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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 the products. 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.
- This product contains high intensity LED devices. To prevent permanent eye damage, DO NOT stare into the light beam at close range.
- Always refer to the vehicle service manuals when performing equipment installations on a vehicle.
- When drilling into a vehicle structure, ensure 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.
- Frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- 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 Vision SLR light bar to a vehicle with the Permanent Mounting Kit.

IMPORTANT: Plan all cable routing before 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.

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, call Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT). An installer-supplied control head for controlling the functions of the light bar is also required.

Table 1 Kit contents

Qty.	Description	Part No.
1	LH Mounting Foot Assembly	8652171
1	RH Mounting Foot Assembly	8652172
6	3/8-inch Stainless Steel Lockwasher SS	7074A046
6	3/8-16 High Corrosion Resistance Steel Nut	7059124

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

4	Adjustable Foot Bracket Assembly	8652174 (EXCEPT NYH)
4	Adjustable Foot Bracket Assembly	8652176 (NYH ONLY)
4	Mounting Pad	8572029
8	5/16-inch Black Stainless Steel Washer	7072234
8	5/16-inch Black Stainless Steel Lockwasher	7074A020
8	5/16-18 Black Stainless Steel Pan Head Torx® Screw	7000434-10
4	#10 Type B Black Stainless Steel Pan Head Torx Screw	7011246-08
4	1/4-20 Acorn Nut	7054A010
4	1/4-20 Jam Nut	7057A049
4	1/4-20 Toggle Bolt	8422A032
2	Split Grommet	228128
2	Cable Tie	150A109

⚠ WARNING

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

Installing the Service Kit Mounting Foot

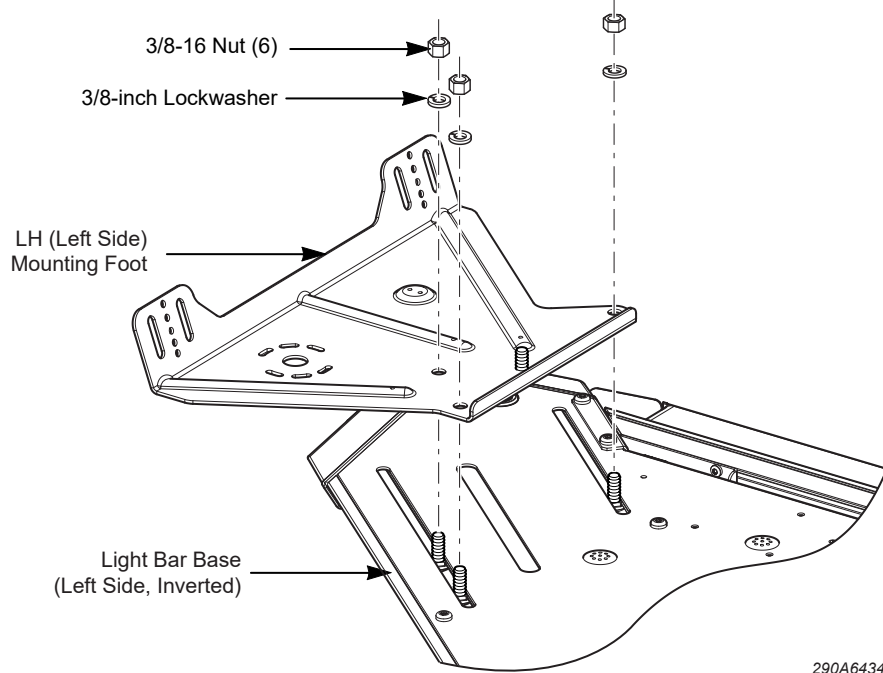
If you are installing a new light bar, skip this section and refer to “Installing the Adjustable Foot Brackets (New Light Bars)” on page 3.

NOTICE

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

1. Install a mounting foot on the Vision SLR using the 3/8-16 nuts and lockwashers as shown in Figure 1. Tighten the nuts only enough to hold the mounting foot in place. A nut and lockwasher are not required on the captive stud in the mounting foot.

Figure 1 Mounting foot installation



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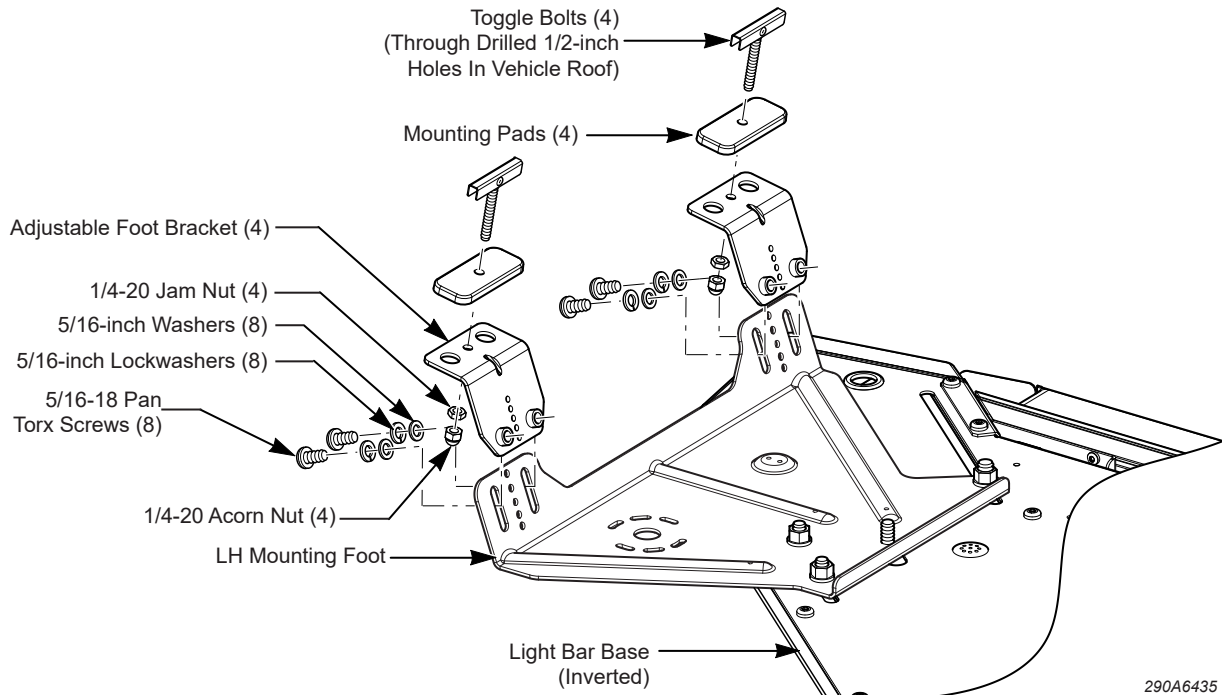
2. Repeat step 1 with the other mounting foot.

Installing the Adjustable Foot Brackets (New Light Bars)

New light bars may require loosening of the 5/16-inch nuts to allow adjustment of the mounting feet.

1. Use the 5/16-18 pan head Torx® screws, 5/16-inch flat washers, and 5/16-inch lockwashers to install the adjustable foot brackets on the mounting feet. See Figure 2.

Figure 2 Adjustable foot bracket installation



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2. For the maximum light bar 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. Install the rubber mounting pads to the adjustable feet as shown in Figure 2.

Preparing the Vision SLR 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 rollover accident.*

To prepare the light bar assembly before permanently mounting it to the vehicle roof:

1. Place the light bar assembly on the vehicle roof at the selected location. Usually the assembly is installed so that it is centered on 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 the edge of the roof are equidistant on each side of the vehicle. Adjust the mounting feet, if required, before tightening the 3/8-16 hex nuts.
4. To maximize aerodynamic efficiency, it is recommended that the light bar be mounted as high as possible. Adjust the adjustable foot brackets on the mounting feet as required.
5. Check to ensure that the light bar is level. If it is not level, adjust it by rotating it in the slots in the mounting feet.

NOTICE

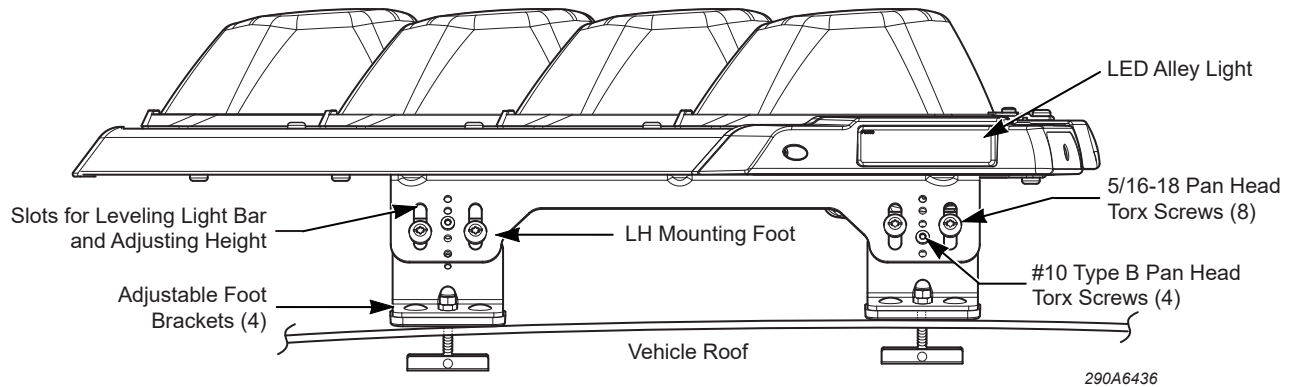
ENSURE PROPER INSTALLATION OF MOUNTING FEET: *Note that the LH Mounting Foot is for the left side of the light bar, and the RH Mounting Foot is for the right side. Failure to follow this precaution may damage the light bar.*

NOTICE

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. All wires going through drilled holes should be protected by a grommet or convolute/split-loom tubing.*

6. Using the adjustable foot brackets as a template, scribe two drill position marks on the roof at each end of the light bar.
7. Carefully remove the light bar, invert it on soft rags, and tighten the six 3/8-inch nuts that secure the mounting feet to the light bar. Place the light bar on the roof and recheck the positioning of the four drill position marks.
8. Using the holes that are most closely aligned between the 5/16-inch pan head Torx® 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 3.

Figure 3 Light bar mounted on vehicle roof



Mounting the Vision SLR on the Vehicle

To permanently mount the vehicle to the roof:

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

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

Optional HotFoot LED Takedown Lights

The optional LED takedown lights are factory-wired and installed on the bottom of the mounting feet. Beneath the mounting feet the aim of the lights is horizontally adjustable ± 10 degrees.

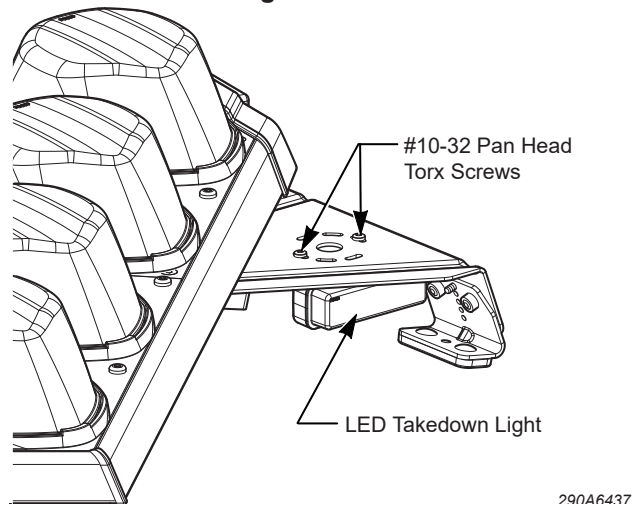
To aim the takedown lights to the 45 degree or 90 degree position (± 10 degrees), move the lights to the top of the mounting feet before the installation. See “Inverting and Aiming a Takedown Light Above the Mounting Foot.”

Aiming a Takedown Light Beneath the Mounting Foot

To adjust the horizontal aim (± 10 degrees) of the takedown light:

1. Loosen the 10-32 pan Torx screws shown in Figure 4.

Figure 4 LED takedown light mounted beneath mounting foot



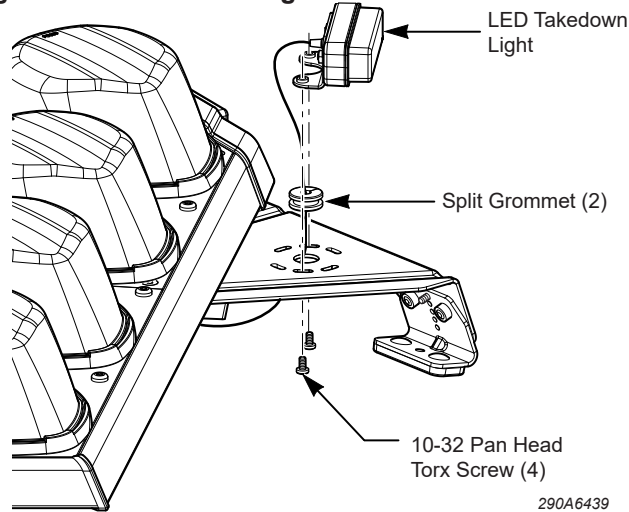
2. Reposition the light and tighten the screws.

Inverting and Aiming a Takedown Light Above the Mounting Foot

To aim the LED takedown lights to the 45 degree or 90 degree position:

1. Cut the cable tie securing the connector to the underside of the foot and unplug the connector.
2. Remove the two 10-32 pan Torx® screws and the takedown light. See Figure 4.
3. Install the split grommet over the cable, and feed the cable through the foot from the top. Install the grommet securely in the hole. See Figure 5.

Figure 5 LED takedown light mounted above mounting foot



4. Aim the LED takedown and install the 10-32 pan head Torx® screws from the bottom of the foot.
5. Reconnect the connector and secure it to the foot with the cable tie.
6. Test the light to verify that it operates properly.

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

For technical support, please contact:

Federal Signal Corporation
Service Department
Phone: 1-800-433-9132
Fax: 1-800-343-9706
Email: emp-service-info@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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www.fedsig.com

Customer Support

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

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

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