



INSTALLATION OF

MASTR *Executive Series*

PROGRESS LINE

RADIO COMMON CARRIER (RCC) MOBILE COMBINATIONS

The General Electric RCC Executive features a ruggedly constructed Two-Way Mobile Radio with unusually flexible mounting possibilities. The Two-Way Radio locks into a steel mounting frame to provide an exceptionally stable mobile installation. The telephone-type Control Unit readily mounts within convenient reach of the operator.

LB1-3993
DF-9021

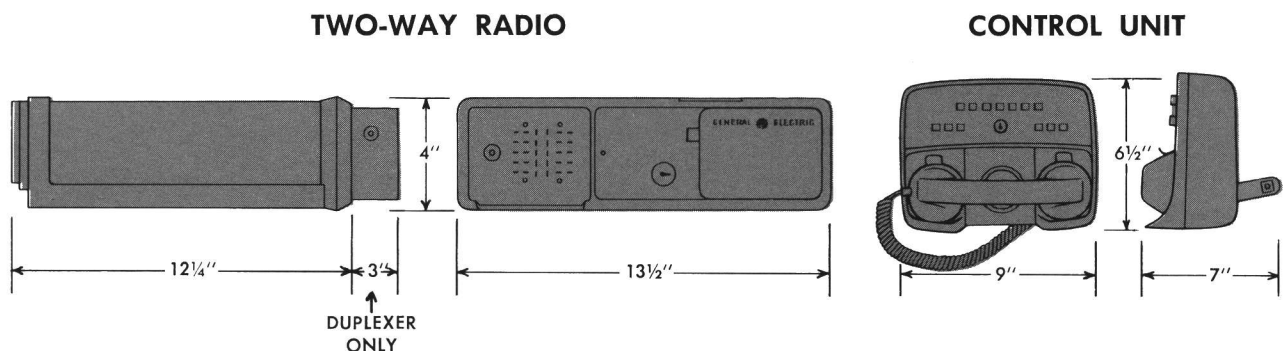


Figure 1 — Mounting Dimensions

INSTALLATION EQUIPMENT

The equipment required for installing the RCC Executive Radio includes:

- An electric drill for drilling mounting holes.
(See drill 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
- 3/8-Inch Drill for 132-174 MHz Antenna

9021

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

- Two-Way Radio ☐
- Control Unit Model 4EC79A10-13. (Includes Mounting Hardware and Key) ☐
- Antenna Model 4EY12A13, Cable and RF Connector ☐
- Top Cover 19D402629-P1 ☐
- Bottom Cover 19C303911-G2 ☐
- Trunk Mounting Hardware 19A122244-G2 ☐
- Fuse Assembly 19B216021-G1 ☐
- Trunk Mount Power/Control Cable ☐
19C303910-G2
- Alignment Tools (3) ☐

PLANNING THE INSTALLATION

The accompanying photographs of a typical MASTR RCC Executive installation 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.

TYPICAL INSTALLATION



Fig. 2 — Control Unit Mounting



Fig. 3 — Two-Way Radio Mounting

RCC Executive 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 normally mounts on the transmission hump of the vehicle, within convenient reach of the 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 for additional information.

NOTE

The RCC Executive operates in 12-volt, negative ground vehicle systems only. Always check the battery polarity and voltage of the new system before moving the radio to a different vehicle.

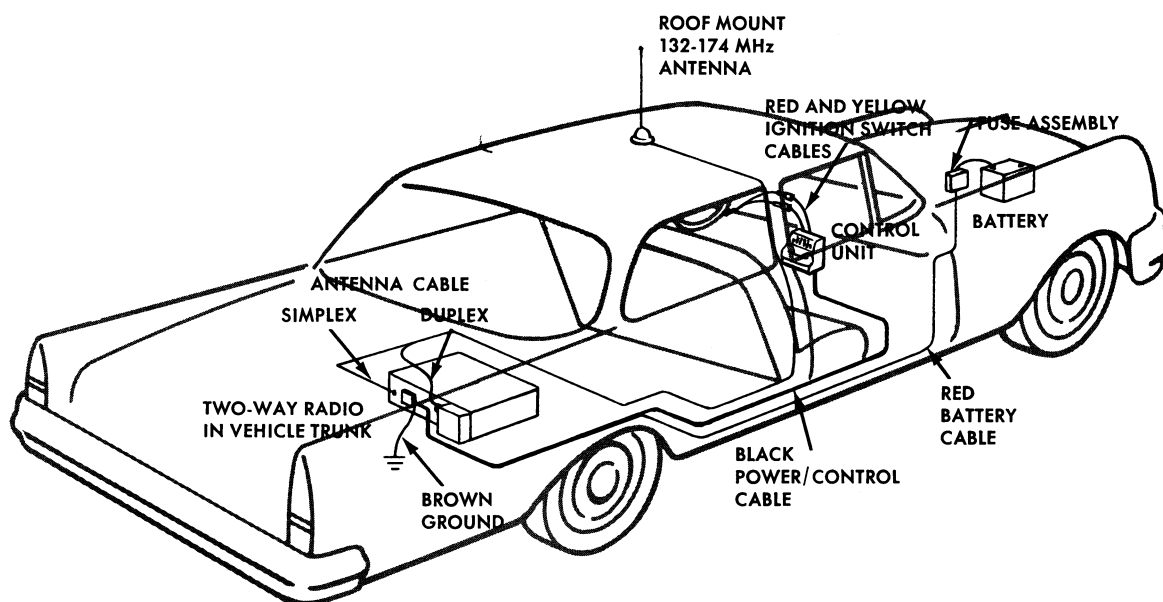


Figure 4 — Cable Routing

Run the cables as follows:

1. Starting with the Power/Control cable at the location of the Two-Way Radio, run the grey metal plug (and the two fused leads) to the Control Unit location. Remove the plug retaining screw before running the cable.
2. Run the red battery cable to the vicinity of the vehicle battery. Cut the cable and connect the Fuse Assembly in the red lead with the ring terminals provided. Then mount the fuse Assembly near the battery and connect the red lead to the positive (+) battery terminal.
3. Connect the brown cable to a good vehicle ground in the trunk compartment.

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 5.

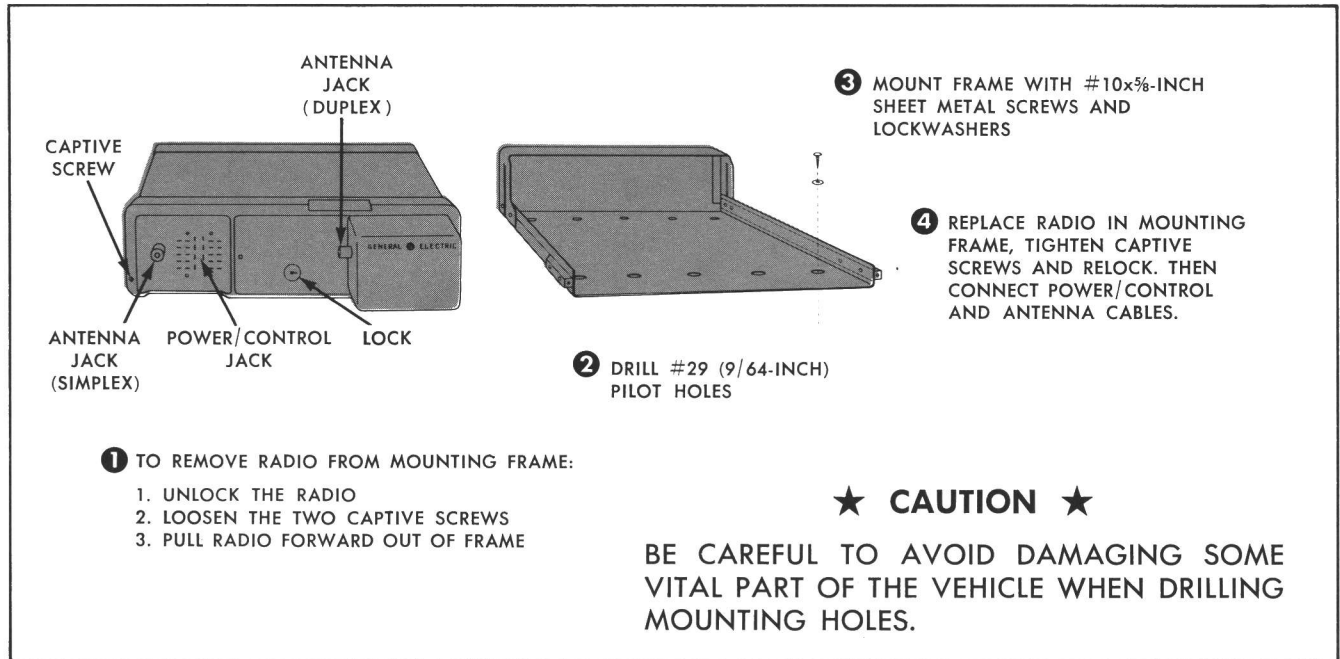


Figure 5 — Installing the Trunk-Mount Radio

CONTROL UNIT

Mount the Control Unit within convenient reach of the operator, and where it will not interfere with safe operation of the vehicle. The Control Unit normally mounts on the transmission hump, below the instrument panel.

Use the hinged mounting bracket and spacer bar assembly to locate the four mounting holes. Mount the hinged brackets as shown in Figure 6. After mounting the brackets, remove and discard the spacer bar while retaining the $\frac{1}{4}$ -inch machine screws and nuts. The two extension brackets may be used where additional height or a different mounting angle is required.

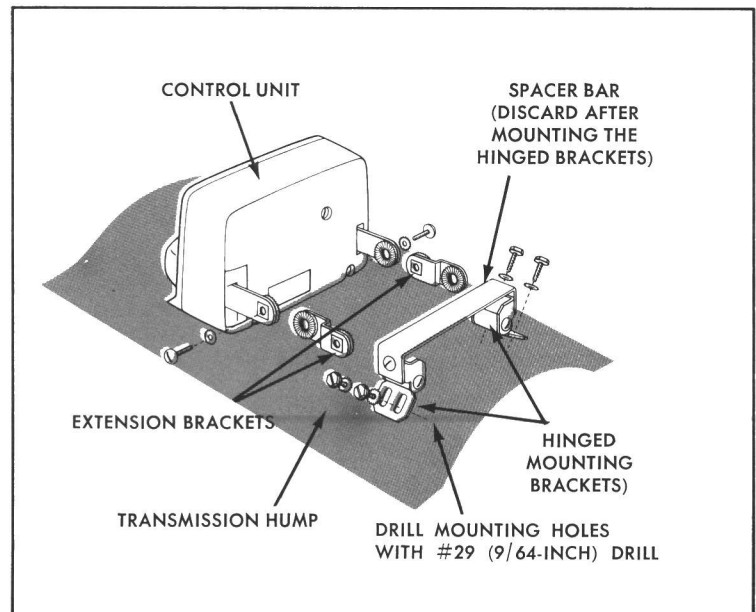
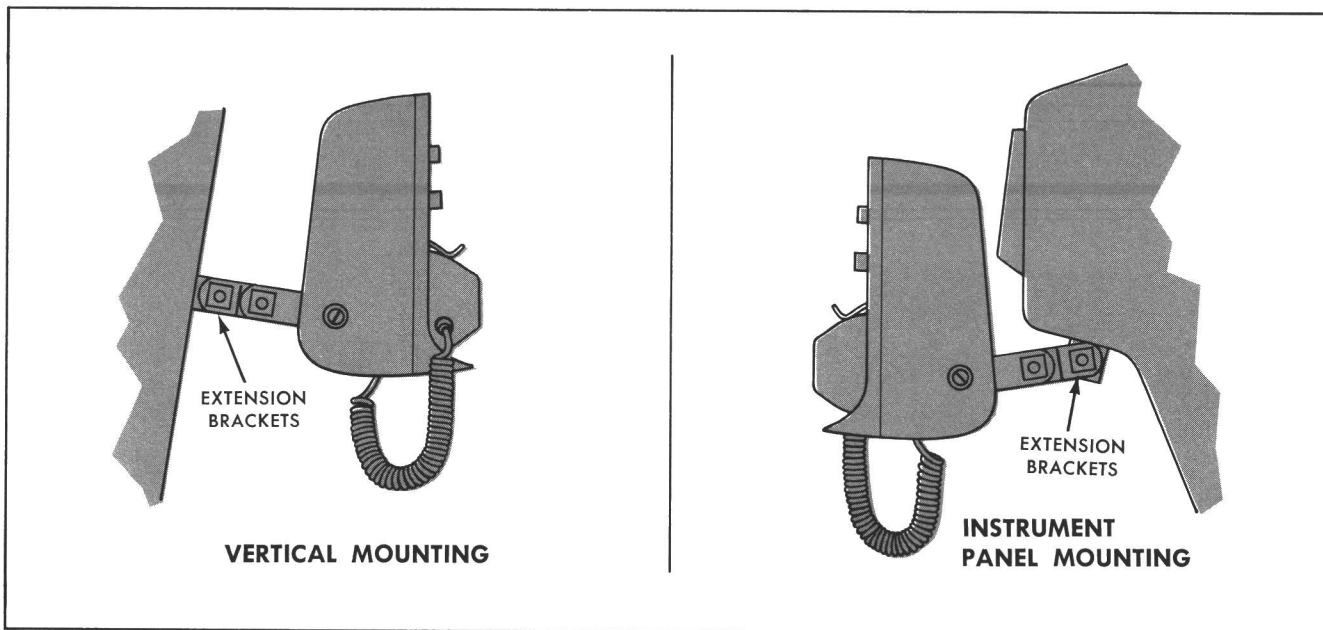


Figure 6 — Mounting the Control Unit

Alternate mounting positions are shown in Figure 7.

Before attaching the Control Unit to the mounting brackets, it is necessary to strap in the subscriber's code.



CODE STRAPPING

For test purposes, the Control Unit is shipped from the factory strapped to operate on the seven digit radio-telephone number (code) 205-9551. It will be necessary to change this code number to the code assigned to the RCC Executive Two-Way Radio.

To gain access to the code strapping board, loosen the three captive screws in the back of the Control Unit and remove the back cover. The code strapping board is located on the top of the chassis. Carefully study Figures 8 and 9 before attempting to strap in the code.

NOTES

1. Do not use the number "1" in the first or fourth digit of the seven digit code.
2. Do not use the same number in the first and fourth digit of the code. These numbers must be different.
3. Always strap in all seven digits even though the mobile is intended only for local four digit service.

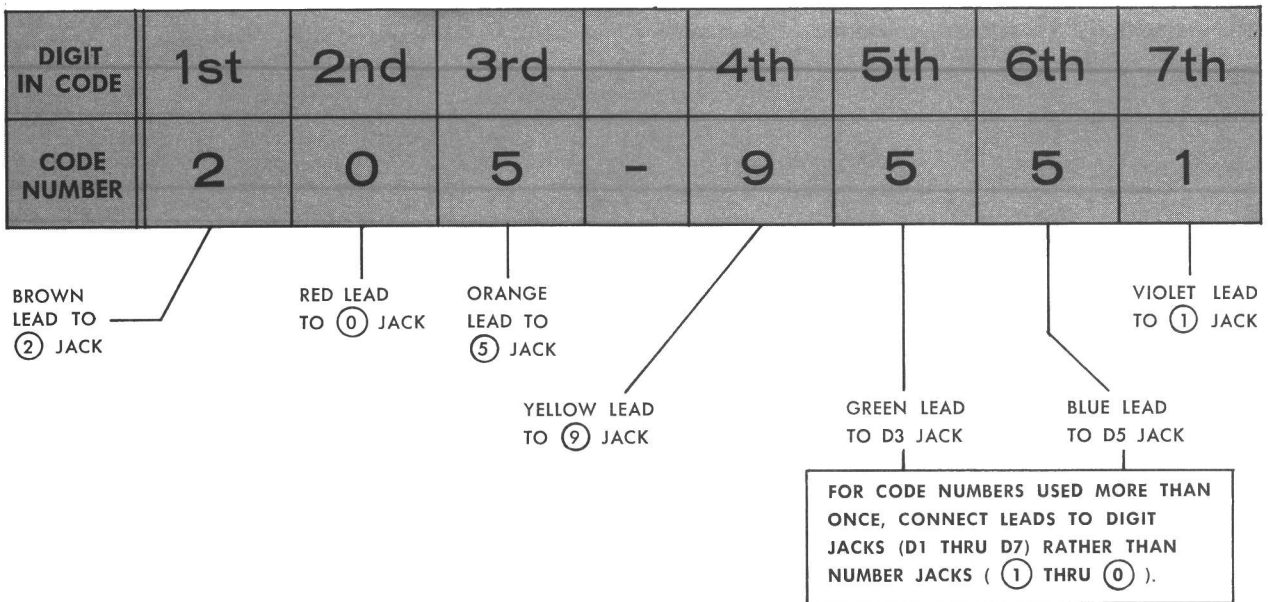


Figure 8 — Strapping for Code 205-9551

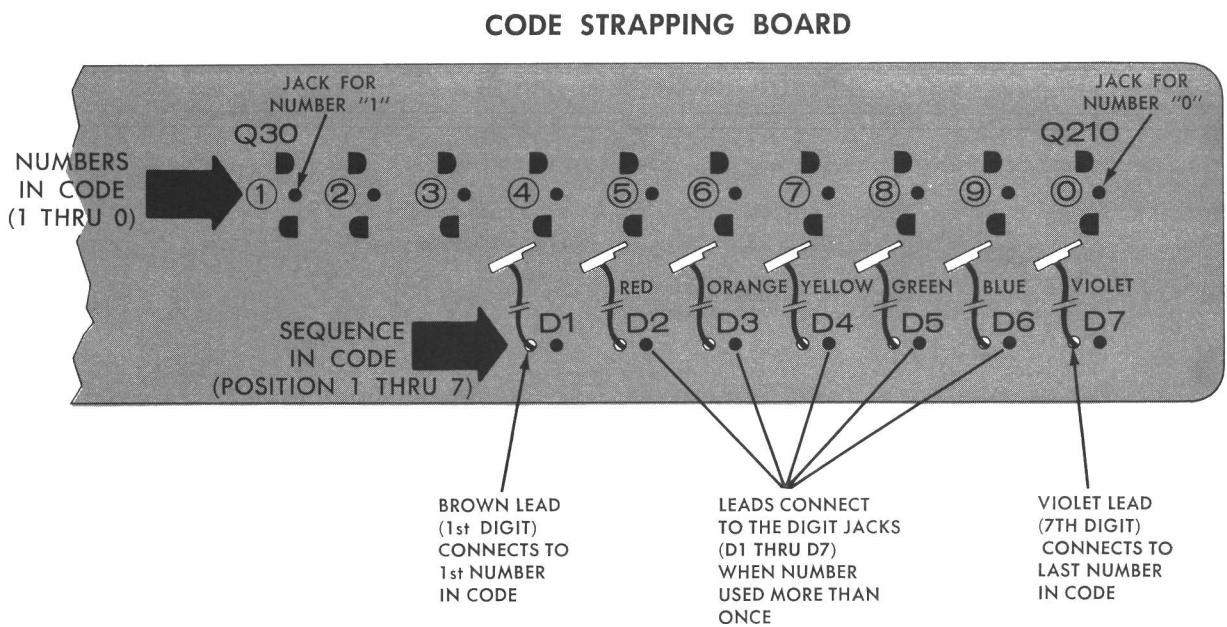


Figure 9 — Simplified Drawing of Code Strapping Board

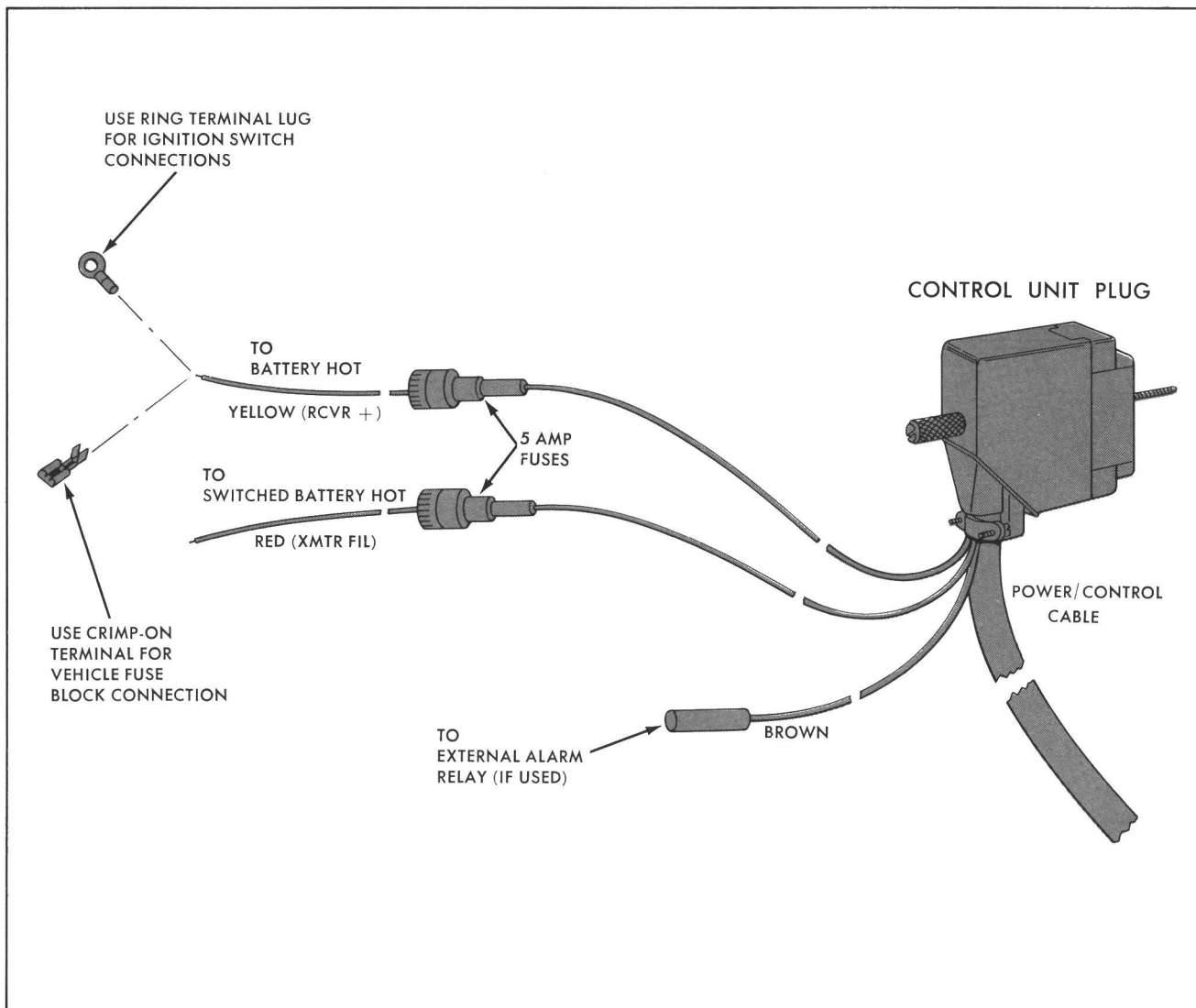


Figure 10 — Ignition Switch Cables

IGNITION SWITCH CABLES

The Ignition Switch cables consist of a yellow and a red fused lead connected to the Control Unit plug. Connect the cables as shown in Figure 10.

A brown lead with an in-line connector is provided for operating a timed, external alarm relay (horn, light, etc.), and operates in conjunction with the HORN pushbutton on the Control Unit. The brown lead is connected to a set of dry contacts on the buzzer relay, and provides a switched ground path for two to four seconds when the relay is energized by an incoming call.

ANTENNA

Installation instructions for the Antenna is packaged with the antenna. The antenna must be installed in accordance with good engineering practice for optimum results. Usually, the most effective mounting position is 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.

PLACING THE TWO-WAY RADIO IN OPERATION

After completing the installation of the RCC Executive 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 the code strapping by having the operator dial both the complete seven-digit code and the local four-digit code.

Checking for proper operation of the Busy-Circuit option (if present).

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 to the radio (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 and Control Unit Key (packed with the Control Unit) to the person who is going to operate the radio, or place them in the vehicle where he will find it.

ADDENDUM TO LBI-3993

SETTING PUSHBUTTONS

Before mounting the Control Unit, button blocks should be installed on all unused pushbuttons, and the channel selector pushbuttons re-arranged according to the RCC channel designation.

In single-frequency units, the channel is selected by the pushbutton on the far left (marked "1"). In multi-frequency units, the pushbutton on the left is used for the lowest frequency, and the pushbuttons marked "3", "5", etc. are used for the progressively higher frequencies. Therefore, the numbers on the pushbuttons may not correspond with the RCC channel designation.

Set the pushbuttons according to the following procedure:

1. Remove the two screws in the front nameplate, and carefully pry off the nameplate.
2. Pull off the plastic push-on caps and replace the caps in the proper order according to the radio frequencies and the Channel Allocation Chart (see Figure 11).
3. Install the plastic, tubular button blocks (supplied with the mounting hardware) over the shaft of all unused Channel Selector pushbuttons.
4. In simplex radios, install a button block on the DPLX (duplex) pushbutton.

RCC CHANNEL	TRANSMIT FREQ (MHz)	RECEIVE FREQ (MHz)
1	158.49	152.03
3	158.52	152.06
5	158.55	152.09
7	158.58	152.12
9	158.61	152.15
11	158.64	152.18
13	158.67	152.21

Figure 11 - Channel Allocation Chart

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