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FEDERAL COMMUNICATIONS COMMISSIONS REQUIREMENTS

Your new Midland 13-854 is a combination receiver-transmitter designed and built for licensed Class D operation on any of the 23 frequencies designated as citizens band channels by the Federal Communications Commission. You are required to read and understand Part 95 of the F.C.C. rules and regulations prior to operation of this unit. Part 95 regulations are available for \$2.00 from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402. You are also required to complete F.C.C. form 505 and submit it to the F.C.C. in order to receive your license to operate this unit. F.C.C. regulations will be violated if you transmit with this unit prior to receipt of your license.

NOTE

The technical information, diagrams, and charts provided in this manual are supplied for the use of a qualified holder of a first or second class radiotelephone license in servicing this transceiver. It is the users responsibility to see that this unit is operating at all times in accordance with the F.C.C. Citizens Radio Service regulations.

If you install or service your own transceiver, do not attempt to make any transmitter tuning adjustment. Transmitter adjustments are prohibited by the F.C.C. unless you hold a first or second class radiotelephone license or are in the presence of a person holding such a license. A Citizens Band or Amateur license is not sufficient.

MIDLAND ELECTRONICS COMPANY HEREBY
CERTIFIES THAT THIS UNIT HAS BEEN DESIGNED
AND MANUFACTURED IN ACCORDANCE WITH VOL. 6,
PART 95 OF THE CURRENT F.C.C. RULES AND REGULATIONS
AS OF THE DATE OF MANUFACTURE.

GENERAL INSTRUCTIONS

The solid state 13-854 Citizens Band Transceiver is a compact size, high performance two-way communication instrument, designed to operate on 6 channels of the 27 MHz band. Channel 9, 27.065 MHz crystals installed.

13-854 is readily installed under the dash board or any other handy location in a vehicle where the bracket can be attached. By simple connection to an AC/DC converter, can be used as a base station.

Your 13-854 has been completely tested and carefully tuned at the factory, therefore, no re-alignment is necessary when used with standard 50 ohm CB antenna.

MOBILE INSTALLATIONS

A location in the car or truck should be chosen carefully for convenience of operation and non-interference with normal driving functions. Mounting may be under the dash or instrument panel or any place a secure installation can be made. The carrying handle again serves as the mounting bracket or additional perforated straps or brackets may be used as desired.

GROUND INFORMATION

NOTE

This transceiver may be installed and used in any 12 volt DC negative or positive ground system vehicle.

Most newer U.S. and foreign made cars and small trucks use a negative ground system while some older cars and some newer large trucks may use a positive ground system.

A negative ground system is generally identified by the -battery terminal being connected to the vehicle motor block, but if you cannot determine the polarity system of your vehicle, it is suggested that you consult your vehicle dealer for definite information.

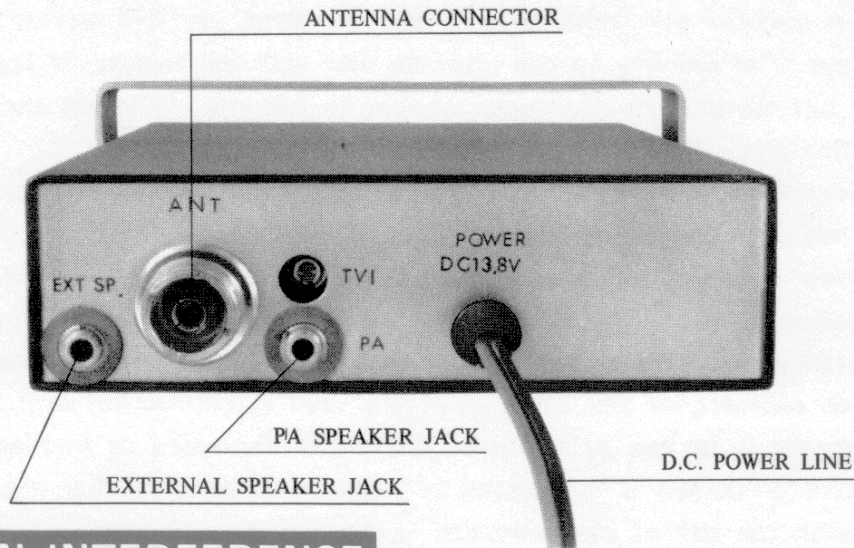
POSITIVE GROUND SYSTEM

In the case of a positive ground system connect the black DC power cord from the transceiver to the negative or -battery terminal or other convenient point and connect the red power lead to the chassis or vehicle frame or +battery terminal. With regard to the connection of the power cords, it may be possible or desirable to connect the (red lead for negative ground system) or (black lead for positive ground system) to the ignition switch accessory terminal so that the transceiver is automatically turned off when the ignition switch (key) is turned off.

Alternately, the power lead may be connected to an available terminal on the fuse block or even to a point in the wiring harness. Care must be taken however to guard against a short circuit condition so when in doubt, please contact your vehicle dealer for specific information for your vehicle.

CAUTION

Do not operate the unit without antenna connected, to avoid possible transmitter damage.



IGNITION INTERFERENCE

Engine ignition interference should not be a problem and vehicles equipped with standard broadcast radios will have enough suppression to eliminate ignition interference. If interference is present, any skilled auto radio repairman should be able to eliminate it for you.

BASE INSTALLATION

An AC/DC converter, 117V AC to 13.5V DC, is available as optional accessory for base station use. When your MIDLAND 13-854 is used as a base station, any 50 ohm citizens band beam, dipole, ground plane or vertical antenna may be used. A ground plane type antenna will provide good coverage, and since it is essentially non-directional, it is ideal for base station to mobile operation. From base station to base station or point operation a directional beam antenna will give greater distance even under adverse conditions.

ANTENNA INSTALLATION

For maximum range and reliable operation, the antenna should be as high as legally possible. Regulations limit the antenna height to 20 feet above an existing structure. Generally, a minimum of coax lead-in cable should be used due to line losses. However, a desirable antenna location may justify the loss in extra lead-in length.

OPERATING INSTRUCTIONS

1. Rotating OFF-VOLUME control clockwise turns the receiver on. Adjust the volume control to a comfortable listening level. The pilot lamp indicates when the receiver is on.

2. Adjust the SQUELCH control to eliminate background noise when no station is being received. If the SQUELCH control is turned excessively clockwise, it may reduce sensitivity on the receiver, resulting in missing weak signals.
3. To transmit, depress the "PUSH-TO-TALK" button of the microphone. While holding the microphone approximately 3 inches from your lips, speak at a normal level. Release "PUSH-TO-TALK" button of the microphone to receive.
4. The CHANNEL selector switch is used to select any desired channel of the 6 transmitter-receiver citizens band frequencies.
5. To use your 13-854 as a public address system, connect any standard 8 ohm PA speaker to the PA jack. Turn the switch to PA position. Turn the set on and depress "PUSH-TO-TALK" button of the microphone.

SPECIFICATIONS

Semiconductors	: 13-transistor, 1 IC and 9 diodes
Transmitter System	: Triple stage, crystal controlled, collector modulation AM
Frequency	: 6 channels, 27.065MHz (Channel 9) installed
Frequency Tolerance	: 0.005%
Transmitter Power	: Final input 5W
Spurious Suppression	: 50 dB
Band Width	: 8 KHz
Antenna Impedance	: 50 Ohms
Receiver System	: Superheterodyne with tuned RF, AGC and ANL circuit
Receiver Sensitivity	: 1.5 μ V for 10 dB (S + N)/N
Receiver Selectivity	: 35 dB at \pm 10 KHz
Intermediate Frequency	: 455 KHz
Squelch Sensitivity	: 1 μ V
Squelch Range	: 1 to 500 μ V
Audio Output Power	: 3 watts in 10% distortion
P.A Output Power	: 3 watts in 10% distortion
Power Source	: 13.8 volts DC Negative or Positive ground
Power Consumption (RX)	: 0.15A at no signal
Power Consumption (TX)	: 1.3A at maximum
Microphone	: Dynamic type with press-to-talk switch
Speaker	: 2-1/2 inch dynamic
Size	: 4-3/4"W x 1-3/8"H x 6-7/16"D
Weight	: 2.2 lbs
Accessories	Mike with coiled cord, mobile mounting bracket, mike clip

WARRANTY POLICY

Midland Electronics Company warrants each new Midland product to be free from defects in material and workmanship under normal use and service for a period of 90 days after delivery to the ultimate user and will replace or repair the product at our option, at no charge should it become defective and which our examination shall disclose to be defective and under warranty.

This warranty shall not apply to any Midland product which has been subject to misuse, neglect, accident, incorrect wiring not of our own installation, or to use in violation of instructions furnished by us, nor extended to units which have been repaired or altered outside of our factory.

This warranty does not cover carrying cases, earphones, batteries, antenna, broken or cracked cabinets, or any other accessory used in connection with this product. This warranty is in lieu of all other warranties expressed or implied and no representative or person is authorized to assume for us any other liability in connection with the sale of our products.

Sales receipt must accompany product to validate the date of purchase.

MIDLAND ELECTRONICS COMPANY

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