

Safety Message to Installers and Service Personnel of Warning Lights

▲ 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. 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 light bar, 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.

Overview

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

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 or operate it. File a claim immediately with the carrier, stating the extent of the damage. **Failure to identify damage before installation could lead to the rejection of any claim.** 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 Federal Signal Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT).tighten the nuts.

Table 1 Kit contents

Qty.	Description	Part No.
1	Foot Assembly, Mounting, LH	8651119
1	Foot Assembly, Mounting, RH	8651120
1	Bracket, Hook Attach, LH	8651121
1	Bracket, Hook Attach, RH	8651122
2	Retainer, Nut	8583490
2	Nut, 5/16-18, Flange,	7065078
4	Screw, #10 Type B, Pan Torx, SS Black	7011246-08
10	Lockwasher, 5/16-inch SS	7074A020
10	Nut, 5/16-18, Steel, HCR	7059125

The items above are installed on new ligemblht bars at the factory.

4	Bracket Assembly, Adj. Foot	8652124
4	Pad, Mounting	8572029
8	Washer, 5/16-inch, Black SS	7072234
8	Lockwasher, 5/16-inch, SS Black	7074A020-01
8	Screw, 5/16-18, Pan Torx, SS Black	7000434-10
4	Screw, #10 Type B, Pan Torx, SS Black	7011246-08
2	Grommet, Split	228128
2	Cable Tie	150A109

CAUTION

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

Installing the Service Kit Mounting Feet

NOTICE

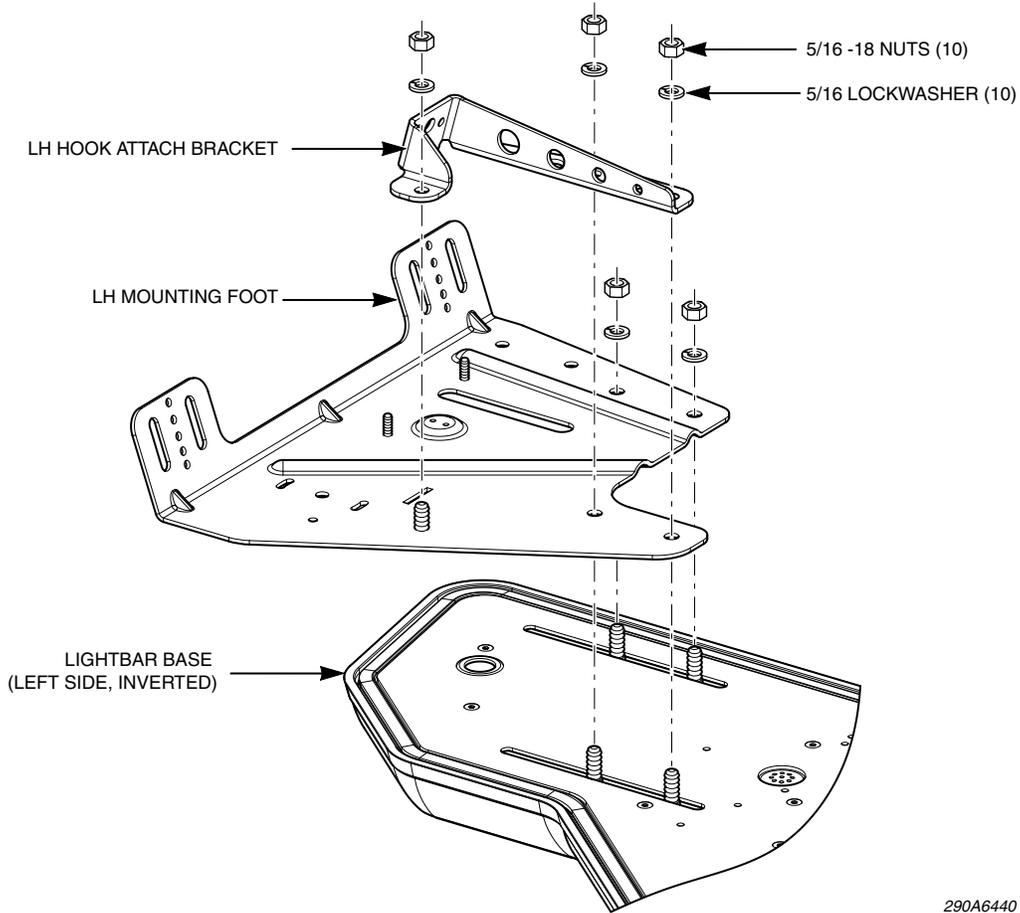
ENSURE PROPER INSTALLATION OF MOUNTING FEET: Before installing the mounting feet and hook attach bracket, note that the LH foot and bracket is for the left side of the light bar and the RH foot and bracket for the right side. Failure to follow this precaution may damage the light bar.

The Service Kit requires the assembly of the mounting feet on the light bar. If you are installing a new light bar with the mounting feet already assembled, see "Installing the Adjustable Foot Brackets" on page 4. New light bars may require that you loosen the 5/16-inch nuts to adjust the positions of the mounting feet on the vehicle roof. Before installing the light bar, plan all cable routing.

To install the Service Kit mounting feet:

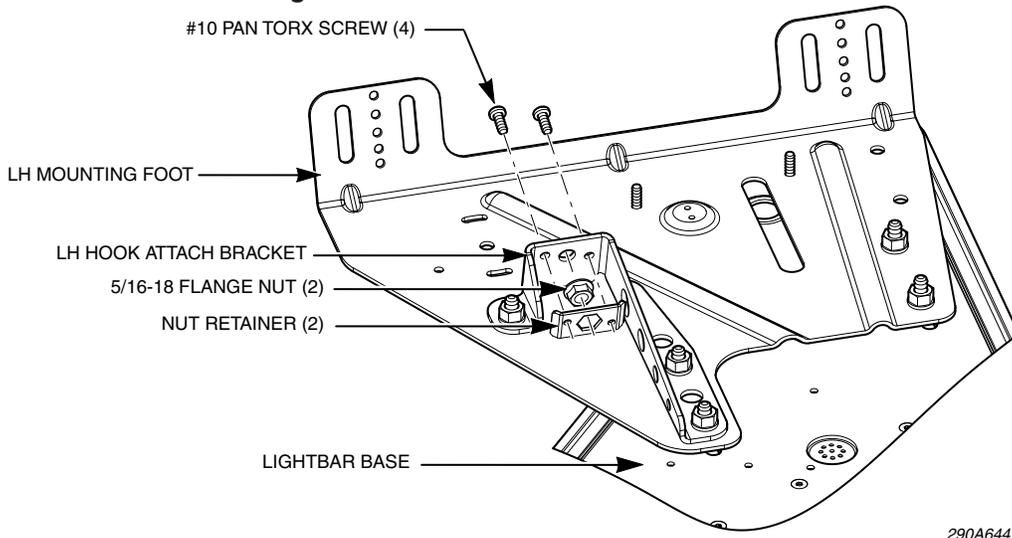
1. To avoid marring the plastic domes, invert the light bar on soft rags or cardboard.
2. Install a mounting foot assembly and a hook-attach bracket on the Valor using the 5/16-18 nuts and lockwashers. Tighten the nuts only enough to hold the mounting foot assembly in place. See Figure 1.

Figure 1 Service Kit mounting foot installation



3. Use a nut retainer and two #10 Type B pan Torx screws to trap the 5/16-18 flange nut on the backside of the hook-attach bracket. See Figure 2.

Figure 2 Hook attach bracket installation



4. Repeat steps 2 and 3 with the other mounting foot assembly.
5. To continue with the installation, see "Preparing the Valor for Hook-Mounting" on page 5.

Installing the Adjustable Foot Brackets

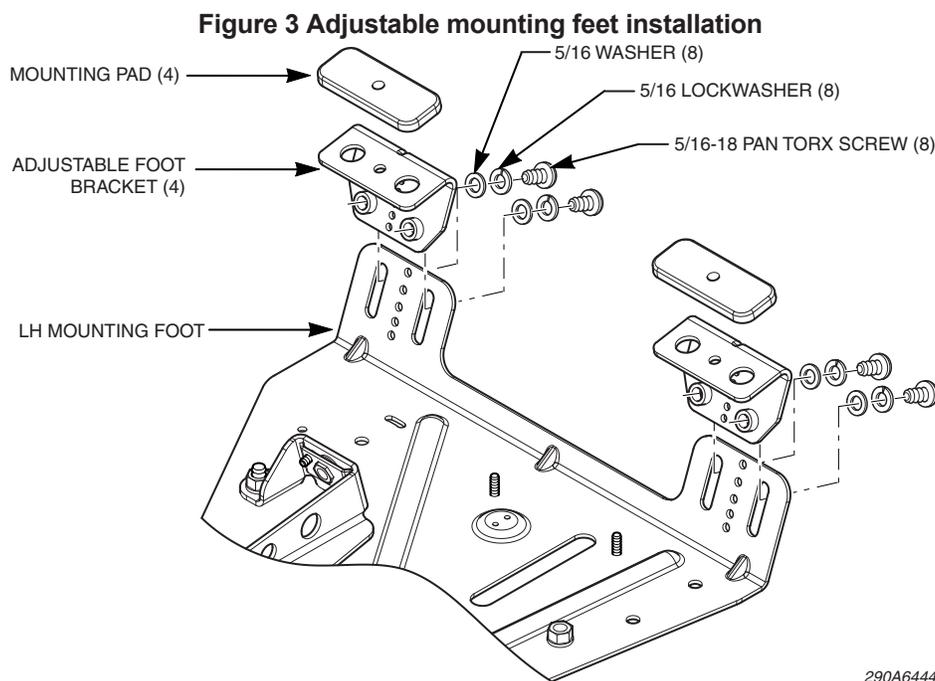
NOTICE

ENSURE PROPER INSTALLATION OF MOUNTING FEET: Note that the LH Mounting Foot is for the left side of the light bar and the RH Mounting Foot is for the right side. Failure to follow this precaution may damage the light bar.

The adjustable foot brackets enable you mount the Valor at the maximum height and to level the light bar.

To install the adjustable foot brackets:

1. To avoid marring the plastic domes, invert the light bar on soft rags or cardboard.
2. Use the 5/16-18 Torx head screws, 5/16-inch flat washers, and 5/16-inch lockwashers to install the adjustable foot brackets on the mounting feet. See Figure 3.



3. To achieve the maximum mounting height of the light bar, position the screws in the adjustable foot brackets at the bottom of the slots. Tighten the screws only enough to hold the adjustable foot bracket in place.
4. Peel the backing paper from the rubber mounting pads and apply the them to the adjustable feet as shown in Figure 3.
5. To continue with the installation, see "Preparing the Valor for Hook-Mounting" on page 5.

Preparing the Valor for Hook-Mounting

⚠ 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.*

⚠ WARNING

DRILLING PRECAUTIONS: *Before drilling holes, check the area into which you plan to drill to ensure that you do not damage vehicle components. All drilled holes should be deburred and all sharp edges should be smoothed. Additionally, all exterior drilled holes must be sealed with Motorcraft seam sealer T-A-2-B or equivalent to prevent the potential exposure to carbon monoxide or other potentially harmful fumes. Failure to observe this warning could cause serious injury or death.*

IMPORTANT: Plan all cable routing before completing the installation. Plan the location of the wirerouting 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.

Before proceeding, refer to the instructions provided with the separately purchased mounting hook kit. To prepare the light bar for hook-mounting:

1. Place the light bar 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 near the edge of the roof or gutter where the roof is the most rigid.
3. Center the light bar 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. Adjust the mounting feet, if required, before tightening the 5/16-inch hex nuts.
4. Remove the light bar assembly from the vehicle roof and place it on soft rags or cardboard to avoid marring the plastic domes.
5. Turn the light bar assembly over so that the bottom of the assembly faces up. Tighten the eight 5/16-inch nuts (four on each mounting foot) installed in step 2 in "Installing the Service Kit Mounting Feet" on page 2.

Hook-Mounting the Valor on the Vehicle

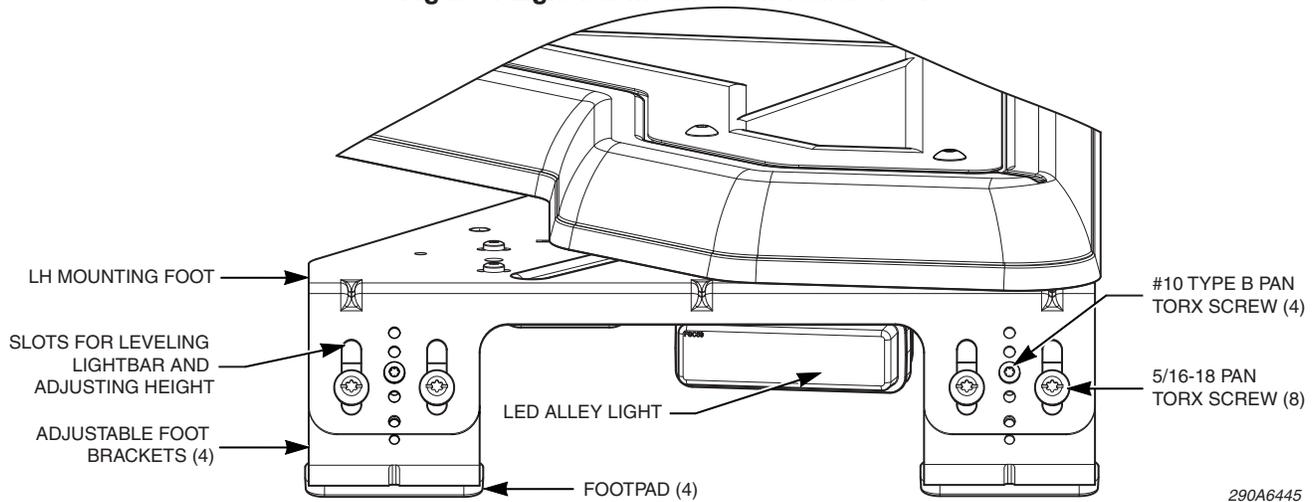
To mount the light bar on the vehicle:

1. Place the light bar assembly back into its original position on the vehicle roof.
2. To maximize aerodynamic efficiency, it is recommended that the lighting system be mounted as high as possible. Adjust the adjustable foot brackets on the mounting foot as required.
3. Check to ensure that the light bar is level. If it is not level, adjust it by rotating it in the mounting foot slots.
4. Using the holes that are most closely aligned between the 5/16-inch Torx pan screws, install a #10 Type B pan Torx screw to lock in the adjustment. Minor adjustment may be necessary. Repeat this step for all four adjustable foot brackets. See Figure 4.

5. Tighten all eight 5/16-inch Torx pan screws that fasten the adjustable foot brackets to the mounting feet.
6. To fasten the mounting hook, refer to the keeper plate instructions (Federal Signal P/N 2561635) included in the supplied Keeper Plate Kit.

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

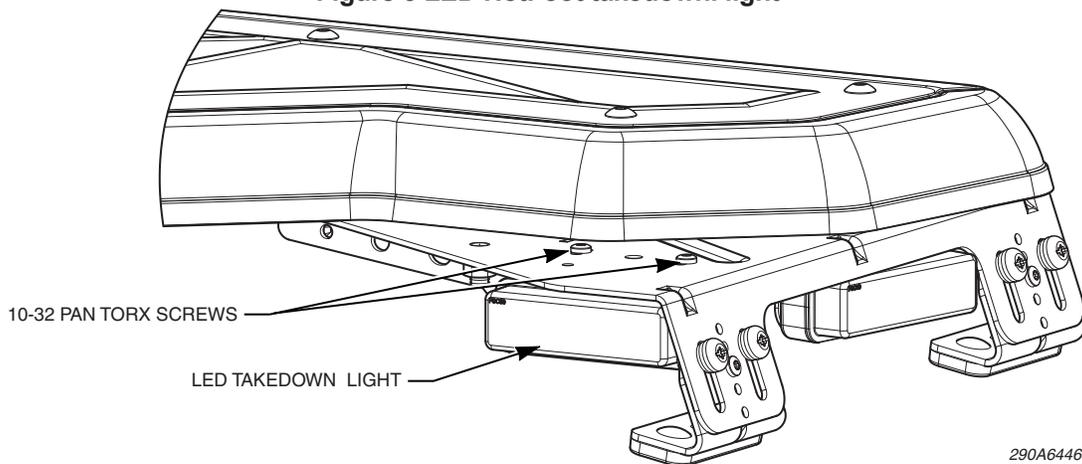
Figure 4 Light bar mounted on vehicle roof



Aiming the Optional HotFoot LED Takedown Lights

The optional HotFoot LED takedown lights are factory installed and wired. The horizontal aim of the takedown light is adjustable ± 10 degrees. See Figure 5.

Figure 5 LED HotFoot takedown light



To aim the takedown lights:

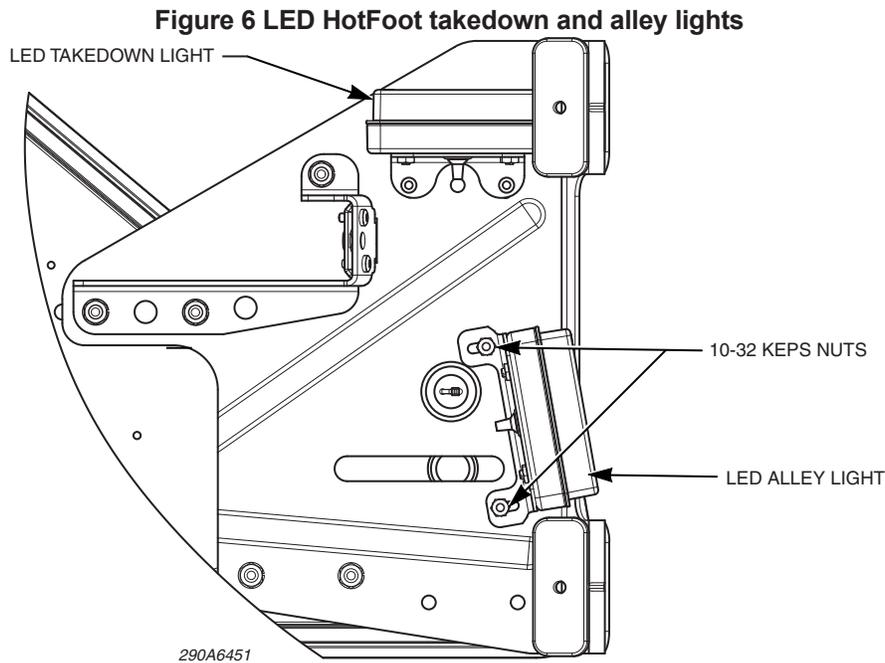
1. Loosen the 10-32 pan Torx screws securing the lights.
2. Reposition the lights and tighten the screws.

Adjusting the Optional HotFoot LED Alley Lights

The optional HotFoot LED alley lights are factory-installed and wired. The factory position is 10 degrees forward. The lights are horizontally adjustable up to -10 degrees.

To horizontally adjust the alley lights:

1. Loosen the 10-32 Keps® nuts on the underside of the HotFoot as shown in Figure 6.
2. Reposition the lights and tighten the 10-32 Keps nuts.



Getting Technical Support

For technical support, please contact:

Federal Signal Corporation
Service Department
Phone: 1-800-433-9132
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

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.



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Customer Support

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