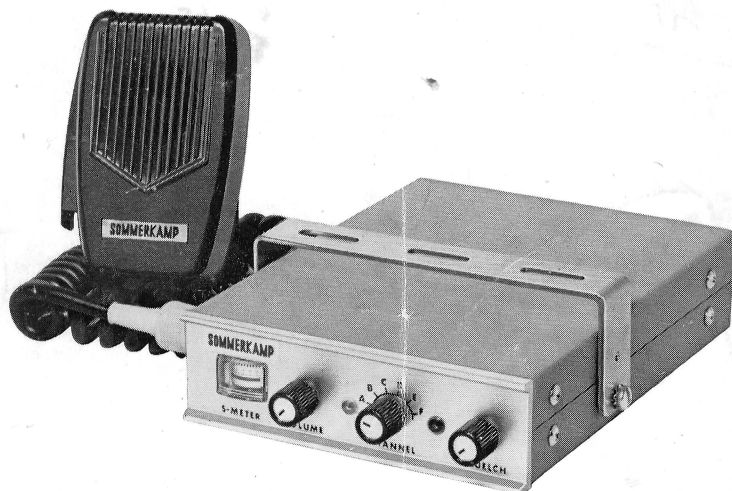


SOMMERKAMP®

CITIZENS BAND TRANSCEIVER

INSTRUCTION MANUAL



MODEL: TS-727G

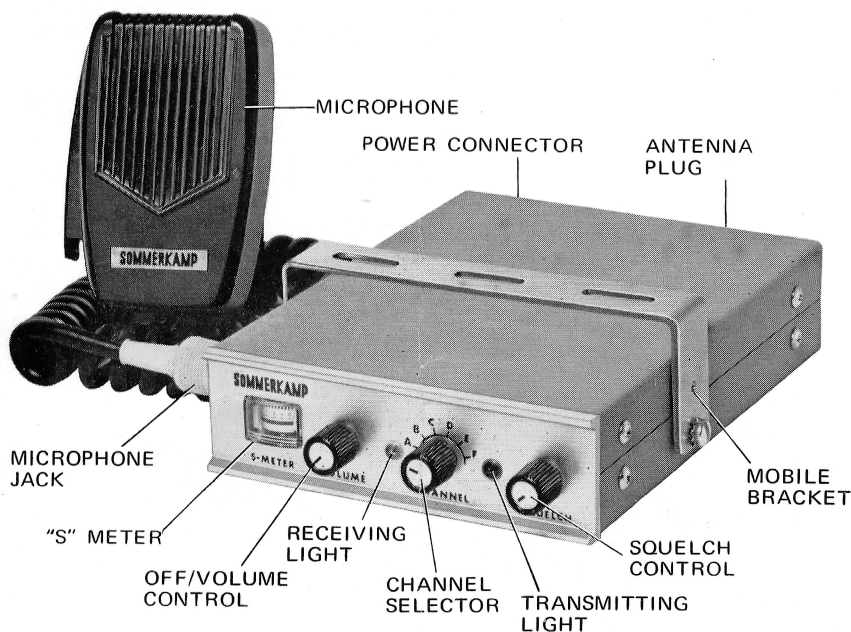
FTZ APPROVAL NO. K98/70

GENERAL INSTRUCTIONS

Your **TRANSCEIVER SOKA-G** is a compact size, and high performance two-way communication instrument which designed to operate on any of the six channels of the 27 MHz. band.

The unit is small enough to install at under the dash board or 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.

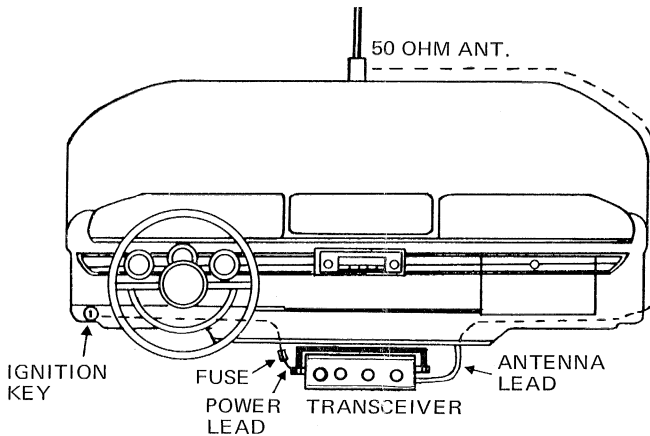
MOBILE INSTALLATION

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 is 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.

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



OPERATING INSTRUCTIONS

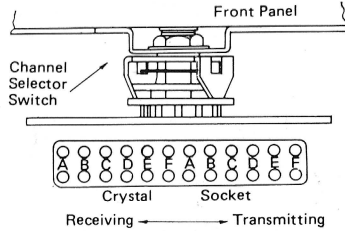
1. By turning OFF-VOLUME control clockwise, the unit is "ON" and receiving light glows. Adjust the control to comfortable level.
2. Adjust the SQUELCH control to eliminate background noise when a station is being receiving. If the SQUELCH control to turned excessively clockwise, it may reduce sensitivity 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

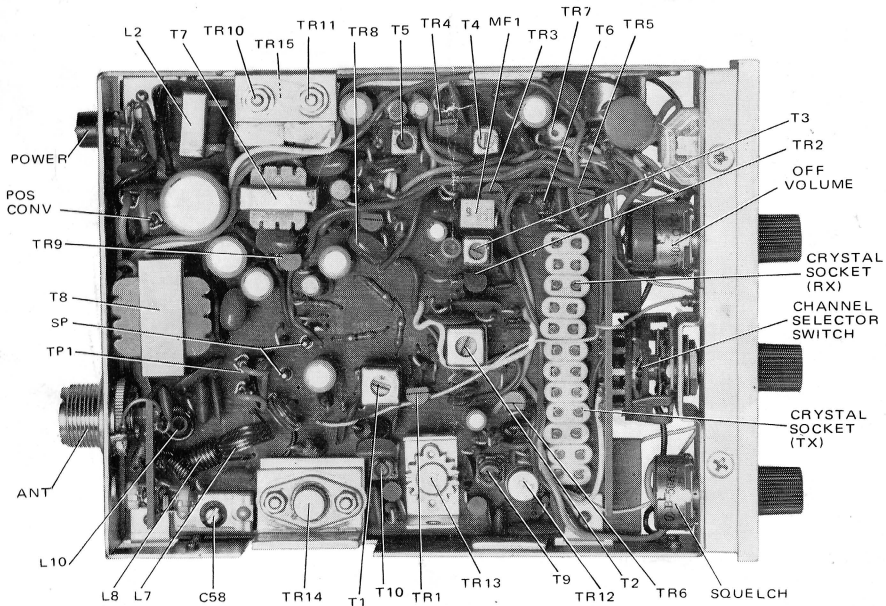
1. Remove the unit from its mount, disconnect the power lead and antenna cable at the rear of the unit.
2. Remove four screws of the side of the bottom-cabinet. (Speaker mounted side). Carefully disassembled the cabinet. Remove speaker leads from the P.C. board.
3. The crystal socket are marked as A. B. C. D. E. & F.. Also indicated as "RX" (Receiving crystals) and "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.



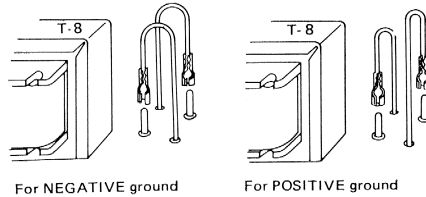
*Rx = Receiver
Tx = Transmitter*



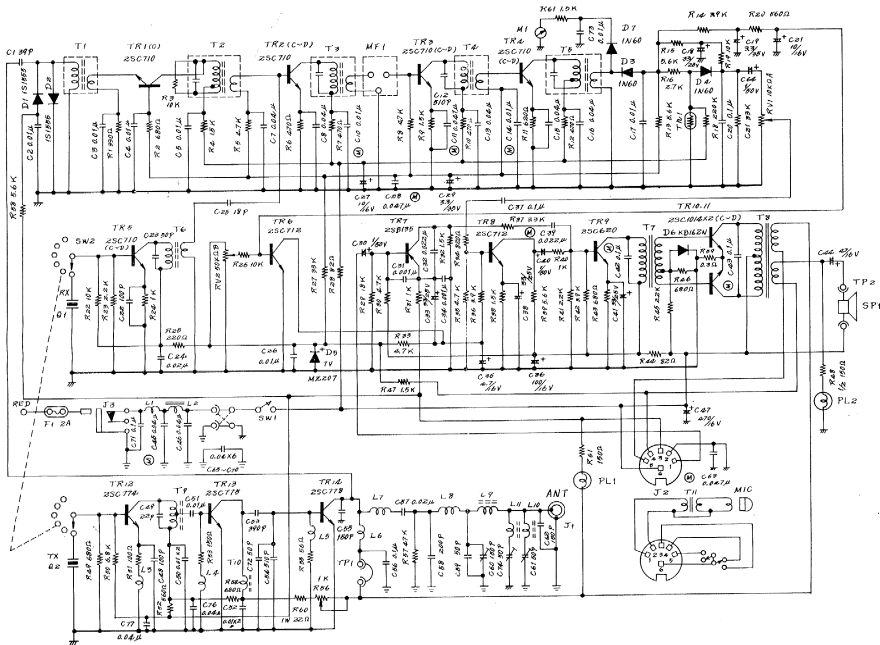
POSITIVE GROUND CONVERSION

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



NOTE: Capacitors indicated in Microfarads, M shown as Mylar capacitors.
Resistors indicated in Ohms, all resistors are 1/2 watts, 10%. Unless otherwise specified.

SPARE PARTS LIST

Symbol No.	Descriptions	Quantity
R28	Resistor, R 1/8W, 82 ohm	1
R1	" " 330 ohm	1
R38,61	" " 1.5 k ohm	2
R41	" " 22 k ohm	1
R51	" ELR 1/8W, 100 ohm	1
R55	" " 56 ohm	1
R44	" " 82 ohm	1
R53	" " 150 ohm	1
R25	" " 220 ohm	1
R6,7,10,12	" " 470 ohm	4
R20	" " 560 ohm	1
R11	" " 620 ohm	1
R2,43,46,49,54	" " 680 ohm	5
R34	" " 820 ohm	1
R24,40,31	" " 1 k ohm	3
R4,9,32,47	" " 1.5 k ohm	4
R23,45	" " 2.2 k ohm	2
R16	" " 2.7 k ohm	1
R37	" " 3.3 k ohm	1
R14,36,42	" " 3.9 k ohm	3
R5,8,30,33,35	" " 4.7 k ohm	5
R13,15,39,58	" " 5.6 k ohm	4
R50	" " 6.8 k ohm	1
R3,19,22,26	" " 10 k ohm	4
R29	" " 18 k ohm	1
R21,27	" " 33 k ohm	2
R47	" " 47 k ohm	1
R18	" " 220 k ohm	1
R52	" 1/8 W, 560 ohm	1
R59	" Wire 1/4W, 0.3 ohm	1
R48,61	" Metal 1/2W, 150 ohm	2
R60	" " 1W, 22 ohm	1
Th 1	Thermistor, TD5C217	1
C31,34	Capacitor, Ceramic 50WV, YZ, 0.001uF	2
C2,3,4,5,17,26,51,50x2,52x2,73	" " " " 0.01 uF	12
C24	" " " " 0.02 uF	3
C7,8,13,15,16,46,65,66,67,68,69,70	" " " " 0.04 uF	12
C37,56,71	" " " " 0.1 uF	3
C12	" " " SL, 500pF	1
C57x2	" " " XY, 0.022 uF	2
C10,14	" Mylar, " LD, 0.01 uF	2
C32,39	" " " " 0.022 uF	2
C11,28,45,63	" " " " 0.047 uF	4
C20,42,43	" " " " 0.1 uF	3
C25	" Mica, " HQ, 18 pF	1
C49	" " " " 22 pF	1
C6	" " " " 30 pF	1
C1	" " " " 39 pF	1
C23,59,72,	" " " " 50 pF	3
C22,48	" " " " 100 pF	2
C55,62	" " " " 150 pF	2
C58	" " " " 200 pF	1
C53	" " " " 390 pF	1
C54	" " " " 510 pF	1
C61,74	" Trimmer, ECV-1ZW, 50 pF	2
C60	" " B, Max 150 pF	1
C30,40,64	" Elect. 50WV, 1 uF	3
C19,29,	" " 35WV, 3.3 uF	2
C35	" " 16 WV, 4.7 uF	1
C21,27	" " " " 10 uF	2
C18,33,38,41	" " 25 WV, 33 uF	4
C44	" " 16 WV, 47 uF	1
C36	" " " " 100 uF	1
C47	" " " " 470 uF	1
D3,4,7,	Diode, Germanium 1N60	3
D1,2	" Silicon 1S1555	2
D6	" " KB-162	1
D5	" Zener MZ-207	1
TR1,2,3,4,5	Transistor, Silicon 2SC710	5
TR6,8	" " 2SC712	2
TR9	" " 2SC620	1
TR10,11	" " 2SC1014	2
TR12	" " 2SC774	1
TR13	" " 2SC775	1
TR14	" " 2SC778	1
TR7	" Germanium 2SB135	1
SW2	Channel Selector Switch	1
SP1	Speaker, 66-52	1

Symbol No.	Descriptions	Quantity
T1	Coil, Antenna SX-5615	1
T2	" RF SX-5616	1
T3	" IFT-A	1
T4	" IFT-B	1
T5	" IFT-C	1
T6	" Local Osc SX5618	1
T9	" Tx Osc.	1
T10	" Drive	1
L7	" Tx Out put SX5636A	1
L8	" Filter SX-5635A	1
L9	" " SX5809A	1
L10,11	" Trap SX5861	2
L6	" RF Choke	1
L1	" Power choke	1
L3	Micro Inductor	1
L4,5	" " LF4-2R2K	2
L2	Power choke	1
T7	Transformer, Driver	1
T8	" Modulation	1
MF1	Ceramic Filter LF-B6	1
M1	S-Meter	1
RV1	Resistor, Variable (Volume) A10K	1
RV2	" " (Squelch) B50K	1
R56	" Semi-variable 1K ohm	1
J1	Antenna Connector JSO-239	1
Q1	Crystal for Receiving	1
Q2	" " Transmitting	1
	Crystal Socket	12
	Pin Terminal	6
	P.C. Board (S-Meter)	1
	P.C. Board (Channel)	1
	P.C. Board (Main)	1
PL1,2	Lamp 6V, 40 mA	2
J2	Microphone Consent DIN	1
J3	Power Jack SJ-342	1
	Power Plug SP-018	1
	Fuse 2A	1
	Fuse Holder SN-1102	1
	Jumper Wire	1
	Speaker Cord	2
	Power Cord	1
	Microphone Complete KD-5	1
	Front Pannel KM33797	1
	Cabinet Cover A KM 33800	1
	" " B KM33801	1
	Chassis KM33799	1
	" Front KM401052	1
	Mounting Bracket KM49976	1
	Mounting Metal for Speaker KM49979	3
	Radiator Plate KM400245	1
	" " B KM46728b	1
	" " Chip KM48918b	1
	Microphone Hanger KM49383b	1
	Knob KM400346	3
	Spacer KM49985a	1
	Lamp Cover KM49983c	1
	Insulating Plate KM400493	1
	Packing Cloth KM 400486	4
	Protection Paper for Cover KM400248	2
	Polarity Indication Paper	1
	Warning Tag	1
	Screw for Mounting Bracket	2
	Lug Terminal F6	1
	Push Nut 4 mm	2
	Screw Philips NB 2 x 6	4
	" " " 5 x 15	2
	" " " 3 x 10	2
	" " " 3 x 8	2
	" " " 3 x 5	2
	" " S 3 x 6	4
	" " 3 x 4B	11
	" " 3 x 6 Tapping	5
	Nut N5	2
	" N3	4
	Washer 5 mm	2
	" 4mm	2
	Eyelet 3 x 7	2
	Rivet S 2.5 x 4	2
	Instruction Manual	1
	Styrofoam Packing A B	1
	Dispaly Box	1

SPECIFICATIONS

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	: Final input not to exceed 2 watts.
Spurious Suppression	: Better than 50dB (Against Fundamental).
Band Width	: 8 KHz (max).
Antenna Impedance	: 50-52 ohms.
Receiver System	: Single superheterodyne, crystal controlled.
Sensitivity	: 1 μ V or better for 50 mW 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	: 12.6 to 13.6 volts D.C. Neg. or Pos. Ground.
Power Consumption (Tx)	: 0.18 A at no mod.
Power Consumption (Rx)	: 0.1 A at no sig.
Microphone	: Dynamic type with press-to-talk switch.
Speaker	: Dynamic type 8 ohms V.C.
Size	: 4-3/4" W x 1-3/8" H x 6-9/32" D
Weight	: 2.5 lbs with accessories.
Accessories	: Mounting bracket Mounting hardware Power Cord.



SOKA SRL

CH-6903 LUGANO, BOX 176,

TEL: 091 88543

TELEX: 79314