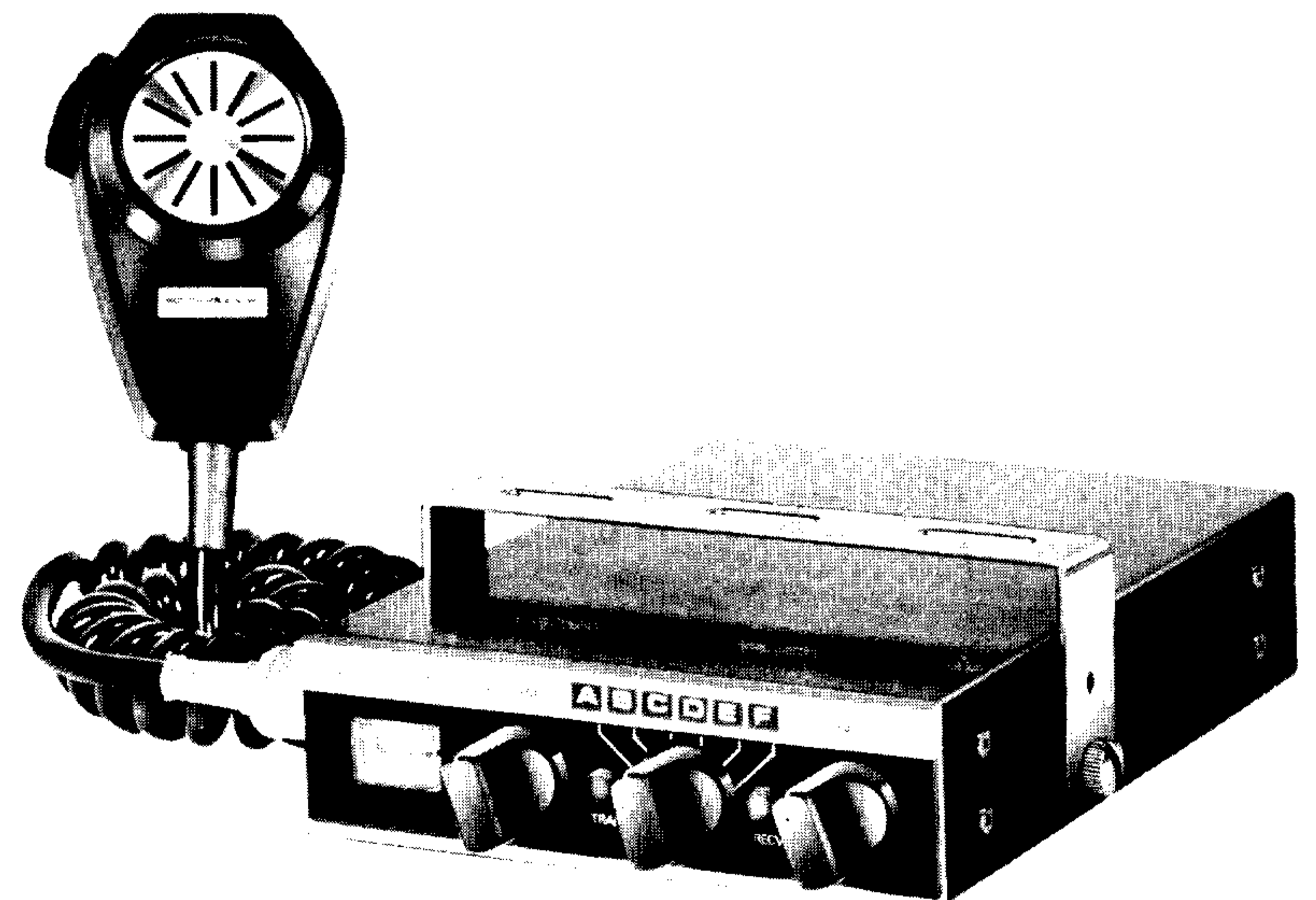


SOMMERKAMP[®]

CITIZENS BAND TRANSCEIVER INSTRUCTION MANUAL



SOMMERKAMP ELECTRONIC

CH-6903 LUGANO, BOX 176,

TEL: (0041) 91-688543

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MODEL: TS-727G

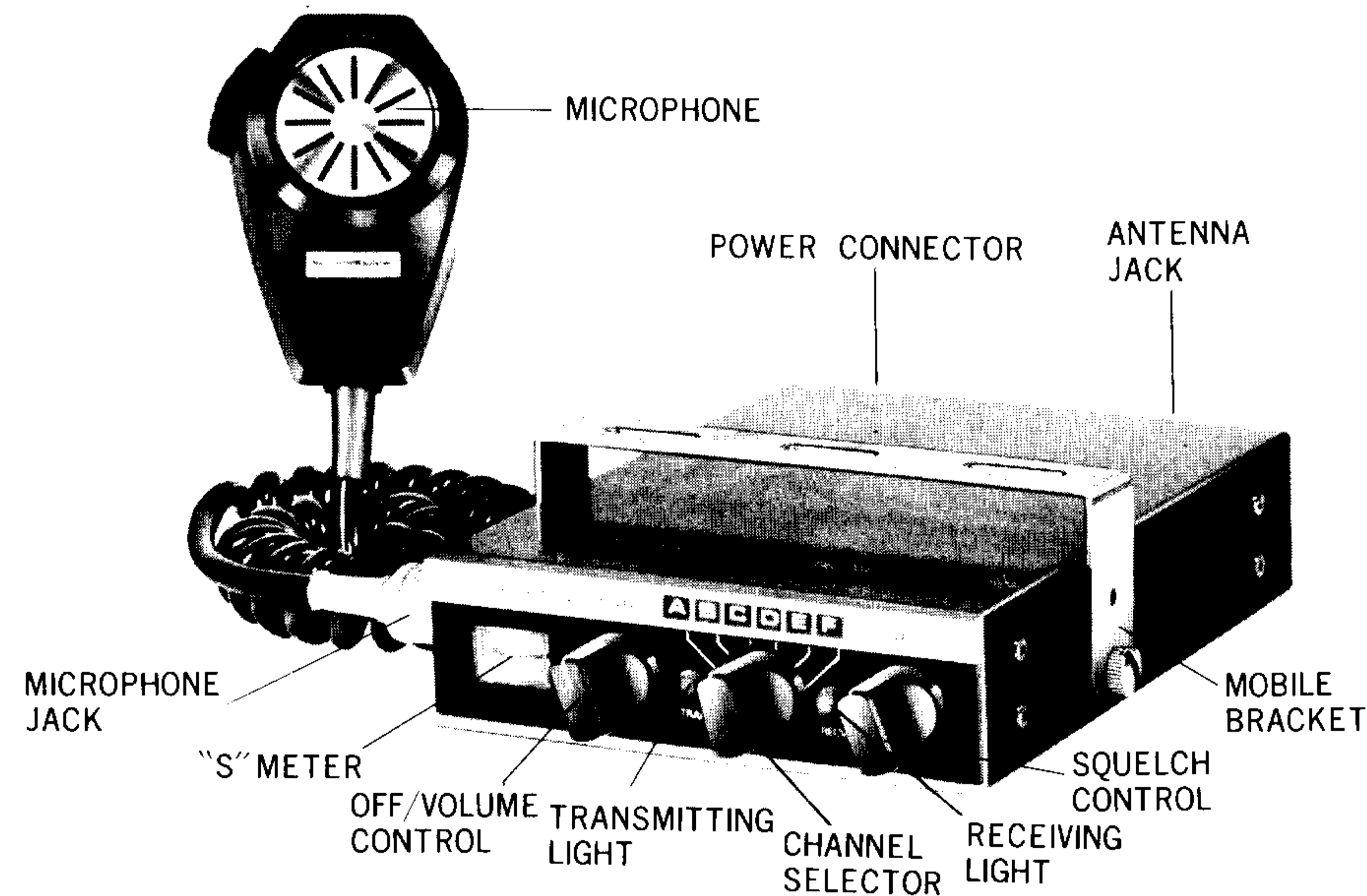
FTZ APPROVAL NO. K 98/70

MODEL: TS-737

GENERAL INSTRUCTIONS

Your TRANSCEIVER TS-727G(TS-737) is a compact size, and high performance two-way communication instrument which designed to operate on any of six channels of the 27 MHz. band. The unit is small enough to install under the dash board or at any other handy location in a vehicle where the bracket can be attached.

Your TRANSCEIVER has been completely tested and carefully tuned at the factory, therefore, no re-alignment when used a standard 50 ohms CB antenna.



ANTENNA INSTALLATION

Base Station and Mobile Use

For maximum range and reliable operation, the antenna should be as high as possible: We recommend a colinear antenna or ground plain type for best results of nondirectional use and citizens band beam antenna for directional purposes. The mobile antenna must be requires nondirectional type, such as full quarter wave or vertical whip standard 102 inch length, its usual location on the left rear fender of the vehicle.

HAND HELD MICROPHONE

In a small package, a microphone mounting bracket and mounting hardware are supplied. This bracket is used for secure the microphone at any convenient location. The microphone has a "PRESS-TO-TALK" button for easy to operate when you on a driving.

MOBILE INSTALLATION

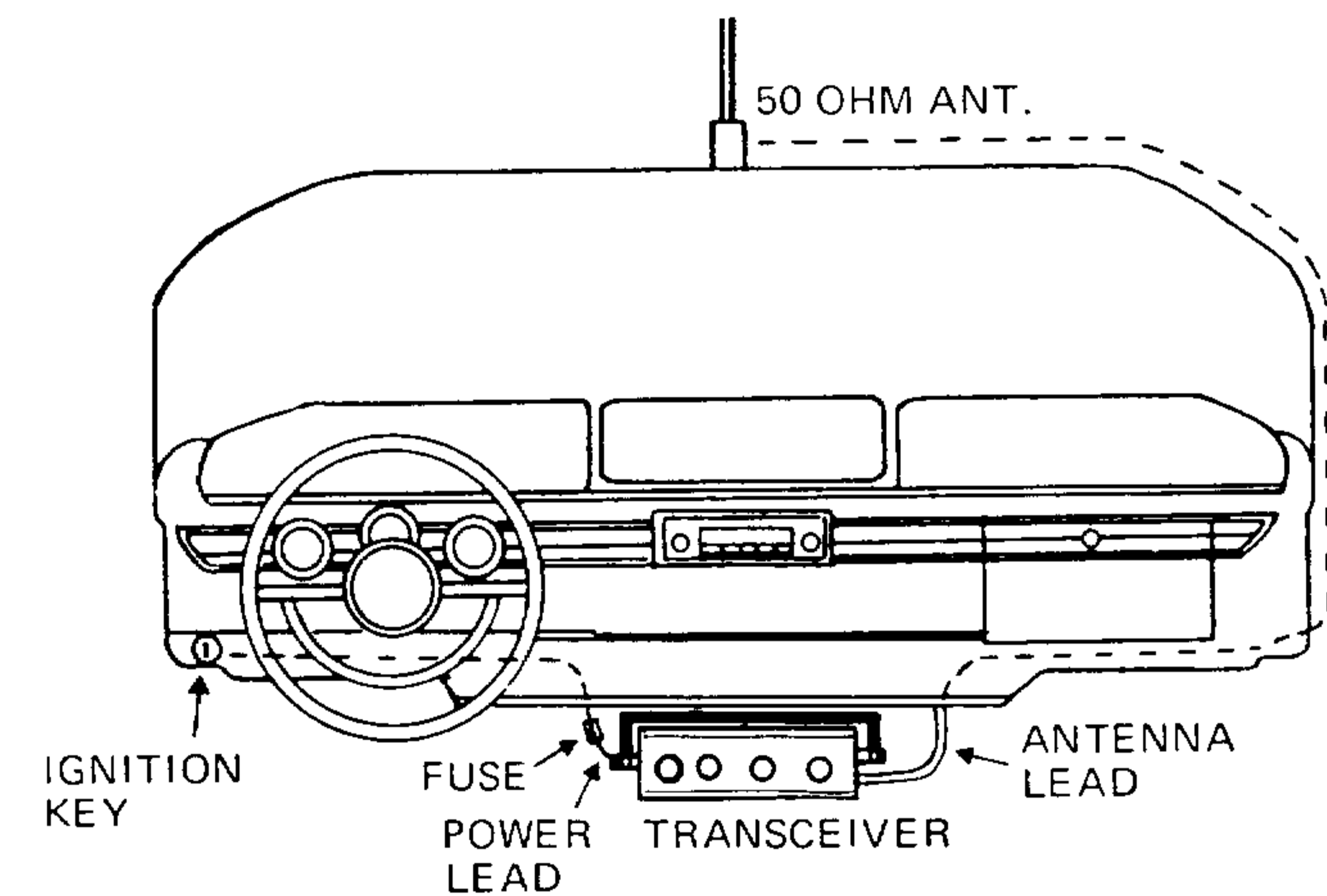
The power lead of your TRANSCEIVER is designed for use in a vehicle with a NEGATIVE ground. if your vehicle has POSITIVE ground, it will be necessary to change the circuit from NEGATIVE to POSITIVE ground.

(See Positive Ground Conversion)

By connecting the red power lead (fused) to the vehicle's ignition switch or radio power lead, the unit will operate only when the ignition is turned-on. This unit is supplied with a mounting bracket and mounting hardware which necessary for installation. The bracket has several mounting holes for installation in a desirable position.

Connect the antenna cable to the back of the unit, use a plug of type PL259. The antenna cable should be use low loss cable as a type RG-58/A-U. 52 Ohm.

CAUTION: Do not operate the unit without the antenna cable connected. Otherwise the transmitter may be damaged.



OPERATING INSTRUCTIONS

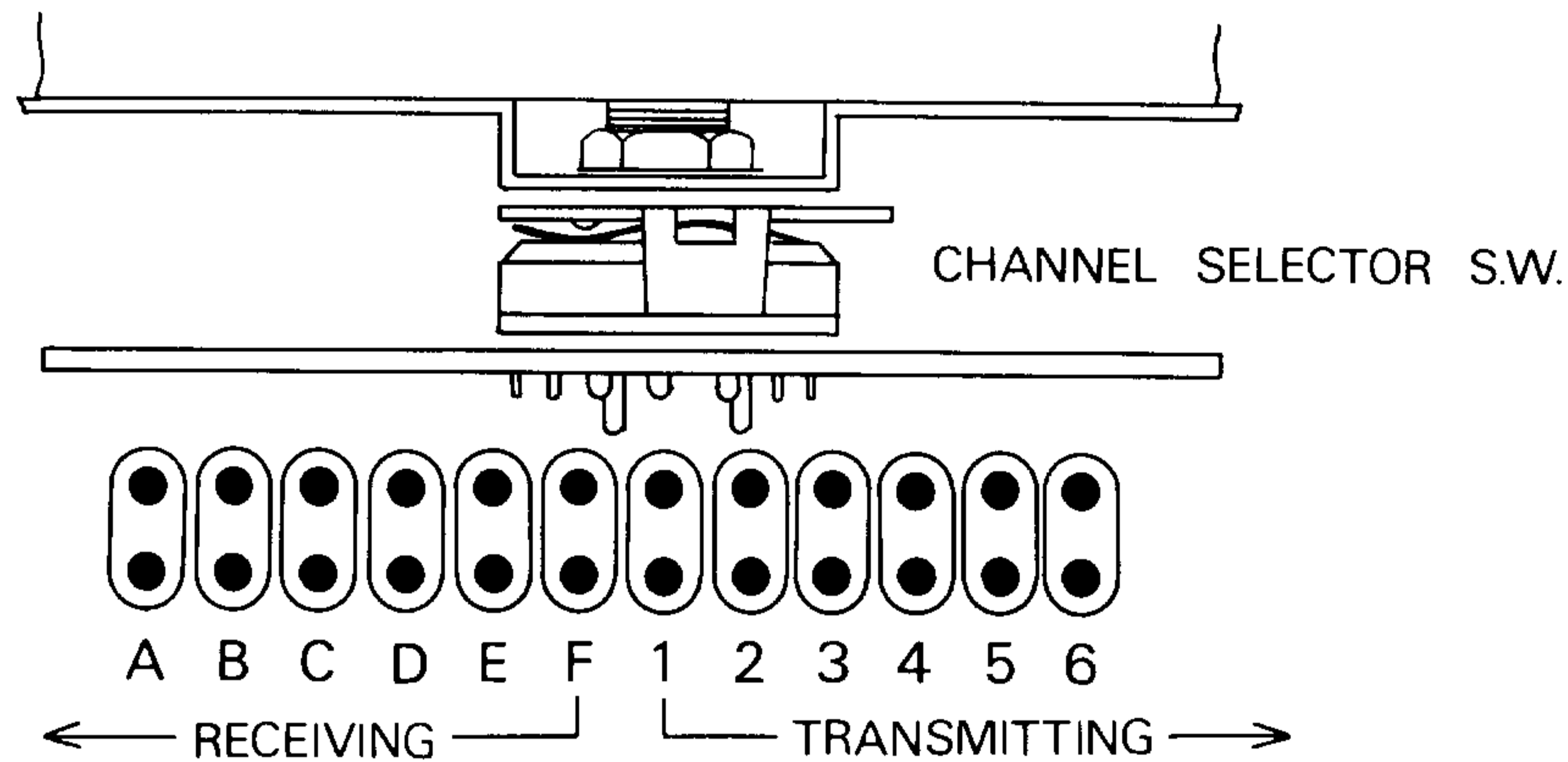
1. By turning OFF-VOLUME control clockwise, the unit is "ON" and receiving light glows. Adjust the control to comfortable level.
2. Adjust the SQUELCH control to eliminate background noise when a station is being received. If the SQUELCH control to turned excessively clockwise, it will reduce sensitivity of the receiver, resulting in missing weak signals.
3. To transmit, by depressing the "PUSH-TO-TALK" button of the microphone, the transmitting light glows as shown "On-the-Air". While holding the microphone approximately 3 to 4 inches from your lips, use normal speaking voice. Release the "PUSH-TO-TALK" button of the microphone to receive.
4. The CHANNEL selector switch is used to select any desired channel in one of six installed transmitter-receiver crystals.

CRYSTAL INSTALLATION

1. Remove the unit from its mount, disconnect the power lead and antenna cable at the rear of the unit.
2. Remove four screws of the side of the bottom-cabinet. (Speaker mounted side). Carefully disassembled the cabinet. Remove speaker leads form the P.C. board.
3. The crystal socket are marked as A, B, C, D, E, & F.....for "RX" (Receiving crystals) and 1, 2, 3, 4, 5 & 6 for "TX" (Transmitting crystals.)
(See Figure below)
4. Be careful when installing additional crystals, using too much pressure may collapse the crystal case and ruin the crystal element contained therein.
5. When all adjustments are made, re-install the chassis in the cabinet and tightening the cabinet screws. Connect the antenna wire and power lead in the same manner as previously connected. Now the unit is ready for operation. Remember to avoid operating the unit on channel position which have no crystals inserted.

Note: Frequency of the receiving crystals are lower frequency of the transmitting channels.

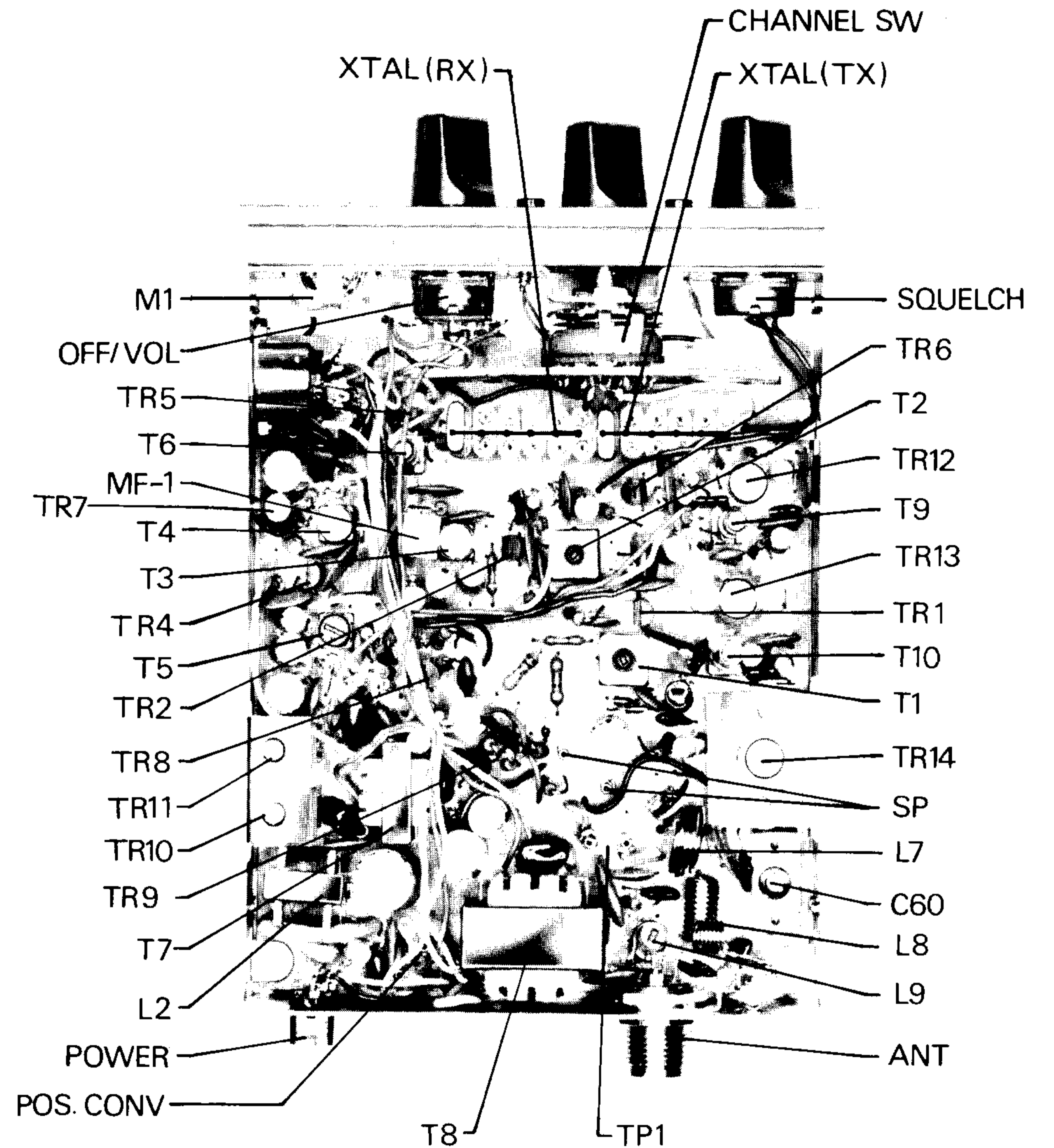
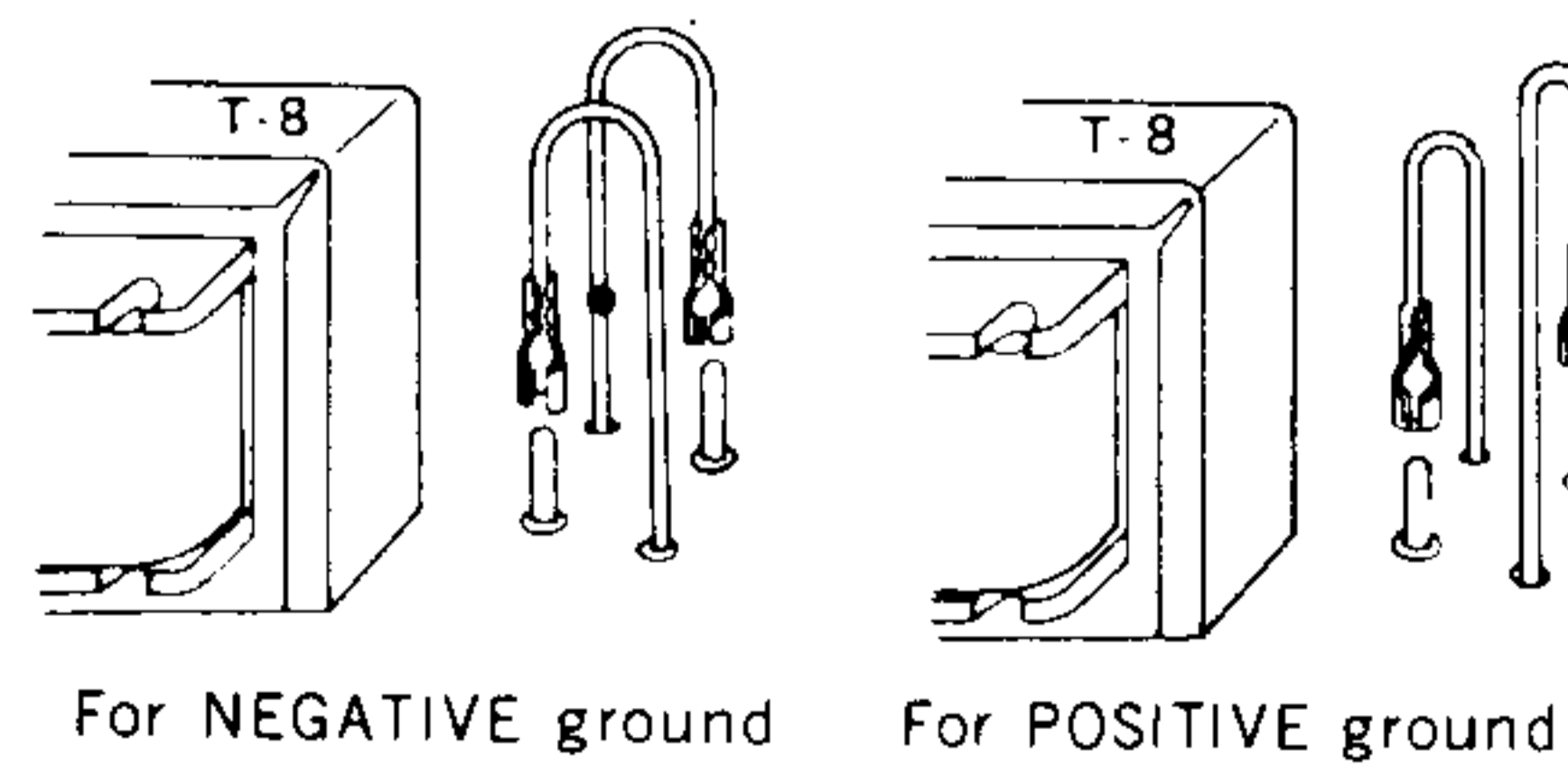
Example: Tx: 27.275 MHz.
Rx: 26.820 MHz.



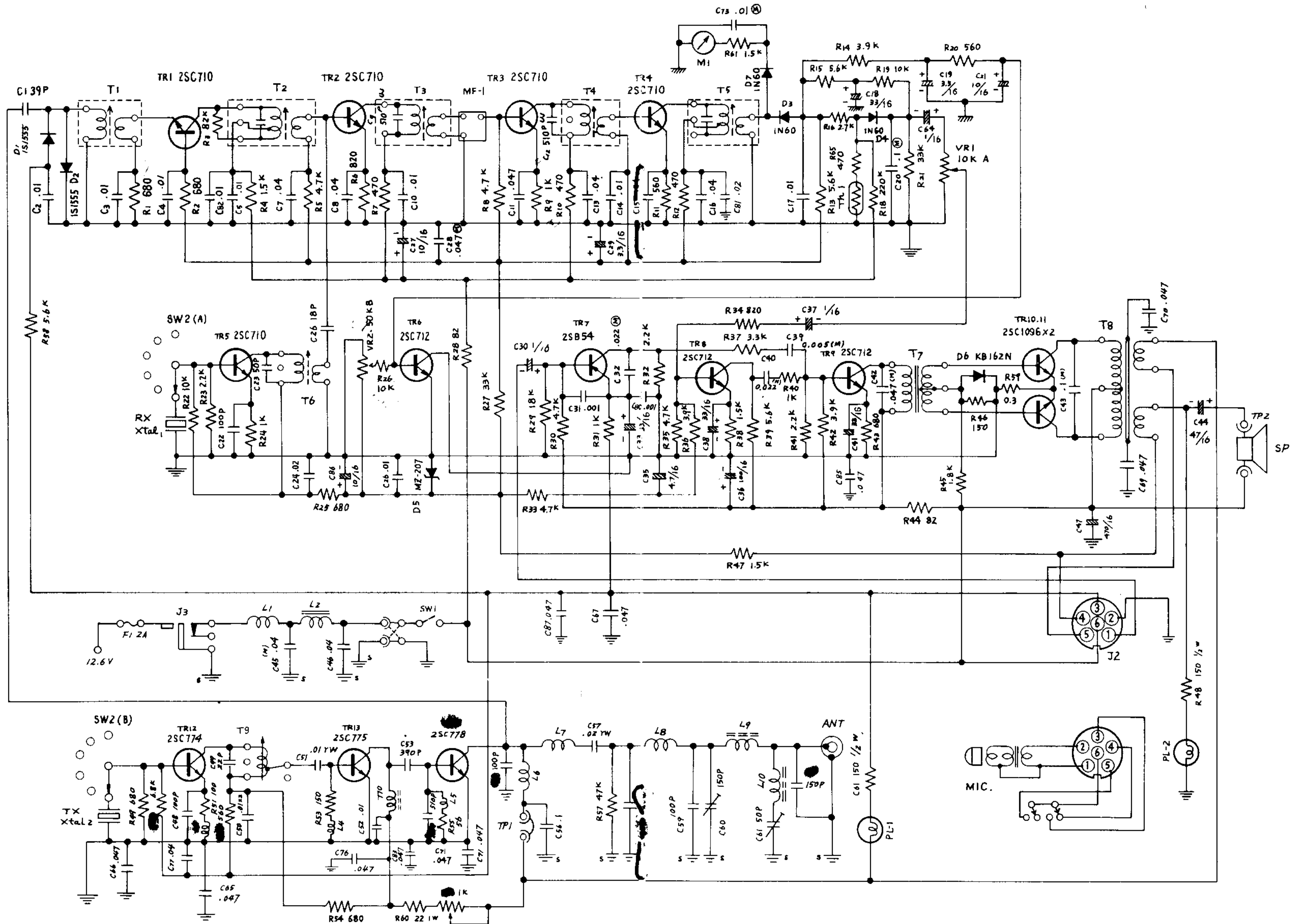
POSITIVE GROUND CONVERSION

To use the unit in a POSITIVE ground system, follow the modifying method desirable below:

1. Remove the cabinet (same steps as 1 to 3 on CRYSTAL INSTALLATION).
2. Reset jumper wires located near of T-8 (Audio output transformer) as shown the figure below.
3. Note to the attached warning tag that the unit has been converted for POSITIVE ground operation.



SCHEMATIC DIAGRAM



THE ABOVE SCHEMATIC DIAGRAM IS FOR TS-727G

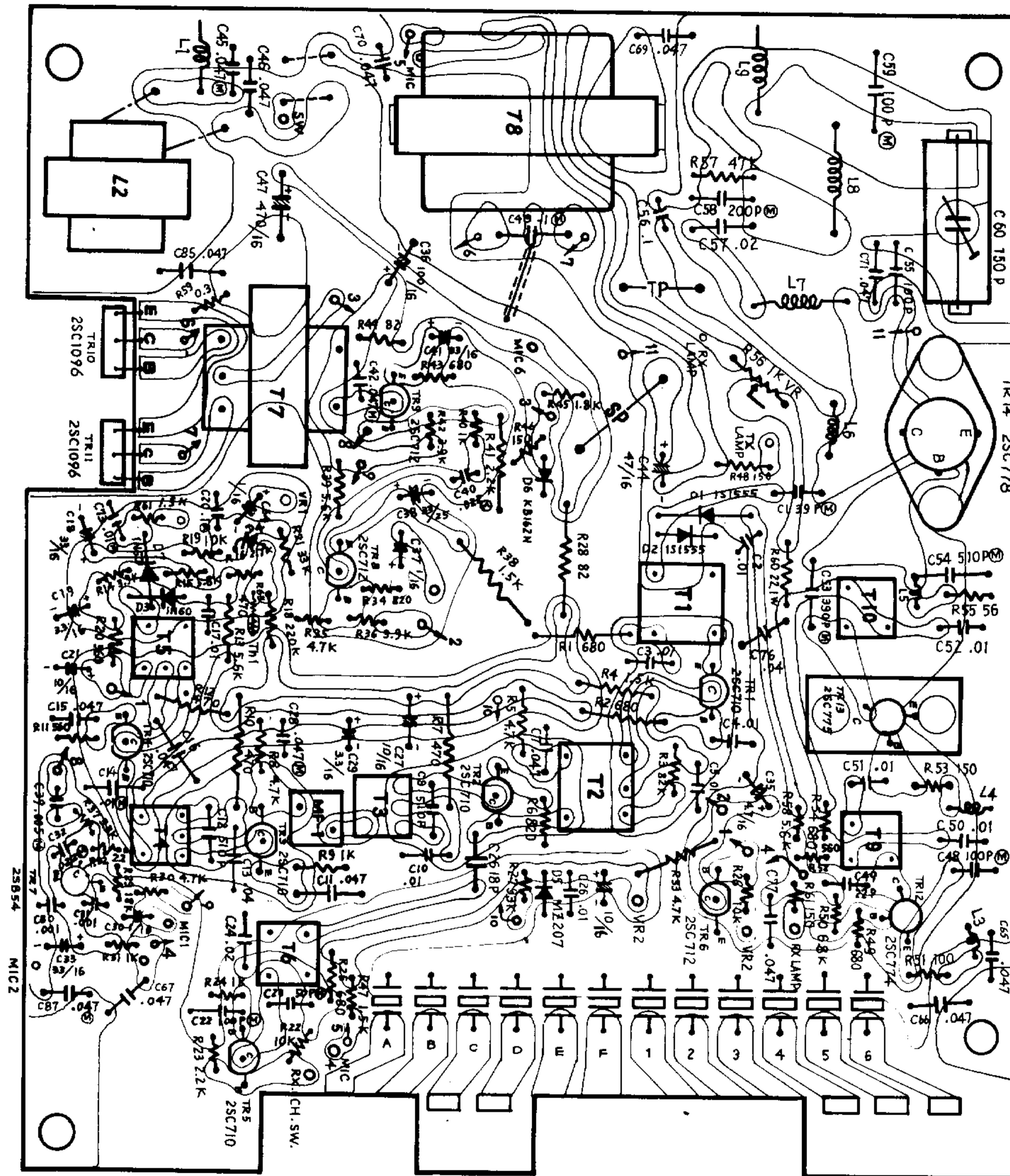
In TS-737 the following components are deleted or changed:

- | | |
|----------------------------|--------------------------|
| R50. changed to 820 ohm. | C55. deleted. |
| R52. deleted (bridge). | C58. changed to 150 PF. |
| R56. deleted (bridge). | C63. changed to 100 PF. |
| C72/54. changed to 390 PF. | TR14 changed to 2SC 1239 |
| L3 deleted (bridge) | |

NOTE: Capacitors indicated in Microfarads, (M) shown as Mylar capacitors.

Resistors indicated in Ohms, all resistors are 1/4 watts, 10%. Unless otherwise specified. Subject to change without notice.

PARTS LIST for TS-727G (TS-737)



DESIGNATION	PARTS NAME	PARTS NO.
MP1	Chassis Frame	472002
MP2	Chassis Frame (Front)	474035
MP3	Cabinet Cover (Upper)	473008
MP4	Cabinet Cover (Lower)	473009
MP5	Mounting Bracket for Speaker	474038
MP6	Mounting Bracket for Trimmer	474037
MP7	Mounting Bracket for Lamp Lens	474039
MP8	Heatsink for 25C775	474036
MP9	Radiator for 2SC775	487751
MP10	Heatsink for 2SC778	484059
MP11	Microphone Hanger	484056
MP12	Mounting Bracket	474040
MP13	Screw for Mounting Bracket	474034
MP14	Front Panel	474031
MP15	Front Plate	473011
MP16	Back Plate	474042
MP17	Knob	474011
MP18	Washer for Mounting Bracket	474033
MP19	Lamp Lens (Red)	M40024R
MP20	Lamp Lens (Green)	M40024G
MP21	Washer for Knob	484058
J1	Antenna Jack	MRM/INCH
J2	Microphone Consent DIN 6P	CS-260
J3	Power Jack	SJ-342
EP1	Power Cord with plug and Fuse holder	W-001
F1	Fuse 2A	F-2A
M1	Meter	B08A86R
SP	Speaker	66P15-1
PL/PL2	Pilot Lamp	PL-7371
SW1/SW2	Channel Selector Switch	M26S-
MIC	Microphone Complete	22-256-11B
EP2	Crystal Socket	
T1	RF Coil (Pink)	L1021
T2	RF Coil (Blue)	L1022
T3	IFT (Yellow)	L1023
T4	IFT (White)	L1024

PARTS LIST for TS-727G (TS-737)

DESIGNATION	PARTS NAME	PARTS NO.
T5	IFT (Black)	L1025
T6	RX OSC. Coil	L1026
T7	TX OSC. Coil	L1027
T8	TX Driver Coil	L1028
T9	Input Transformer	T1094
T10	Output Transformer	T01002
L1	RF Choke Coil	L1029
L2	Power Choke	TC1001
L3	Micro Inductor 1 μ H	L2001
L4, 5	Micro Inductor 2.2 μ H	L2022
L6	RF Choke Coil	L1030
L7	RF Coil	L1031
L8	RF Coil	L1032
L9	RF Coil	L1033
L10	RF Trap Coil	L1034
VR1	Variable Resistor (Volume) 10 KAS	177-S2D/10KA
VR2	Variable Resistor (Volume) 50 KB	177-NB/50KB
R56	Trimpot. 1K	SVR-1K
MF1	Ceramic Filter	LF-B6
EP3	P. C. Board (Main)	72701
EP4	P. C. Board (Channel)	72702
TR1,2,3,4,5	Transistor	2SC710
TR6, 8, 9	Transistor	2SC712
TR7	Transistor	2SB54
TR10, 11	Transistor	2SC1096
TR12	Transistor	2SC774
TR13	Transistor	2SC775
TR14	Transistor	2SC778
D1, 2	Silicon Diode	1S1555
D3, 7, 4	Germanium Diode	1N60
D5	Zener Diode	MZ-207
D6	Varistor	KB-162N
C61	Trimmer	ECV-1ZW 50P
C60	Trimmer	B-3P 150P

SPECIFICATIONS for TS-727G (TS-737)

Semiconductors	: 15 transistors, 7 diodes.
Transmitter System	: Triple stage, crystal controlled, Collector modulation AM.
Frequency	: 6 channels on 27 MHz.
Frequency Tolerance	: Within 0.005% (-10°C to 50°C).
Total Input Power	: 2 watts (5 watts).
Band Width	: 8 KHz (max).
Antenna Impedance	: 50-52 ohms.
Receiver System	: Single superheterodyne, crystal controlled.
Sensitivity	: 1 μ V or better for 50mW output, 10 dB signal to noise ratio.
Intermediate Frequency	: 455 KHz.
Receiver Selectivity	: 30 dB down at 10 KHz.
Squelch Sensitivity	: 1 μ V.
Audio Output Power	: 0.4 watts in 10% distortion.
Power Source	: 11-16 volts D. C. Neg. or Pos. Ground.
Power Consumption (Tx)	: 0.18A (75A) at no modulation.
Power Consumption (Rx)	: 0.1A at no signal.
Microphone	: Dynamic type with press-talk switch.
Speaker	: Dynamic type 8 ohms V. C.
Size	: 121 x 35 x 160 mm
Weight	: 1.12 kg
Accessories	: Mounting bracket, Mounting hard ware Power Cord.