

25500402 Rev. A0 0417

Safety Message to Installers of Siren Speakers

⚠ WARNING

People's lives depend on your proper installation and servicing of Federal Signal products. It is important to read and follow all instructions shipped with this product and the original product. In addition, listed below are some other important safety instructions and precautions you should follow:

Before Installation

Qualifications

- To properly install an electronic siren, you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and service of safety warning equipment. Always refer to vehicle's service manuals when installing equipment on a vehicle.

Sound Hazards

- 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 recommendation. OSHA Standard 1910.95 offers guidance on "Permissible Noise Exposure."
- All effective sirens and horns produce loud sounds (120 dB) that may cause permanent hearing loss. Always minimize your exposure to siren sound and wear hearing protection. Do not sound siren indoors or in enclosed areas where you and others will be exposed to the sound.
- Federal Signal siren amplifiers and speakers are designed to work together as a system. Combining a siren and speaker from different manufacturers may reduce the warning effectiveness of the siren system and may damage the components. You should verify or test your combination to make sure the system works together properly and meets federal, state and local standards and guidelines.

During Installation

- DO NOT get metal shavings inside the product. Metal shavings in the product can cause the system to fail. If drilling must be done near the unit, place an ESD-approved cover over the unit to prevent metal shavings from entering the unit. Inspect the unit after mounting to be sure there are no shavings present in or near the unit.
- DO NOT connect this system to the vehicle battery until ALL other electrical connections are made, mounting of all components is complete, and you have verified that no shorts exist. If wiring is shorted to vehicle frame, high current conductors can cause hazardous sparks resulting in electrical fires or flying molten metal.
- Be sure siren amplifier and speaker(s) in your installation have compatible wattage ratings.
- In order for the electronic siren to function properly, the ground connection must be made to the NEGATIVE battery terminal.
- Sound output will be severely reduced if any objects are in front of the speaker. If maximum sound output is required for your application, you should ensure that the front of the speaker is clear of any obstructions.

Rumbler Speaker Installation Instructions

- Install the speaker(s) as far forward on the vehicle as possible in a location that provides maximum signaling effectiveness and minimizes the sound reaching the vehicle's occupants. Refer to the National Institute of Justice guide 500-00 for further information.
- Mounting the speakers behind the grille will reduce the sound output and warning effectiveness of the siren system. Before mounting the speakers behind the grille, make sure the vehicle operators are trained and understand that this type of installation is less effective for warning others.
- Sound propagation and warning effectiveness will be severely reduced if the speaker is not facing forward. Carefully follow the installation instructions and always install the speaker with the projector facing forward.
- DO NOT install the speaker(s) or route the speaker wires where they may interfere with the operation of airbag sensors.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Installation of two speakers requires wiring the speakers in parallel and in phase.
- Never attempt to install aftermarket equipment, which connects to the vehicle wiring, without reviewing a vehicle wiring diagram available from the vehicle manufacturer. Insure that your installation will not affect vehicle operation and safety functions or circuits. Always check the vehicle for proper operation after installation.
- DO NOT install equipment or route wiring or cords in the deployment path of an airbag.
- Locate the control head so the vehicle, controls, and microphone can be operated safely.
- When drilling into a vehicle structure, be sure that both side of the surface are clear of anything that could be damaged.

After Installation

- After installation, test the siren system and light system to ensure that it is operating safely.
- Test all vehicle functions, including horn operation, vehicle safety functions and vehicle light systems, to ensure proper operation. Ensure that installation has not affected vehicle operation or changed any vehicle safety function circuit.
- After testing is complete, provide a copy of these instructions to the instructional staff and all operating personnel.
- File these instructions in a safe place and refer to them when maintaining or reinstalling the product.

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

RETAIN AND REFER TO THIS MESSAGE

Unpacking the Product

After unpacking the product, inspect it for damage that may have occurred in transit. If it has been damaged or is missing a part, do not attempt to install or operate it. File a claim immediately with the carrier, stating the extent of the damage. Carefully check all envelopes, shipping labels and tags before removing or destroying them. Ensure that all parts in Table 1 have been included.

Table 1 RB-SIL17 kit contents

Qty.	Description	Part No.
1	Bracket, Driver-Side, SIL	82831715-DS
1	Bracket, Passenger- Side, SIL	82831715-PS
4	5/16 in-18 Hex Hd. Screw	7002A005-12
4	5/16-in Lockwasher	7074A020
4	5/16 in-18 Hex Nut	7059125

Mounting the Rumbler Speakers

⚠ WARNING

INSTALL THE SPEAKER AWAY FROM FUEL TANK AND FUEL LINES: Do not install the speaker near the fuel tank or fuel lines. Installing the speaker too close to fuel line/tank areas may cause fuel leakage or a fire during a vehicle collision, causing personal injury or death.

⚠ WARNING

USE ONLY WITH THE RUMBLER AMPLIFIER: This speaker is designed to only be used with the Rumbler Amplifier. Do not connect this speaker directly to a standard electronic siren. Connecting this speaker directly to a standard electronic siren will greatly reduce the effectiveness of the siren signal. When installing this speaker, always refer to the Rumbler low frequency amplifier installation and operating instructions (part no. 2562420) for more detailed information about the siren system and how to install, service and operate the system safely. Instruction manuals are available for viewing or download at www.fedsig.com.

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

⚠ WARNING

SPEAKER MOUNTING PRECAUTION: To avoid reduction of sound output and damage to the speaker, ensure that the speaker is mounted with the slots facing the ground.

NOTICE

DRILLING PRECAUTION: Before drilling holes, check the area you are drilling into to be sure you do not damage vehicle components while drilling. All drilled holes should be de-burred and all sharp edges should be smoothed. All wire routings going through drilled holes should be protected by a grommet or con-volute/split loom tubing.

To install the speakers:

1. See Figures 1 and 2. Assemble the two bands supplied with the Rumbler kit to the bracket using the supplied 5/16 in hardware. Note that the offset of the bracket positions the Rumbler speaker outboard to clear the vehicle frame.

Figure 1 Passenger-side bracket assembly with 5/16 in hardware

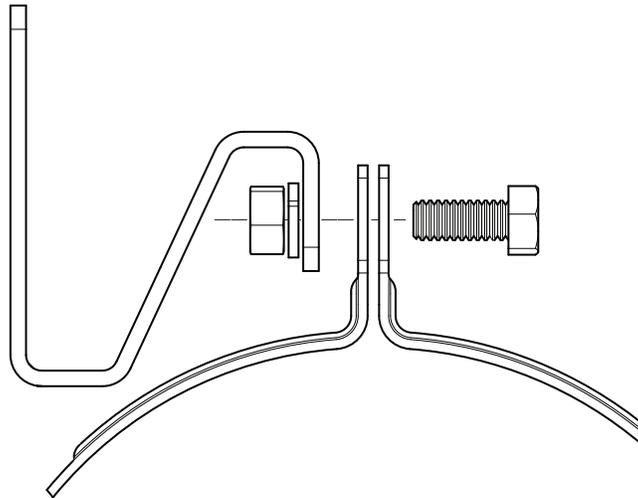
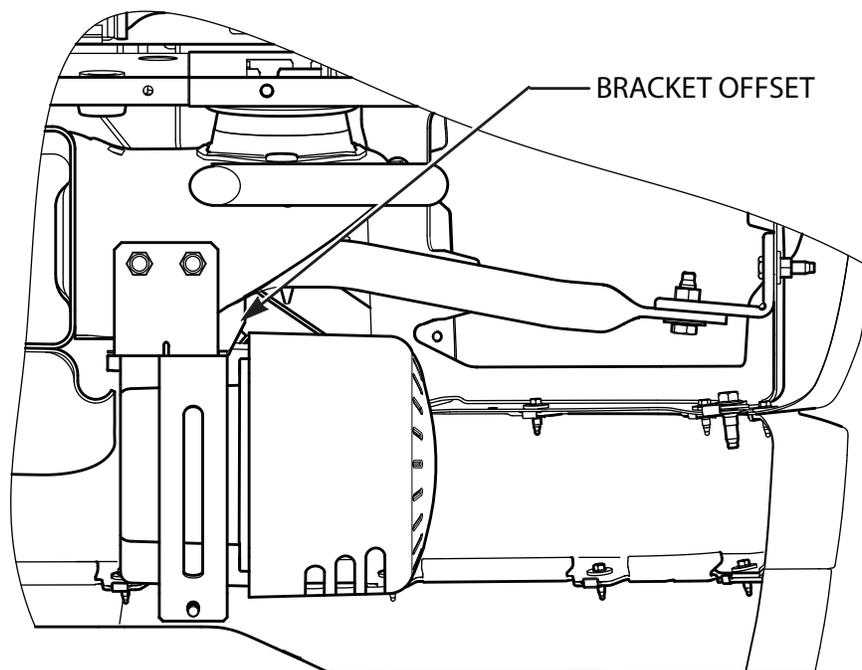


Figure 2 Offset on passenger-side Rumbler bracket (rear view)



2. See Figure 3. Remove the two bolts from the frame end of the bumper brace.
3. See Figure 4. Install the assembled bracket with the bands to the front and secure them with the bolts removed in Step 2. Tighten the bolts to the manufacturer's recommended torque
4. See Figure 5. With the Rumbler logo toward the outside of the vehicle, slide the speaker into the bands.

Rumbler Speaker Installation Instructions

5. Secure the speaker with the 5/16 in hardware supplied with the Rumbler kit.
6. Repeat Steps 1 through 4 on the other side of the vehicle.

Figure 3 Remove the bolts shown (passenger-side rear view)

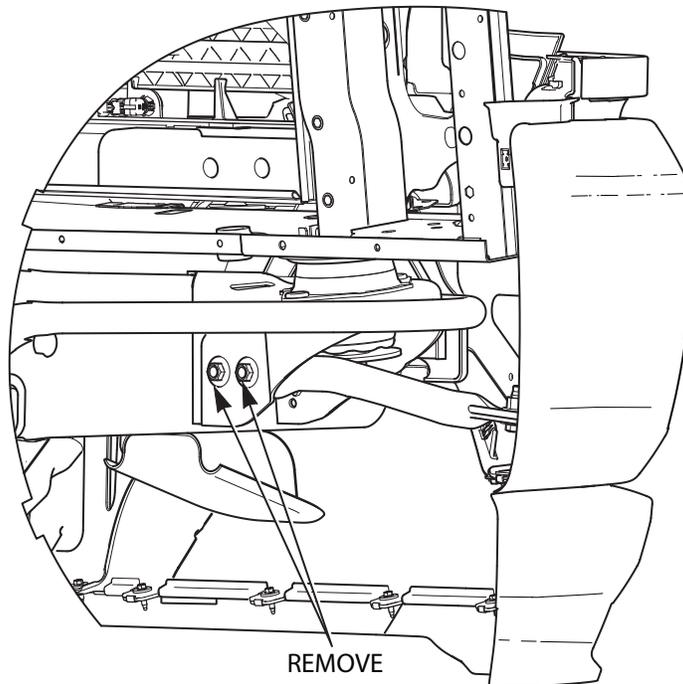
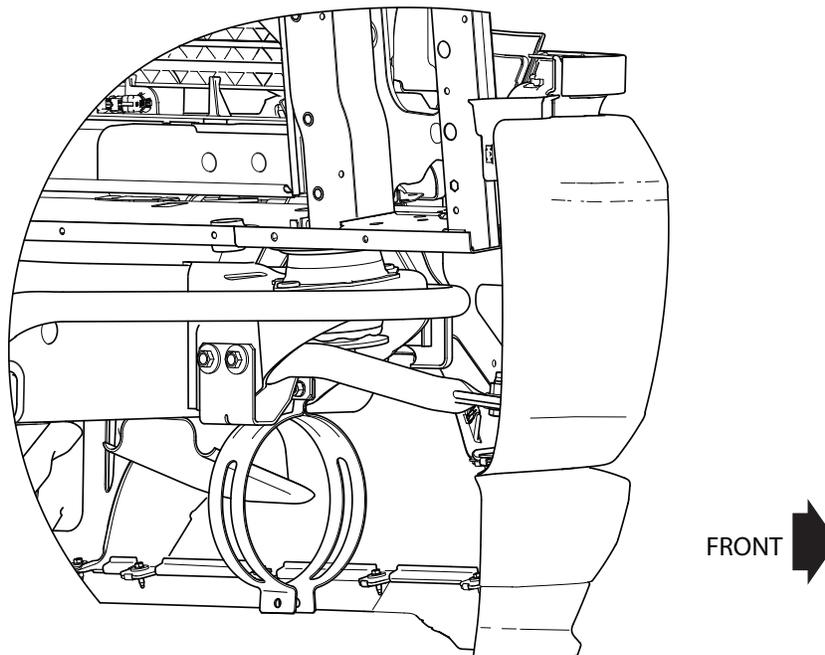
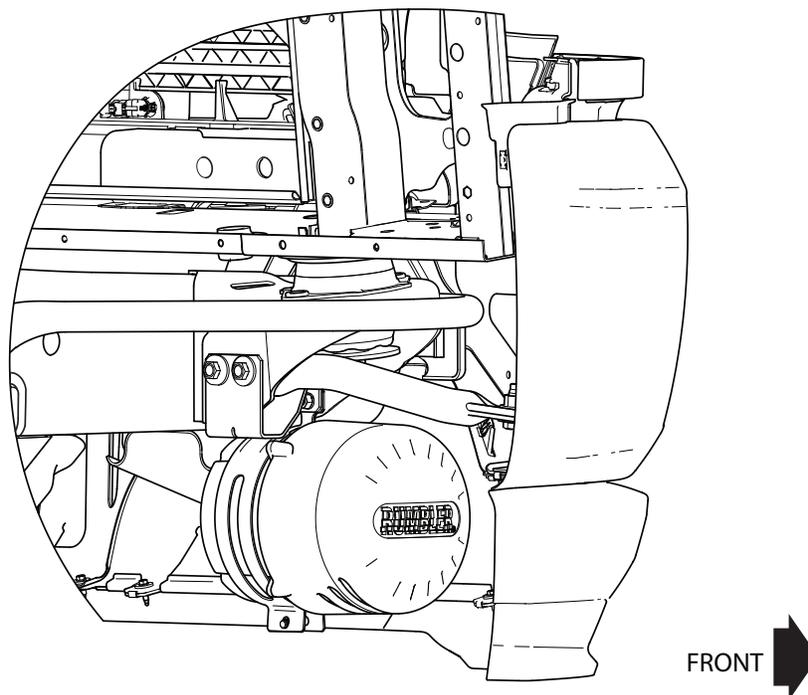


Figure 4 Passenger-side bands (rear view)



4. See Figure 5. Slide the speaker into the bands with the Rumbler logo toward the outside of the vehicle. Secure the speaker in the bands with the 5/16" hardware supplied with the Rumbler kit.

Figure 5 Rumbler secured within the bands



5. Repeat Steps 1 through 4 for the other side of the vehicle.

⚠ WARNING

SOUND HAZARD: All effective sirens and horns produce loud sounds (120 dB) that may cause permanent hearing loss. Always minimize your exposure to siren sound and wear hearing protection. Do not sound siren indoors or in enclosed areas where you and others will be exposed to the sound.

⚠ WARNING

LIGHT HAZARD: To be an effective warning device, an emergency warning system produces bright light that can be hazardous to your eyesight when viewed at close range. Do not stare directly into the lights at a close range or permanent damage to your eyesight may occur.

6. After you have mounted the speakers, connect the supplied wire harness to the leads from the amplifier. For details, refer to the instructions included with the amplifier.
7. After the installation, check the siren and light systems to ensure that they operate properly.

Getting Technical Support and Service

The Federal Signal factory provides technical assistance with any problems that cannot be handled locally. Any units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain a RMA from a local Distributor or Manufacturer's Representative. Please provide a brief explanation of the service requested, or the nature of the malfunction.

For technical support and service, visit:

<https://www.fedsig.com/technical-support>

<https://www.fedsig.com/service-centers>



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