



INSTALLATION OF **MASTR** *Executive Series* PROGRESS LINE

MOBILE COMBINATIONS

MASTR Progress Line Executive Series features ruggedly constructed Two-Way Mobile Radios with unusually flexible mounting possibilities. The Two-Way Radio locks into a steel mounting frame to provide an exceptionally stable mobile installation. The accessories furnished with the Radio determine whether the unit can be installed as a Front-Mount or Trunk-Mount combination.

LB1-3711 A
DF-9016

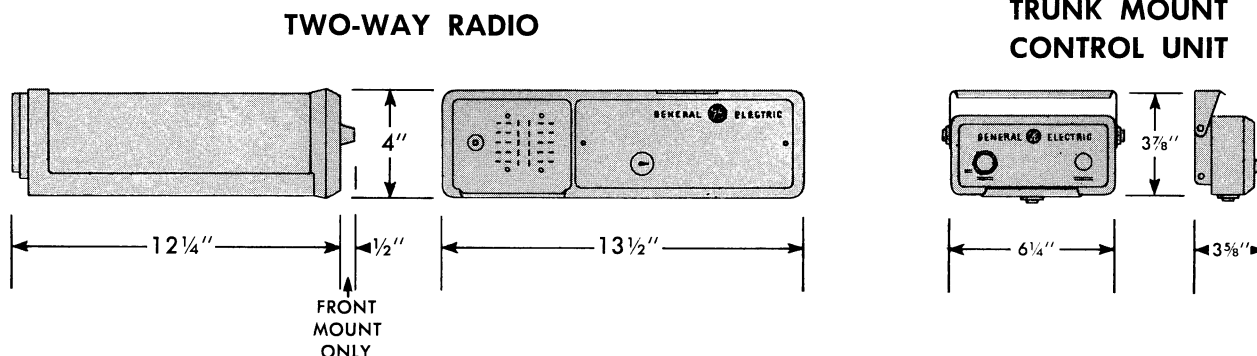


Figure 1 - Mounting Dimensions

INSTALLATION EQUIPMENT

The equipment required for installing the Two-Way 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 flat-blade screwdrivers and a 5/16-inch hex head driver for mounting screws.

DRILL SIZES

- #32 (1/8-inch) Drill for #8 Self-Tapping Screws
- #24 (9/64-inch) Drill for #10 Self-Tapping Screws
- 9/32-Inch Drill for Lo-Band Antenna and 1/4-Inch Bolt
- 3/8-Inch Drill for 132-174 MC Antenna
- 1 3/8-Inch Circle Cutter, Holesaw and Socket Punch for 25-50 MC Antenna

UNPACKING AND CHECKING EQUIPMENT

Carefully unpack the Two-Way Radio. It is recommended that you identify the items in the packing case and check them off in the appropriate column below before discarding the packing material. If any damage has occurred to the equipment during shipment, file a claim with the carrier immediately.

EQUIPMENT	TRUNK MOUNT	FRONT MOUNT		FRONT MOUNT	TRUNK MOUNT
Two-Way Radio	<input type="checkbox"/>	<input type="checkbox"/>	Trunk Mount Power/Control Cable	<input type="checkbox"/>	
			19C303910-G2 (Includes Fuse Holder)		
Control Unit Model 4EC67A10, 11, 12	<input type="checkbox"/>		Front Mount Power Cable		<input type="checkbox"/>
Speaker Model 4EZ16A13	<input type="checkbox"/>	<input type="checkbox"/>	19C303982-G2 (Includes Fuse Holder)		
Microphone 19B209102-P2	<input type="checkbox"/>	<input type="checkbox"/>	Alignment Tools (2)	<input type="checkbox"/>	<input type="checkbox"/>
Microphone Bracket 7141414-G2	<input type="checkbox"/>	<input type="checkbox"/>			
Antenna Cable and RF Connector	<input type="checkbox"/>	<input type="checkbox"/>			
(25-88 MC antenna whip shipped in separate carton)					
Top Cover 19D402629-P1	<input type="checkbox"/>	<input type="checkbox"/>			
Bottom Cover 19C303911-G2	<input type="checkbox"/>				
Bottom Cover 19C303911-G1		<input type="checkbox"/>			
Trunk Mounting Hardware	<input type="checkbox"/>				
19A122244-G2					
Front Mounting Hardware		<input type="checkbox"/>			
19A122244-G1					

OPTIONAL EQUIPMENT		
	OPTION NUMBER	
10-Watt Speaker Model 4EZ18A11	8003	8003
Window Mounting Kit for 10-Watt Speakers 19A121879-G3	8011	8011
Handset Model 4EM26A10 with ____ Hookswitch 19B204867-G4	8093	8093
Weatherproof Box	8013	

PLANNING THE INSTALLATION

The accompanying photographs of typical MASTR Executive Series installations should help you in planning your installation. Suggestions for locating and installing the units are given with the following installation instructions:

Before starting, plan your installation carefully—so that it will be:

- Convenient for the operator to use
- Neat
- Protected from damage from water
- Easy for the serviceman to service
- Out of the way of auto mechanics
- Out of the way of passengers

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 Two-Way Radio and make the final adjustments.

TRUNK-MOUNT INSTALLATION

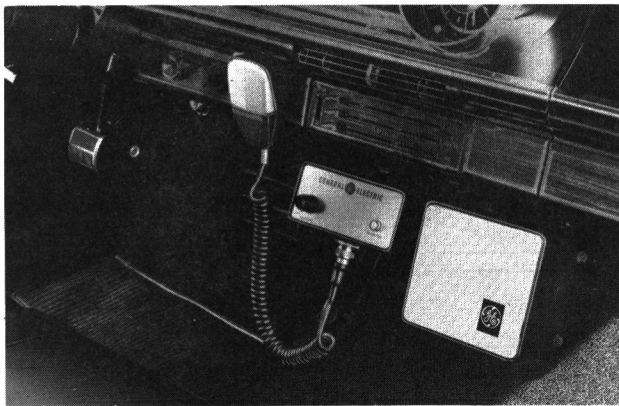


Fig. 2—Control Unit Mounting

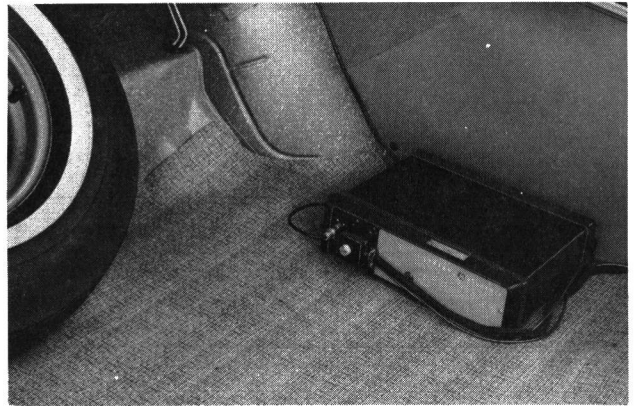


Fig. 3—Two-Way Radio Mounting

Trunk-Mount Combinations are designed so that the Two-Way Radio can be mounted up to 20 feet from the operator, such as in the trunk compartment or under the seat of a vehicle. The Control Unit mounts on the instrument panel of the vehicle, along with the microphone and speaker.

FRONT-MOUNT INSTALLATION

Front-Mount Combinations are designed for mounting under the vehicle instrument panel, near the operator. The Control Unit is attached to the front of the Two-Way Radio, and the microphone and speaker are normally mounted under the vehicle instrument panel.



Fig. 4—Complete Two-Way Radio conveniently mounted near operator

RUNNING CABLES

To assure the feasibility of the cable routings you plan to use, the cables should be run prior to installing the unit. Try to route the cables away from locations where they may be damaged or where they may be in the way of automobile mechanics, the driver or passengers. Whenever possible, utilize existing holes in the firewall and trunk and the channels above or beneath the doors. Be sure to leave enough slack in the cables to allow the radio to be pulled out, with power applied, for servicing. Refer to the Cable Routing diagram (Fig. 5) and the Cabling Diagrams (Figs. 14 and 15) for additional information.

NOTE

The following instructions for connecting the Power Cable or Power/Control Cable and connections for the Ignition Switch Cables on Page 8 are for 12-volt negative-ground vehicles only. For 12-volt positive-ground vehicles, General Electric Polarity Converter Model 4EP54A10 must be installed and cables connected as instructed in LBI-3775.

TRUNK MOUNT

Starting with the plug end of the Power/Control cable at the location of the trunk mount unit, run the black control cable to the Control Unit location. Tape the numbered leads before running the cable.

Run the red battery lead to the vicinity of the battery. Cut the red lead and connect the fuse holder in the red lead with ring terminals provided. Then mount the fuse holder near the battery, and connect the red lead to the positive (+) battery terminal.

Connect the brown lead to a good vehicle ground in the trunk compartment.

Refer to Figure 12 for Ignition Switch Cable connections.

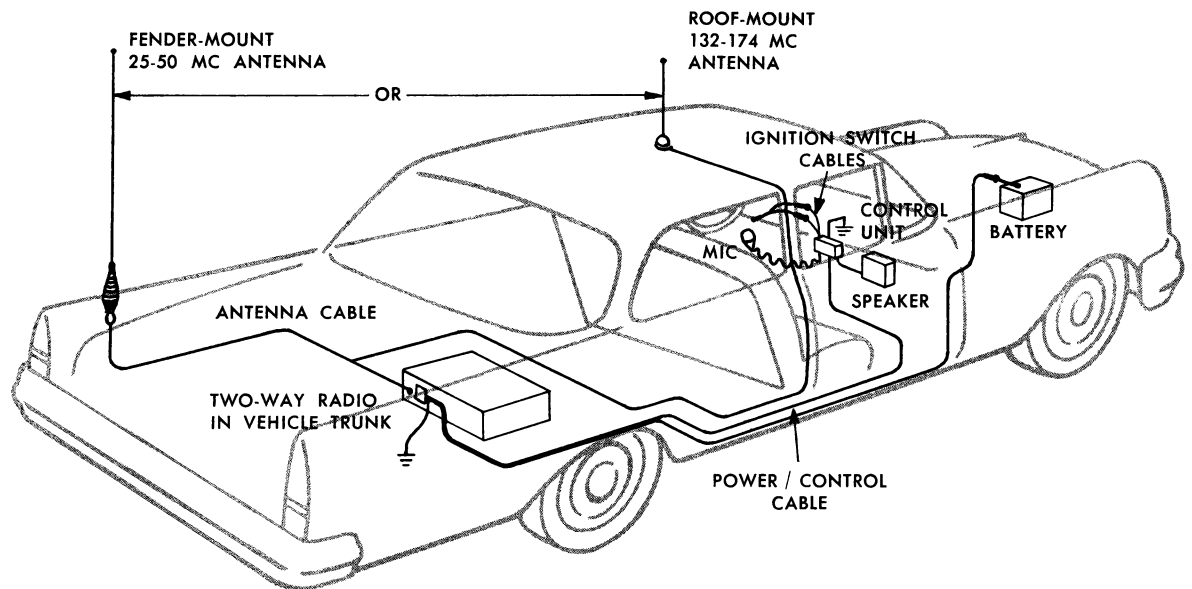
FRONT MOUNT

Starting with the plug end of the Power Cable at the location of the Front-Mount unit, run the gray cable to the battery. Strip off the gray cable cover, cut the red lead and connect the fuse holder in the red lead with the ring terminals provided. Mount the fuse holder near the battery, and connect the red lead to the positive (+) battery terminal.

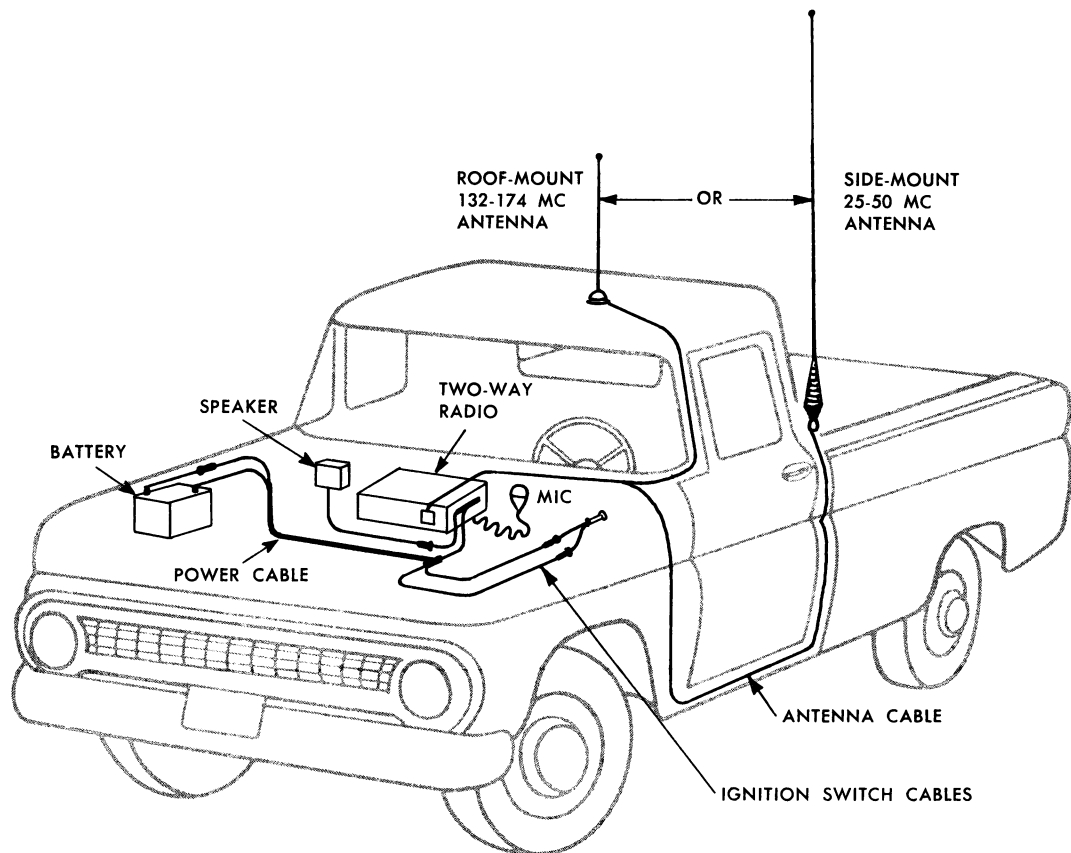
Connect the brown lead to the negative (—) battery terminal.

Refer to Figure 12 for Ignition Switch Cable connections.

Figure 5—Cable Routing



TRUNK MOUNT



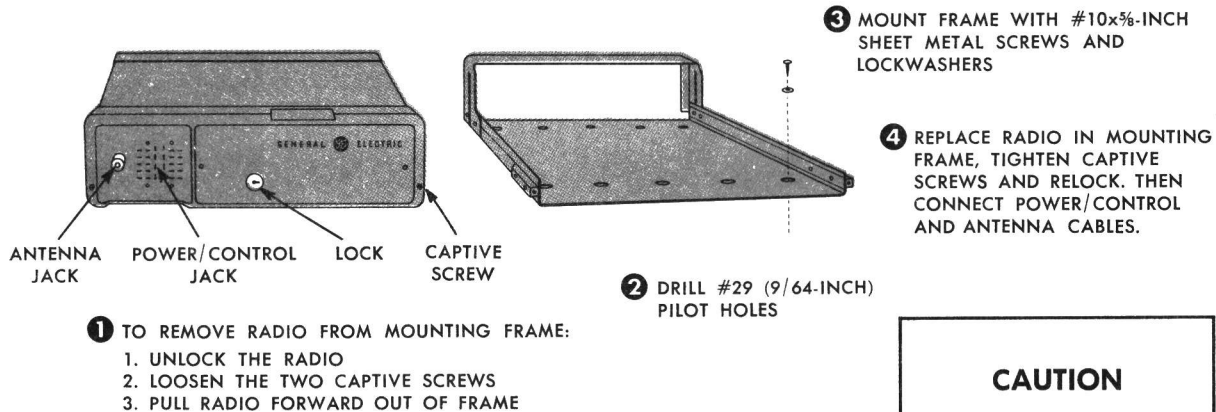
FRONT MOUNT

INSTALLING THE TWO-WAY RADIO

TRUNK-MOUNT RADIO

The Two-Way Radio may be mounted horizontally, vertically or on its side. Select a mounting location with sufficient room for the radio to be pulled out of the mounting frame for servicing. Mount the radio as shown in Figure 6.

Figure 6—Installing the Trunk-Mount Radio



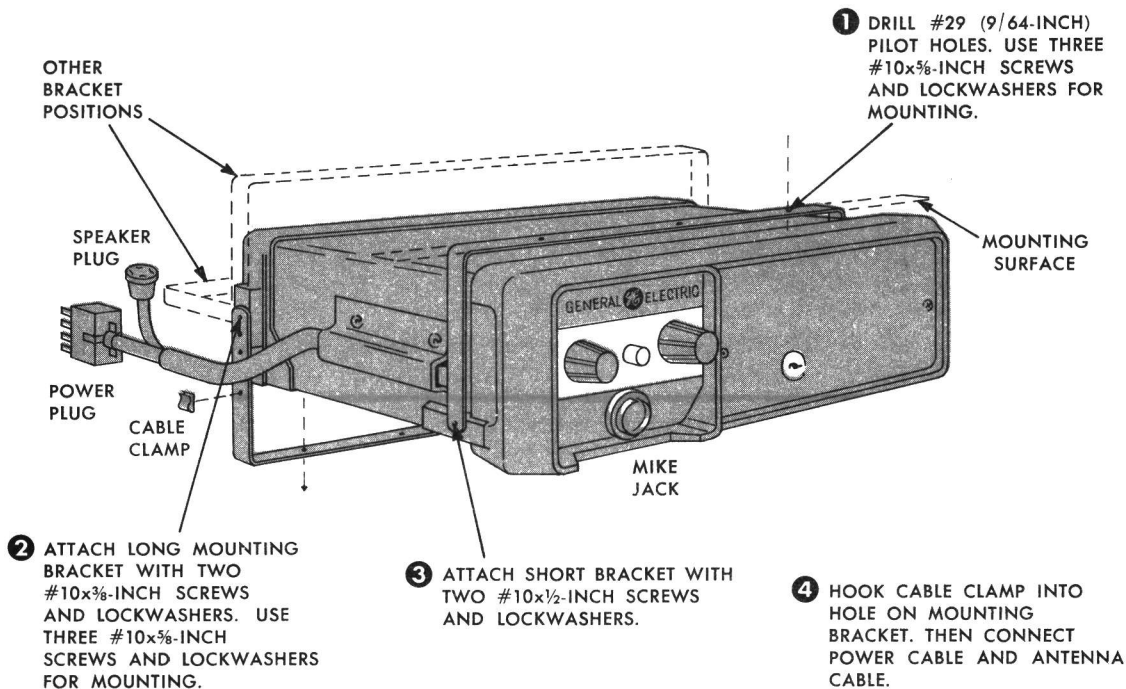
CAUTION

BE CAREFUL TO AVOID DAMAGING SOME VITAL PART OF THE VEHICLE WHEN DRILLING MOUNTING HOLES.

FRONT-MOUNT RADIO

In Front-Mount installations, mount the Two-Way Radio so that the controls are within reach of the operator. Use the mounting brackets as a template to locate the holes, and mount the radio as shown in Figure 7.

Figure 7—Installing the Front-Mount Radio



CONTROL UNIT (TRUNK MOUNT ONLY)

In Trunk-Mount installations, the Control Unit should be mounted within convenient reach of the operator, and located so that it will not interfere with safe operation of the vehicle. Normally, the Control Unit is mounted on the underside and in the middle of the instrument panel. Use the swivel bracket from the Control Unit as a template for locating two mounting holes. Mount the Control Unit as shown in Figure 8. After mounting the unit, connect the numbered leads in the Power/Control Cable to the corresponding numbered pins on the back of the Control Unit. Connect the Ignition Switch Cables as shown in Figure 12.

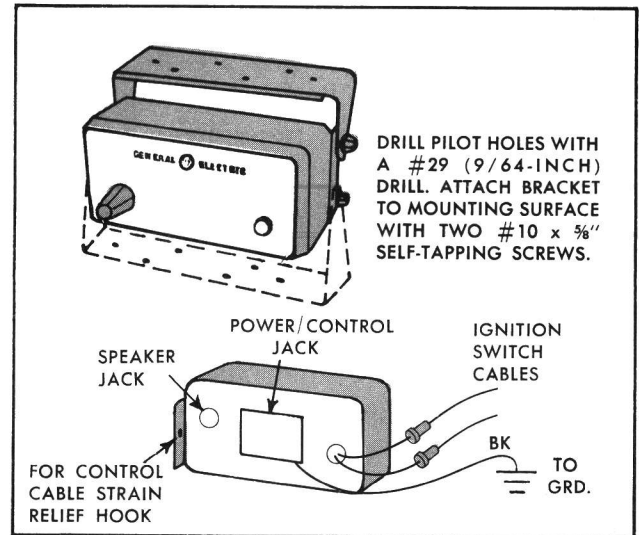


Figure 8—Mounting the Control Unit

SPEAKER

The speaker should be mounted where it will direct sound to the operator, but not interfere with his vision. The speaker may be mounted on the lower edge of the instrument panel, on the firewall, above the windshield in trucks, or behind the built-in speaker grille of some vehicles. Use the swivel bracket from the speaker as a template for locating three mounting holes, and mount the speaker as shown in Figure 9. After the speaker is mounted, connect the speaker cable to the speaker jack on the back of the Control Unit (in Trunk-Mount Radios), or to the speaker jack on the cable at the side of the radio (in Front-Mount Radios).

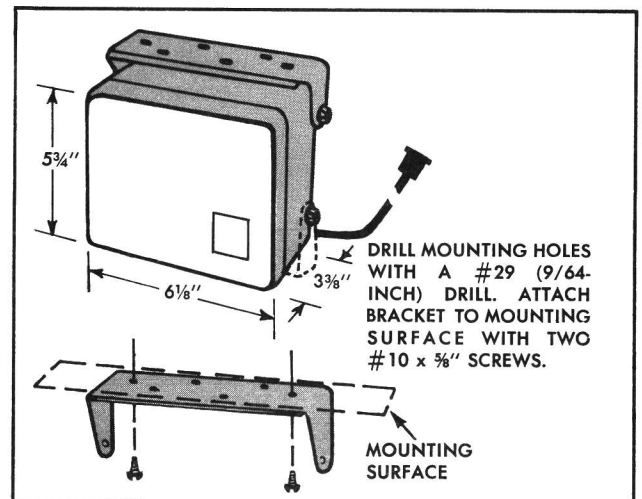


Figure 9—Mounting the Speaker

MICROPHONE

Mount the microphone near the Control Unit 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 10), screw the microphone connector into the microphone jack on the bottom of the Control Unit.

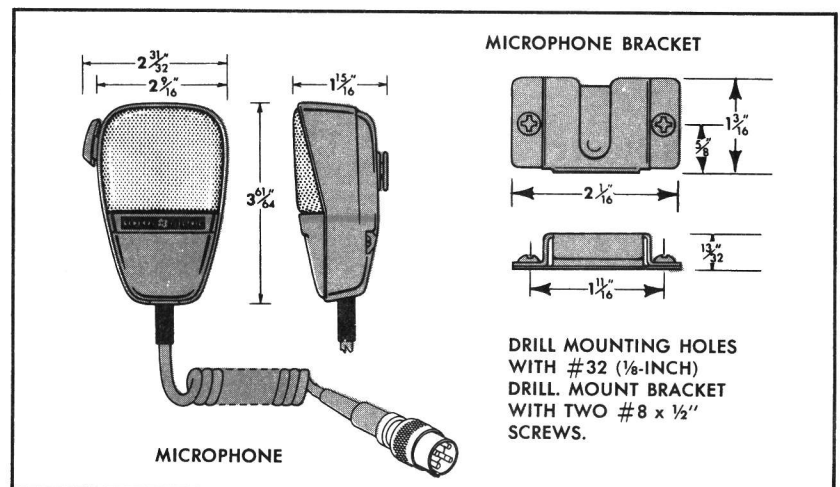


Figure 10—Mounting the Microphone

IGNITION SWITCH CABLES

In Trunk-Mount installations, the Ignition Switch Cables consist of two fused leads and a black ground lead running from the Control Unit.

In Front-Mount installations, the Ignition Switch Cables consist of two fused leads running from the Power Cable Plug.

Power to the radio can be controlled by one of the following three methods. Select the type of control desired, and connect the Ignition Switch Cables as directed in the connections chart (Fig. 12).

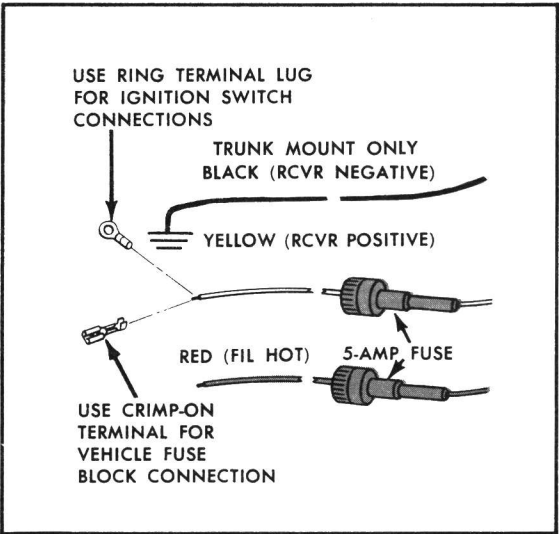


Figure 11—Ignition Switch Cables

CONTROL METHOD	CONNECTIONS TO IGNITION SWITCH	
	Yellow Cable To	Red Cable To
1. Ignition Switch Standby — Receiver operates independently of ignition switch. Transmitter operates only with ignition switch in Accessory or ON position.	HOT Terminal	ACCESSORY Terminal
2. Ignition Switch Control — Transmitter and receiver operate only with ignition switch in Accessory or ON position.	ACCESSORY Terminal	ACCESSORY Terminal
3. Ignition Switch Bypass — Transmitter and receiver operate independently of ignition. Radio is turned ON and OFF by Control Unit switch.	HOT Terminal	HOT Terminal

Figure 12—Connections for Ignition Switch Cables

HANDSET & HOOKSWITCH (OPTIONAL)

The hookswitch provides speaker muting only. Mount the hook-switch and connect the cable as shown in Fig. 13. Next, connect the handset plug to the microphone jack on the bottom of the Control Unit.

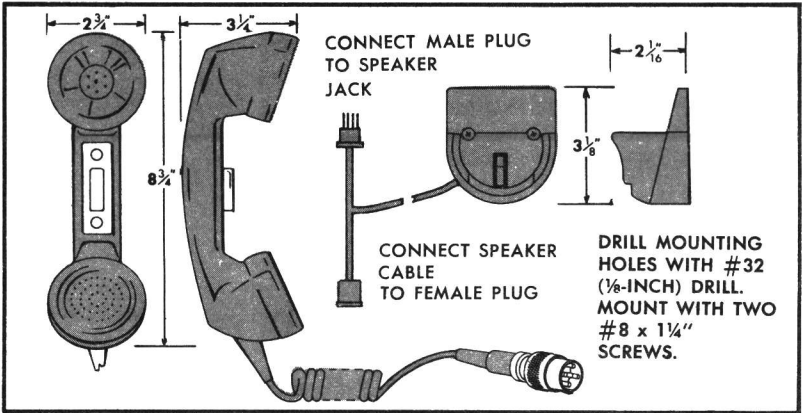


Figure 13—Handset and Hookswitch Mounting.

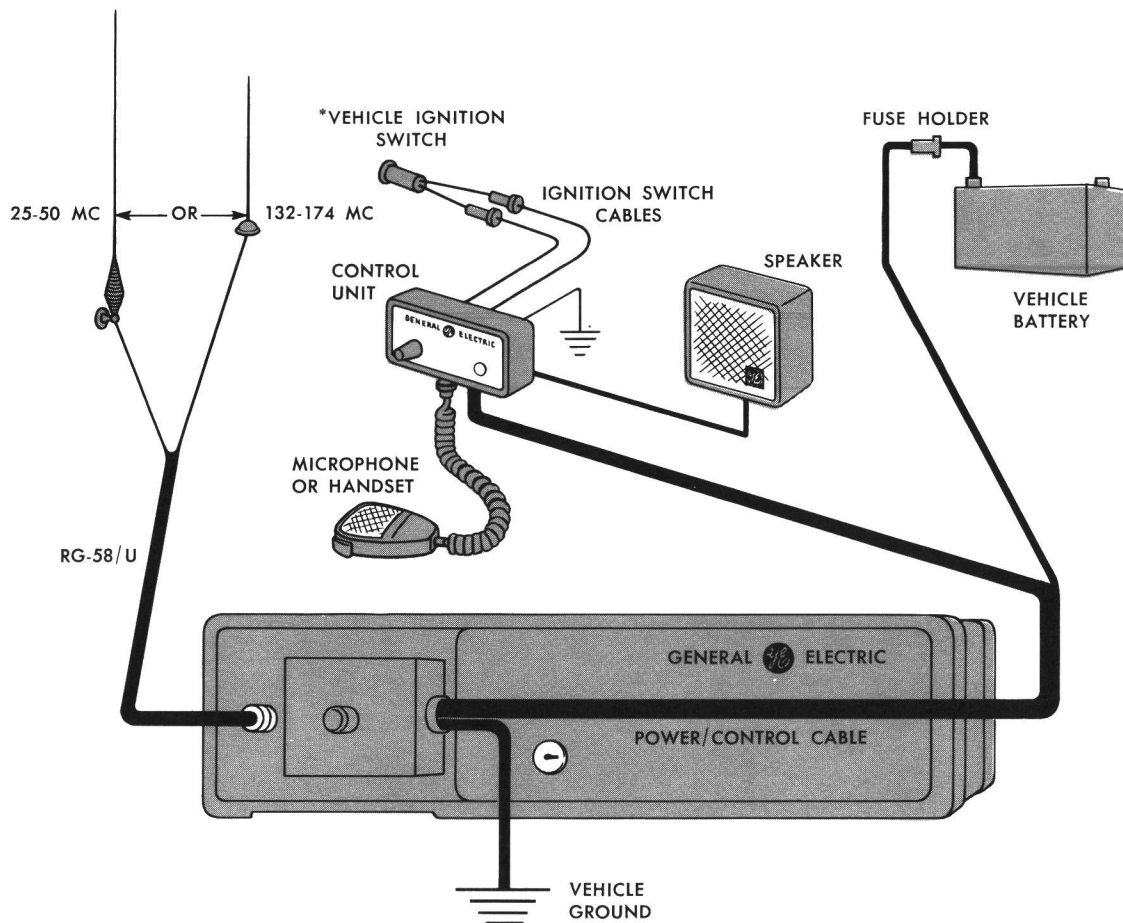


Figure 14—Trunk-Mount Cabling Diagram

***IGNITION SWITCH CABLES
MAY BE CONNECTED TO
THE VEHICLE TERMINAL
BLOCK.**

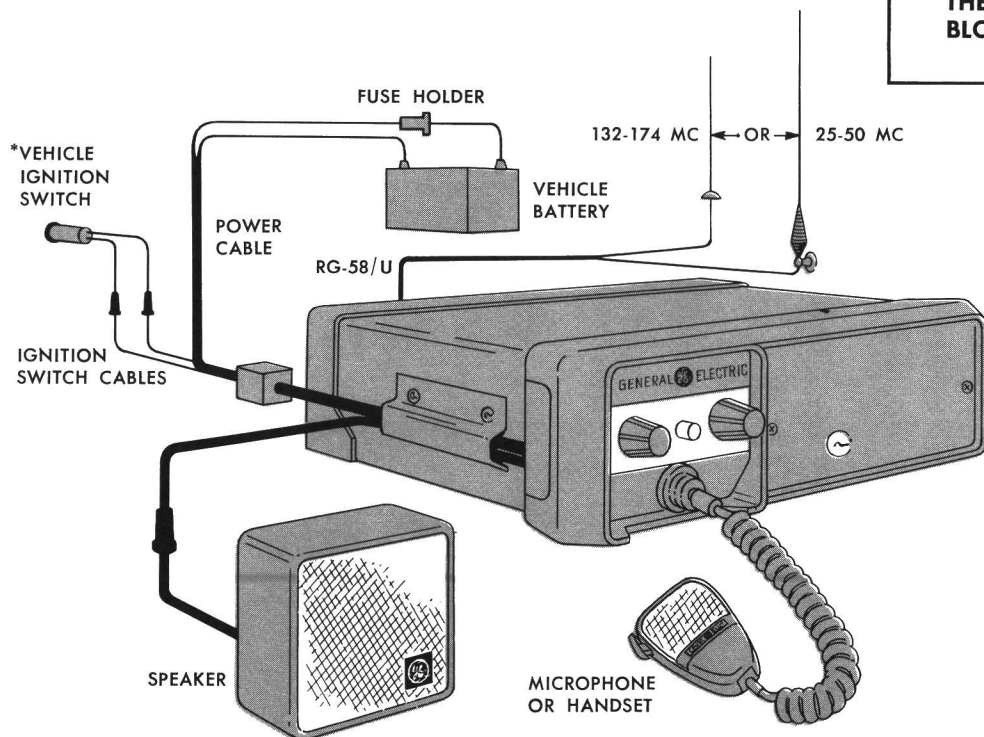


Figure 15—Front-Mount Cabling Diagram

ANTENNA

Installation instructions for the High-Band and Low-Band Antennas are packaged with the antenna. The antenna must be installed in accordance with good engineering practice for optimum results.

- For the 132-174 MC antenna, the most effective mounting position is usually in the center of the roof of the vehicle. The antenna cable will normally run from the front of the Two-Way Radio, behind sections of the interior trim to a door or window post, and then up between the roof and header in the passenger compartment to the antenna base.
- For the 25-50 MC antenna, the most effective mounting position is usually on the driver's side of the vehicle near the top of the left rear fender or body of the vehicle.

PLACING THE TWO-WAY RADIO IN OPERATION

After completing the installation of the Two-Way Radio, the following final operations should be performed:

- Have an electronics technician who holds a 1st or 2nd Class FCC Radiotelephone license make the final adjustments. These include:
 - Transmitter (final tuning and loading; frequency and modulation check)
 - Receiver (matching to antenna and netting)
 - Checking to see if any noise suppression is needed
- Instructions for making these adjustments are included in the Maintenance Manual for the Two-Way Radio. Give the alignment tools and key (packed with the unit) to the technician.
- Be sure that a RADIO TRANSMITTER IDENTIFICATION form (FCC Form 452-C or General Electric Form ECP-82) is filled out and attached to the transmitter.
- Fill out and mail the WARRANTY REGISTRATION Card (General Electric Form CPD-271).
- Give the Operator's Manual for the Two-Way Radio to the person who is going to operate it or place the Manual in the vehicle where he will find it.

Progress Is Our Most Important Product



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