



INSTALLATION MANUAL FOR
General Electric
GE-MARC™ V•E TRUNKED
MOBILE COMBINATIONS



TMX-8415



TMX-8615/TMX-8630

UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the two-way radio. It is recommended that you identify the items ordered and check them off in the boxes below before discarding the packing material. If any damage has occurred to the equipment during shipment, file a claim with the carrier immediately.

EQUIPMENT & OPTIONS

Mobile Radio ☐

Microphone 19A704599P12 ☐

Microphone Hookswitch 19A704599P13 ☐

Mounting Hardware Kit 19A704599P11 ☐

Power Cable with System Plug 19A704599P10 ☐

It is suggested that you take advantage of the experience of one of the many authorized General Electric Service Stations located throughout the United States by having them install your GE-MARC V●E Two-Way Radio and make the final adjustments.

WARNING

INTERFERENCE WITH VEHICULAR ELECTRONICS - Electronic fuel injection systems, electronic anti-skid braking systems, electronic cruise control systems, etc., are typical of the types of electronic devices which may be prone to malfunction due to the lack of protection from radio frequency energy present when transmitting. If the vehicle contains such equipment, consult the dealer for the make of vehicle and enlist his aid in determining if such electronic circuits will perform normally when the radio is transmitting.

PLANNING THE INSTALLATION

The accompanying illustrations should help you in planning your installation. Before starting, plan your installation carefully - so that it will be convenient for the operator to use, neat, protected from water damage, easy to service, and out of the way of auto mechanics and passengers.

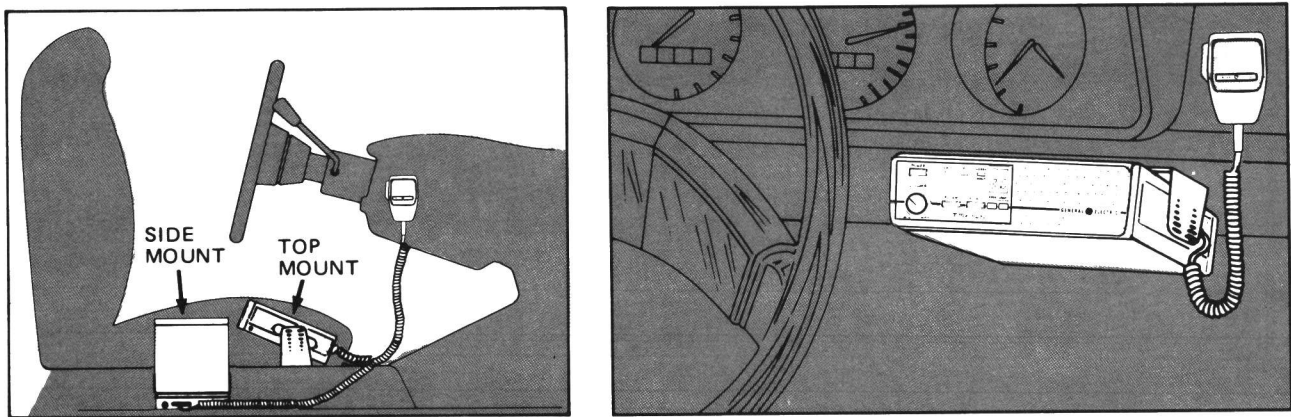


Figure 1 - Typical Hump or Console Mount - Typical Dash Mount

INSTALLATION EQUIPMENT

The equipment required for installing the radio includes;

- An electric drill for drilling mounting holes
- Drills and circle cutters (see sizes in box below)
- A soldering iron for the antenna cable
- Phillips and PoziDrive® screwdrivers and a 7mm hex head driver for mounting screws

DRILL SIZES

No. 27 (9/64-inch) Drill for No. 10 Self-Tapping Screws
No. 31 (1/8 inch) Drill for No. 8 Self-Tapping Screws
No. 36 (7/64-inch) for No. 6 Self-Tapping Screws
3/4-Inch Punch or Holesaw for 800 MHz Antenna (optional)
5/8-Inch Punch or Holesaw for rubber grommet

POWER CABLE

The Power Cable consists of a fused yellow lead, black lead, and a 11-pin systems plug (see Figure 2). To install the Power Cable, start with the plug end of the cable at the location of the radio and run the two leads to the vehicle battery. If an existing hole is not conveniently located for the passage of the Power Cable through the firewall, drill a 5/8-inch hole and insert the rubber grommet provided. Connect the yellow fused lead to the positive (+) battery terminal, and the black lead to the negative (-) battery terminal. Always locate the fuse as close to the battery as possible. Coil up the surplus cable and secure it out of the way with the retaining strap provided. Be sure to leave some slack in the cables going to the radio so that it may be pulled out for servicing with the power applied.

NOTE

The General Electric Trunked mobile combination operates in 12-volt negative ground systems only! Always check the battery polarity and voltage of the vehicle before installing the radio.

IGNITION SWITCH CONTROL CABLE

With ignition switch control, the transmitter and receiver operate only with the ignition switch in the Accessory or On position. To install the cable, connect the red lead to System Plug J23-1 (see Figure 2). Connect the red fused lead to the ignition switch terminal.

If the ignition switch control is not desired, connect the red lead to positive (+) battery terminal.

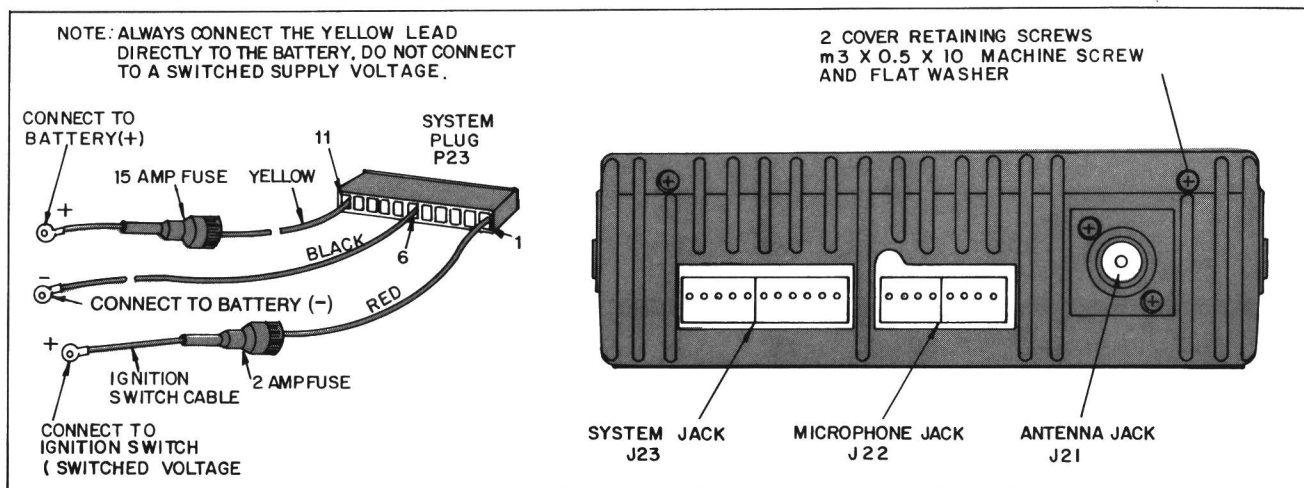


Figure 2 - Power Cable and Systems Plug

INSTALLING THE RADIO

Mount the radio so that the controls are within reach of the operator. Use the mounting bracket as a template to locate the holes, and mount the radio as shown in Figure 4. (Figure 3 provides dimensional data). Be sure to leave enough room at the rear of the radio for cable connections. Before attaching the radio in the mounting brackets, connect the antenna plug, systems plug and microphone. Torque radio mounting bolts to 1.58 to 2.14 Newton Meters (14-19 inch pounds). Do not exceed torque rating.

WARNING

For passenger safety, mount the radio securely so that the unit will not break loose in the event of a collision. This is especially important in station wagons, vans and similar type installations where a loose radio could be extremely dangerous to the vehicle occupants.

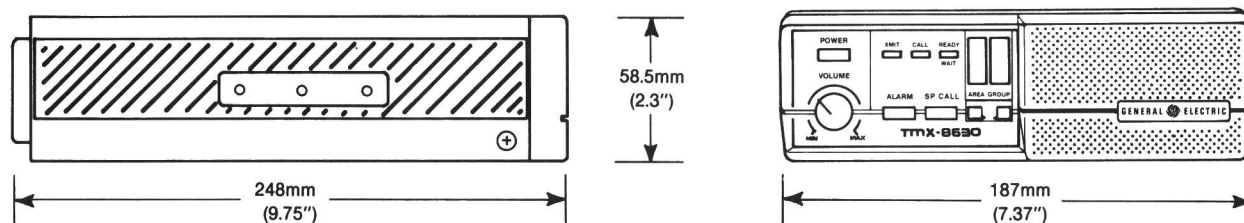


Figure 3 - Mounting Dimensions

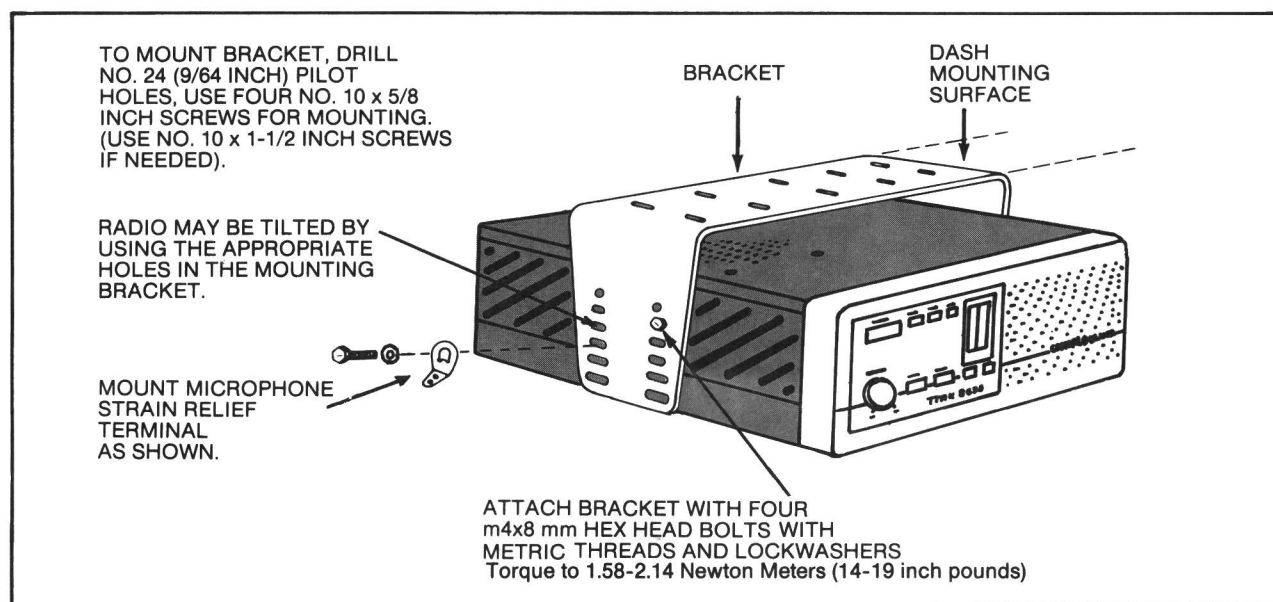


Figure 4 - Installing Mounting Bracket, Typical

CAUTION

Be careful to avoid damaging some vital part of the vehicle when drilling mounting holes. Always check to see how far the mounting screws will extend below the mounting surface before installing.

MOBILE MICROPHONE

Mount the microphone where it will be within easy reach of the operator, but will not interfere with safe operation of the vehicle. After the microphone bracket is mounted, (Figure 5), connect the microphone plug into the microphone jack on the rear of the radio and connect the strain relief to the terminal shown in Figure 4.

DESK MICROPHONE (OPTIONAL)

A desk microphone is available for use with radio: 19B209694P3 (Beige).

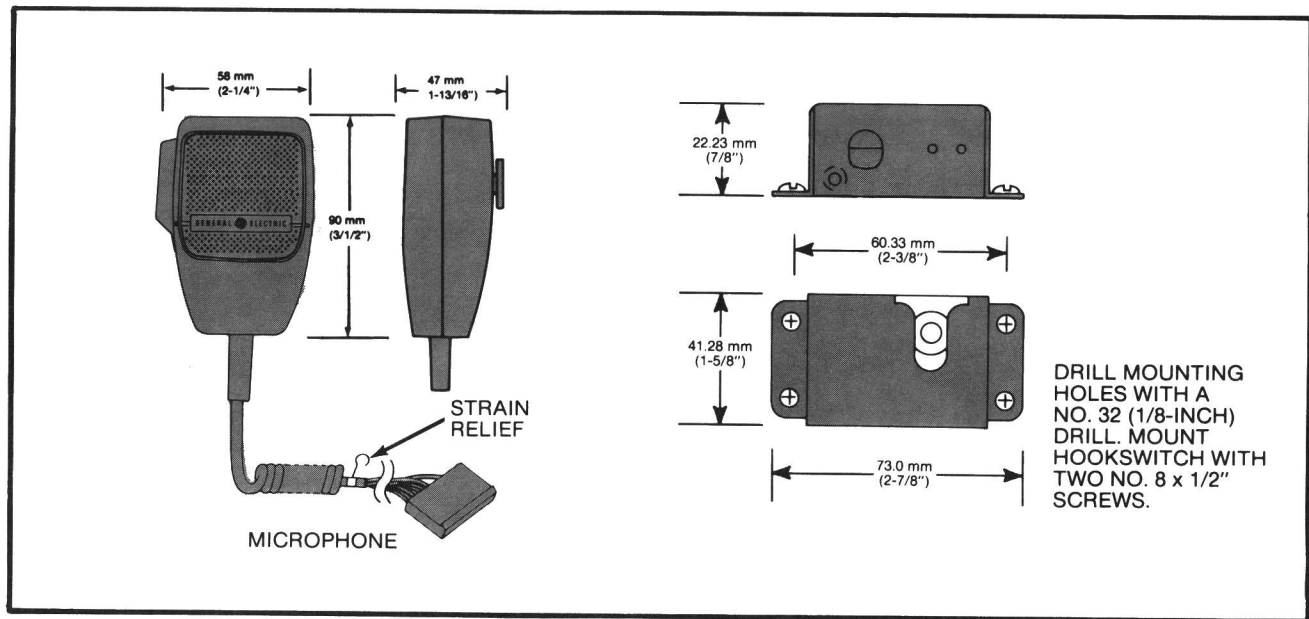


Figure 5 - Microphone Bracket Mounting

EXTERNAL SPEAKER (OPTIONAL)

The speaker should be mounted where it will direct sound to the operator, but not interfere with his vision or provide a hazard to passengers in case of an accident. The speaker may be mounted on the lower edge of the instrument panel, on the firewall, above the windshield in some trucks, or behind the built-in speaker grille in some vehicles. Use the mounting bracket as a template for locating the mounting holes, and mount the speaker bracket as shown in Figure 6. Connect external speaker wires to J23-8 (Speaker Lo) and J23-10 (Speaker Hi). In station applications where the power supply is used, remove jumper connected between P801-3 and 10 on power supply cable and connect the speaker leads to P801-3 and P801-7.

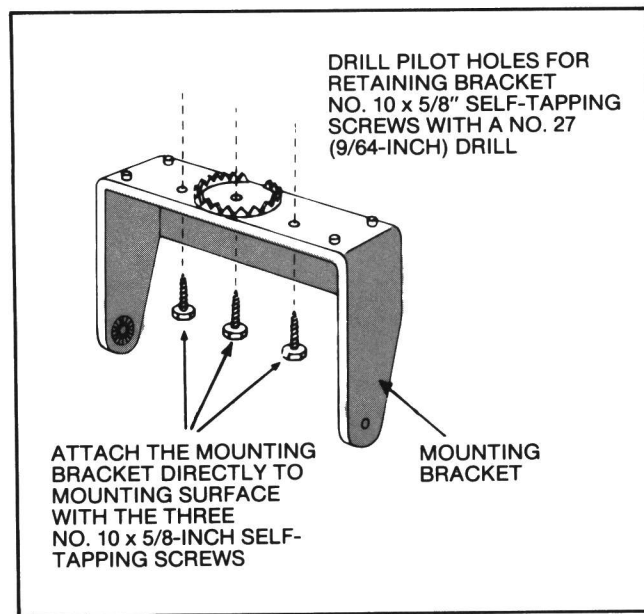


Figure 6 - Mounting the Speaker

AC POWER SUPPLIES (OPTIONAL)

The rubber feet supplied with the AC power supply should be applied to the bottom of the supply. These feet protect the surface on which the units are located.

To install the feet, remove the backing strip and apply the adhesive side of the feet to the bottom corners of the power supply. The feet should be approximately one-half inch from the edge.

After positioning the radio and power supply, install the ground wire as shown in Figure 10. This grounding will help protect operators and equipment from injury or damage during lightning storms.

An eight-foot power cable is provided to allow for remote power supply location. Connect the power supply jack to the radio and AC line cord to AC source.

DESK TOP STAND (OPTIONAL)

Place radio in desk top stand and align mounting holes. Insert the lockwashers and four M4x8mm hex head bolts through the mounting bracket and secure radio. Before tightening bolts, position radio to the desired upward angle for the operator's convenience. After mounting the radio, press radio down onto mounting surface to engage suction cups.

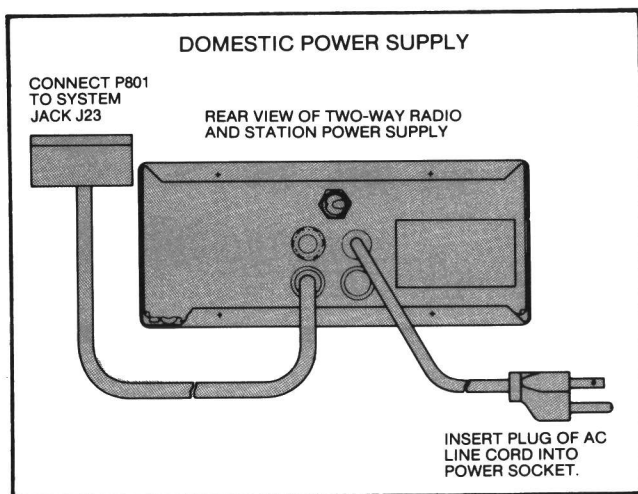


Figure 7 - Installing Power Supply

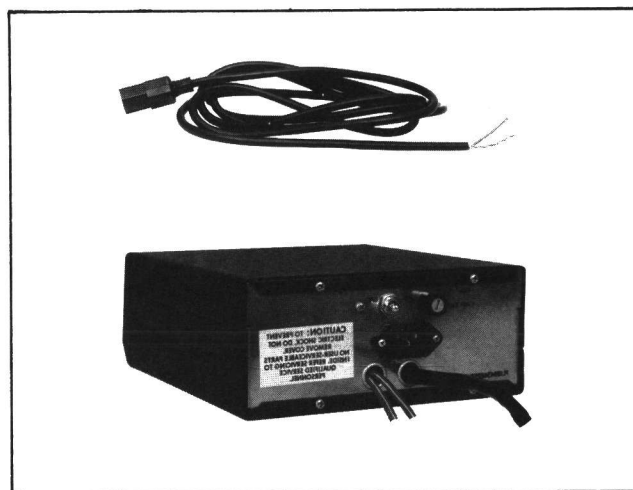


Figure 8 - International Power Supply

The desk top stand is normally used in station applications and is used with the standard mobile mounting bracket.

Complete the installation by connecting the microphones, antenna, power cable and ground cable.

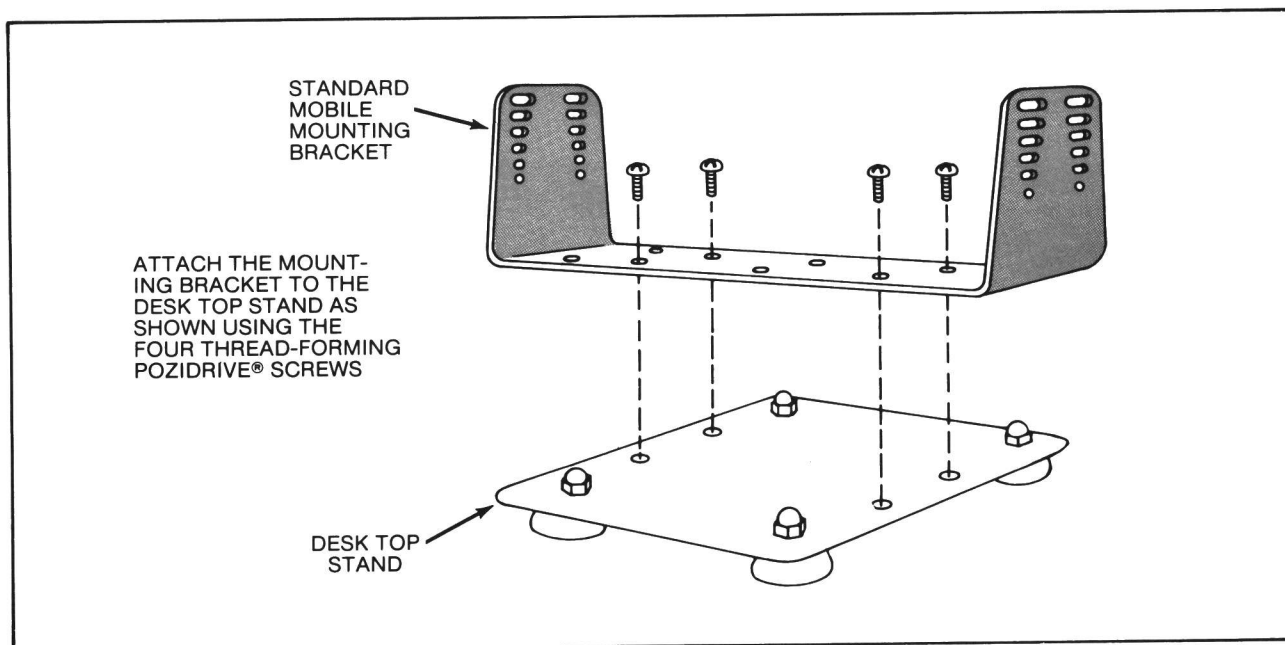


Figure 9 - Mounting Mobile Bracket to Desk Top Stand

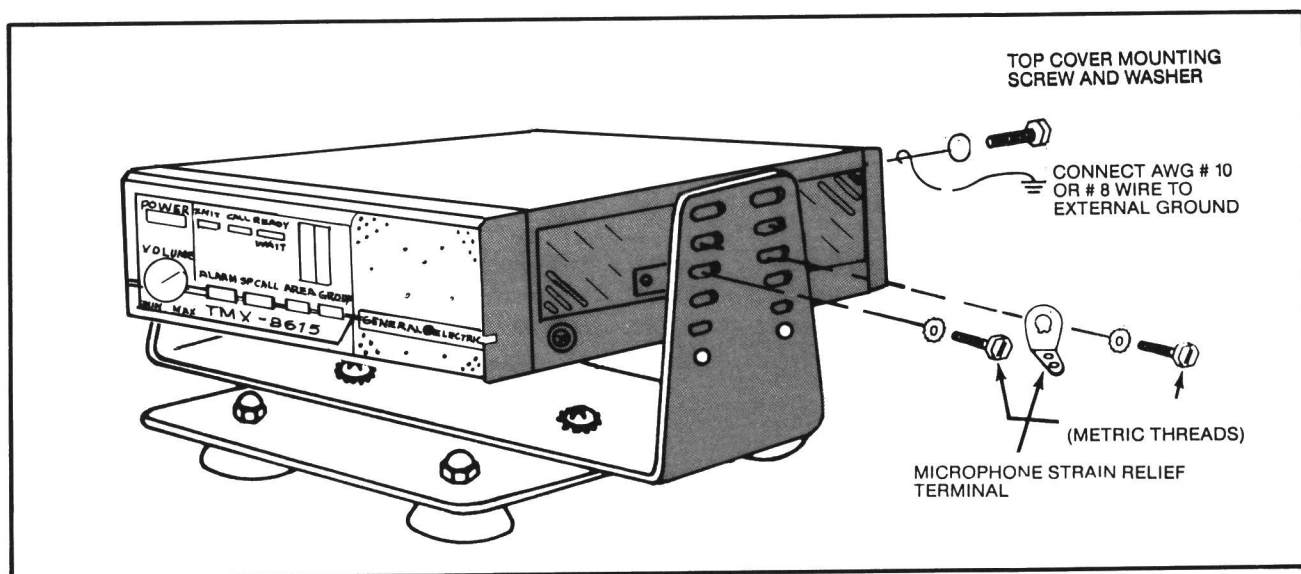


Figure 10 - Desk Top Stand with Radio

ANTENNA (OPTIONAL)

Installation instructions for the antenna are packaged with the antenna. The antenna must be installed in accordance with good engineering practice for optimum results.

The most effective mounting position for the antenna is usually in the center of the roof of the vehicle. The antenna cable will normally run from the rear of the two-way radio, behind sections of the interior trim to a door or window post, and then up between the roof and headliner in the passenger compartment to the antenna base.

Try to route the cable away from locations where it will be exposed to heat, sharp edges or mechanical damage, and where it will be out of the way of the driver, passengers or vehicle mechanics. Whenever possible, existing holes in the trunk wall, and the channels above or beneath doors and window columns should be utilized.

CAUTION

In station applications, the radio will not operate properly with the antenna mounted directly on the back of the radio. Always mount the antenna at least five feet from the radio.

PLACING THE TWO-WAY RADIO IN OPERATION

After completing the installation of the two-way radio, the following final operations should be performed:

FOR U.S. INSTALLATIONS

Have a certified electronics technician make the final adjustments. These include:

Transmitter: Measure forward and reflected power and adjust antenna length for optimum ratio. Set transmitter to rated power output. Measure the frequency and modulation and record these measurements for future reference.

Instructions for making these adjustments are included in the Maintenance Manual for the Radio.

Fill out and mail the "ON ARRIVAL" Information Card.

Give the Operator's Manual to the person who is going to operate the radio, or place the manual in the vehicle where he will find it.

FOR INTERNATIONAL INSTALLATIONS

Maintain records consistent with those applicable under the regulations of the country where the equipment is installed.

Where "on arrival" information card is provided, please return it to an authorized representative or distributor of GE Mobile Radio products servicing the country or region where the radio equipment is used.

NOTES

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