

25500540 Rev. A0 0219

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:

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 the 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 it. 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 the 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.

Installation Instructions for the RB-U Mounting Kit

Mounting the RB-U

- 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

Introduction

The RB-U is a mounting kit for the Federal Signal Rumbler® low-frequency signaling system. This kit mounts two speakers in a variety of vehicles. It is the responsibility of the installer to select a suitable location. The Rumbler speakers must be mounted horizontally, with the slots facing down.

Unpacking the Kit

After unpacking the kit, inspect it for damage that may have occurred in transit. If it 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. Disposal of all shipping materials must be carried out in accordance with national and local codes and standards. Ensure that the parts listed in the Kit Contents list are included in the package. If you are missing any parts, contact Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT).

Table 1 Kit contents

| Qty. | Description | Part Number |
|------|----------------------------------|-------------|
| 4 | Bracket, L-Mount, Rumbler | 82831086 |
| 4 | 5/16"-18 Hex-Head Screw | 7002A005-24 |
| 4 | 5/16" Lockwasher | 7074A020 |
| 4 | 5/16"-18 Hex Nut | 7059125 |
| 12 | Screw, #14, Hex Washer-Head, Tek | 7011243-16 |
| 12 | 1/4" Lockwasher | 7074A016 |

Mounting the RB-U

⚠ WARNING

INSTALL 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 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

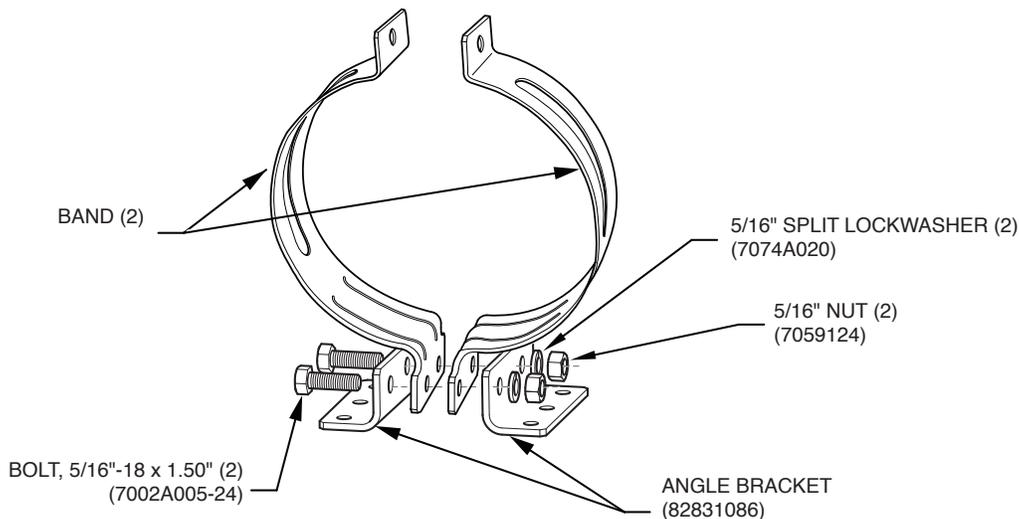
SPEAKER MOUNTING PRECAUTION: Do not install the speaker near the fuel tank or fuel lines. Installing the speaker too close to fuel line/tank areas may cause fuel leakage or a fire during a vehicle collision, causing personal injury or death.

Installing the L-Brackets and Bands

To install the hardware securing the Rumbler speakers to the lower radiator core:

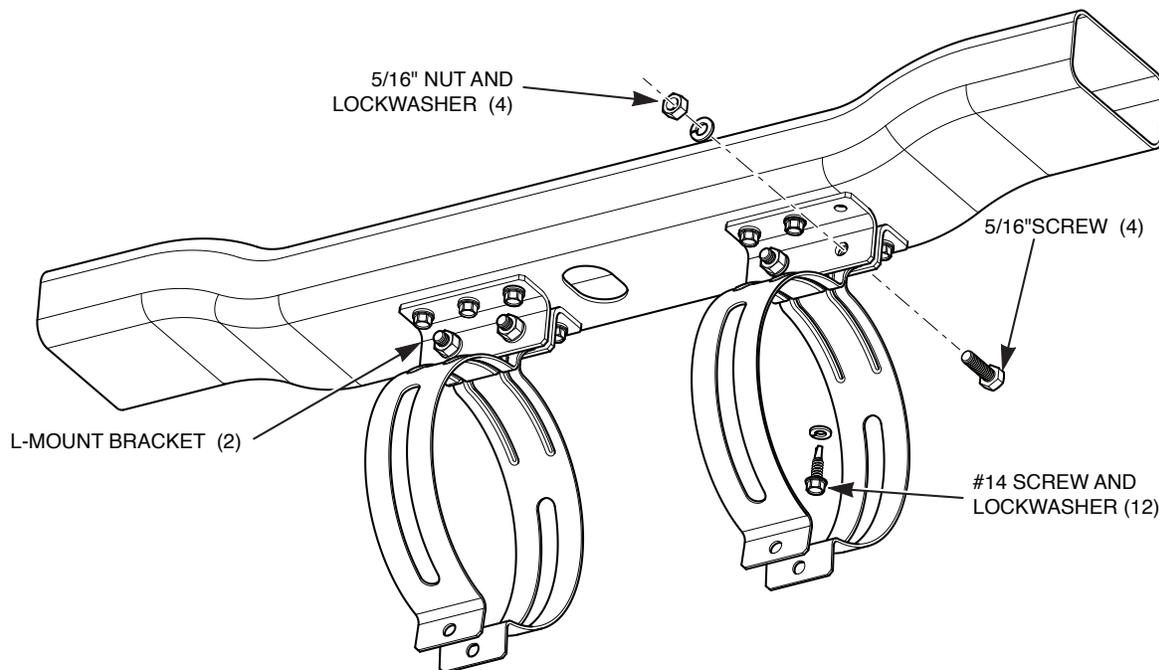
1. See Figure 1. Assemble two L-brackets with two bands (supplied with the Rumbler kit) using the 1-1/2" long, 5/16" bolts and nuts (no lockwashers at this time). Finger-tighten the nuts.

Figure 1 Bands secured between angle brackets



2. Using the assembly as a template, position the bracket in the selected location. Mark the six mounting holes.
3. Drill the marked holes with a 13/64" drill.
4. See Figure 2. Install the first L-bracket with three #14 screws and lockwashers. **Do not over tighten the screws.**
5. Install the second L-bracket with three #14 screws and lockwashers. Leave the bracket a little loose at this time.

Figure 2 Bands secured between angle brackets



6. Slide the bands between the L-brackets and secure them with the 1-1/2" long, 5/16" in bolts, nuts, and lockwashers.
7. Tighten the #14 screws in the second L-bracket.
8. Slide the speaker into the bands so the slots in the rumbler speaker face the ground. Secure the speaker with the 5/16" hardware supplied with the Rumbler kit.
9. Repeat Steps 1 through 8 for the other Rumbler.
10. 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.

Getting Technical Support

For technical support, please contact:

Federal Signal Corporation
Service Department
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: empserviceinfo@fedsig.com

Getting Repair Service

The Federal Signal factory provides technical assistance with any problems that cannot be handled locally. Any product 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. Provide a brief explanation of the service requested, or the nature of the malfunction.

Address all communications and shipments to the following:

Federal Signal Corporation
Service Department
2645 Federal Signal Dr.
University Park, IL 60484-3167

Ordering Replacement Parts

To order replacement parts, call Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT) or contact your nearest distributor.



FEDERAL SIGNAL
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Customer Support

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