

2562550A REV. A 1210

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 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). Also required is an installer-supplied control head for controlling the functions of the lightbar.

Table 1 Kit contents

Qty.	Description	Part No.
1	Foot Assy, Mounting, LH	8651119
1	Foot Assy, 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" SS	7074A020
10	Nut, 5/16"-18, Steel, HCR	7059125

The items above are installed on new lightbars at the factory.

4	Bracket Assy, Adj. Foot	8652124
4	Pad, Mounting	8572029
8	Washer, 5/16", Black SS	7072234
8	Lockwasher, 5/16", 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

⚠ 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.

Installing the Service Kit Mounting Feet

NOTICE

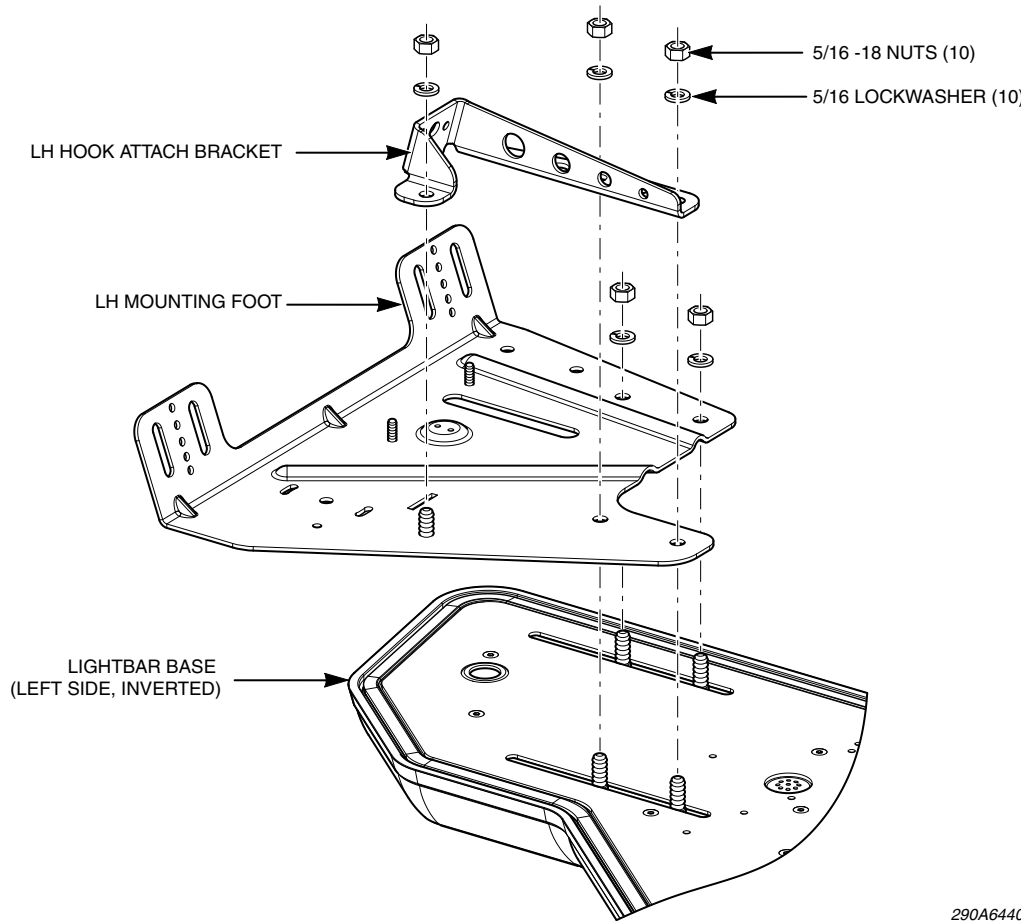
ENSURE PROPER INSTALLATION OF MOUNTING FEET—Before installing the mounting feet, and hook attach bracket, note that the LH foot and bracket is for the left side of the lightbar and the RH foot and bracket for the right side. Failure to follow this precaution may damage the lightbar.

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 Adjustable Foot Brackets” on page 4. New lightbars may require that you loosen the 5/16" nuts to adjust the positions of the mounting feet on the vehicle roof. Before installing the lightbar, plan all cable routing.

To install the Service Kit mounting feet:

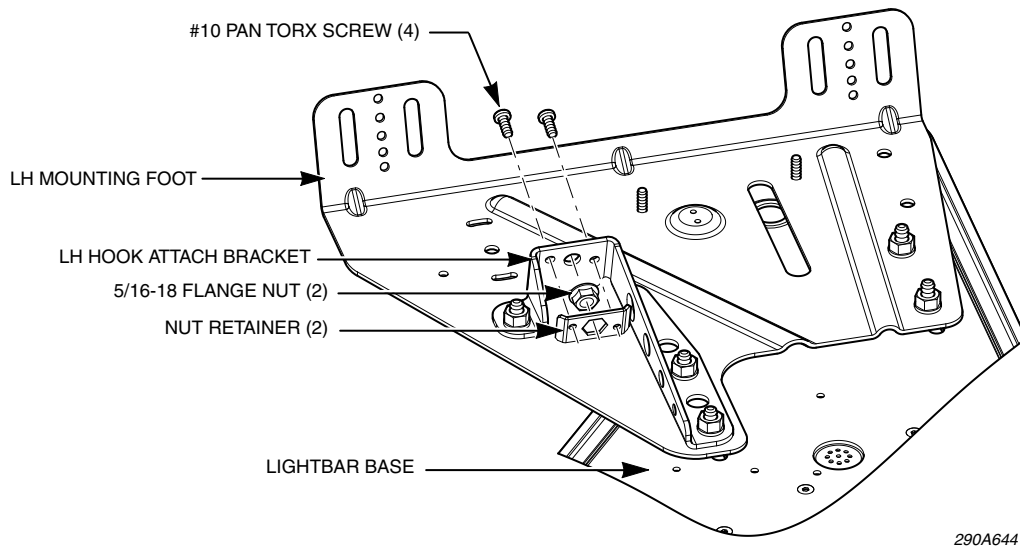
1. To avoid marring the plastic domes, invert the lightbar on soft rags or cardboard.
2. See Figure 1 on page 3. Install a mounting foot assembly and a hook-attach bracket on the Valor using the 5/16"-18 nuts and lockwashers. Tighten the nuts only enough to hold the mounting foot assembly in place.

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 (Figure 2).

Figure 2 Hook attach bracket installation



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

Installing the Adjustable Foot Brackets

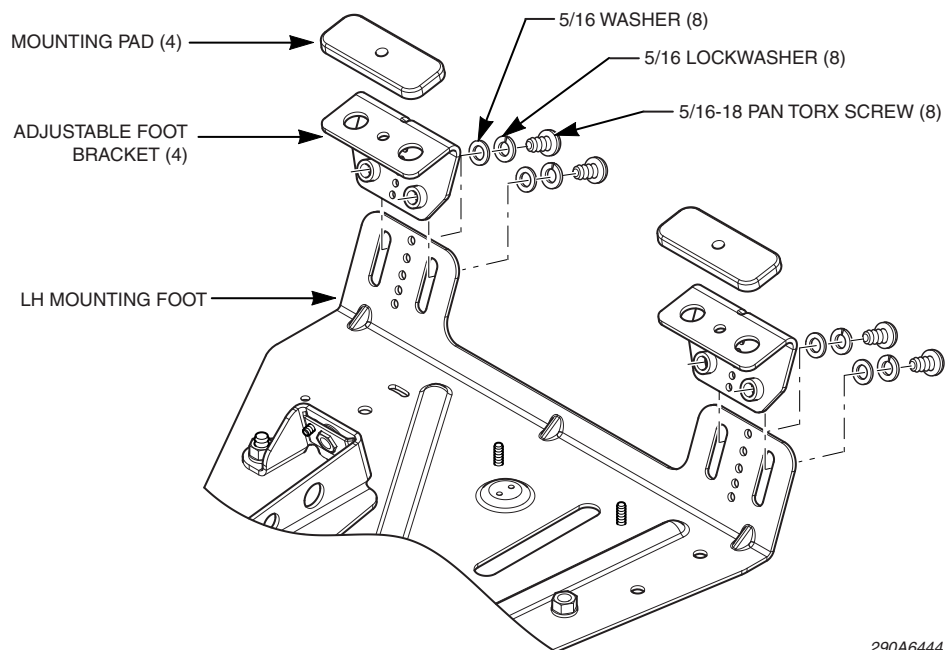
NOTICE

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

The adjustable foot brackets enable you mount the Valor at the maximum height and to level the lightbar. To install the adjustable foot brackets:

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

Figure 3 Adjustable mounting feet installation



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- To achieve the maximum mounting height of the lightbar, 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.
- Peel the backing paper from the rubber mounting pads and apply the them to the adjustable feet as shown in Figure 3.
- 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.

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

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 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 lightbar for hook-mounting:

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 near the edge of the roof or gutter where the roof is the most rigid.
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. Adjust the mounting feet, if required, before tightening the 5/16" 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. Tighten the eight 5/16" 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

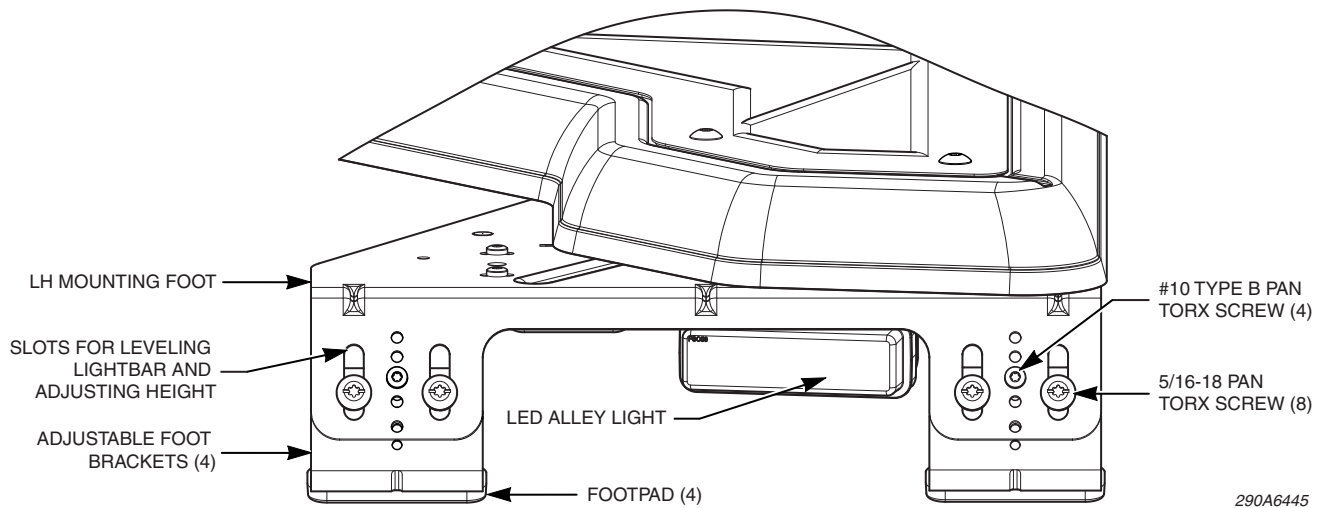
To mount the lightbar on the vehicle:

1. Place the lightbar 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 lightbar is level. If it is not level, adjust it by rotating it in the mounting foot slots.

4. See Figure 4. Using the holes that are most closely aligned between the 5/16" 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.
5. Tighten all eight 5/16" 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 lightbar assembly to ensure that all fasteners and brackets are tight.

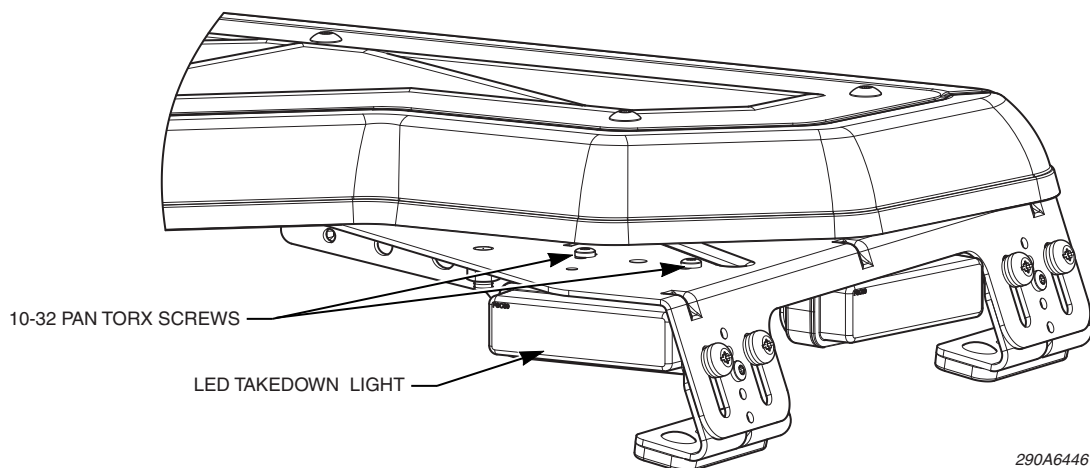
Figure 4 Lightbar mounted on vehicle roof



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 (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.

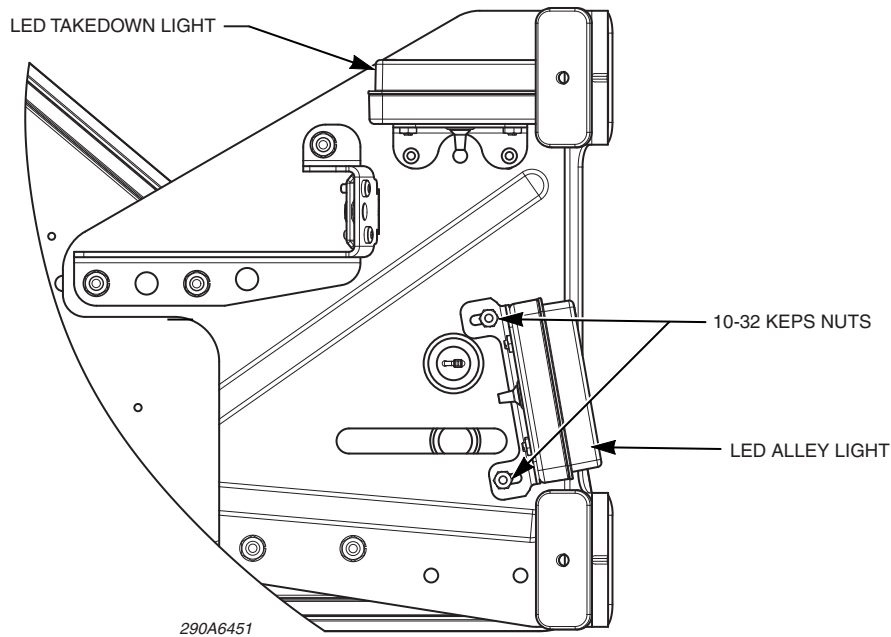
Adjusting the Optional HotFoot LED Alley Lights

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.

Figure 6 LED HotFoot takedown and alley lights



Ordering Replacement Parts

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

Customer Support
Federal Signal Corporation
Phone: 1-800-264-3578
7 a.m. to 5 p.m., Monday through Friday (CT)

Getting Technical Support and Service

The factory will service the Valor lightbar for you. If you are experiencing problems, please contact:

Service Department
Federal Signal Corporation
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: empserviceinfo@fedsig.com
7 a.m. to 5 p.m., Monday through Friday (CT)

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
2645 Federal Signal Drive
University Park, IL 60484-3167
Attn: Service Department
RMA: # _____



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