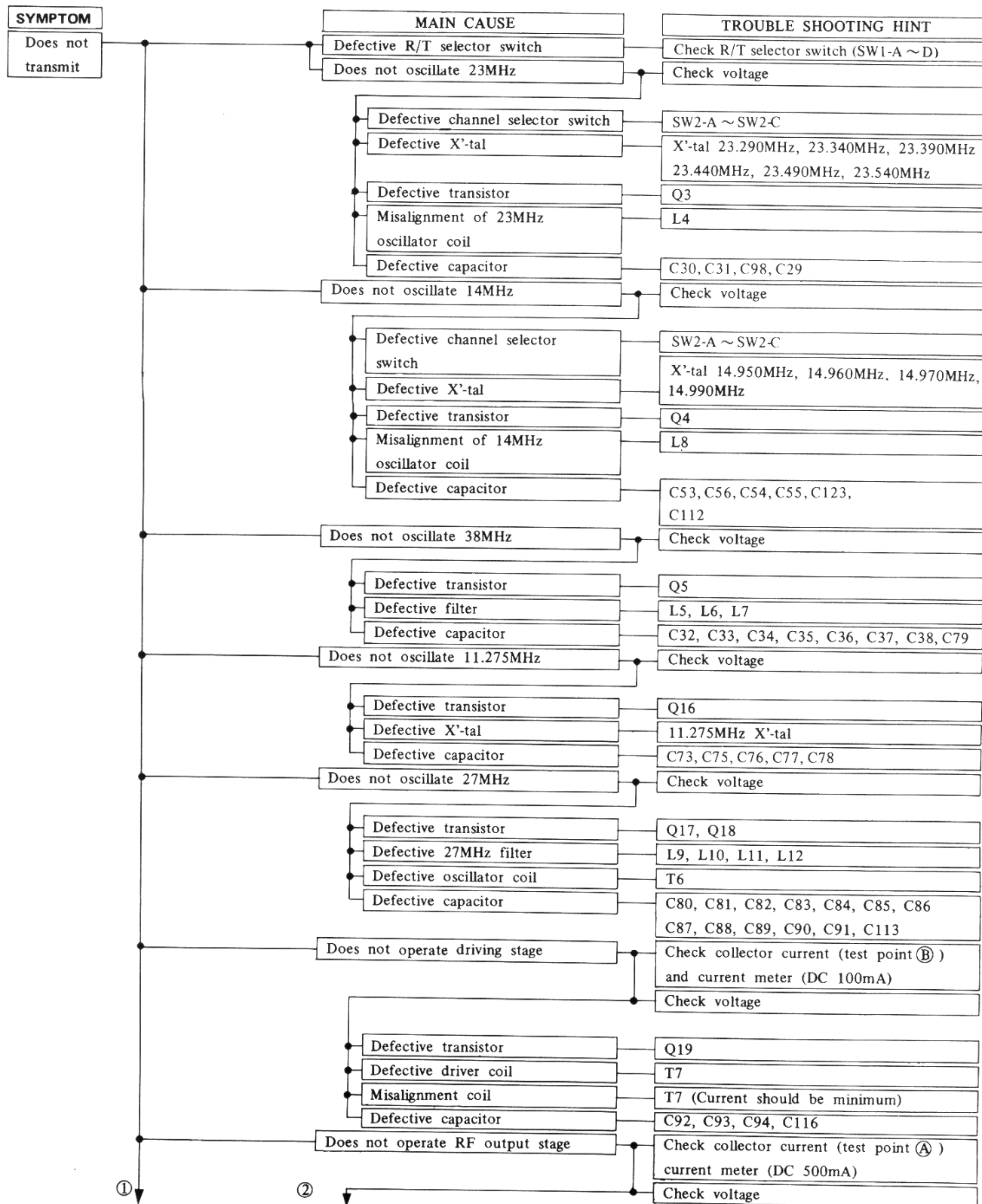
TROUBLE SHOOTING GUIDE (2)

(2) RECEIVER



TROUBLE SHOOTING GUIDE (3)

(3) TRANSMITTER



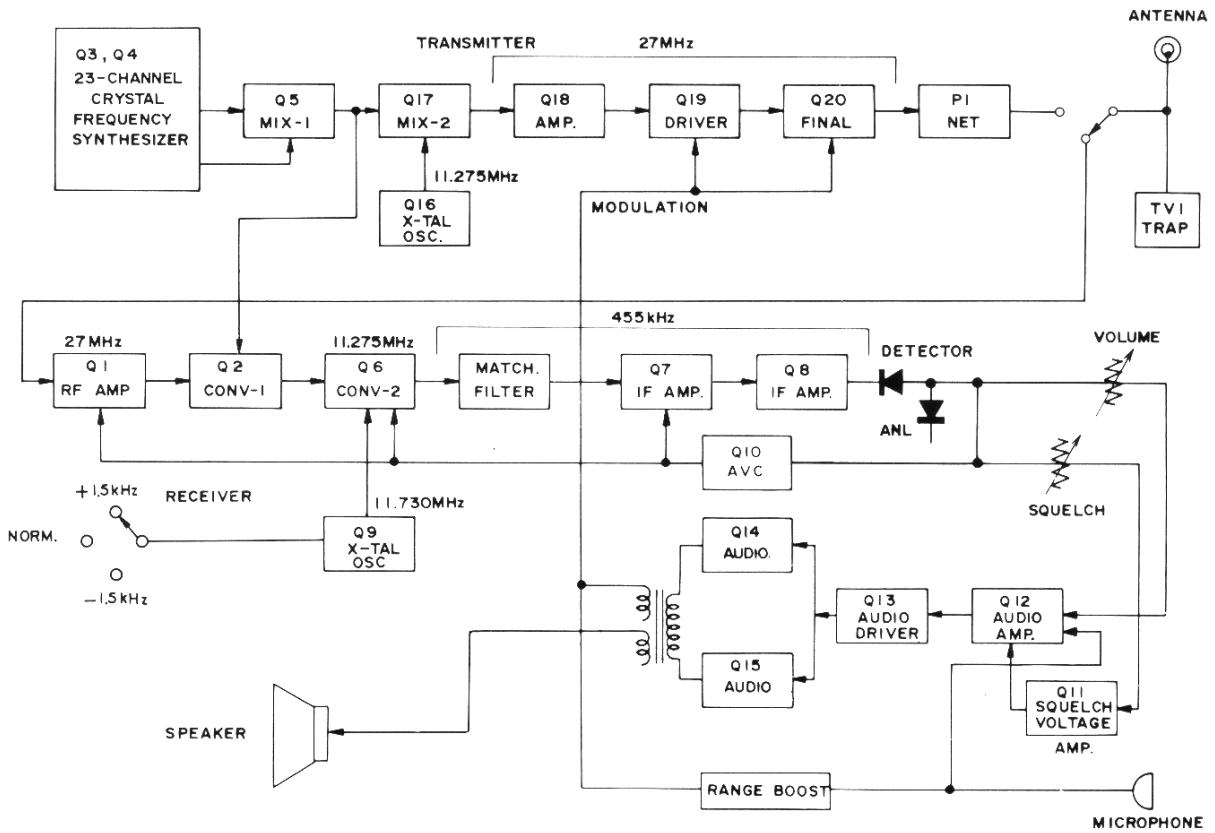
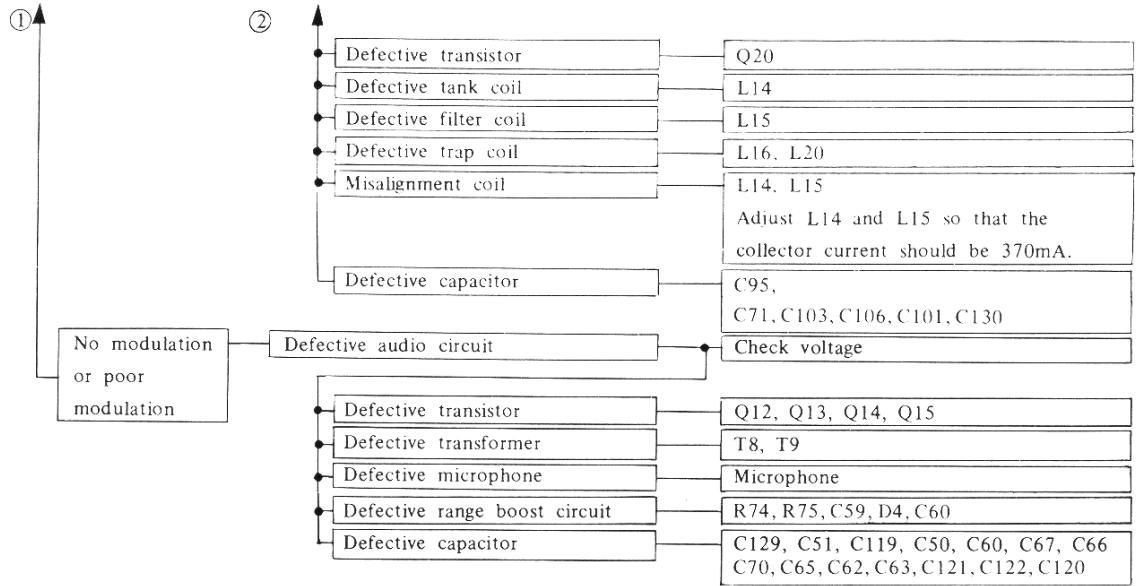


Figure 1 BLOCK DIAGRAM

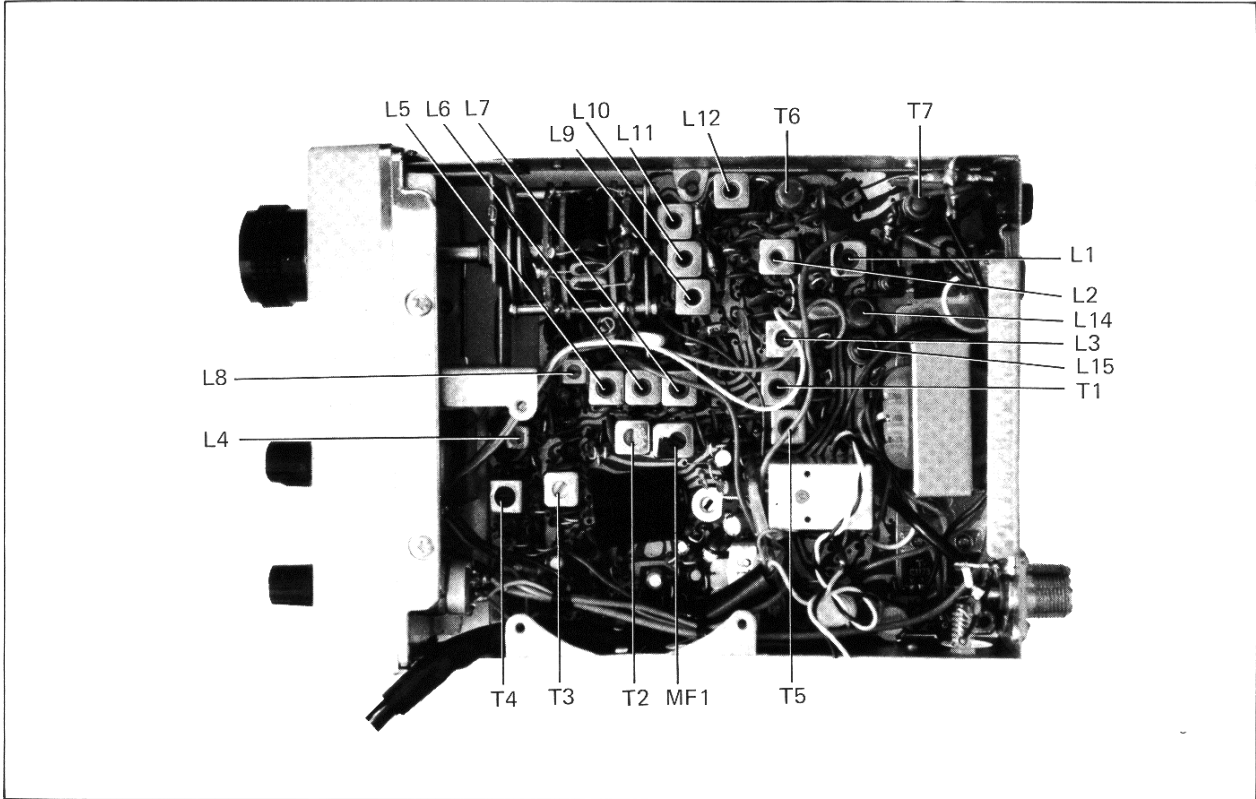


Figure 2 ALIGNMENT POINTS

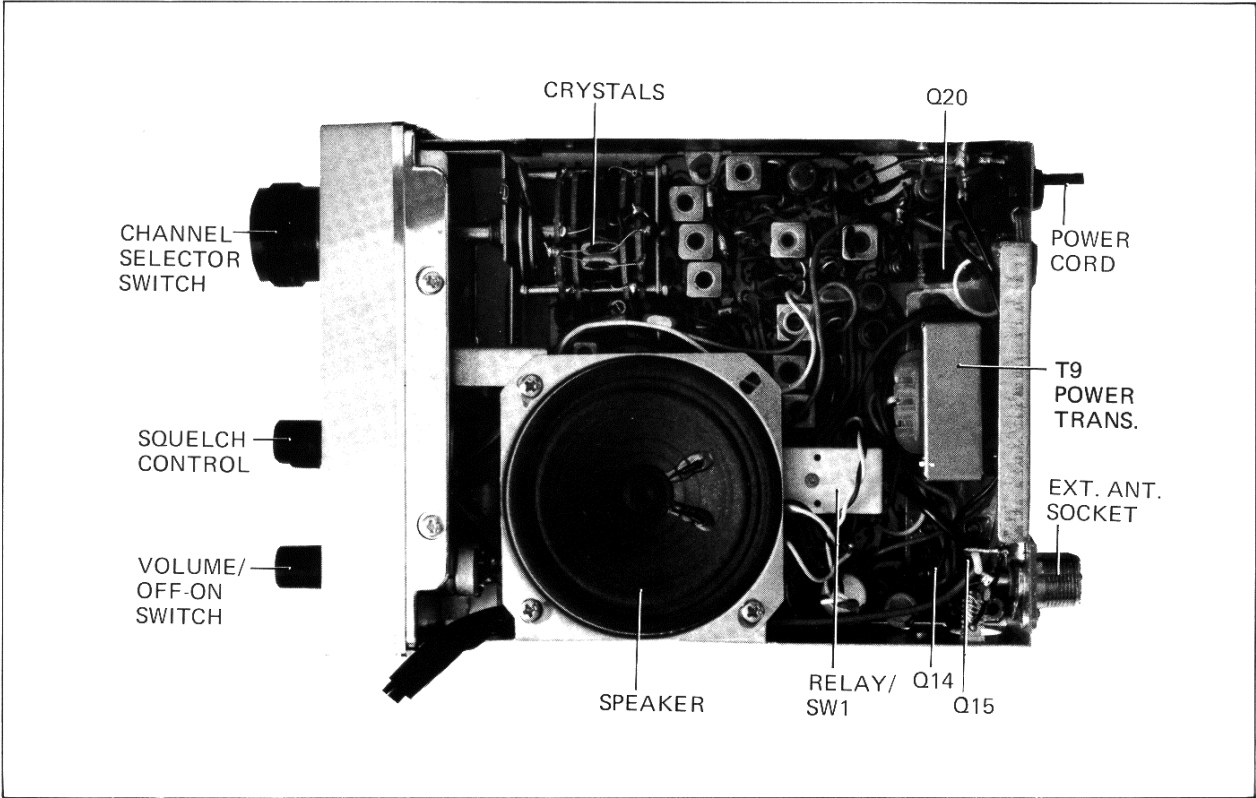


Figure 3 CHASSIS LAYOUT

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
TRANSISTORS					
Q1	2SC784 (R) or (T)	RF Amplifier	L9, L10, L11	RCILR0102AFZZ	Synthesizer, 27MHz Filter
Q2	2SC394 (O)	1st Mixer	L12	RCILR0103AFZZ	Synthesizer, 27MHz Filter
Q3	2SC394 (Y)	Synthesizer, 23MHz Oscillator	L13	RCILC0011AFZZ	RF Choke
Q4	2SC372 (O)	Synthesizer, 14MHz Oscillator	L14	RCILR0135AFZZ	Matching, Transmitter
Q5	2SC394 (Y)	Synthesizer, Mixer	L15	RCILR0055AFZZ	π -Filter, Transmitter
Q6	2SC372 (O) or (Y)	2nd Mixer	L16	RCILR0180AFZZ	54MHz Trap
Q7	2SC372 (O) or (Y)	1st IF Amplifier	L17	RCILC0024AFZZ	RF Choke (27 μ H)
Q8	2SC372 (O) or (Y)	2nd IF Amplifier	L18	RTRNC0003AFZZ	Power Choke
Q9	2SC372 (O) or (Y)	2nd Oscillator (11.730MHz)	L19	RCILC0023AFZZ	Choke
Q10	2SC373 (GR)	AVC Amplifier	L20	RCILR0180AFZZ	81MHz Trap
Q11	2SC733 (BL)	Squelch Amplifier	MF1	RFILA0004AFZZ	Mechanical Filter
Q12	2SC732 (BL) or (GR)	Audio Amplifier	TRANSFORMERS		
Q13	2SC735 (Y) or (O)	Audio Driver	T1	RCILB0030AFZZ	1st IF
Q14, Q15	2SC1173 (Y)	Audio Output (Matched Pair)	T2	RCILI0088AFZZ	Matching (Mechanical Filter)
Q16	2SC372 (O)	Transmitter Oscillator, 11.275MHz	T3	RCILI0095AFZZ	2nd IF
Q17	2SC735 (Y)	Synthesizer, Transmitter Mixer	T4	RCILI0096AFZZ	3rd IF
Q18	2SC1166 (Y)	Transmitter, Amplifier	T5	RCILB0030AFZZ	2nd Oscillator
Q19	2SC495 (T)	Transmitter, Driver	T6	RCILB0221AFZZ	Transmitter, 1st Amplifier
Q20	2SC1237	Transmitter, Final	T7	RCILR0037AFZZ	Transmitter, Driver
DIODES					
D1	1S2076	Static Protector	T8	RTRNI0037AFZZ	Driver
D3	WZ-100	Zener Diode, Voltage Regulator (10V \pm 0.5V)	T9	RTRNS0855AFZZ	Output
D4	1N60	Range Booster	CRYSTALS		
D5	1S1209	Varistor	RCRSB0005AFZZ	14.950MHz	
D6	1N60	AVC	RCRSB0006AFZZ	14.960MHz	
D7	1N60	AM Detector	RCRSB0007AFZZ	14.970MHz	
D8	1N60	Automatic Noise Limiter	RCRSB0008AFZZ	14.990MHz	
D9	1N60	Rectifier, AVC Voltage	RCRSB0009AFZZ	23.290MHz	
D10	1S2076	Static Protector	RCRSB0010AFZZ	23.340MHz	
D11	VHPGL30PR//1	Light Emitting Diode, Power	RCRSB0011AFZZ	23.390MHz	
COILS					
L1	RCILA0124AFL	Antenna	RCRSB0012AFZZ	23.440MHz	
L2	RCILR0076AFZZ	RF	RCRSB0013AFZZ	23.490MHz	
L3	RCILR0098AFZZ	1st IF	RCRSB0014AFZZ	23.540MHz	
L4	RCILB0252AFZZ	Synthesizer, 23MHz Oscillator	RCRSB0015AFZZ	11.275MHz, Transmitter	
L5	RCILR0099AFZZ	Synthesizer, 38MHz Filter	RCRSB0016AFZZ	11.730MHz, Receiver	
L6	RCILR0100AFZZ	Synthesizer, 38MHz Filter	PACKAGED CIRCUIT		
L7	RCILR0101AFZZ	Synthesizer, 38MHz Filter	M1	RMPTA0037AFZZ	Capristor, 1K ohm +.02MFD
L8	RCILB0253AFZZ	Synthesizer, 14MHz Oscillator			

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION		
CAPACITORS							
Unless otherwise specified capacitors are 30V, +80 -20%, Ceramic Type							
C1	VCQYKU1HM102M	.001MFD, 50V, ±20%, Mylar	C87	VCCSPU1HL5R0C	5PF, 50V, ±0.25PF, Ceramic		
C2, C3, C4, C5	VCKYPU1SD103Z	.01MFD	C88	VCCSPU1HL6R0C	6PF, 50V, ±0.25PF, Ceramic		
C6	VCCSPU1HL330J	33PF, 50V, ±5%, Ceramic	C89	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C7, C8	VCKYPU1SD103Z	.01MFD	C90	VCKYPU1SD103Z	.01MFD,		
C9	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic	C91	VCCSPU1HL180J	18PF, 50V, ±5%, Ceramic		
C10	VCCSPU1HL5R0C	5PF, 50V, ±0.25PF, Ceramic	C92	VCCSBU1HL391J	390PF, 50V, ±5%, Ceramic		
C11	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic	C93	VCCSBU1HL390J	39PF, 50V, ±5%, Ceramic		
C12	VCKYPU1SD103Z	.01MFD	C94	VCKYPU1SD103Z	.01MFD		
C13	VCQYKU1HM223M	.022MFD, 50V, ±20%, Mylar	C95	VCCSBU1HL511J	510PF, 50V, ±5%, Ceramic		
C14	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	C97	VCKZPU1HF333P	.033MFD, 50V, +100 -0%, Ceramic		
C15	VCCSBU1HL511J	510PF, 50V, ±5%, Ceramic	C98	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C16	VCKYPU1SD103Z	.01MFD	C99	VCQYKU1HM223M	.022MFD, 50V, ±20%, Mylar		
C17	VCQYKU1HM223M	.022MFD, 50V, ±20%, Mylar	C101	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic		
C18	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	C103	VCKYPU1SD103Z	.01MFD		
C19	VCCSPU1HL1R0C	1PF, 50V, ±0.25PF, Ceramic	C104	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar		
C20	VCKYPU1SD103Z	.01MFD	C106	VCKYPU1SD103Z	.01MFD		
C21	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar	C108	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C22	VCKYPU1SD103Z	.01MFD	C109	VCCSBU1HL560J	56PF, 50V, ±5%, Ceramic		
C23	VCQYKU1HM103M	.01MFD, 50V, ±20%, Mylar	C110	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic		
C28	VCQYKU1HM222M	.0022MFD, 50V, ±20%, Mylar	C112	VCCSBU1HL560J	56PF, 50V, ±5%, Ceramic		
C29	VCCSPU1HL150J	15PF, 50V, ±5%, Ceramic	C113	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C30	VCCSBU1HL101J	100PF, 50V, ±5%, Ceramic	C114	VCCSBU1HL470J	47PF, 50V, ±5%, Ceramic		
C31	VCCSBU1HL101J	100PF, 50V, ±5%, Ceramic	C115	VCCSPU1HL180J	18PF, 50V, ±5%, Ceramic		
C32	VCKYPU1SD103Z	.01MFD	C116	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic		
C33	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	C118	VCQYKU1HM102M	.001MFD, 50V, ±20%, Mylar		
C34	VCQSM1HS101J	100PF, 50V, ±5%, Styrol	C119, C120	VCQYKU1HM222M	.0022MFD, 50V, ±20%, Mylar		
C35	VCCCPU1HH470J	47PF, 50V, ±5%, Ceramic	C121	VCQYKU1HM103M	.01MFD, 50V, ±20%, Mylar		
C36	VCCCPU1HH820J	82PF, 50V, ±5%, Ceramic	C122	VCQYKU1HM222M	.0022MFD, 50V, ±20%, Mylar		
C37, C38	VCCSPU1HL3R0C	3PF, 50V, ±0.25PF, Ceramic	C123	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C39	VCKYPU1SD103Z	.01MFD	C124	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C41	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic	C129	VCQYKU1HM333M	.033MFD, 50V, ±20%, Mylar		
C42	VCCSBU1HL101J	100PF, 50V, ±5%, Ceramic	C130	VCCSPU1HL270J	27PF, 50V, ±5%, Ceramic		
C44	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	C131	VCQYKU1HM472M	.0047MFD, 50V, ±20%, Mylar		
C45	VCCSBU1HL121J	120PF, 50V, ±5%, Ceramic	C132	VCQYKU1HM472M	.0047MFD, 50V, ±20%, Mylar		
C47	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	C134, C135, C136, C137, C138, C139, C140, C141, C142, C143, C144, C145	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic		
C53	RTO-H2007AFZZ	Trimmer Capacitor, 30PF Maximum	C199			VCCSPU1HL100F	10PF, 50V, ±1%, Ceramic
C54	VCQYKU1HM102M	.001MFD, 50V, ±20%, Mylar	ELECTROLYTIC CAPACITORS				
C55	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	Unless otherwise specified capacitors are 16V, +50 -10%, Electrolytic Type				
C56	VCCCPU1HH560J	56PF, 50V, ±5%, Ceramic	C24			VCEAAU1CW106Y	10MFD
C57	VCKYWC2HF102L	.001MFD, Feed Through	C25			VCEAAU1EW475Y	4.7MFD, 25V, +50 -10%
C61	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic	C27			VCEAAU1AW336Y	33MFD, 10V, +50 -10%
C62, C63	VCQYKU1HM153M	.015MFD, 50V, ±20%, Mylar	C40			VCEAAU1CW107Y	100MFD
C66	VCQYKU1HM103M	.01MFD, 50V, ±20%, Mylar	C48, C49, C50, C51, C59			VCEAAU1EW475Y	4.7MFD, 25V, +50 -10%
C71	VCCSBU1HL560J	56PF, 50V, ±5%, Ceramic	C60				
C73	VCCSBU1HL151J	150PF, 50V, ±5%, Ceramic					
C75	VCQYKU1HM102M	.001MFD, 50V, ±20%, Mylar					
C76	VCCSBU1HL560J	56PF, 50V, ±5%, Ceramic					
C77	VCCSBU1HL221J	220PF, 50V, ±5%, Ceramic					
C78	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic					
C79	VCCSBU1HL560J	56PF, 50V, ±5%, Ceramic					
C80	VCKYPU1SD103Z	.01MFD					
C81	VCKZPU1HF103Z	.01MFD, 50V, +80 -20%, Ceramic					
C82, C83, C84	VCQSM1HS151J	150PF, 50V, ±5%, Styrol					
C85	VCCCPU1HH560J	56PF, 50V, ±5%, Ceramic					
C86	VCCSPU1HL6R0C	6PF, 50V, ±0.25PF, Ceramic					

PARTS LIST

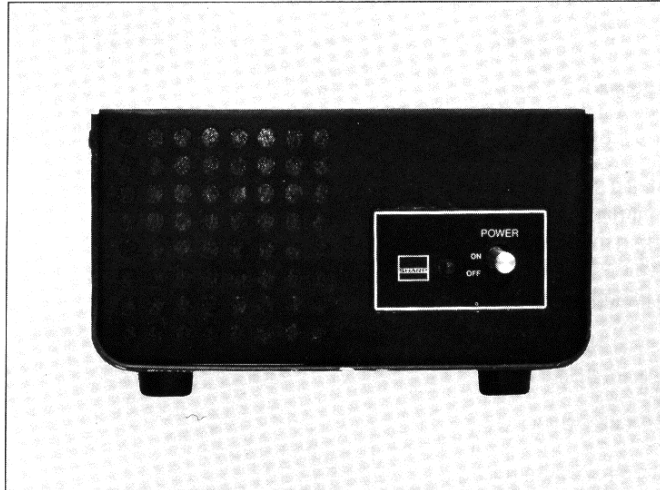
REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
C65	VCEAAU0JW476Y	47MFD, 6.3V, +50 -10%	R58	VRD-SU2EY562K	5.6K ohm
C67	VCEAAU1EW475Y	4.7MFD, 25V, +50 -10%	R59	VRD-SU2EY680K	68 ohm
C68	VCEAAU1CW477Y	470MFD	R60	VRD-SU2EY223K	22K ohm
C70	VCEAAU1CW106Y	10MFD	R61	VRD-ST2EY332K	3.3K ohm
C102	VCEAAU1AW336Y	33MFD, 10V, +50 -10%	R62, R63	VRD-SU2EY470K	47 ohm
RESISTORS			R64	VRD-SU2EY223K	22K ohm
Unless otherwise specified resistors are 1/4W, ±10%, Carbon Type					
R1/SW4	RVR-D0086AFZZ	5K ohm, OFF-ON/Volume Control	R65	VRD-ST2EY332K	3.3K ohm
R2	RVR-B0024AFZZ	10K ohm, Squelch Control	R66	VRD-SU2EY101K	100 ohm
R3	VRD-SU2EY102K	1K ohm	R67	VRD-SU2EY680K	68 ohm
R4	VRD-SU2EY472K	4.7K ohm	R68	VRD-ST2HA470K	47 ohm, 1/2W ±10%, Carbon
R5	VRD-SU2EY472K	4.7K ohm	R69	VRD-SU2EY682K	6.8K ohm
R6	VRD-SU2EY333K	33K ohm	R70	VRD-SU2EY153K	15K ohm
R7	VRD-SU2EY102K	1K ohm	R71	VRD-SU2EY472K	4.7K ohm
R8	VRD-SU2EY472K	4.7K ohm	R72	VRD-ST2EY151K	150 ohm
R9	VRD-SU2EY333K	33K ohm	R73	VRD-SU2EY332K	3.3K ohm
R10	VRD-SU2EY102K	1K ohm	R74	RVR-M0010AFZZ	30K ohm, Pot., Range Boost Adjusting
R11	VRD-SU2EY472K	4.7K ohm	R75	VRD-ST2EY472K	4.7K ohm
R12	VRD-SU2EY223K	22K ohm	R77	VRD-SU2EY681K	680 ohm
R13	VRD-SU2EY102K	1K ohm	R78	VRD-SU2EY822K	8.2K ohm
R14	VRD-SU2EY472K	4.7K ohm	R79	VRD-SU2EY470K	47 ohm
R15	VRD-SU2EY333K	33K ohm	R81	VRD-SU2EY181K	180 ohm
R16, R17	VRD-SU2EY102K	1K ohm	R82	VRD-SU2EY103K	10K ohm
R18	VRD-SU2EY394K	390K ohm	R83	VRD-SU2EY472K	4.7K ohm
R19	VRD-SU2EY103K	10K ohm	R84	VRD-SU2EY102K	1K ohm
R20	VRD-ST2EY222K	2.2K ohm	R85	VRD-SU2EY472K	4.7K ohm
R21	VRD-SU2EY822K	8.2K ohm	R86	VRD-SU2EY221K	220 ohm
R22	VRD-SU2EY562K	5.6K ohm	R87	VRD-SU2EY120K	12 ohm
R23	VRD-SU2EY333K	33K ohm	R92	VRD-SU2EY222K	2.2K ohm
R24	VRD-SU2EY472K	4.7K ohm	R93	VRD-SU2EY101K	100 ohm
R25	VRD-SU2EY153K	15K ohm	R100	VRD-ST2HA471J	470 ohm, 1/2W, ±5%, Carbon
R26	VRD-SU2EY331K	330 ohm	MISCELLANEOUS		
R27	VRD-ST2EY472K	4.7K ohm	QPWBF0202AFZZ	Printed Wiring Board, Main	
R28	VRD-SU2EY103K	10K ohm	QPWBF0237AFZZ	Printed Wiring Board, Delta Tuning	
R29	VRD-SU2EY331K	330 ohm	PGUMM0002AF00	Rubber, Washer, Car Bracket	
R31	VRD-SU2EY223K	22K ohm	LX-BZ0021AGFD	Bolt (5φ x 8mm)	
R32	VRD-SU2EY472K	4.7K ohm	LX-BZ0053AFFD	Bolt (5φ x 10mm)	
R33	VRD-SU2EY562K	5.6K ohm	PHAG-8001AFFC	Hanger, Microphone	
R35	VRD-SU2EY102K	1K ohm	XBBSC30W08000	Screw (3φ x 8mm), Plus and Minus	
R36	VRD-SU2EY124K	120K ohm	XNESD50-40000	Nut (5mm)	
R37	VRD-ST2EY473K	47K ohm	XWHSD30-05000	Washer (3mm)	
R38	VRD-SU2EY103K	10K ohm	XWHSD50-05000	Washer (5mm)	
R39	VRD-SU2EY562K	5.6K ohm	XWSSJ50-13000	Spring Washer (5mm)	
R41	VRD-SU2EY392K	3.9K ohm	LANGT0507AFFW	Bracket, Delta Tuning Switch	
R43	VRD-SU2EY332K	3.3K ohm	QSW-B0003AFZZ	Switch, Delta Tuning	
R44	VRD-ST2EY331K	330 ohm	LANGT0087AFFW	Bracket, Power Transformer/Heat Sink	
R45	VRD-SU2EY563K	56K ohm	F1	QFS-A232AAFNA	Fuse, 2.3A
R46	VRD-SU2EY222K	2.2K ohm	QFSHJ9051AFZZ	Power Cord with Fuse and Holder	
R47	VRD-SU2EY102K	1K ohm	LANGQ0129AFFW	Bracket, Channel Selector Switch	
R48	VRD-SU2EY682K	6.8K ohm	QSW-R0041AFZZ	Switch, Channel Selector	
R49	VRD-SU2EY151K	150 ohm	(A part designated by Sharp)		
R50	VRD-SU2EY821K	820 ohm	LCHSM0224AFFW	Chassis	
R51	VRW-PL2HRR50K	.5 ohm, 1/2W, ±10%, Resin	SW7	QSW-B0003AFZZ	Bracket, Delta Tuning Switch
R52	VRD-SU2EY392K	3.9K ohm	F1	QFS-A232AAFNA	Fuse, 2.3A
R53	VRD-SU2EY152K	1.5K ohm	QFSHJ9051AFZZ	Power Cord with Fuse and Holder	
R54	VRD-SU2EY331K	330 ohm	LANGQ0129AFFW	Bracket, Channel Selector Switch	
R55	VRD-SU2EY103K	10K ohm	QSW-R0041AFZZ	Switch, Channel Selector	
R56	VRD-SU2EY472K	4.7K ohm	(A part designated by Sharp)		
R57	VRD-SU2EY153K	15K ohm	LCHSM0224AFFW	Chassis	

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION
S2	QSOCZ0024AFZZ	Socket, External Antenna
	XLHAW30-06000	Rivet, Socket of Ext. Antenna
	LHLDZ8052AF00	Holder, LED
	PFLT-0263AF00	Felt, Delta Tuning
	TSPC-0359AFZZ	Indication Sheet, Model Spec.
	LANGZ0003AFFW	Bracket, Mobile Mounting (L-type)
	LBSHC0003AGZZ	Bushing, Power Cord
RY1/SW1 A ~ D	RRLYZ0007AFZZ	Relay, Receiver/Transmitter Switch
	GCAB-0353AFSD	Cabinet, Main
	PFLT-0137AF00	Felt, Speaker
	PSPAD0001AFZZ	Spacer, Channel Selector Shaft
	JKNBM0225AFSA	Knob, Delta Tuning
SW5	RMICD0203AFZZ	Microphone, w/Press talk Switch
	VSP0080P-398A	Speaker, 8-ohm
SP-1	JKNBN0193AFSD	Knob, OFF/Volume, Squelch Control
	JKNBN0291AFSA	Knob, Channel Selector
	QSOCZ0020AFZZ	Socket, Polarity Switch
	QPLGE0403AGZZ	Plug, Polarity Switch

DWAKP0161GSSA (Front Cabinet Complete)

GWAKP1013AFSA	Cabinet, Front
HINDM1055AFSA	Indication Metal, OFF-Volume/ Squelch Control
HINDM1056AFSA	Indication Metal, Channel Selector
LANGH0104AFFW	Spacer, Channel Selector Plate



MODEL AD-III

PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Q1	2SC458 ①	Transistor	F1	QFS-H152AAFNB	Fuse, 1.5A
Q2	2SC1061 ②	Transistor		QPWBF0474AFZZ	Printed Wiring Board
D1	RH-DX1001AFZZ	Diode, Power Rectifier (1B2C1)	SW1	QSW-B0072AFZZ	Switch, Power ON-OFF
D2	RH-DX1002AFZZ	Diode, Power Rectifier (1B2Z1)		GCOVH3150AFFW	Cover, Circuits
D3	RD-13E	Zener, 13.5 ~ 14.4V		GFTAR3100AFFW	Cabinet, Rear
D4	VHPGL-52AR/1F	Light Emitting Diode, Power (GL-52AR)		GWAKM1001AFSA	Cabinet, Front
T1	RTRNP0423AFZZ	Transformer, Power with AC Cord		HINDM1071AFSA	Indication Metal, Power Switch
C1	VCEAAU1EW108Q	Capacitor, 1000MFD, 25V, +100 -10%, Electrolytic		LBSHC0002AGZZ	Bushing, AC Cord
C2	VCEAAU1CW107Q	Capacitor, 100MFD, 16V, +100 -10%, Electrolytic	TB1	PFLT-0268AF00	Felt, Front Cabinet
R1, } R2 }	VRD-ST2EY821K	Resistor, 820 ohm, 1/4W, ±10%, Carbon		QTANN0250AFZZ	Terminal, 12V Output
	GCAB-3013AFSA	Cabinet, Main		XBBSB30P06000	Screw, 3φ x 6mm, Black
	GLEGG0022AG00	Leg, Rubber		TLABG0078AFZZ	Label, Model Spec.
	PGUMM0028AG00	Rubber, LED		LANGT0529AFFW	Bracket, Unit Mounting (Accessory)
	PRDAR0120AFFW	Heat Sink		LX-BZ0021AGFN	Bolt, 5φ x 8mm (Accessory)
				PGUMM0002AF00	Rubber, Washer (Accessory)
				XWHNZ52-08100	Washer, 5mm (Accessory)

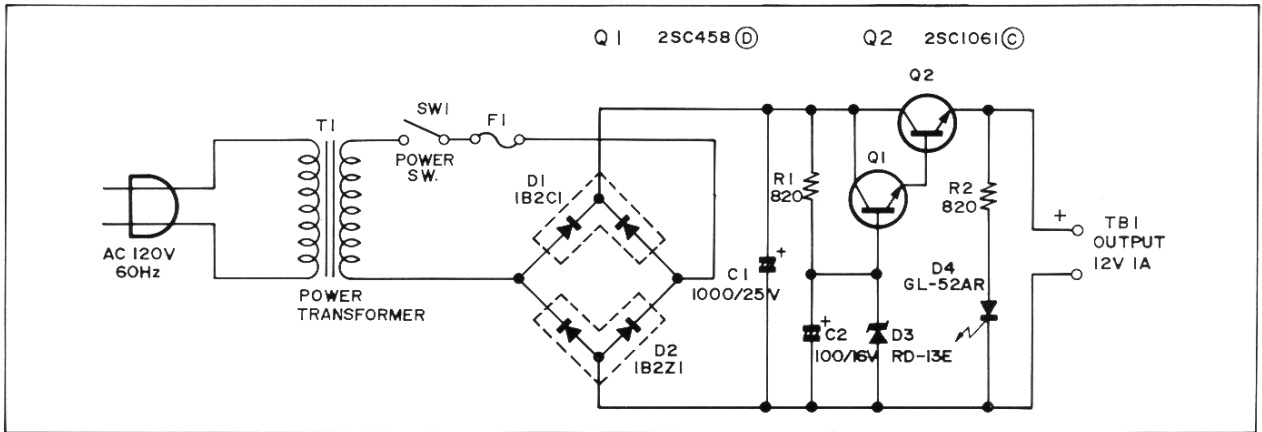


Figure 6 SCHEMATIC DIAGRAM (AD-111)

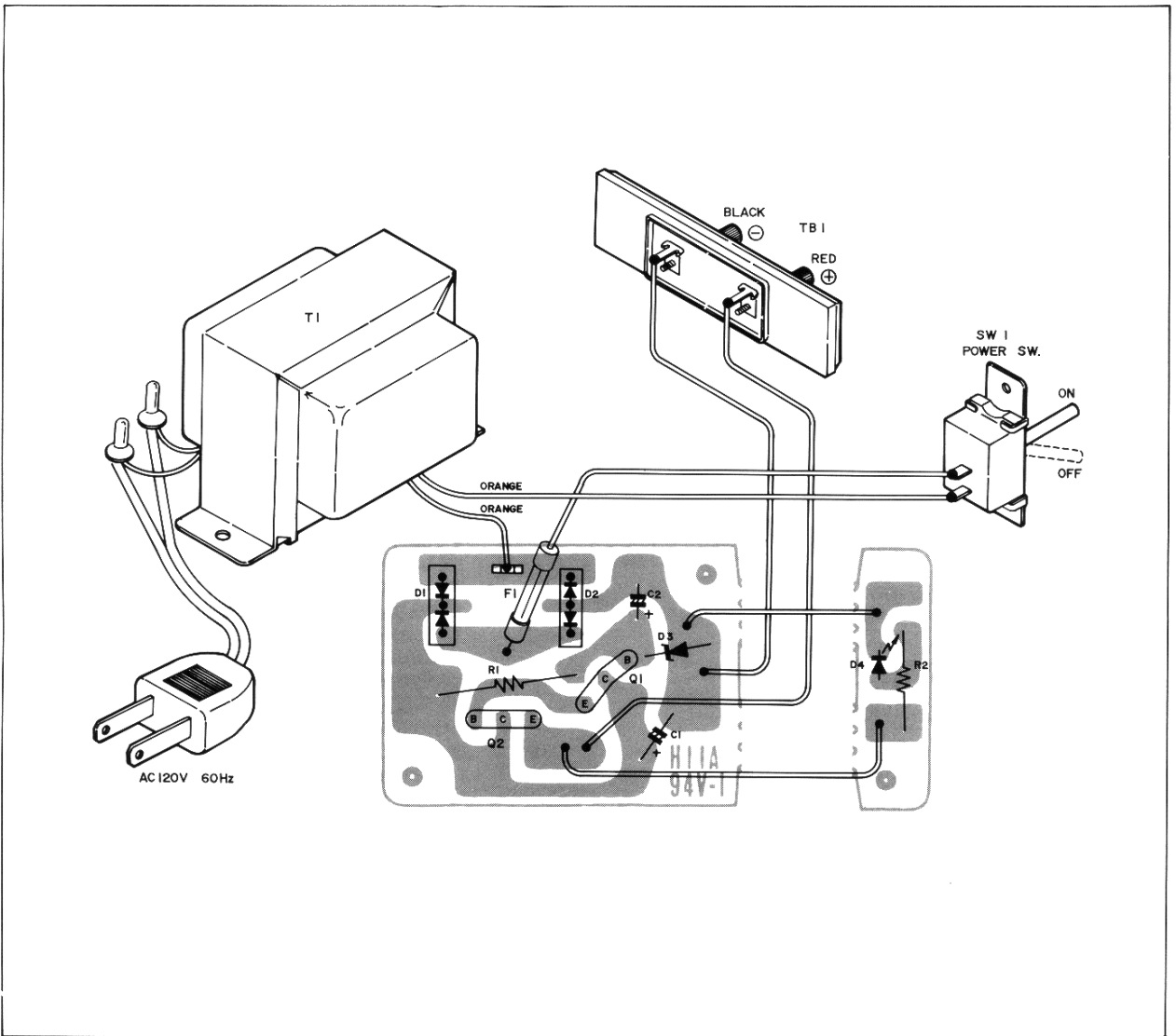


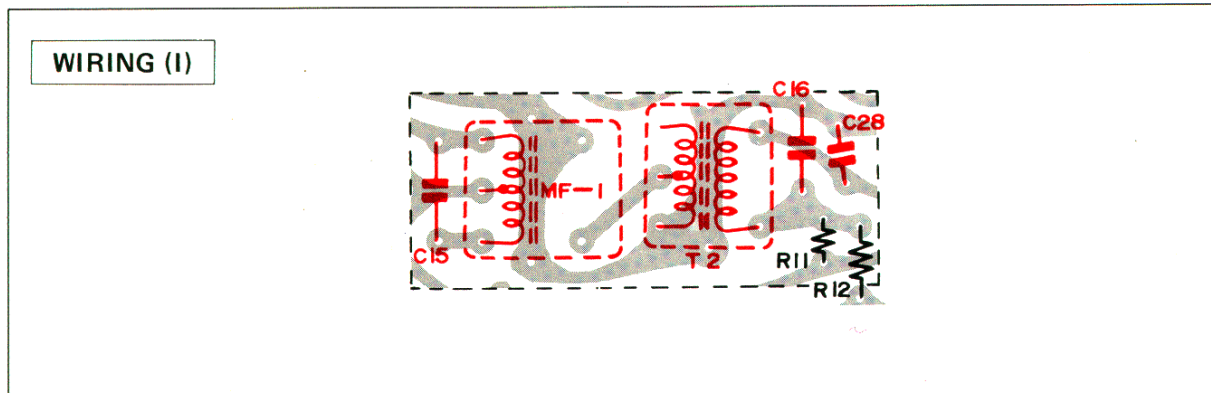
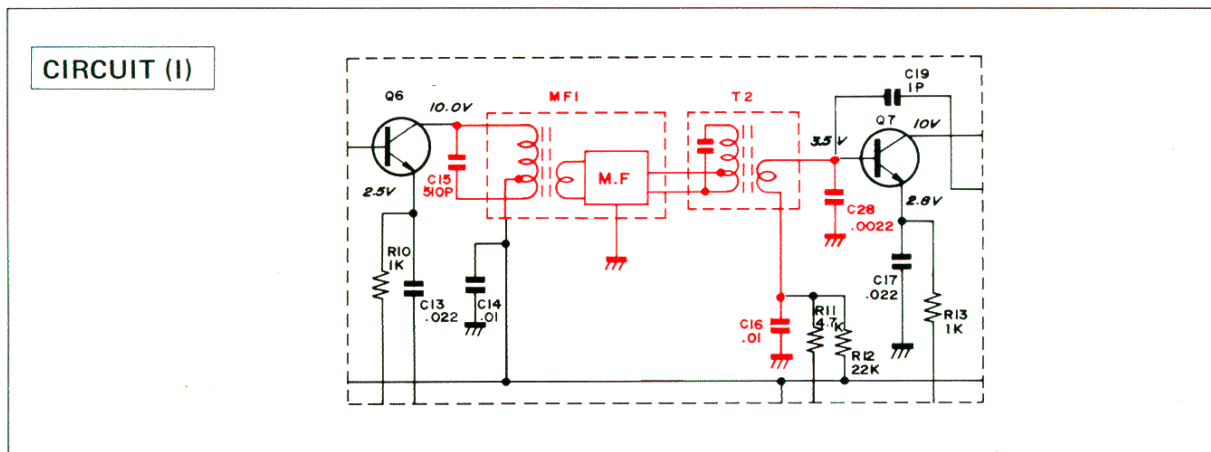
Figure 7 WIRING SIDE OF P.W. BOARD (AD-111)



Technical Information

MODEL CB-550U

- Two types of IF circuits are used for the unit CB-550U as shown below. In the parts replacement, take care of which type of IF circuits should be used.



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