

2562551A REV. A 1210

Safety Message to Installers of Warning Light Equipment

⚠ 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 Permanent Mounting 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 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
8	Lockwasher, 5/16", SS	7074A020
8	Nut, 5/16"-18, Steel, HCR	7059125

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

4	Bracket Assy, Adj. Foot	8652174
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
4	Nut, Acorn, 1/4"-20	7054A010
4	Nut, Jam, 1/4"-20	7057A049
4	Bolt, Toggle, 1/4"-20	8422A032

⚠ 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 Hook

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.

If you are installing a new lightbar, skip this section and refer to “Preparing the Valor for Mounting” on page 4.

1. Install a mounting foot assembly using the 5/16" nuts and lockwashers as shown in Figure 1 on page 3. Tighten the nuts only enough to hold the mounting foot assembly in place. A nut and lockwasher are not required on the captive stud in the mounting foot.
2. Repeat step 1 with the other mounting foot assembly.

Figure 1 Service Kit mounting foot installation

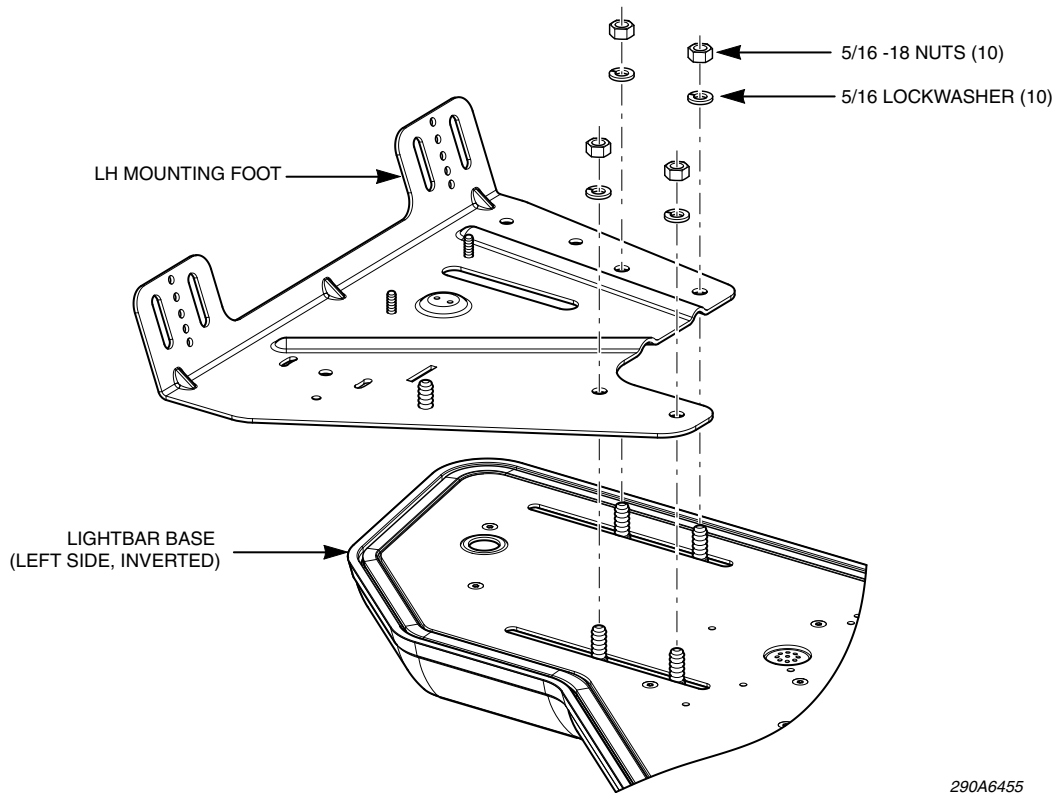
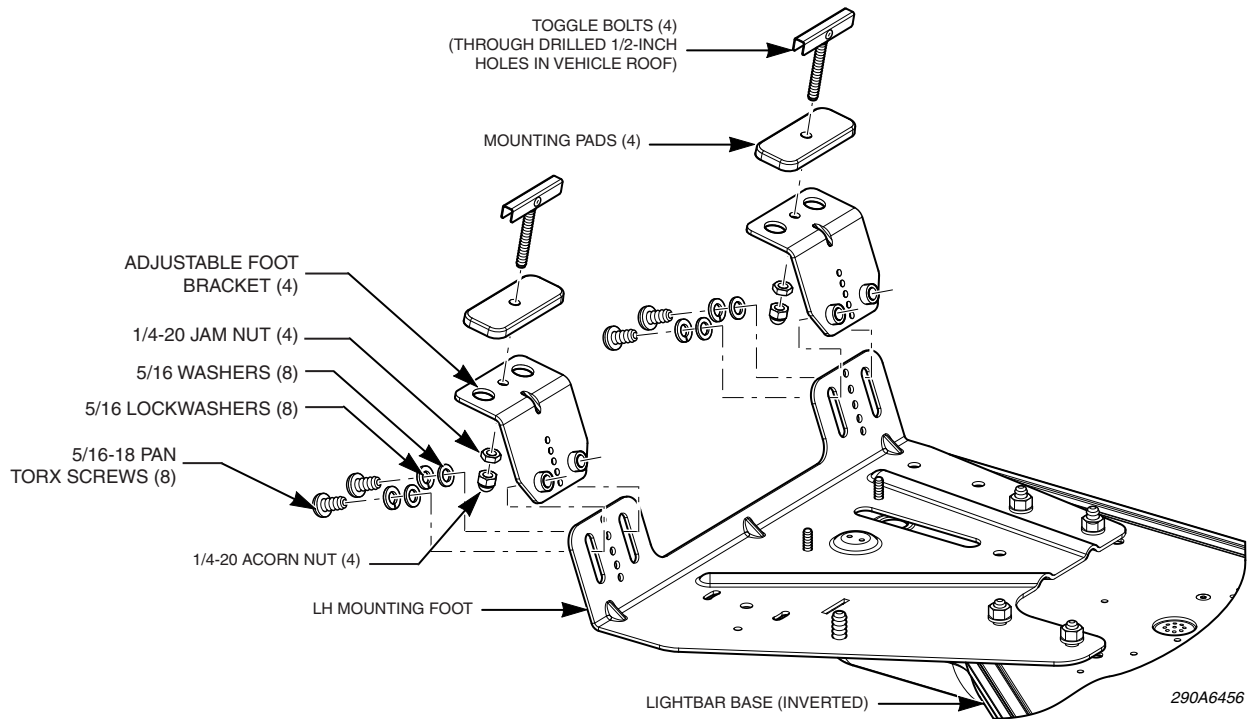


Figure 2 Adjustable foot bracket installation



Installing the Adjustable Foot Brackets (New Lightbars)

New lightbars may require loosening of the 5/16" nuts to allow adjustment of the mounting feet.

1. See Figure 2 on page 3. Using the 5/16"-18 Torx head screws, 5/16" flat washers, and 5/16" lockwashers, install the adjustable foot brackets on the mounting feet.
2. For the maximum lightbar height, position the bolts in the adjustable feet at the bottom of the slots. Tighten the bolts only enough to hold the adjustable feet in place.
3. Peel the backing paper from the rubber mounting pads and apply the them to the adjustable feet as shown in Figure 2 on page 3.

Preparing the Valor for 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*

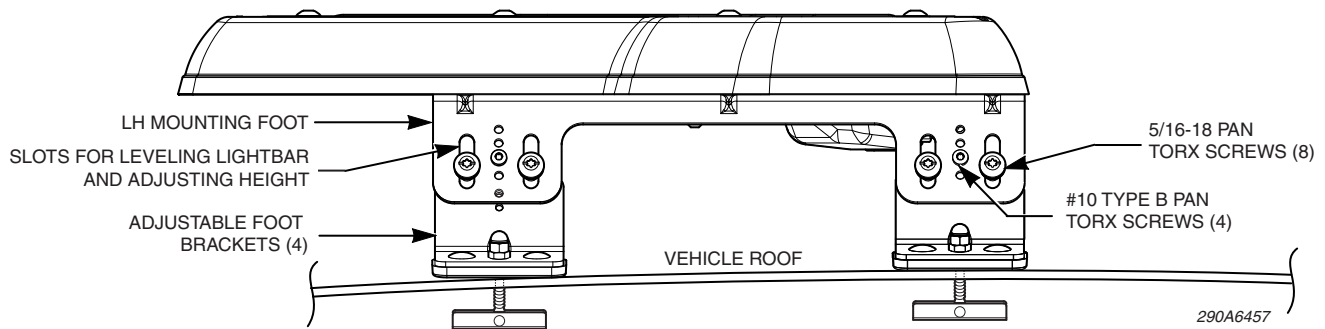
IMPORTANT: Plan all cable routing before completing the installation. Plan the location of the wire-routing hole in the vehicle roof so that the power and communication cables do not have tight bends and have some slack to allow disconnection on removal.

To prepare the lightbar for mounting:

1. Place the lightbar assembly on the vehicle roof at the desired 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. Adjust the mounting feet, if required, before tightening the 5/16" hex nuts.
4. 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 feet as required.
5. Check to ensure that the lightbar is level. If it is not level, adjust it by rotating it in the slots in the mounting feet.
6. Using the adjustable foot brackets as a template, scribe two drill-position marks on the roof at each end of the lightbar.

- Carefully remove the lightbar, invert it on soft rags, and tighten the eight 5/16" nuts that secure the mounting feet to the lightbar. Place the lightbar on the roof and recheck the positioning of the two drill-position marks.
- See Figure 3. Using the holes that are most closely aligned between the 5/16" Torx head 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.

Figure 3 Lightbar mounted on vehicle roof



Mounting the Valor on the Vehicle

To permanently mount the vehicle to the roof:

- Remove the lightbar from the roof and drill a 1/2-inch diameter hole at the each of the four drill-position marks.
- See Figure 2 on page 3 and Figure 3 above. Insert a toggle bolt through the rubber mounting pad in each of the four adjustable foot brackets. To avoid dropping the bolts through the roof before the lightbar is installed, start the 1/4" jam nuts on the toggle bolts.
- Place the lightbar assembly on the roof, working the toggle bolts into the drilled 1/2" holes. Seal the holes with installer-supplied RTV.
- Tighten the jam nuts just until the rubber pad begins to bulge. Do not exceed 60 in-lb torque.
- Saw off the toggle bolts 3/16" above the jam nuts and screw on the acorn nuts. The lightbar assembly should now be solidly anchored to the roof.

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

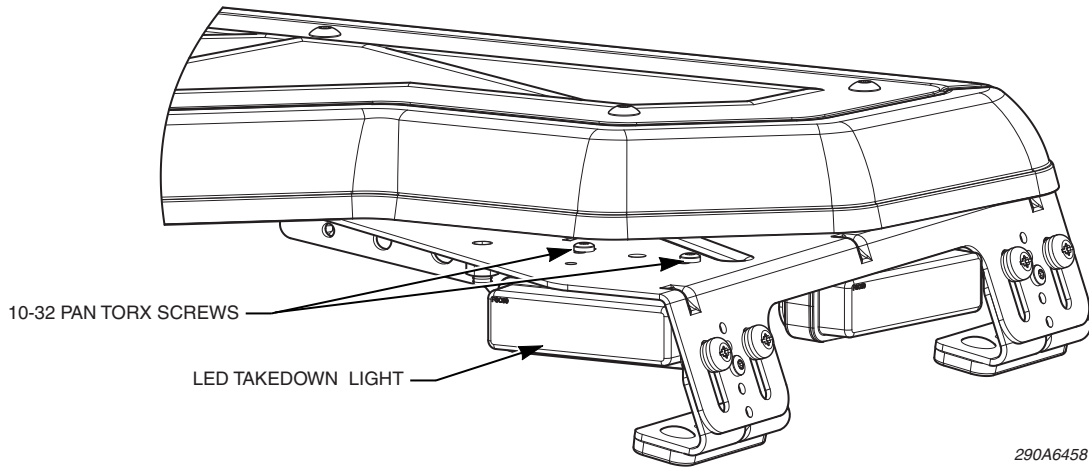
Aiming the Optional HotFoot LED Takedown Lights

The optional HotFoot LED takedown lights are factory installed and wired. The horizontal aim of the takedown light is adjustable +/- 10 degrees (Figure 4 on page 6).

To aim the takedown lights:

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

Figure 4 LED HotFoot takedown light



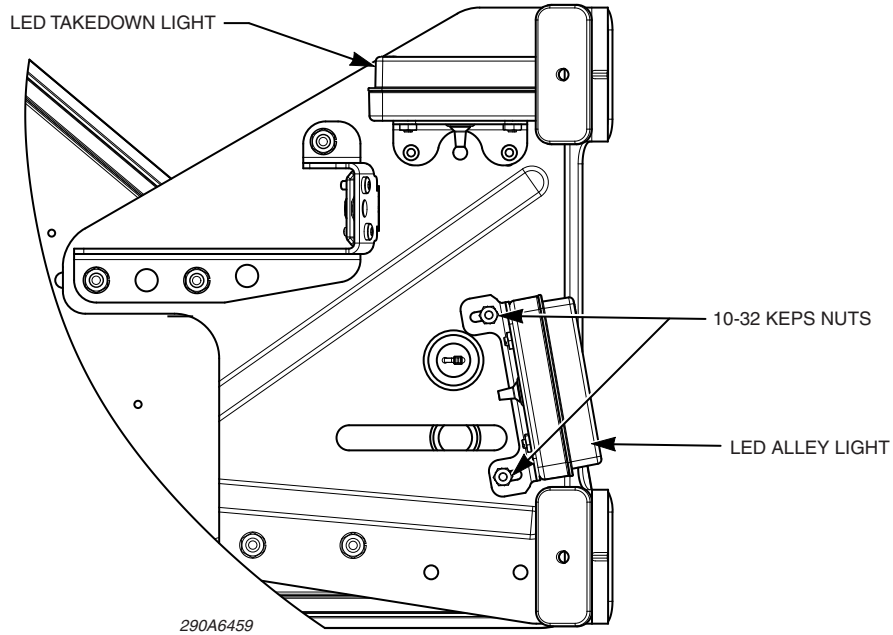
Adjusting the Optional HotFoot LED Alley Lights

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 5.
2. Reposition the lights and tighten the 10-32 Keps nuts.

Figure 5 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 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: # _____



2645 Federal Signal Drive, University Park, IL 60484-3167
Tel.: (800) 264-3578 • Fax: (800) 682-8022
www.fedsig.com

© 2010 Federal Signal Corporation