

INSTALLATION AND OPERATING INSTRUCTIONS FOR MODEL BP350 COMPACT SPEAKER

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 the speaker: 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.
- 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.
- Install the speaker in a location which provides maximum signalling effectiveness and minimizes the sound reaching the vehicle's occupants.
- 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 re-installing the product.

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

A. GENERAL.

The Model BP350 compact speaker is designed to project sound more uniformly to the front and sides of an ambulance. It is designed primarily for custom installation on a Ford Econoline 350 truck chassis.

B. UNPACKING.

After unpacking the unit, inspect it for damage that may have occurred in transit. If the unit has been damaged, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of damage. Carefully check all envelopes, shipping labels and tags before removing or destroying them. Ensure that the parts listed in the KIT CONTENTS LIST are included in the package.

C. KIT CONTENTS LIST.

Qty.	Description	Part No.
1	Template	8567062
2	Screw, Mach., #8-32	7000A063-12
2	Nut, #8-32	7059A073
2	Lockwasher, Split, #8	7074A005
4	Washer, Flat, 0.88 O.D.	7072A214
4	Retainer, Bolt	8567059
2	Screw, Mach., 1/4-20	7000A311-20
2	Nut, Elastic Stop, 1/4-20	7058A010
2	Lockwasher, Split, 1/4"	7074A016
4	Washer, Flat, 1/4"	7072A024
2	Screw, Mach., 5/16-18	7000A005-20
2	Nut, Elastic Stop, 5/16-18	7058049
2	Lockwasher, Split, 5/16"	7074A020
4	Washer, Flat, 5/16"	7072A031

D. INSTALLATION.

The Model BP350 is designed specifically for mounting in pre-drilled holes in the E350 bumper. If the speakers are installed using other mounting arrangements, the safety and effectiveness of the installation must be carefully evaluated.

To install the Model BP350, proceed as follows:

1. Cut the adhesive-backed air dam templates (one driver side and one passenger side) from the supplied template sheet. Be sure to follow the outside edge of the lines when cutting out the templates. See figure 1.

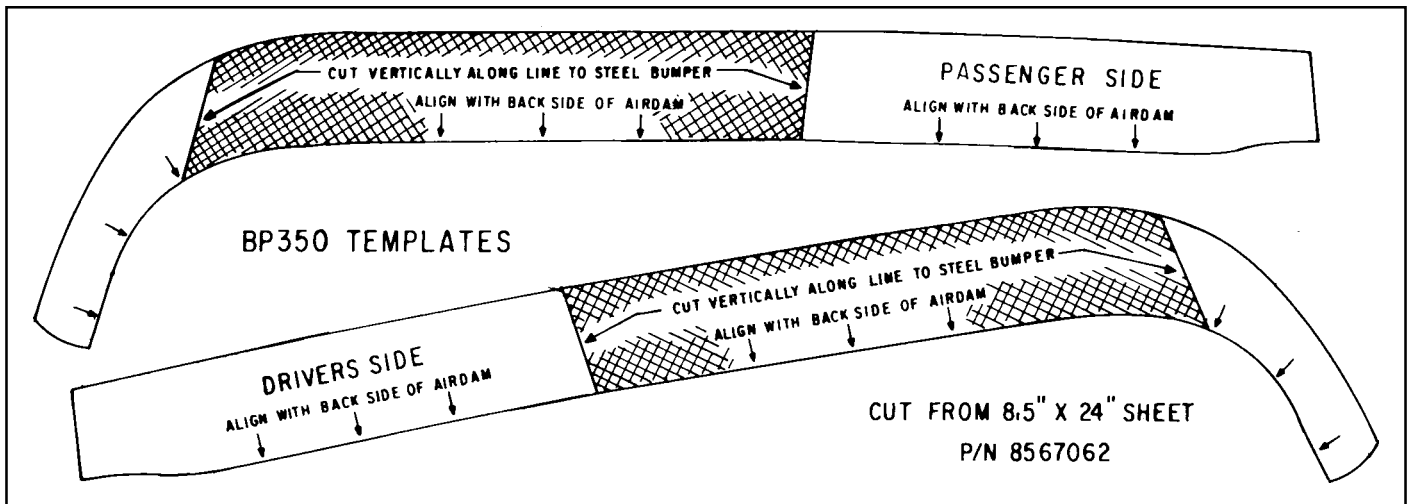


Figure 1. Templates.

2. To attach the templates to the underside of the air dam, remove the backing from a template. See figure 2. Align the back side of the template with the back side of the air dam, and adhere the template to the air dam's underside.

3. See figures 2 and 3. Cut vertically along the template lines up to the bumper. Make an initial horizontal cut between the two vertical cuts as close to the bumper as possible. Remove the cut portion of the air dam.

4. See figure 4. Using the vertical cuts as a guide, mark a cut line on the air dam 3-inches from

the rear edge of the bumper as shown. Cut and remove the air dam in the marked area.

5. Install the 1/4-20 and 5/16-18 mounting bolts in the speaker projector using flat washers and bolt retainers as shown in figure 5.

WARNING

To avoid reduction of sound output and damage to the speakers, ensure that the speakers are mounted with the drain hole facing downward as indicated by the label on the projector.

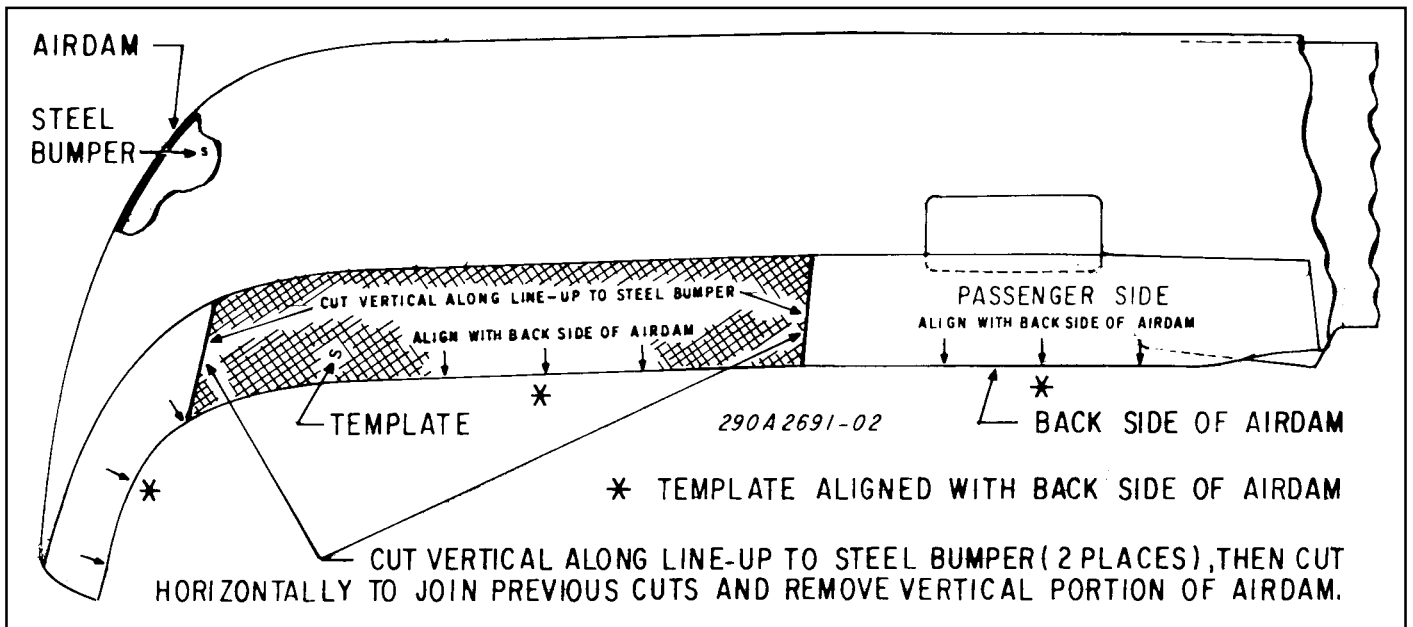


Figure 2. Underside View of Bumper/Air Dam Assembly.

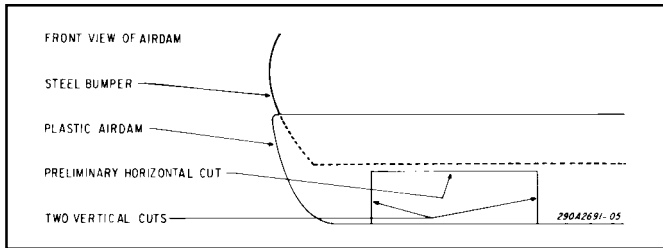


Figure 3. Air Dam Front View.

6. See figure 5. Position the speaker in the opening cut in the air dam and secure using flat washers, split lockwashers and nuts.

7. Using the slot in the speaker tab as a guide, scribe a drill position mark on the air dam. Drill a 3/16" hole at the drill position mark.

8. Secure the air dam to the speaker using a #8-32 screw, 0.88 O.D. washer, lockwasher and nut as shown in figure 6.

9. Repeat steps D.2. through D.8. on the vehicle's other side.

10. Connect the two leads from each speaker to the electronic siren's speaker cable. It is necessary to connect the speakers in-phase. This is 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 instructions 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.

11. Test the speakers for proper operation.

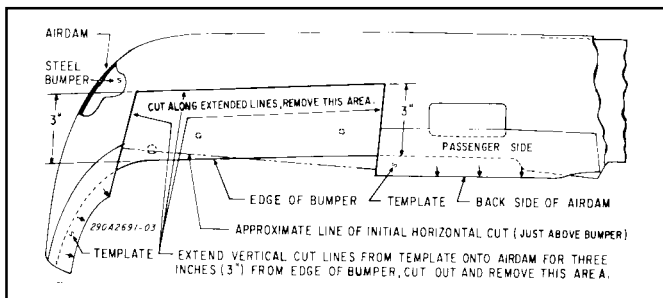


Figure 4. Cutting Air Dam.

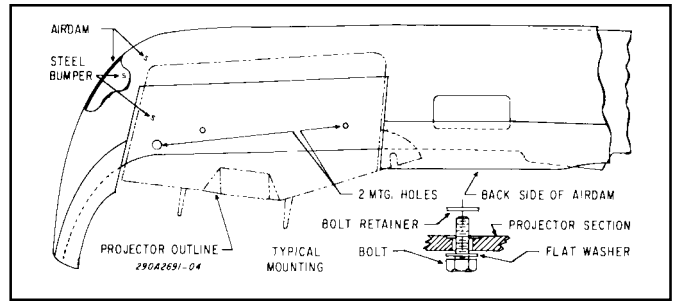


Figure 5. Speaker Mounting.

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.
- Ensure that the recommendations in OSHA Sound Level Standard (29CFR 1910) 1910.95 are not exceeded.
- Optimum sound propagation will be reduced if speaker becomes clogged with a foreign substance such as mud or snow. While removing a foreign substance, ensure that it is not packed into the 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.

E. OPERATION.

Refer to the instructions packed with the electronic siren for operation.

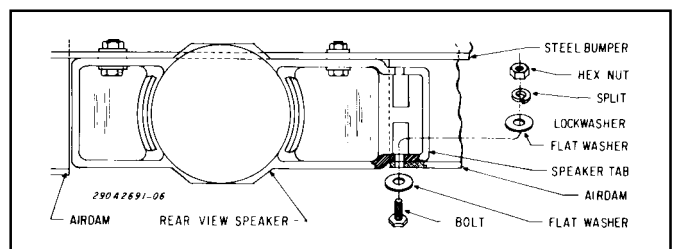


Figure 6. Air Dam to Speaker Attachment.