

25500364A REV. A 0617

Safety Message to Installers of Federal Signal Warning Light Systems

▲ 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:

- 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.
- Frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- 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.
- This product contains high intensity LED devices. To prevent permanent eye damage, DO NOT stare into the light beam at close range.
- 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.

Introduction

This publication provides instructions for installing the Valor lightbar to a vehicle with the Low Hook-On Mounting Kit. To complete the installation, it is necessary to purchase a vehicle-specific mounting hook kit.

Unpacking the Kit

After unpacking the kit, inspect it for damage that may have occurred in transit. If it has been damaged, 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 shown in Table 1 on page 2 are contained in the packing carton. 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	Second Item No.
4	Screw, #10, Type B, Pan-Head Torx, Steel	7011246-08
12	Nut, 5/16 in-18, High-Corrosion Resistant	7059125
2	Nut, Flange 5/16 in-18, High-Corrosion Resistant	7065078
12	Washer, Flat, Stainless Steel, 0.344 in x 3/4 in x 0.050 in	7072A031
12	Lockwasher, Split 5/16 in Screw, Stainless Steel.	7074A020
2	Retainer, Nut, Arjent/Vista	8583490
1	Foot, Low, LH, Valor, (Left)	865101872
1	Foot, Low, RH, Valor, (Right)	865101873
1	Bracket, Low, Hook Attach, LH, Valor (Left)	865101874
1	Bracket, Low, Hook Attach, RH, Valor (Right)	865101875

The items above are factory-installed on new lightbars.

Qty.	Description	Second Item No.
8	Screw, Machine, 5/16-18, Torx. Steel	7000434-14
4	Screw #10, Type B, Pan-Head, Torx, Steel	7011246-08
8	Washer, Flat, Stainless Steel, 0.344, .0.563 outer diameter	7072234
8	Lockwasher, Split, 5/16 in, 5/16 in	7074A020-01
4	Pad, Mounting	8572029
4	Adjuster Assembly, Low, Hook, Valor	865101876
1	Kit, Keeper Plate	8583193

Installing the Service Kit Mounting Feet

⚠ 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.

⚠ CAUTION

HOOK ATTACH BRACKET RETAINER NUTS—Torque the two 5/16 in nuts that retain the hook-attach bracket to the mounting foot to 16-24 in-lb only. See Figure 2 on page 4.

NOTICE

PROPER MOUNTING FEET INSTALLATION—Before installing the mounting feet and hook-attach bracket, note that the LH foot and bracket are for the left side of the lightbar, and the RH foot and bracket are for the right side. Failure to note this difference may damage the lightbar.

The service kit requires the assembly of the mounting feet on the lightbar. If you are installing a new lightbar, which is shipped with the mounting feet already assembled, see “Installing the Adjuster Brackets” on page 4. New lightbars may require that you loosen the 5/16 in nuts to adjust the positions of the mounting feet on the vehicle roof. Before installing the lightbar, plan all cable routing.

To install the mounting feet:

1. To avoid marring the plastic domes, invert the lightbar on soft rags or cardboard.
2. See Figure 1. Install a mounting foot assembly and a hook-attach bracket on the Valor using the 5/16 in-18 nuts and lockwashers. Tighten the nuts only enough to hold the mounting foot assembly in place.
3. Use a nut retainer and two #10 Type B pan-head Torx screws to trap the 5/16 in-18 flange nut on the backside of the hook-attach bracket.
4. Repeat Steps 2 and 3 with the other mounting foot assembly.

Figure 1 Service kit mounting foot installation

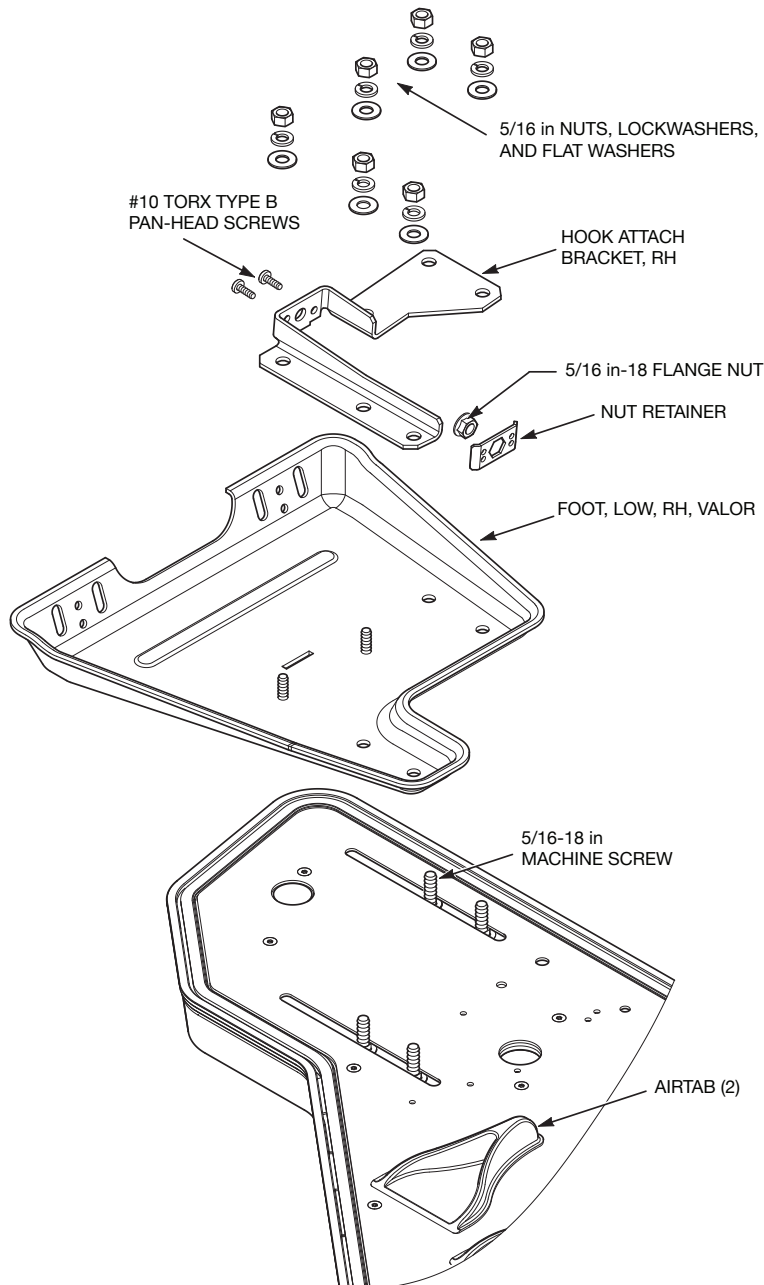
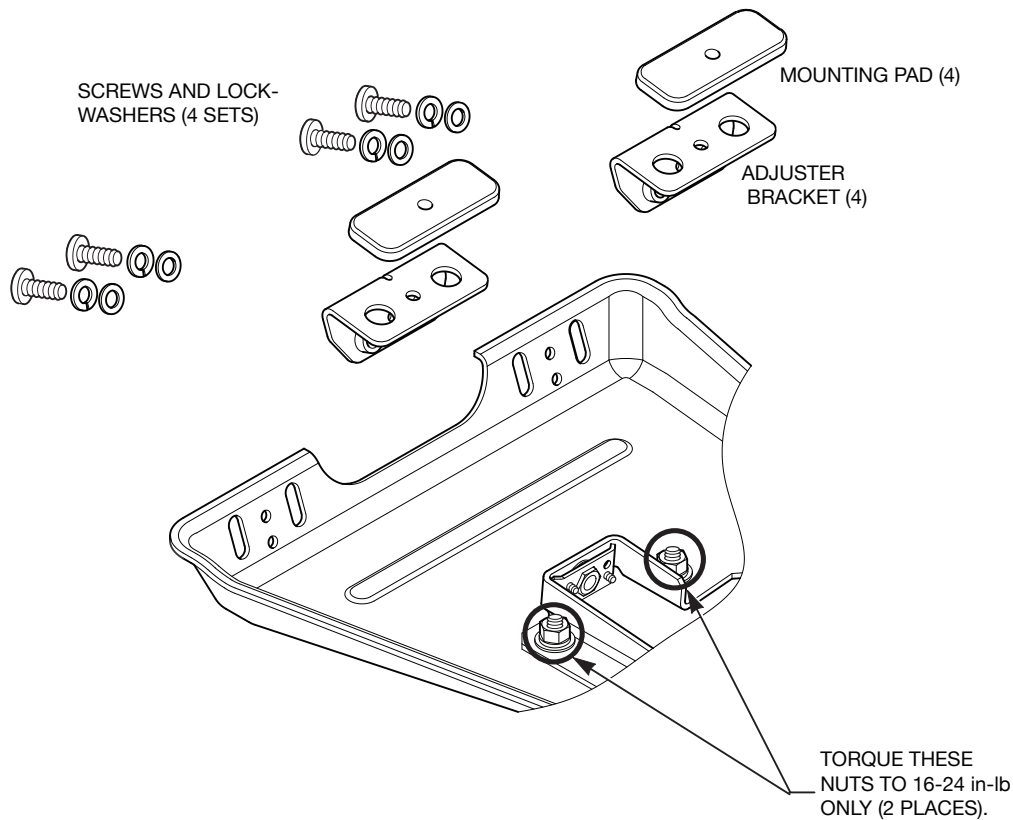


Figure 2 Adjuster bracket installation on mounting foot



Installing the Adjuster Brackets

The adjuster brackets enable you mount the Valor at the desired height and to level the lightbar.

NOTE: Depending on the vehicle and the desired mounting height, you may need to remove the Airtabs™.

To install the adjuster brackets:

1. Invert the lightbar on soft rags or cardboard to avoid marring the plastic domes.
2. See Figure 2. Use the 5/16 in-18 Torx screws, 5/16 in flat washers, and 5/16 in lockwashers to install adjuster brackets on the mounting feet.
3. To avoid marring the roof, make the initial adjustment at the maximum mounting height of the lightbar.
4. Position the screws in the adjuster brackets at the bottom of the slots. Tighten the screws only enough to hold the adjuster brackets in place.
5. Snap the rubber mounting pads to the adjuster brackets as shown in Figure 2.
6. To continue with the installation, see “Preparing the Valor for Hook-Mounting” on the next page.

Preparing the Valor for Hook-Mounting

⚠ WARNING

ROOF SUPPORT STRUCTURE— *There is a roof support structure that spans the distance between the driver and passenger sides. 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.*

NOTICE

DRILLING PRECAUTIONS — *When drilling holes, check the area into which you are drilling to be sure you do not damage components while drilling. All drilled holes should be deburred 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.*

IMPORTANT: Plan all cable routing before completing 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.

Before proceeding, refer to the instructions provided with the separately purchased mounting hook kit.

To prepare the lightbar:

1. Place the lightbar assembly on the vehicle roof at the selected location. Usually the assembly is installed so that the mounting hooks attach at, or immediately behind, the door center post.
2. Adjust both mounting foot assemblies in or out until the mounting pads rest as far outboard as possible. Figures 3 and 4 on page 6 show the preferred positions.
3. Center the lightbar assembly so that the end of the assembly and edge of the roof are equidistant on each side of the vehicle. Ensure that the gutter hooks, when installed, will not interfere with the door or door glass. Improper clamping on the vehicle roof may result if the gutter hooks contact the mounting feet. If needed, adjust the mounting feet before tightening the 5/16 in hex nuts.
4. Remove the lightbar assembly from the vehicle roof and place it on soft rags or cardboard to avoid marring the plastic domes.
5. Turn the lightbar assembly over so that the bottom of the assembly faces up.
6. Tighten to 10-15 ft-lb the eight 5/16 in nuts (four on each mounting foot) installed in Step 2 under “Installing the Adjuster Brackets” on page 4.

Hook-Mounting the Valor on the Vehicle

To mount the lightbar on the vehicle:

1. Place the lightbar assembly back into its original position on the vehicle roof.
2. Move the adjuster brackets to the desired height while keeping the lightbar level slightly nose-down (1/8 inch). To prevent roof damage, make sure that there is no contact with the roof.

3. See the following figures. Using the holes that are most closely aligned between the 5/16 in Torx pan-head screws, install a #10 Type B pan-head Torx screw to lock in the adjustment. Minor adjustments may be necessary. Repeat this step for all four adjuster brackets.
4. Tighten all eight 5/16 in Torx pan-head screws that fasten the adjuster brackets to the mounting feet.
5. To fasten the mounting hook, refer to the keeper plate instructions (Federal Signal P/N 2562480) included in the supplied keeper plate kit.

Figure 3 Mounting foot outboard of gutter

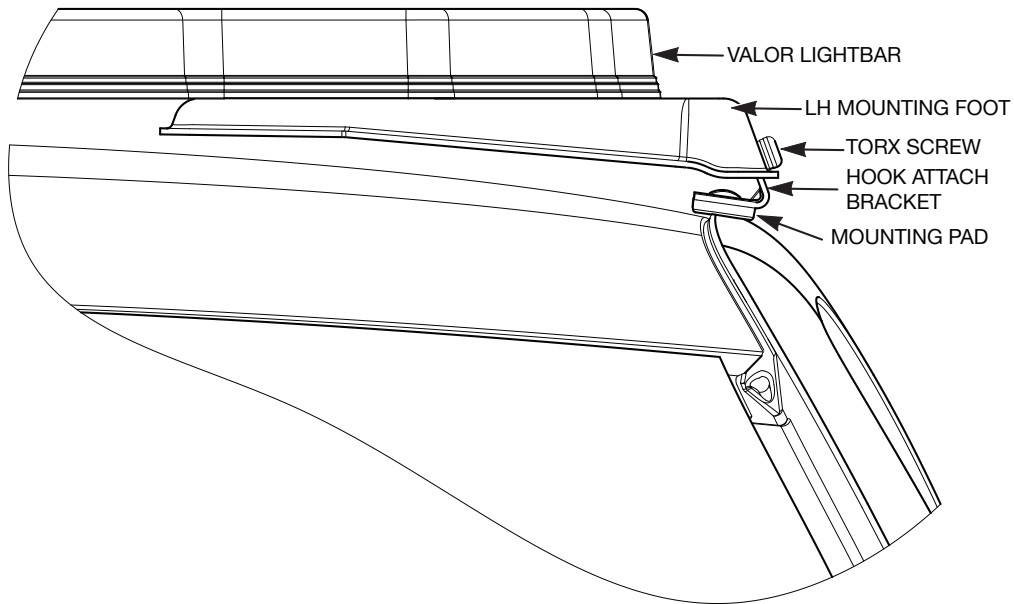


Figure 4 Mounting foot inboard of gutter

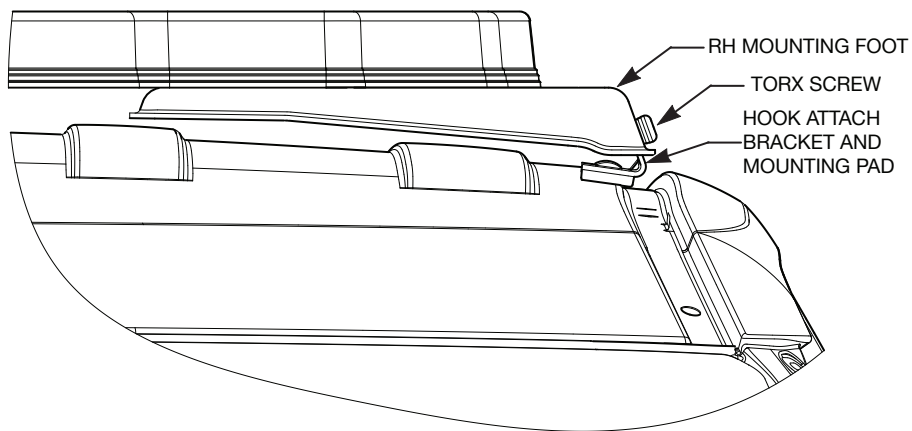
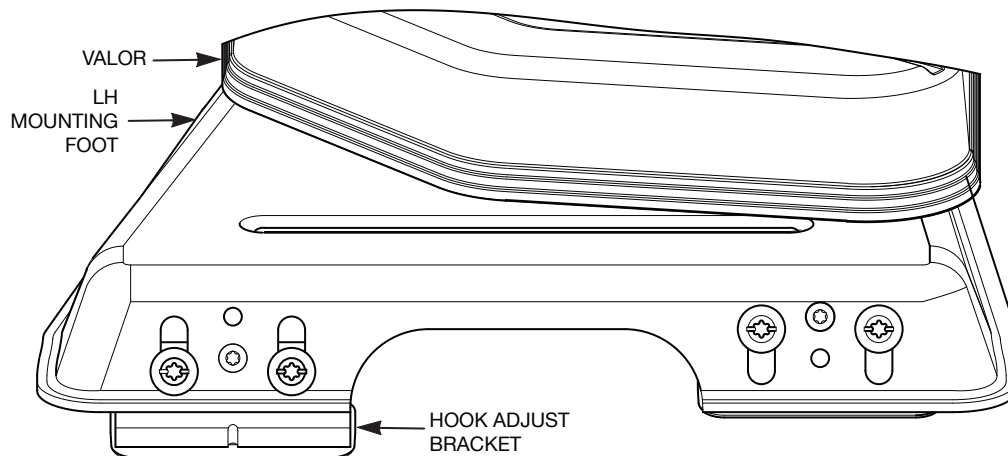


Figure 5 LH mounting foot side view



NOTICE

LIGHTBAR INSPECTION—Frequently inspect the lightbar assembly to ensure that all fasteners and brackets are tight.

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>

© 2017 Federal Signal Corporation.

Valor™ is a registered trademark of Federal Signal Corporation.

Airtab™ is a trademark of Airtab, LLC.

Torx® is a registered trademark of the Camcar Corp. division of Textron Industries Inc.

Limited Warranty

This product is subject to and covered by a limited warranty, a copy of which can be found at www.fedsig.com/SSG-Warranty. A copy of this limited warranty can also be obtained by written request to Federal Signal Corporation, 2645 Federal Signal Drive, University Park, IL 60484, email to info@fedsig.com or call +1 708-534-3400.

This limited warranty is in lieu of all other warranties, express or implied, contractual or statutory, including, but not limited to the warranty of merchantability, warranty of fitness for a particular purpose and any warranty against failure of its essential purpose.



2645 Federal Signal Drive
University Park, Illinois 60484

www.fedsig.com

Customer Support

Police/Fire-EMS: 800-264-3578 • +1 708 534-3400

Work Truck: 800-824-0254 • +1 708 534-3400

Technical Support 800-433-9132 • +1 708 534-3400