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**Gonset Model G14 Owner's Manual**

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**INSTRUCTION MANUAL  
CITIZEN'S COMMUNICATOR  
MODEL G-14**

GONSET



**INSTRUCTION MANUAL  
CITIZEN'S COMMUNICATOR  
MODEL G-14**



55-8-1

Type accepted by the FCC under Part 19 of the  
FCC Rules and Regulations

**GONSET DIVISION**

**Young Spring & Wire Corporation**

**801 South Main Street**

**Burbank, California**

**MADE IN U. S. A.**

## WARRANTY POLICY

The Gonset Division warrants its equipment, when properly registered, against defects in workmanship, materials, and construction under normal use and service for a period of 90 days from the date of original purchase. Under this warranty our obligation is limited to repairing or replacing any defective parts.

This warranty does not apply to any equipment which has been tampered with in any way, or which has been misused or damaged by accident or negligence, or which has had the serial number removed, altered or effaced.

On equipment employing a vibrator, all components are covered by the warranty with the exception of the vibrator itself.

This warranty is valid only when the enclosed card is properly filled in and returned within ten days from purchase date.

The Gonset Division reserves the right to discontinue or change, at any time, specifications, design or prices without notice and without incurring obligations.

**DO NOT SEND EQUIPMENT TO THE FACTORY WITHOUT FIRST SECURING AUTHORIZATION TO DO SO.**

**THIS WARRANTY DOES NOT INCLUDE TRANSPORTATION COSTS TO AND FROM THE FACTORY.**

## **GONSET DIVISION**

**YOUNG SPRING & WIRE CORPORATION**

**801 SOUTH MAIN STREET, BURBANK CALIFORNIA**

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# FEDERAL COMMUNICATIONS COMMISSION (FCC) REGULATIONS

IMPORTANT NOTICE
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BEFORE THE TRANSMITTER IS OPERATED, IT IS NECESSARY TO OBTAIN A STATION LICENSE AND CALL SIGN FROM THE FEDERAL COMMUNICATIONS COMMISSION. AFTER READING PART 19 OF THE FCC RULES AND REGULATIONS, FILL OUT FCC FORM NO. 505 AND SUBMIT IT TO THE FCC. A COPY OF FORM NO. 505 IS INCLUDED IN THE PACKING BOX WITH THE UNIT. IT IS ILLEGAL TO OPERATE THE TRANSMITTER UNTIL A VALID LICENSE AND CALL SIGN HAVE BEEN RECEIVED FROM THE FCC.

It is required that the section of the FCC Rules and Regulations which deals with CONELRAD be read and understood before the transmitter is operated. The FCC Rules, Part 19, contain this information under Subpart I - CONELRAD.

Following is an excerpt from Volume VI, Part 19, of FCC Rules and Regulations which will acquaint the operator with fundamental requirements, definitions and restrictions:

## "SUBPART A - GENERAL"

### 19.1 BASIS AND PURPOSE

The rules and regulations set forth in this part are issued pursuant to the provisions of Title III of the Communications Act of 1934, as amended, which vests authority in the Federal Communications Commission to regulate radio transmissions and to issue licenses for radio stations. The rules in this part are designed to provide for private short-distance radiocommunications, radio

signalling, and the control of remote objects or devices by means of radio, and to provide procedures whereby manufacturers of radio equipment to be used or operated in the Citizens Radio Service may obtain type acceptance and/or type approval of such equipment as may be appropriate.

## 19.2 DEFINITIONS

For the purpose of this part, the following definitions shall be applicable. For other definitions, refer to Part 2 of this chapter.

### (a) Definitions of services.

Citizens Radio Service. A radio communications service of fixed, land, and mobile stations intended for personal or business radio-communication, radio signalling, control of remote objects or devices by means of radio, and other purposes not specifically prohibited in this part.

Fixed service. A service of radiocommunication between specified fixed points.

Mobile service. A service of radiocommunication between mobile and land stations or between mobile stations.

### (b) Definitions of Stations.

Base station. A land station in the land mobile service carrying on a service with land mobile stations.

Class A station. A station in the Citizens Radio Service operating on an assigned frequency available to that service in the 460-470 MC frequency band, with an authorized plate input power of 60 watts or less. (Class A stations are authorized to be operated as mobile stations, as base stations, or as fixed stations.)

Class B station. A mobile station in the Citizens Radio Service operating on an authorized frequency available to that service in the 460-470 MC frequency band with an authorized plate input power of 5 watts or less. (Class B stations are authorized to be operated as mobile stations only; however, they may be operated at fixed locations in accordance with other provisions of this part.)

Class C station. A mobile station in the Citizens Radio Service operating on an authorized frequency in the 26.96-27.23 MC frequency band, or on the frequency 27.255 MC, for the control of remote objects or devices by radio, or for the remote actuation of devices which are used solely as a means of attracting attention. (Class C stations are authorized to operate as mobile stations only; however, they may be operated at fixed locations in accordance with other provisions of this part.)

Class D station. A mobile station in the Citizens Radio Service operating on an authorized frequency in the 26.96-27.23 MC frequency band, or on the frequency 27.255 MC, with an authorized plate input power of 5 watts or less for radiotelephony only. (Class D stations are authorized to operate as mobile stations only; however, they may be operated at fixed locations in accordance with other provisions of this part.)

Fixed station. A station in the fixed service.

Land station. A station in the mobile service not intended for operation while in motion. (Of the various types of land stations, only the base station is pertinent to this part.)

Mobile station. A station in the mobile service intended to be used while in motion or during halts at unspecified points. (For the purposes of this part, the term includes hand-carried and pack-carried units.)

(c) Miscellaneous definitions.

Antenna structure. The term "antenna structure" includes the radiating system, its supporting structures, and any surmounting appurtenances.

Assigned frequency. The frequency appearing on a station authorization, from which the carrier frequency may deviate by an amount not to exceed that permitted by the frequency tolerance.

Authorized bandwidth. The maximum width of the band frequencies, as specified in the authorization, to be occupied by an emission.

Bandwidth occupied by an emission. The band of frequencies comprising 99 percent of the total radiated power extended to include any discrete frequency on which the power is at least 0.25% of the total radiated power.

Harmful interference. Any radiation or any induction which endangers the functioning of a radio-navigation service or of a safety service, or obstructs or repeatedly interrupts a radio service operating in accordance with applicable laws, treaties, and regulations.

Landing area. A landing area means any locality, either of land or water, including airports and intermediate landing fields, which is used or approved for use for the landing and take-off of aircraft, whether or not facilities are provided for the shelter, servicing, or repair of aircraft, or for receiving or discharging passengers or cargo.

Remote control. The term "remote control" when applied to the use or operation of a Citizens Radio Station, means control of the transmitting equipment of that station from any place other than the location of the transmitting equipment, except that direct mechanical control or direct electrical control by wired connections of transmitting equipment from some other point on the same premises, craft or vehicle shall not be considered to be remote control. (Authorization for the use or operation of any transmitting equipment by remote control in the Citizens Radio Service is granted only in the case of Class A base or fixed stations.)

Station authorization. Any construction permit, license, or special temporary authorization issued by the Commission.

### 19.3 POLICY GOVERNING THE ASSIGNMENT OF FREQUENCIES.

- (a) The frequencies which may be assigned to Class A stations in the Citizens Radio Service, and the frequencies which are available for use by Class B, C, or D stations, are listed in Subpart C. All applicants for, and licensees of, stations in this service shall cooperate in the selection and use of the frequencies assigned or authorized,

in order to minimize interference and thereby obtain the most effective use of the authorized facilities. Each frequency available for assignment to, or use by, stations in this service is available on a shared basis only, and will not be assigned for the exclusive use of any one applicant; such use may also be restricted to one or more specified geographical areas.

- (b) In no case will more than one frequency be assigned to Class A stations for the use of a single applicant in any given area until it has been demonstrated conclusively to the Commission that the assignment of an additional frequency is essential to the operation proposed.

#### 19.4 GENERAL CITIZENSHIP RESTRICTIONS

A station license may not be granted to or held by:

- (a) Any alien or the representative of any alien;
- (b) Any foreign government or the representative thereof;
- (c) Any corporation organized under the laws of any foreign government;
- (d) Any corporation of which any officer or director is an alien;
- (e) Any corporation of which more than one-fifth of the capital stock is owned of record or voted by: Aliens or their representatives; a foreign government or representative thereof; or any corporation organized under the laws of a foreign country;
- (f) Any corporation directly or indirectly controlled by any other corporation of which any officer or more than one-fourth of the directors are aliens, if the Commission finds that the public interest will be served by the refusal or revocation of such license; or

(g) Any corporation directly or indirectly controlled by any other corporation of which more than one-fourth of the capital stock is owned of record or voted by: Aliens or their representatives; a foreign government or representatives thereof; or any corporation organized under the laws of a foreign government or a representative thereof; or any corporation organized under the laws of a foreign government, if the Commission finds that the public interest will be served by the refusal or revocation of such license.

This equipment complies with Paragraph 19.71(d) of the FCC Rules. Do not break the seal on the transmitter crystal holder or the crystal trimmer capacitor seal unless you hold a first or second-class commercial radio operator's license. No such license is required for the other adjustments, such as the amplifier loading, tuning, etc.

It is no longer possible to supply Part 19 of the FCC Rules with each equipment, because Part 19 no longer is available separately. It is mandatory for the purchaser to order a copy of Volume VI of the FCC Rules in order to obtain Part 19.

This should be ordered from:

Superintendent of Documents  
U. S. Government Printing Office  
Washington 25, D.C.

The price of \$1.25 (check, money order or coin - no stamps) includes supplement service to keep the volume up-to-date indefinitely as amendments are later adopted.

## CONELRAD REGULATIONS

### IMPORTANT NOTICE

#### "SUBPART I - CONELRAD"

All licensed transmitting stations are required to visually or audibly monitor the authorized Conelrad station. In the event of a Conelrad alert, the station will "break" its carrier three times, then follow this break with a voice announcement. It is illegal to transmit during a Conelrad alert.

## GENERAL DESCRIPTION

The G-14 Citizen's Communicator is a complete two-way radio station, designed for operation in the 11-meter Citizen's Band. Both the transmitter and receiver are crystal-controlled, with provisions for four channels, switched from the front panel. Each of the four crystal controlled transmitting channels may be individually adjusted to its proper operating frequency.

The power input requirement is 70 watts. The output circuit is a "Pi-network" type that can be used efficiently with a wide variety of antenna installations. The final output adjustments are accessible from the outside of the cabinet. A tuning and modulation indicator is provided, on the front panel, which also serves as a transmitter "ON" indicator. Amplitude modulation is used, with complete push-to-talk functions controlled by a push button switch on the microphone.

The receiver is a dual conversion super-heterodyne type, which achieves a high degree of selectivity without adjacent channel interference. An RF stage and a gated squelch circuit are added features. A tuning test point, on the AVC

circuit, is accessible on the top of the chassis. A full three watts of audio is available at the speaker with only 2  $\mu$ V input.

The G-14 is offered in two models:

Model 3430 - For operation on either 117-VAC or 12-VDC input

Model 3433 - For operation on either 117-VAC or 6-VDC input

Switching from 117-VAC operation to 12-VDC operation or from 117-VAC operation to 6-VDC operation is accomplished in the particular cable plug used. No alterations in the unit itself are required.

Both models are type accepted, under Part 19 of the FCC Rules and Regulations, Class D, Citizens Radio Service.

#### TRANSMITTER PERFORMANCE SPECIFICATIONS

Power input to final amplifier:	5 watts
Power output:	2.5 to 3.0 watts
Frequency stability:	0.005% overall per FCC requirements
Audio response:	300 to 3,000 cycles
Modulation:	100% amplitude
Four channel:	Crystal controlled

#### RECEIVER PERFORMANCE SPECIFICATIONS

Sensitivity:	1 $\mu$ V or better 30% modulation 10 db signal plus noise to noise ratio
Image and spurious:	Image 40 db down. All other spurious responses, more than 60 db down

## RECEIVER PERFORMANCE SPECIFICATIONS (CONT)

Adjacent channel rejection:	50 db down
IF Selectivity	6 db points 6 KC wide 20 db points 10 KC wide 50 db points 20 KC wide 80 db points 30 KC wide
Audio output:	3 watts with 2 $\mu$ V input 30% modulation
Gated squelch:	0.5 $\mu$ V to 200 $\mu$ V

## INSTALLATION

CAUTION
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Protect the equipment from excessive moisture and dust, but do not under any circumstances enclose the cabinet, or in any way block off the air from the perforated cabinet. Blocking the perforations will prevent free air circulation, cause the unit to become overheated, and result in damage to components.

### FIXED STATION INSTALLATION.

For permanent fixed-station, general coverage applications, when the station is used with one or more mobile units, a good vertical ground plane is recommended. It is also recommended that RG-8/U coaxial cable be used for line lengths in excess of 100 feet. (RG-58/U is satisfactory for shorter lengths.) The antenna may be mounted on any surface, such as a roof-top, providing that the upper end of the antenna does not extend more than 20 feet above the highest

point of the building or structure on which the antenna is mounted (FCC Regulation). For example, the antenna base may not be mounted on top of a tower placed on the roof for this purpose, but it is permissible to mount the antenna on top of a chimney that is a permanent part of the building.

For "point-to-point" communication between two or more fixed stations, a BEAM ANTENNA is recommended. This antenna will greatly increase the range of stations operating between fixed locations, since it concentrates the transmitter power and receiver pick-up in the desired direction, thus increasing the effective range and reducing interference. General instructions included with the antenna describe both vertical and horizontal mounting.

For maximum reliable communications with mobile units which normally employ vertical antennas, it is recommended that the fixed station antenna be of the same polarization.

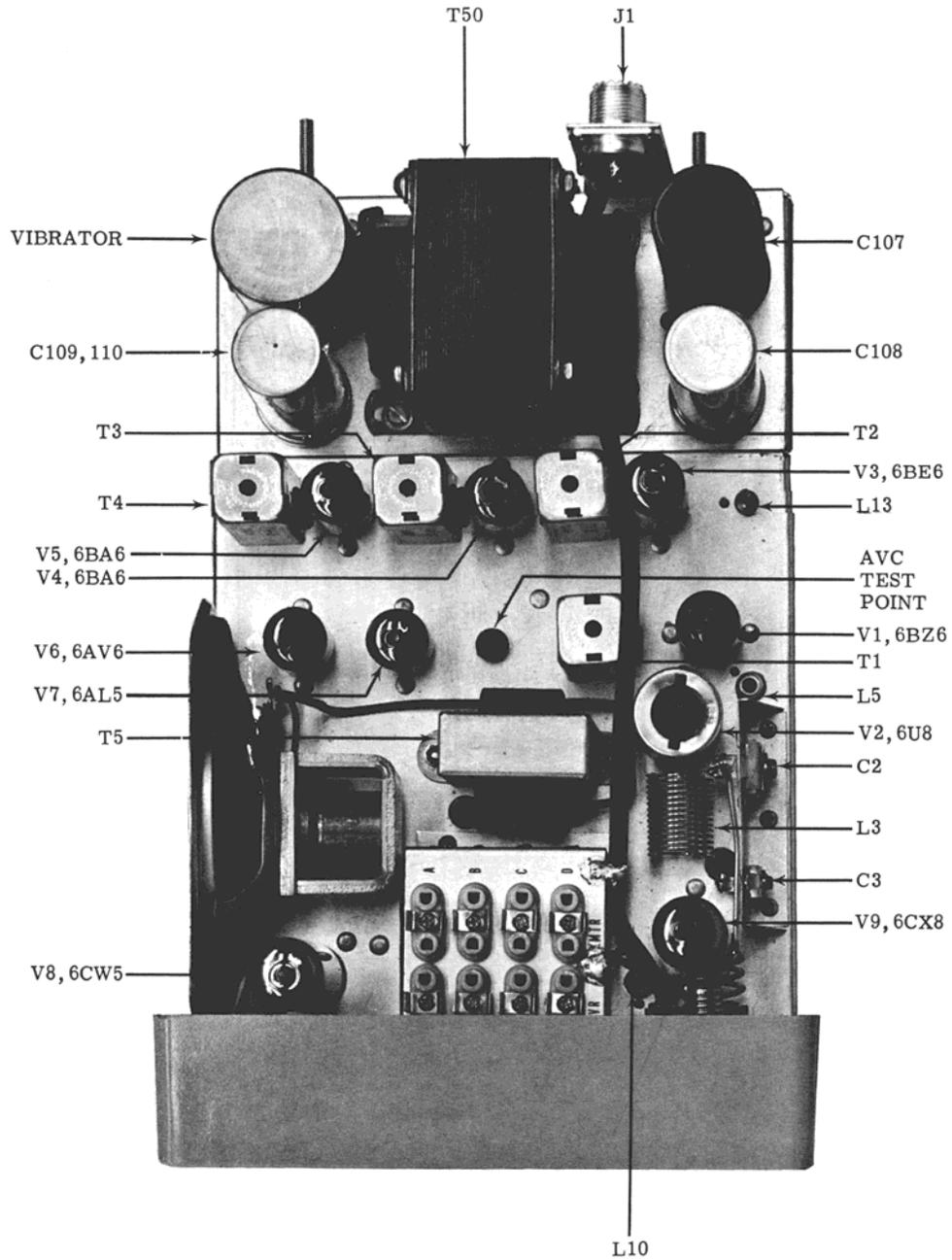
The same FCC requirements apply to height for the beam antenna as for the vertical antenna. When more than one fixed station is to be contacted, the beam antenna must be equipped with a rotator so that it may be aimed in the direction of the station to be contacted.

1. Select a location for the antenna and locate the station as near as possible to a 117-VAC power outlet.
2. Erect the antenna according to the instructions supplied. Route the coaxial transmission line from the antenna to the station location, bringing the line into the building through a window or other access hole. If the transmission line is too long and it must be cut to length, be sure that the connector on the transmitter end is properly installed.

3. Plug the unit power input cable into the AC outlet. Plug the transmission line into the jack on the rear of the station cabinet. Turn the unit on using the "VOLUME-OFF" control knob and allow approximately 30 seconds for warm-up. Press the microphone push button. Refer to Figures 2 and 3 for the location of adjustments used in the following tuning procedure. Using a screwdriver, gently tighten the RF LOADING CAPACITOR fully clockwise. Then, alternately adjust the RF AMPLIFIER TUNING CAPACITOR and the RF OUTPUT LOADING CAPACITOR, in small increments, to obtain maximum brightness of the tuning indicator lamp. Work "back and forth" between the adjustments several times until no further increase in brightness can be obtained. Release the microphone button.
4. Turn the VOLUME and SQUELCH controls fully clockwise. A loud rushing noise will be heard in the speaker. Reduce the VOLUME control for a comfortable listening level. Slowly turn the SQUELCH control counterclockwise until a point is reached at which the background noise disappears. This is squelch "Threshold".
5. Press the microphone button and talk directly into the microphone. The tuning indicator lamp should brighten with modulation. The equipment is now ready for service.

#### MOBILE STATION INSTALLATION.

1. Choose the desired installation location of the unit in the vehicle. The usual mounting position is beneath the dashboard, near the driver's side. The antenna is normally mounted on one of the front fenders, in place of the present broadcast whip antenna, or on the fender, at least 12 inches away



55-9-1

Figure 2. Model G-14 Citizen's Communicator, Top Chassis View

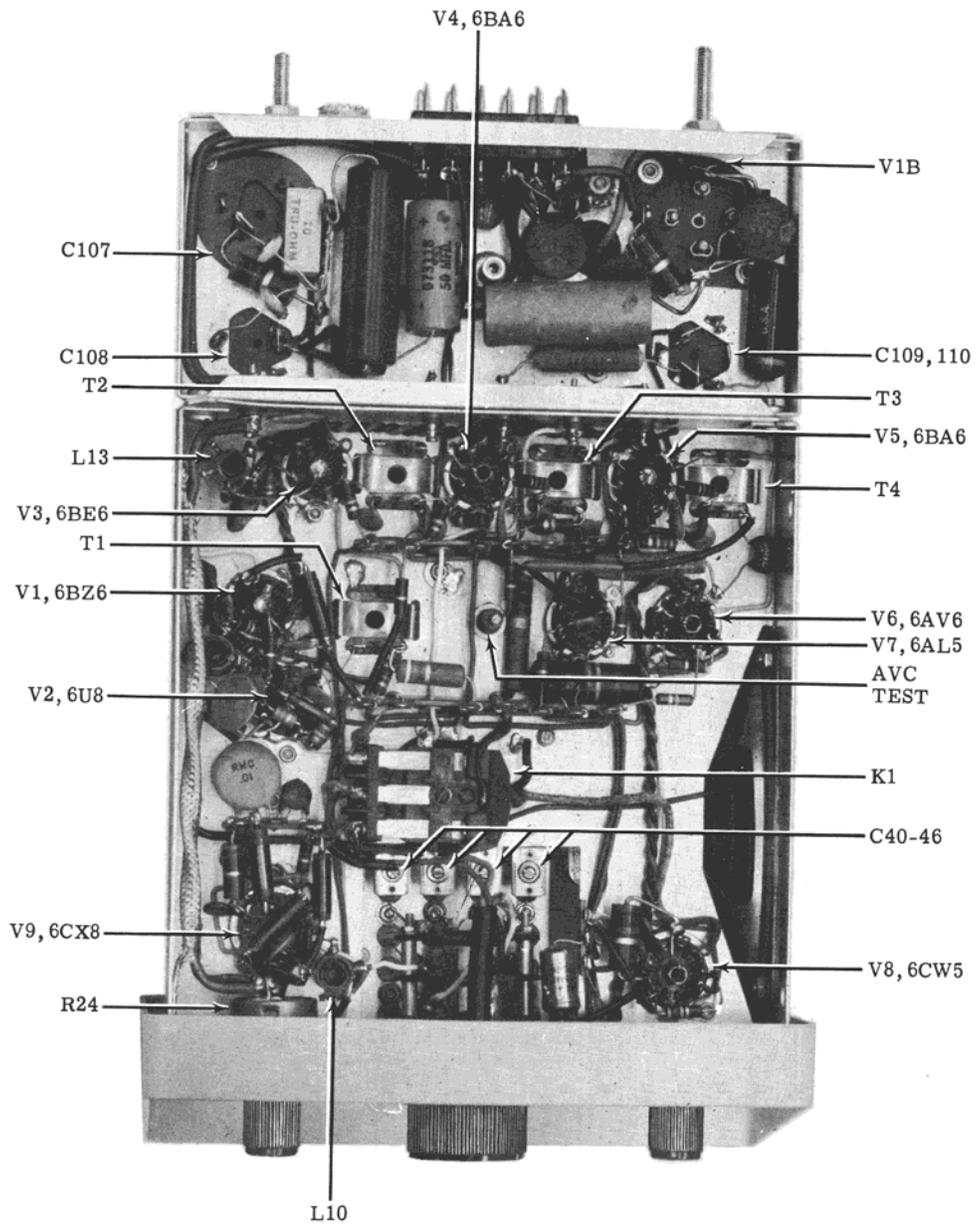
from the windshield. The antenna and communicator must not be separated by more than the length of the transmission line supplied with the antenna. Temporarily place the communicator on the car seat or other convenient location for transmitter loading adjustments.

2. Install the antenna, according to the instructions supplied. Route the coaxial transmission line from the antenna base to the cabinet and through the nearest access hole to the car interior. When possible, a full-sized 8-1/2 to 9-foot flexible whip antenna should be used for mobile work. This is a common item, stocked by most radio parts stores and G-14 dealers. Be sure the shield braid of the RG-58/U coaxial cable makes a good ground connection to the car at the base of the insulated whip antenna.

NOTE
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The presence of the car body causes a mobile antenna to radiate and receive better in some directions than others, and the relative position of the car, with respect to the station being contacted, will affect the strength of the transmitted and received signal.

3. Connect the antenna plug to the jack on the rear of the transmitter. Connect the spade lug on the end of the power cable to an accessory terminal on the ignition switch.
4. Refer to Paragraphs 3 through 5 under "FIXED STATION INSTALLATION" and follow the loading and test procedure.



55-10-1

Figure 3. Model G-14 Citizen's Communicator, Bottom Chassis View

5. Hold the unit in place under the dashboard and adjust the mounting bracket. Using the mounting bracket as a template, mark the mounting hole locations on the dashboard. Locate the mounting holes so that the unit is mounted as rigidly as possible. Remove the bracket, and drill the holes with a No. 30 (1/8-inch) drill. Reposition the unit and bracket, and install sheet-metal screws to hold the bracket in place. Reconnect the antenna and power cable, and recheck operation. A grounding terminal with wing nut is provided on the rear of the G-14 equipment. A short direct wire or strap should be connected to the nearest conductive point on the vehicle. Installation is now complete.

<b>IMPORTANT NOTICE</b>
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All of the mobile units in a given system must have a properly filled out identity tag attached to the unit. This tag is supplied with each unit.

**VEHICULAR NOISE SUPPRESSION**

Even though a noise-clipper is built into the receiver, it is desirable to minimize the amount of noise generated in the vehicle in which the communicator is installed. In many cases, simply installing resistor type plugs will suffice. It also is desirable to make sure that when the car hood is closed it makes a good electrical ground at several points. Grounding fingers designed for this purpose can be obtained at radio parts stores. Generator noise can be reduced by shielding the generator wires and grounding the shields at both ends.

## OPERATION

To receive, turn on the unit with the "VOLUME-OFF" control and adjust the volume control for a comfortable listening level while a transmitting station is operating on the receiver channel. The volume control can be initially adjusted with the squelch control fully clockwise (open) if the received station is weak.

Adjust the squelch control to silence the rush that appears in the speaker when no station is transmitting. Turn the control slowly counterclockwise until the point is reached at which the "rush" just disappears. Do not turn the control beyond this point. When a station transmits on the receiver channel, the squelch will be automatically disabled.

While transmitting, talk in a normal voice directly into the microphone which is held close to the mouth.

## OPERATION ON OTHER CHANNELS

Your communicator can be operated on channels other than the ones for which it was set at the factory. This can be accomplished by replacing the crystals in the transmitter and in the receiver with another pair for the channel of your choice. The actual transmitter crystal frequency is exactly  $1/2$  of the operating frequency, since the transmitter employs frequency doubling in the oscillator. The receiver crystal is an overtone type that oscillates at a frequency that is 1.65 MC higher than the channel frequency.

The FCC has authorized the following channel frequencies for Class D Citizen's operation:

MC	MC	MC	MC
26.965	27.035	27.115	27.175
26.975	27.055	27.125	27.185
26.985	27.065	27.135	27.205
27.005	27.075	27.155	27.215
27.015	27.085	27.165	27.225
27.025	27.105		

Additional crystals are available from your authorized dealer, or they may be obtained directly from the factory. After installation of new crystals, it is desirable but not essential that the transmitter crystal be adjusted to channel frequency.

CAUTION

Adjustment of the transmitting frequency must be made with FCC approved frequency-measuring equipment under the supervision of a technician holding a first or second-class FCC radiotelephone license.

RECEIVER ALIGNMENT

Connect a DC VTVM to the AVC test point of the receiver.

Inject a 455-KC signal, through a 0.01 $\mu$ F condenser to pin 7 of V3 (6BE6) tube. Align top and bottom slugs of T2, T3 and T4 for maximum output reading on VTVM. The output reading should be kept at approximately -2 volts DC by decreasing the generator output as final alignment is achieved. It is recommended that a good narrow band sweeper be used for final alignment so that the "nose" and skirts of the response curve may be adjusted for symmetry.

Next, inject a 1650-KC signal into the same point (pin 7 of V3) and adjust oscillator coil L13 for maximum output. Check the coil with a frequency meter to determine that the correct frequency has been set (1195 KC). This can also be checked by injecting a 740-KC signal (image frequency) into the same point. If a signal is not found at 740 KC the oscillator is incorrectly set to frequency.

Next, inject a 1650-KC signal into the grid of V2 (6U8A) through a  $0.01\mu\text{F}$  condenser. Carefully adjust top and bottom slugs of T1 for maximum output on the AVC test point while maintaining an approximately -2 VDC output.

Align the RF stage next by feeding a 26 or 27-MC signal into pin 1 of V1 (6BZ6) through a  $0.01\mu\text{F}$  condenser, the exact frequency being determined by the receiving crystal used. Crystal frequency =  $f + 1650$  KC (example: 26.075 MC - RF frequency desired - use 27.725 MC crystal).

Adjust L5 for maximum output on DC VTVM with a low input signal. (Approximately  $1\mu\text{V}$  signal.)

If more than one channel is used, adjust L5 with the centermost channel used. The sensitivity at this point should be  $1\mu\text{V}$  or less to double the output reading on the VTVM.

The antenna stage (C2 and C3) is aligned next. Connect a signal generator (50-ohm output) to J1, antenna jack. Carefully tune in the desired signal and adjust trimmers by first adjusting C2 to mid-range. Next, adjust C3 for maximum output, then C2 for maximum output. Repeat adjustments for maximum output on VTVM. Final sensitivity should be  $1\mu\text{V}$  or less for a 10 db signal and noise to noise ratio with 30% modulation.

## TRANSMITTER ADJUSTMENT

CAUTION
---------

The transmitter must be adjusted and aligned by an FCC licensed, second-class or better, radiotelephone operator.

With the desired proper channel crystals in place, a dummy 50-ohm load is connected to the antenna jack. Press the push-to-talk button and adjust L10 for maximum output on the meter. Adjust the coil on the centermost frequency in use. Also adjust C2 and C3 for maximum output, repeating for maximum reading on meter. The output should be between 2.5 to 3 watts.

The frequency of each crystal must be adjusted to within 0.005% tolerance per FCC regulations. Only qualified frequency-measuring equipment must be used for this adjustment. Adjust trimmers C62, C63, C64 or C65 with each associated crystal for exact center frequency for each channel. The unit may now be connected to a proper antenna for final antenna adjustment.

With the push-to-talk switch in the "ON" position, readjust C2 and C3 for maximum brilliance on the tuning light indicator DS1, on the front panel; center adjustments for center frequency in use.

## TRANSMITTER-RECEIVER CHASSIS PARTS LIST

Schematic No.	Description	Gonset Part No.
C1	100 $\mu\mu$ FD Silver Mica 5%	088-017
C2	110-580 $\mu\mu$ FD Trimmer	089-024
C3	4-40 $\mu\mu$ FD Trimmer	089-005
C4	2.2 $\mu\mu$ FD Tubular	071-039
C5	.01 $\mu$ FD Disc 300 V	072-169
C6	.01 $\mu$ FD Disc 300 V	072-169
C7	.02 $\mu$ FD Disc 500 V	072-125
C8	27 $\mu\mu$ FD Disc	072-210
C9	.01 $\mu$ FD Disc 300 V	072-169
C10	.01 $\mu$ FD Disc 300 V	072-169
C11	100 $\mu\mu$ FD Silver Mica	088-017
C12	110 $\mu\mu$ FD Disc N330	084-166
C13	.01 $\mu$ FD Disc 300 V	072-169
C14	.01 $\mu$ FD Disc 300 V	072-169
C15	.01 $\mu$ FD Disc 300 V	072-169
C16	.01 $\mu$ FD Disc 300 V	072-169
C17	.01 $\mu$ FD Disc 300 V	072-169
C18	.01 $\mu$ FD Disc 300 V	072-169
C19	.01 $\mu$ FD Disc 300 V	072-169
C20	.01 $\mu$ FD Disc 300 V	072-169
C21	100 $\mu\mu$ FD Silver Mica 5%	088-017
C22	82 $\mu\mu$ FD Disc NPO	084-208
C23	.01 $\mu$ FD Disc 300 V	072-169
C24	.001 $\mu$ FD Disc	072-108
C25	.1 $\mu$ FD Tubular 200 V	085-002
C26	.1 $\mu$ FD Disc 100 V	072-174
C27	.002 $\mu$ FD Disc 1 KV	072-111
C28	.002 $\mu$ FD Disc 1 KV	072-111
C29	470 $\mu\mu$ FD Disc	072-137
C30	.001 $\mu$ FD Disc	072-108
C31	25 $\mu$ FD 25 V	073-002
C32	470 $\mu\mu$ FD Tubular 1 KV	071-125
C33	.001 $\mu$ FD Disc 1 KV	072-112
C34	.001 $\mu$ FD Disc 1 KV	072-112
C35	.01 $\mu$ FD Disc 1 KV	072-176
C36	51 $\mu\mu$ FD Disc NPO	084-230
C37	.01 $\mu$ FD Disc 300 V	072-169
C38	2.2 $\mu\mu$ FD Tubular	071-039
C39	68 $\mu\mu$ FD Disc N750	084-236
C40	.01 $\mu$ FD Disc 300 V	072-169
C41	.68 $\mu\mu$ FD Tubular	071-020
C42	4.7 $\mu\mu$ FD Tubular	071-037

TRANSMITTER-RECEIVER CHASSIS PARTS LIST (CONT)

Schematic No.	Description	Gonset Part No.
C43	30 $\mu\mu$ FD Disc NPO	084-231
C44	.01 $\mu$ FD Disc 300 V	072-169
C45	68 $\mu\mu$ FD Disc NPO	084-229
C46	3-35 $\mu\mu$ FD Trimmer	089-006
C47	3-35 $\mu\mu$ FD Trimmer	089-006
C48	3-35 $\mu\mu$ FD Trimmer	089-006
C49	3-35 $\mu\mu$ FD Trimmer	089-006
C50	.01 $\mu$ FD Disc 300 V	072-169
R1	10K $\Omega$ 1/2 W 10%	
R2	91 Meg $\Omega$ 1/2 W 10%	
R3	2.2 Meg $\Omega$ 1/2 W 10%	
R4	1 Meg $\Omega$ 1/2 W 10%	
R5	68K $\Omega$ 1/2 W 10%	
R6	2200 $\Omega$ 1/2 W 10%	
R7	470 $\Omega$ 1 W 10%	
R8	22K $\Omega$ 1/2 W 10%	
R9	100K $\Omega$ 1/2 W 10%	
R10	100K $\Omega$ 1/2 W 10%	
R11	82 $\Omega$ 1/2 W 10%	
R12	68K $\Omega$ 1/2 W 10%	
R13	10K $\Omega$ 1/2 W 10%	
R14	100K $\Omega$ 1/2 W 10%	
R15	82 $\Omega$ 1/2 W 10%	
R16	68K $\Omega$ 1/2 W 10%	
R17	10K $\Omega$ 1/2 W 10%	
R18	2.2 Meg $\Omega$ 1/2 W 10%	
R19	270K $\Omega$ 1/2 W 10%	
R20	500K Potentiometer	052-082A
R21	270K $\Omega$ 1/2 W 10%	
R22	1 Meg $\Omega$ 1/2 W 10%	
R23	470K $\Omega$ 1/2 W 10%	
R24	250K $\Omega$ Potentiometer	052-081
R25	1 Meg $\Omega$ 1/2 W 10%	
R26	47K $\Omega$ 1/2 W 10%	
R27	470K $\Omega$ 1/2 W 10%	
R28	150 $\Omega$ 2 W 10%	
R29	6800 $\Omega$ 1 W 10%	
R30	2200 $\Omega$ 1/2 W 10%	
R31	1 Meg $\Omega$ 1/2 W 10%	
R32	100K $\Omega$ 1/2 W 10%	
R33	10K $\Omega$ 1 W 10%	
R34	100 $\Omega$ 2 W 10%	

TRANSMITTER-RECEIVER CHASSIS PARTS LIST (CONT)

Schematic No.	Description	Gonset Part No.
R35	Not Used	
R36	Not Used	
R37	Not Used	
R38	Not Used	
R39	Not Used	
R40	1 Meg $\Omega$ 1/2 W 10%	
R41	6.8 $\Omega$ 1 W 10%	
R42	100 $\Omega$ 2 W 10%	
J1	Antenna Receptacle	344-189
K1	Relay, 3PDT 12/117 V	111-091
K1	Relay, 3PDT 6/117 V	111-090
SW1	Power Switch (On R24)	
SW2	Crystal Switch	171-096C
L1	RF Coil .56 $\mu$ H	027-077
L2	Output Indicator Coil	011-118A
L3	Final Tank Coil	012-512
L4	RF Coil 5.6 $\mu$ H	027-028
L5	Mixer Coil	012-414
L6	RF Coil 15 $\mu$ H	027-032
L7	RF Coil .47 $\mu$ H	027-073
L8	RF Coil 5.6 $\mu$ H	027-028
L9	RF Coil 5.6 $\mu$ H	027-028
L10	Doubler Coil	012-415
L11	RF Coil 5.4 $\mu$ H	027-004
L12	Not Used	
L13	Oscillator Coil	012-511
T1	1650 KC IF Transformer	014-032
T2	455 KC IF Transformer	014-086
T3	455 KC IF Transformer	014-086
T4	455 KC IF Transformer	014-086
T5	Output Transformer	273-016
DS1	#48 Dial Lamp	471-016

## POWER SUPPLY PARTS LIST

Schematic No.	Description	Gonset Part No.
C100	. 1 $\mu$ FD Tubular 200 V	085-002
C101	50 $\mu$ FD 25V	073-118
C102	. 01 $\mu$ FD Disc 1.5 KV	072-123
C103	. 01 $\mu$ FD Disc 1.5 KV	072-123
C104	. 01 $\mu$ FD Disc 1.5 KV	027-123
C105	. 01 $\mu$ FD Disc 1.5 KV	027-123
C106	. 25 $\mu$ FD Tubular 600 V	085-091
C107	125 $\mu$ FD Tubular 200 V	073-018
C108	125 $\mu$ FD Tubular 200 V	073-119
C109A	30 $\mu$ FD 350 V	073-026
C109B	30 $\mu$ FD 350 V	073-026
R100	1 Meg $\Omega$ 1/2 W 10%	042-105
R101	150 $\Omega$ 2 W 10%	
R102	150 $\Omega$ 2 W 10%	
R103	10 $\Omega$ 5 W 10% Wire Wound	
R104	100 $\Omega$ 2 W 10%	
R105	330 $\Omega$ 5 W 10% Wire Wound	
PL1	12 Pin Male Connector Receptacle	344-171
F1	Fuse, 1 AMP, 125 V	482-055
F2	Fuse, 1 AMP, 125 V	482-055
F3	Fuse, 10 AMP, 32 V	482-007
SOC A	12 Pin Female Connector	344-172
SOC B	12 Pin Female Connector	344-172
VIB	12 V Vibrator	117-003
T100	Power Transformer 12/117 V	271-068E
CR100	Silicon Diode 50 PIV	474-004
CR101	Silicon Diode 400 PIV	474-010
CR102	Silicon Diode 400 PIV	474-010

NOTE: Model 3433 (6/117 V) contains the following substitutions:

C101	250 $\mu$ FD 50 V	073-078
V18	6 Volt Vibrator	117-008
K1	Relay, 3 PDT	111-090
T100	Power Transformer 6/117 V	271-071C
F3	Fuse, 20 AMP, 32 V	482-008

## REPLACEMENT PARTS LIST

No. Reqd.	Description	Gonset Part No.
1	Ceramic Microphone	113-021
1	Microphone Hanger	113-022
1	Speaker 3.2 $\Omega$ Voice Coil	152-023
2	Knob, Small	212-062-1
1	Knob, Large	212-062-3
8	Ceramic Crystal Socket	345-007
8	Crystal Clamp	453-042
1	Base Stand	453-390B
1	Front Panel	441-037
1	Front Panel Casting	463-004E
1	Cabinet	465-066A
2	Thumb Screws (For Base Stand)	259-860
1	AC Power Cable Assembly	678-031
1	DC Power Cable Assembly (12 V)	678-030
1	DLCL Power Cable Assembly (6 V)	678-032