FEDERAL SIGNAL CORPORATION
Emergency Products

INSTALLATION INSTRUCTIONS
FOR
MODEL BPMT/BPMT-P
COMPACT SPEAKER
BUMPER MOUNTING SYSTEM

SAFETY MESSAGE TO INSTALLERS

Peoples lives depend on your safe installation of our products. It is important to read, understand and follow all instructions shipped with the products. In addition, listed below are some other important safety instructions and precautions you should follow:

- To properly install mounting kit: you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.

- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.

- Installation of two speakers requires wiring speakers in-phase.

- Sound propagation and warning effectiveness will be severely reduced if the speaker projector is not facing forward. Carefully follow the installation instructions and always install the speaker with the projector facing forward.

- Optimum sound propagation will be severely reduced if any objects are in front of speaker. You should ensure that front of speaker is clear of any obstructions.

- All effective sirens produce loud sounds which may cause, in certain situations, permanent hearing loss. You should take appropriate precautions such as wearing hearing protection.

- Inspect the mounting system periodically to ensure it is in good condition.

- After installation and testing are complete, provide a copy of this instruction sheet to all operating personnel.

- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

A. UNPACKING.

After unpacking the kit, carefully check all envelopes, shipping labels, and tags before removing or destroying them. Ensure that the parts listed in the KIT CONTENTS LIST are contained in the packing carton.

B. KIT CONTENTS LIST.

Qty.	Description	Part Number
1AR	Bracket, Bumper, Black	8567004A
1AR	Bracket, Bumper, Chrome	8567004A-01
2	Spacer	8546A040A
2	Bolt, 3/8-16 x 1-1/2", Carriage	7004A024-24
2	Nut, 3/8-16, Hex	7059A107
2	Lockwasher, Split, 3/8"	7074A068
4	Lockwasher, Split, 1/4"	7074A015

C. INSTALLATION.

1. Select an appropriate mounting location which provides both adequate support and sufficient clearance for the speaker assembly.

NOTE

The center hole in the bracket is provided as an optional location for routing of wiring to the siren.

2. See figure 1. Use the bracket as a template and scribe two or three (as applicable) drill position marks at the selected location.
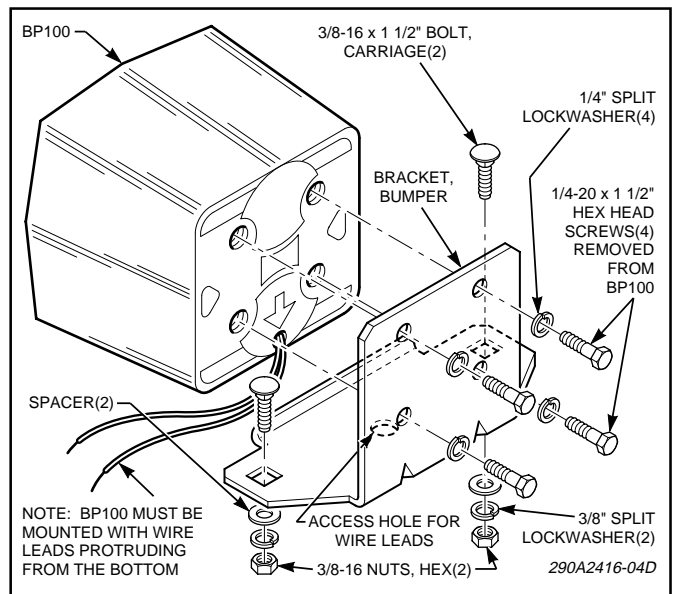

Figure 1.

NOTE

To prevent the speaker cone and driver from falling out of the casting while performing steps C.3. and C.4., place the speaker face down on the packing carton prior to removing the screws.

3.   Remove the four screws and eight spacers from the back of the speaker. Discard the eight spacers. Retain the screws.

WARNING

To avoid reduction of sound output and damage to speaker, ensure that speaker is mounted with wires protruding from bottom of unit.

4.   Assemble the bracket to the speaker using four 1/4" split lockwashers and previously removed screws as shown in figure 1.

5.   Use a "Y" or 13/32" drill bit and drill two or three (as applicable) holes at the previously scribed drill position marks.

WARNING

To avoid serious injury and/or damage to unit, an assistant should help handle the assembled unit.

6.   Place the assembled unit in position. Align the holes. Insert a 3/8-16 x 1-1/2" carriage bolt and a spacer into each of the square holes in the bracket and through the bumper. Secure with 3/8" lockwashers and 3/8-16 hex nuts as shown in figure 1. Ensure that all fasteners are properly tightened.

7.   Connect the two leads from the speaker to the electronic siren's speaker cable. When two speakers are used, it is necessary to connect them in-phase. This can be accomplished by connecting the two speaker leads marked "1" to the same lead of the siren's speaker cable, and the two speaker leads marked "2" to the other lead of the siren's speaker cable. Refer to the instruction sheet packed with the electronic siren for additional details.

WARNING

All effective sirens produce loud sounds which may cause, in certain situations, permanent hearing loss. You should take appropriate precautions such as wearing hearing protection.

8.   Test the speaker(s) for proper operation.

SAFETY MESSAGE TO OPERATORS

Listed below are some important safety instructions and precautions you should follow:

- All effective sirens produce loud sounds which may cause, in certain situations, permanent hearing loss. You should take appropriate precautions such as wearing hearing protection.

- Your hearing and the hearing of others, in or close to your emergency vehicle, could be damaged by loud sounds. This can occur from short exposures to very loud sounds, or from longer exposures to moderately loud sounds. For hearing conservation guidance, refer to federal, state, or local recommendations. OSHA Standard 1910.95 offers guidance on "Permissible Noise Exposure."

- Optimum sound propagation will be reduced if speaker becomes clogged with a foreign substance such as mud or snow. While cleaning, ensure that substance is not packed into speaker.

- Although your warning system is operating properly, it may not be completely effective. People may not hear, see, or heed your warning signal. You must recognize this fact and continue driving cautiously.

- Also, situations may occur which obstruct your warning signal when natural or man-made objects are between your vehicle and others. If these situations occur, be especially careful.

- It is important that you fully understand how to safely operate this warning system before use.

Failure to follow these safety precautions may result in property damage, serious injury, or death to you, to passengers, or to others.