

Safety Message to Installers of Federal Signal Warning Light Systems

⚠ WARNING

People's 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 a light assembly, you must have a good understanding of automotive electrical procedures and systems, along with proficiency in the installation and use of safety warning equipment.
- This product contains high intensity LED devices. To prevent permanent eye damage, DO NOT stare into the light beam at close range.
- Always refer to the vehicle service manuals when performing equipment installations on a vehicle.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Locate the light system controls so the VEHICLE and CONTROLS can be operated safely under all driving conditions.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- Do not install equipment or route wiring in the deployment path of an airbag. Failure to observe this warning will reduce the effectiveness of the airbag or potentially dislodge the equipment, causing serious injury to you or others.
- To avoid damage to the lightbar, do not overtighten screws and nuts.
- Frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- For additional precautions and information, refer to the instructions packed with related products.
- 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.

Unpacking the Product

After unpacking the product, inspect it for damage that may have occurred in transit. If it has been damaged, do not attempt to install 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. 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). See the kit contents list on page 2.

Table 1 Kit contents list

Qty.	Description
4	Bolt, Toggle, 1/4"-20
4	Washer, 1/4", Flat, SS
4	Nut, 1/4"-20, Acorn
4	Nut, 1/4"-20, Jam
4	Nut, 5/16"-18, Hex Hd., S.S.
4	Washer, 5/16", Flat, S.S.
4	Lockwasher, 5/16", S.S.
8	Pad, Mounting, Rubber
2	Bracket, Permanent
2	Plate, Stud

Introduction

This publication describes how to permanently install the Mini-JetSolaris Lightbar on a vehicle roof using the Model JMPK Permanent Mounting Kit. Plan all cable routing before the installation. Plan the location of the wire-routing hole in the vehicle roof so that the power and communication cables do not have tight bends and have some slack to allow disconnection on removal.

⚠ WARNING

HEAVY OBJECT—Use lifting aids and proper lifting techniques when removing or replacing the lightbar. Failure to follow this warning may cause personal injury.

Tools Required

- 7/16" box wrench
- 7/16" nut driver or an adjustable wrench
- Drill with 7/32" drill bit
- Large flat-tip screwdriver

Attaching the Mounting Brackets to the Lightbar

To attach the mounting brackets to the lightbar:

1. Place the lightbar upside down on cardboard or soft rags to avoid marring the dome.
2. Loosen the two #8 screws securing the retaining bands to the lightbar and remove the bands.
3. Remove the four 1/4"-20 flat-head truss screws from the identification plates (two screws each) on the ends of the lightbar.
4. Slide the dome out about 4 or 5 inches along the slots in the aluminum extrusion and remove the plastic filler from the bottom of the extrusion (Figure 1 on page 3). Retain the screws, retaining bands, and the plastic filler.
5. Slide a stud plate into each end of the slot in the aluminum extrusion (Figure 2 on page 3).

6. Assemble the mounting brackets to the stud plates with the 5/16" flat washers, lockwashers, and hex nuts as shown in Figure 2. Secure the brackets about 1 inch from the ends of the extrusion.
7. Cut the plastic filler to fit between the two bracket assemblies and snap it into the extrusion slot.

Figure 1 Underside of lightbar with dome partially removed

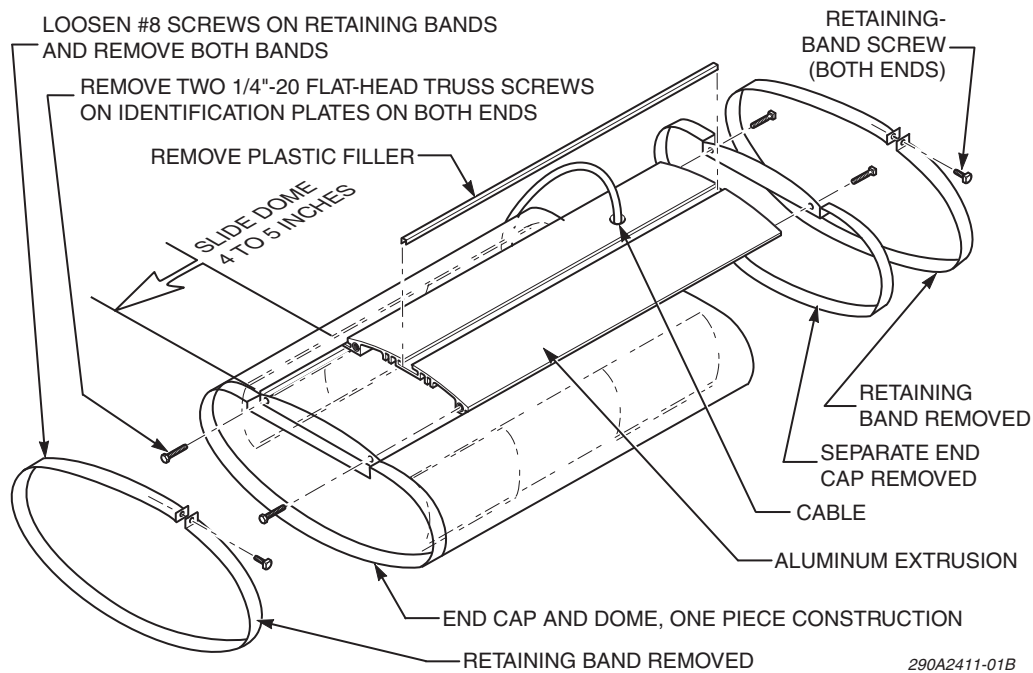
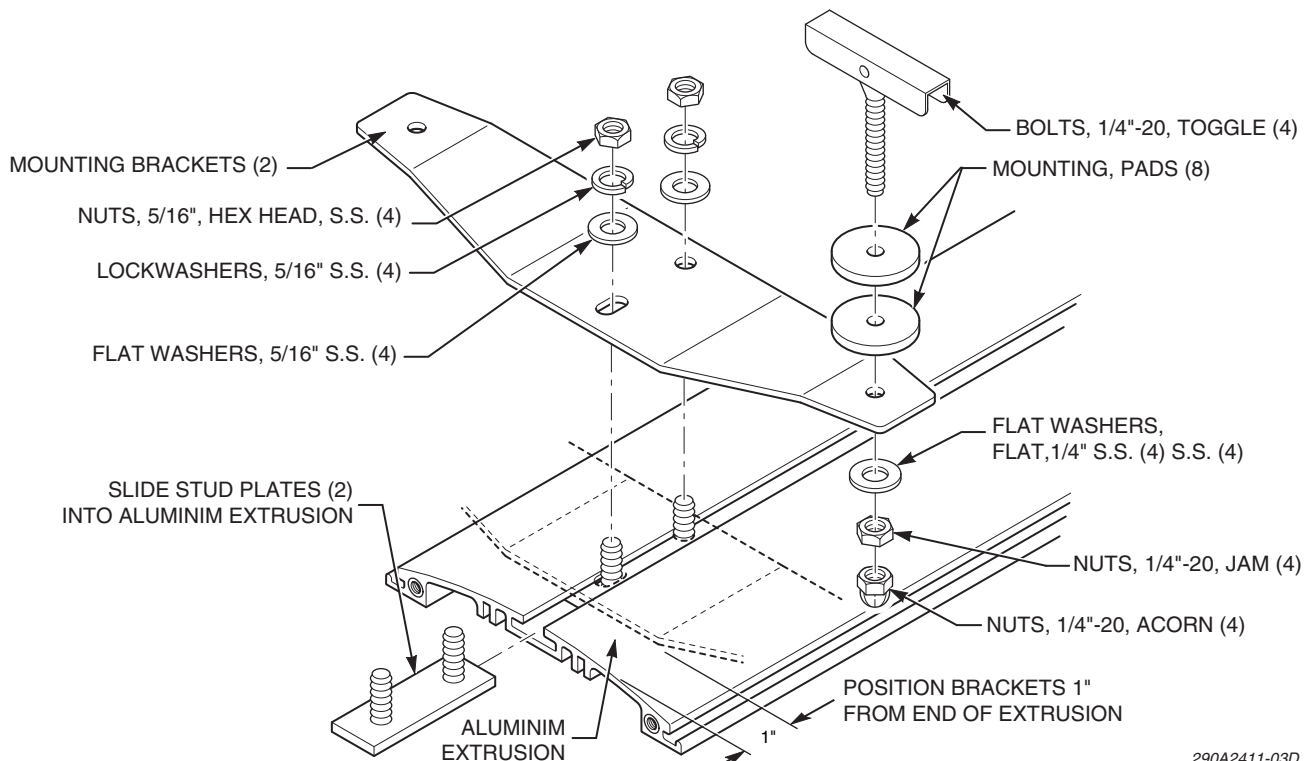


Figure 2 Mounting bracket assembly on underside of lightbar

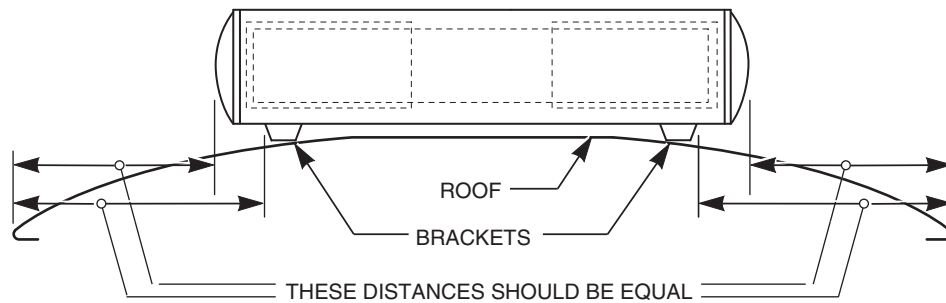


Mounting the Lightbar on the Vehicle Roof

To permanently mount the lightbar on the vehicle:

1. Place the lightbar assembly on the vehicle roof at the selected location. The lightbar is usually installed approximately over the driver's head. Ensure that the ends of the lightbar are equidistant from the roof gutters (Figure 3). The distance from the windshield to each end of the lightbar should also be the same.

Figure 3 Lightbar centered on vehicle



2. To access the mounting brackets, slide the dome completely out of the slot in the aluminum extrusion.

⚠ WARNING

ROOF SUPPORT STRUCTURE—There is a roof support member that spans the distance between the driver and passenger side. **DO NOT DRILL THROUGH THIS MEMBER!** Adjust any hole locations until the holes can be drilled without going through this member. Failure to follow this warning will weaken the roof of the vehicle and may lead to an increased chance of bodily injury or death in a roll-over accident.

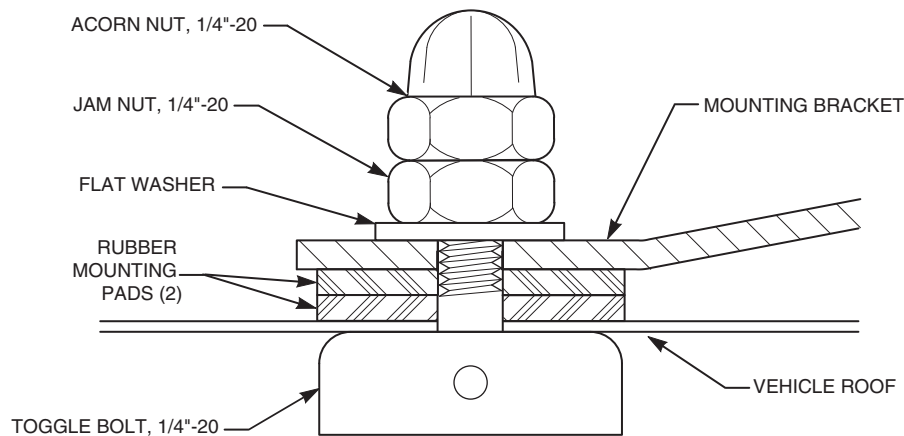
3. Use the mounting brackets as a template to scribe two drill-position marks on each side of the lightbar.

NOTICE

DRILLING PRECAUTIONS—When drilling holes, check the area into which you are drilling 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 convolute/split loom tubing

4. Before drilling, move the lightbar out of the way. Drill four 1/2-inch-diameter holes at the scribed drill-position marks.
5. Insert a toggle bolt in each of the four drilled holes. Slide a rubber mounting pad over each bolt as it is installed (Figure 2 on page 3 or Figure 4 on page 5). Use caution to avoid dropping the bolts through the holes before the rubber mounting pads are installed.
6. Place the mounting brackets down over the ends of the toggle bolts and secure them with the jam nuts (Figure 4).
7. Saw off the toggle bolts 3/16-inch above the jam nuts and screw on the acorn nuts. The lightbar should now be solidly anchored to the roof.
8. Re-install the dome and retaining bands. Ensure that all fasteners are properly tightened.

Figure 5 Toggle bolt secured with mounting hardware



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IMPORTANT: Frequently inspect the lightbar assembly to ensure that all fasteners and brackets are tight.

Getting Technical Support and Service

For technical support and service, please contact:

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

Returning a Product to Federal Signal

Before returning a product to Federal Signal, call 800-264-3578, 800-433-9132, or 800-824-0254 to obtain a Returned Merchandise Authorization number (RMA number). To expedite the process please be prepared with the following information:

- Your Federal Signal customer or account number.
- The purchase order number under which the items were purchased.
- The shipping method.
- The model or part number of the product being returned.
- The quantity of products being returned.
- Drop ship information as needed.
- Any estimate required.

When you receive your RMA Number:

Installation Instructions

- Write the RMA number on the outside of the box of returned items.
- Reference the RMA number on your paperwork inside of the box.
- Write the RMA number down, so that you can easily check on status of the returned equipment.

Send all material with the issued RMA Number to:

Federal Signal Corporation
Public Safety Systems
2645 Federal Signal Drive
University Park, IL 60484-3167
Attn: Service Department
RMA: # _____
800-433-9132
800-343-9706 (fax)
www.fedsig.com

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