

2561665B REV. B 611

Safety Message to Installers of Federal Signal Products

⚠ 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. 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.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- You should frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- Refer to the instruction sheets packed with related products for additional precautions and information.
- 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.

Product Overview

This publication provides directions for installing the Federal Signal Arjent® Series lightbar on a vehicle roof. A vehicle-specific mounting hook, purchased separately, is required to complete the installation.

Unpacking the Kit

After unpacking the product, 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. Ensure that the parts listed in Table 1 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 (continues on next page)

Qty.	Description	Part No.
1	Hook, Hardware Kit, Arjent	8583193
8	Bolt, TORX® Hd., 5/16-18 x 5/8	7000434-10
8	Lockwasher, Split, 5/16	7074A020-01
4	Lockwasher, Split, 3/8	7074A046
8	Washer, Flat, 5/16	7072234
4	Pad, Mounting, Rubber	8572029
4	Nut, Hex, 3/8-16	7059A063

Table 1 Kit contents (continued from previous page)

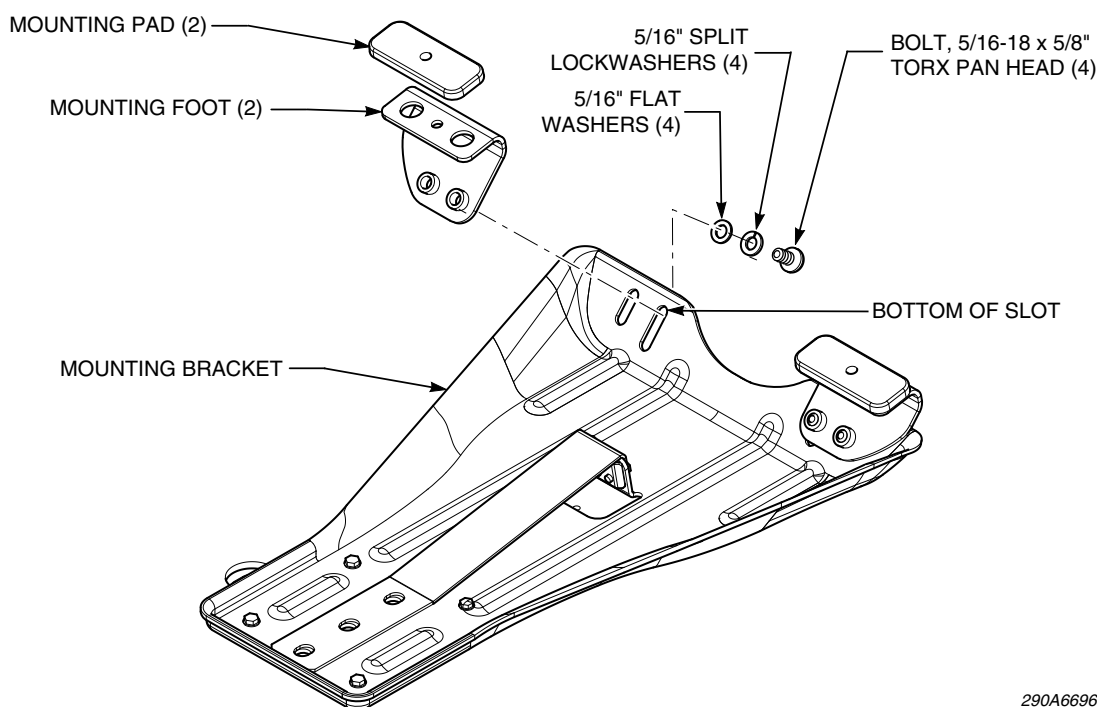
Qty.	Description	Part No.
2	Bracket, Mounting	8583189
2	Foot, Mounting, Drvr-Front/Pass-Rear	8583082
2	Foot, Mounting, Drvr-Rear/Pass-Front	8583083
4	Bolt, Rd. Hd. Carriage, 3/8-16 x 7/8	7004A024-14
2	Screw, Set, #8-32	7008A012-05
2	Stop, Mounting Bolt	8583126
8	Screw, #10, Thd. Frm. Hex Hd.	7011A135-10
4	Plug, Cap, Vinyl	231214
2	Label, Extrusion, Arjent	1612192

Preparing the Lightbar

To prepare the lightbar for mounting on the vehicle:

1. Turn the lightbar assembly over on soft rags or cardboard so that the bottom of the lightbar faces up.
2. See Figure 1. Use the 5/16"-18 x 5/8" TORX head bolts, 5/16" flat washers, and 5/16" lockwashers to attach a mounting foot on the mounting bracket:
 - a) Position the TORX head bolts at the bottom of the slots as shown in Figure 1.
 - b) Tighten the bolts only enough to hold the mounting foot in place.
3. Repeat step 2 with the other mounting bracket.

Figure 1 Mounting feet attached to mounting bracket



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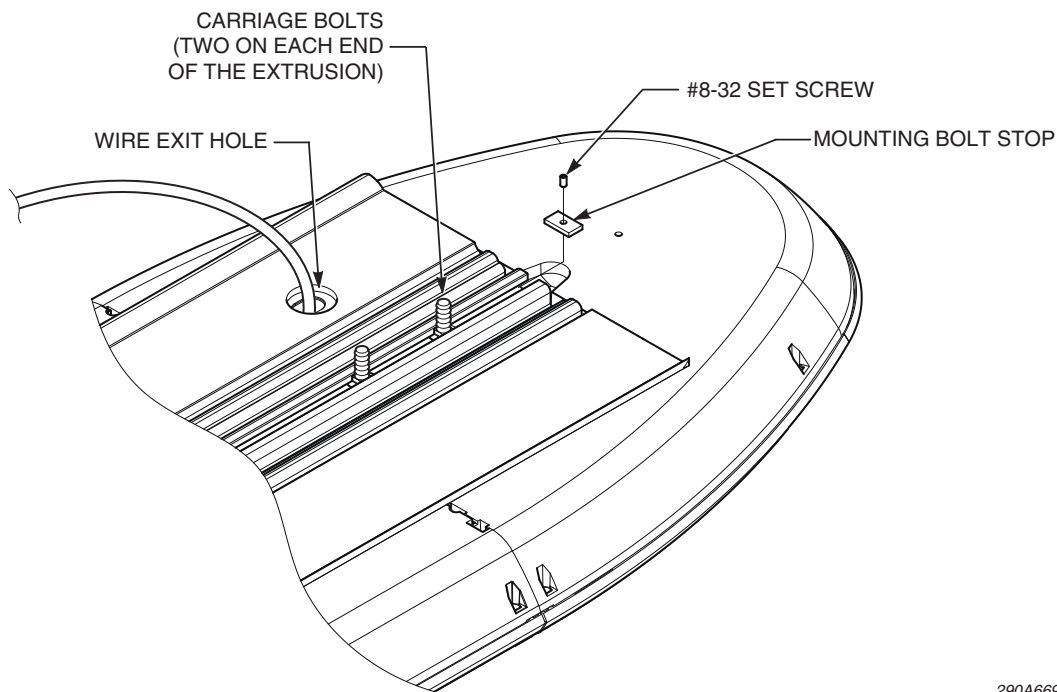
4. Install the rubber mounting pads in the mounting feet (Figure 1 on page 2).
5. See Figure 2. Slide four carriage bolts into the aluminum extrusion.

⚠ WARNING

PROPERLY SECURE MOUNTING-BOLT STOPS—If the mounting bracket is improperly assembled, the light assembly could fly off the vehicle causing injury or damage. Ensure that the mounting-bolt stops are securely installed in the extrusion.

6. See Figure 2. Slide a mounting-bolt stop into the extrusion until its edge is aligned with the edge of the extrusion. Secure the mounting-bolt stop in position with the supplied #8-32 set screw. Repeat this step on the other end of the lightbar assembly. See Figure 3 on page 4 for detail.

Figure 2 Carriage bolts and mounting-bolt stop installed in extrusion



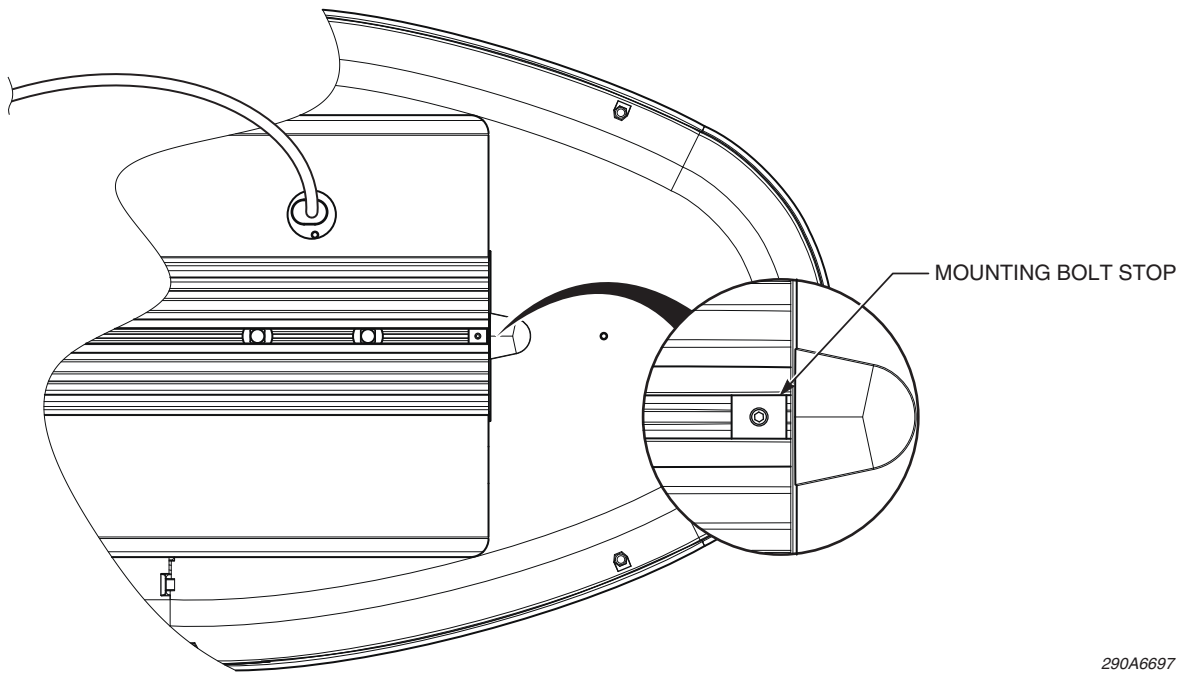
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7. Install a mounting bracket assembly on the lightbar using 3/8"-16 hex nuts, flat washers, and split lockwashers as shown in Figure 4 on page 4. Tighten the nuts only enough to hold the mounting bracket assembly in place.

NOTE: When installing the mounting bracket assembly, use hole A and the hole (B or C) closest to the end of the extrusion (Figure 4).

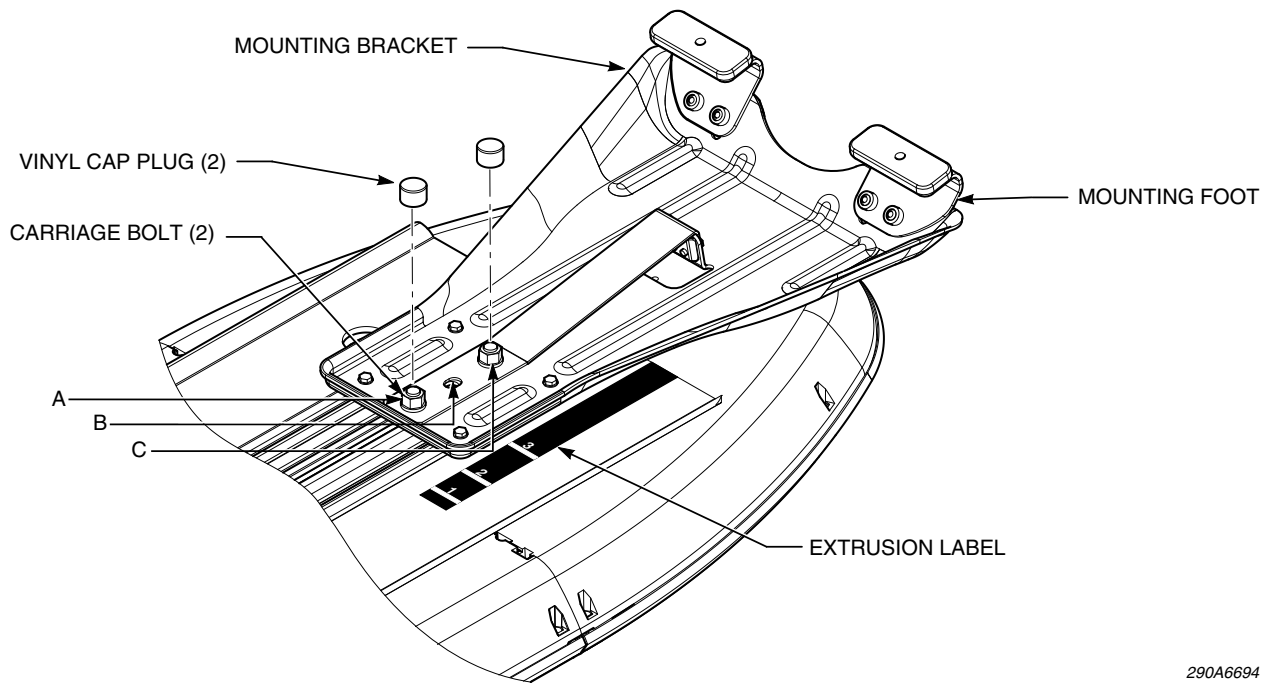
8. Align and apply the supplied label along the edge of the aluminum extrusion on the side opposite the wire exit hole and approximately one inch from the lip of the extrusion as shown in Figure 4.
9. Repeat steps 7 and 8 with the other mounting bracket assembly.

Figure 3 Detail of mounting-bolt stop



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Figure 4 Carriage bolts and mounting-bolt stop in extrusion



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Mounting the Lightbar on the Vehicle

⚠ WARNING

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

IMPORTANT: Plan all cable routing before completing the installation.

To mount the lightbar:

1. Place the lightbar assembly on the vehicle roof at the selected location. Typically, the lightbar should be installed so that the mounting hooks attach at, or immediately behind, the door center post.
2. Adjust both mounting bracket assemblies in or out until the rubber mounting pads rest near the edge of the roof, or gutter, where the roof is most rigid. Center the lightbar assembly so that the end of the assembly and the edge of the roof are equidistant on each side of the vehicle.
3. Check to ensure that the lightbar is level. If it is not level, make adjustments by rotating the lightbar in the mounting bracket slots or raising or lowering the ends of the lightbar. Tighten all eight 5/16" TORX head bolts that fasten the mounting feet to the mounting brackets.

IMPORTANT: To maximize aerodynamic efficiency and high-speed stability, it is recommended that the lightbar be mounted with a one-inch or greater gap between the bottom edge of the lightbar and the roof. On a high-crowned roof, one inch may not be possible. In this case, adjust the lightbar as high as possible. Adjust the mounting feet on the mounting bracket as needed.

4. Remove the lightbar assembly from the vehicle roof and place it on soft rags or cardboard to avoid marring the plastic domes. Turn the lightbar assembly over so that the bottom of the lightbar faces up.
5. Secure the mounting assembly to the lightbar using the eight #10 hex head thread-forming screws. Tighten the 3/8"-16 hex nuts (two on each mounting bracket) installed in step 7 in "Preparing the Lightbar" on page 2.
6. Press a vinyl cap plug on each of the four carriage bolts (Figure 4 on page 4).
7. Place the lightbar assembly on the vehicle's roof in the selected position.
8. To fasten the mounting hook and complete the installation, refer to the hook hardware kit instructions (Federal Signal Part No. 2562480) that is included in the kit.
9. For instructions for the electrical installation, see the Installation and Maintenance Instructions included with the Arjent lightbar.
10. After the electrical installation, test the lightbar for proper operation as well as the emergency warning system to ensure that it is operating properly. See the next two sections starting on page 6 for warnings and instruction

Testing the Installation

⚠ WARNING

SOUND HAZARD—All effective sirens and horns produce loud sounds (120 dB) that may cause permanent hearing loss. Always minimize your exposure to the sound of the siren and horn and wear hearing protection. Do not sound the siren or horn 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 a close range. Do not stare directly into the lights at a close range or permanent damage to your eyesight may occur.

After testing the installation, test the emergency warning system to ensure that it is operating properly. Also test all vehicle functions, including horn operation, vehicle safety functions, and vehicle lighting systems to ensure proper operation. Ensure that the installation has not affected the vehicle operation or changed any vehicle safety functions or circuits.

Do not test the sound and light system of the vehicle while driving. Operating the vehicle warning systems may pose a hazard to the operator and other drivers if the systems do not function as expected. Test the vehicle only in a controlled environment. After testing is complete, provide a copy of these instructions to the instructional staff and all operating personnel.

Getting Technical Support and Service

For technical support and service, contact:

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

Ordering Replacement Parts

To order replacement parts, contact your local dealer/distributor or:

Customer Support
Federal Signal Corporation
Phone: 1-800-264-3578

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:

- 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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