



# INSTALLATION INSTRUCTIONS FOR

## Power Call Model 4EA22A10 Power Call/Siren Model 4EA22B10

The General Electric Power Call and Power Call/Siren units are designed to operate as a public address system and as a high power audio amplifier for mobile receivers. The Power Call/Siren includes an electronic siren with four modes of operation. The units can be used in 6-, 12- or 28-volt vehicles with either positive or negative ground.

### IMPORTANT

Both the Power Call unit and the Power Call/Siren unit are shipped wired for 12-volt operation. For 6- or 28-volt operation, refer to "Circuit Changes for 6- or 28-volt Operation."

### UNPACKING

Check for the following items, while carefully unpacking the unit:

<u>Equipment</u>	<u>Power Call</u>	<u>Power Call/Siren</u>
Power Call Unit Model 4EA22A10 . . . . .	<input type="checkbox"/>	
Power Call/Siren Unit Model 4EA22B10 . . . . .		<input type="checkbox"/>
Standard Speaker (includes gasket) . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Model 4EZ19B10 (6-Volt)		
Model 4EZ19C10 (12/28-Volt)		
Optional Chromium, Low Profile or Short Length Speaker. . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Models 4EZ19D10, F10, or H10 (6-Volt)		
Models 4EZ19E10, G10 or J10 (12/28-Volt)		
Microphone Model 4EM25A10 or B10 (in "PA" and "SA" combinations only). . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Hardware Kit 19A121779G1, includes the following:		
20-Foot Speaker Cable 19A121771G1 . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
18-Foot Power Cable 19B204987G1 . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
6-Volt Pilot Lamp #755. . . . .	<input type="checkbox"/>	<input type="checkbox"/>
28-Volt Pilot Lamp #757 . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Cable Clamp 4029851P7 . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Amplifier Mounting Bracket 19A121733G1 . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Speaker Backing Plate 19A122229P1 . . . . .	<input type="checkbox"/>	<input type="checkbox"/>
Screws, Nuts, Lockwashers, Grommet and Plug Pins. . .	<input type="checkbox"/>	<input type="checkbox"/>
Interconnection Cable. . . . .	<input type="checkbox"/>	<input type="checkbox"/>
19B204988G1 (for MASTR or Progress Line) or		
19B204988G2 (for Transistorized Prog. Line)		
19B204988G3 (for Porta-Mobile)		
19A122754G1 (Porta-Mobil Adaptor)		
2nd Speaker for 12- or 28-Volt operation only. . . . .	<input type="checkbox"/>	<input type="checkbox"/>

## PLANNING THE INSTALLATION

The amplifier may be installed either above or below the instrument panel of the vehicle, or in some other location convenient for the operator. The speaker is usually mounted on the roof, on a fender, or behind the grille of the vehicle.

### CIRCUIT CHANGES FOR 6- OR 28-VOLT OPERATION

As the Power Call and Power Call/Siren are shipped wired for 12-volt systems only, the following circuit changes must be made before installing the unit in 6- or 28-volt systems.

FOR 6-VOLT OPERATION	FOR 28-VOLT OPERATION
1. Remove top cover. Remove jumper from "12-24" designation. Solder jumpers across the two remaining "6" volt designations.	1. Remove top cover. Remove all jumpers across the "6" and "12" numbers except jumper across "12-24" designation on the printed circuit board.
2. Remove circuit board and replace pilot lamp with 6-volt lamp #755.	2. Remove circuit board and replace pilot lamp with 28-volt lamp #757.
3. Add insulated jumper across the square resistors near the power transistors on the side angle bracket.	3. Unsolder orange wire from the center transistor terminal located on the side angle bracket at the rear of the ON-OFF switch.
	4. Solder orange wire to the terminal lug located between the transformer and the side angle bracket at rear of ON-OFF switch. (A black wire is already connected to this lug.)

### MASTR, TPL AND PROGRESS LINE CHANGES

If a MASTR Progress Line microphone or handset is used, solder an insulated jumper between pin 3 and pin 12 on the 13-pin Vehicle Systems Plug. Two extra pins are provided in Hardware Kit 19A121779-G1.

If TPL microphone is used, make jumper connection from "C" to "C" on printed circuit board.

If TPL or Progress Line control units are used, jumper the 2,200-ohm resistor connected to the control unit microphone jack.

## AMPLIFIER INSTALLATION

1. Using the mounting bracket as a template, mark off and drill four 5/32" holes. Mount bracket with four 1/2" screws, plain washers, lockwashers, and nuts. The amplifier may be moved two inches forward from the front edge of the mounting position by reversing the position of the mounting bracket.

### CAUTION

Be sure all wiring is cleared away from drilling area before drilling mounting holes.

2. Slide amplifier into the mounting bracket on the bracket guide pins at the desired height. Screw hex-head bolts into mounting holes on side of brackets.

## SPEAKER INSTALLATION

1. Using the backing plate as a template, mark off and drill two 13/64-inch holes for the backing plate retaining screws, and four 9/32-inch holes for the speaker mounting screws. Next, drill a 5/8-inch hole for the speaker cable and insert rubber grommet in the hole.

2. Attach the backing plate to the mounting surface with two #8 - 32 threadforming screws and lockwashers.

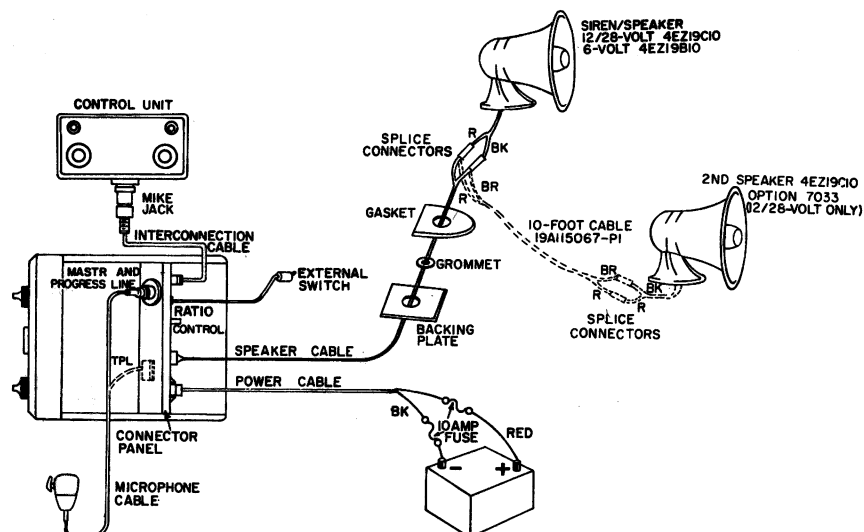
3. Plug speaker cable into amplifier connector panel and route cable through backing plate (under mounting surface), grommet, and gasket to speaker. Cut cable to length and crimp on terminals.

4. Also crimp terminals to the speaker leads. Then connect the speaker leads and the cable leads using the two splice connectors furnished (see Figure 1).

5. Now mount speaker securely into position using four 1/4" x 7/8" screws, plain washers and lockwashers.

## CABLE INSTALLATION

Connect the Power Cable, Interconnection Cable, Microphone Cable, and Speaker Cable as shown on the Cabling Diagram (Figure 1).



(RC-1354A)

Figure 1 - Cabling Diagram

### **CAUTION**

Be sure all proper circuit changes are made before connecting battery cable to the amplifier. Otherwise damage to pilot lamps, transistors, and other components will result.

## **EXTERNAL SWITCH**

A foot switch, vehicle horn-ring, or other types of external switches may be used to manually operate the siren. Connect a 2-wire extension cable to lugs 1 and 2 on the terminal board that is located between the side angle bracket and the transformer at the rear of the selector switch. (Blue-white and green wires from pushbutton are already connected to lugs 1 and 2 on the terminal board.) If both sides of the switch are not insulated from ground, a relay must be used to provide switching for the circuit.

## **2nd SPEAKER**

When installing two speakers (for 12 or 28-volt operation only), connect the second speaker in parallel and in phase with the first speaker for optimum performance. Connect the speakers as shown in Figure 1.

## **AUDIO LEVEL ADJUSTMENT**

Adjust the ratio of audio output between the internal mobile speaker and the external PA speaker as follows:

1. Set the mobile unit VOLUME control to the desired listening level inside the vehicle (Power Call amplifier OFF).
2. Turn Power Call amplifier ON and turn the Selector Switch to RADio position. Then set Ratio Control on connector panel of amplifier for the outside audio level required for the PA system.
3. Increasing or decreasing the mobile audio level with the mobile radio volume control will now simultaneously change audio level from the mobile unit speaker and the Power Call speaker at the same ratio.

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MOBILE RADIO DEPARTMENT  
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