



25500634 REV. A0 0420

## 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 the lighting system, you must have a good understanding of automotive systems, along with proficiency in the installation and use of safety warning equipment.
- If a vehicle seat is temporarily removed, verify with the vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- When drilling into a vehicle structure, be sure that both sides of the surface are clear of anything that could be damaged.
- Refer to the instructions included with the light system for the proper electrical connections.
- To be an effective warning device this product produces bright light that can be hazardous to your eyesight when viewed at close range. Do not stare directly into this lighting product at close range or permanent damage to your eyesight may occur.
- You should frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- Refer to the instructions packed with related products for additional precautions and information.
- 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 manual provides instructions for installing the 21-inch Allegiant light bar with the low permanent mount kit.

## Unpacking the Kit

After unpacking the kit, 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 damage. 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.

## Allegiant 21-inch Light Bar Low Permanent Mount Kit

Table 1 Kit contents

Qty.	Description	Part No.
2	Mounting Foot	864901847
2	Mounting Plate	864901850
8	Spacer	864901849
4	Mounting Pad	865302554
8	Black #10 6 Lobe Plastite Screw	70000612-12
8	5/16-18 Carriage Bolt	7004025-14
8	5/16-18 Nut	7059125
8	5/16-inch Flat Washer	7072A031
8	5/16-inch Split Lockwasher	7074A020
4	1/4-20 Acorn Nut	7054A010
4	1/4-20 Jam Nut	7057A049
4	1/4-inch Flat Washer	7072A024
4	1/4-20 Toggle Bolt	8422A032-44

### Preparing Mounting Feet

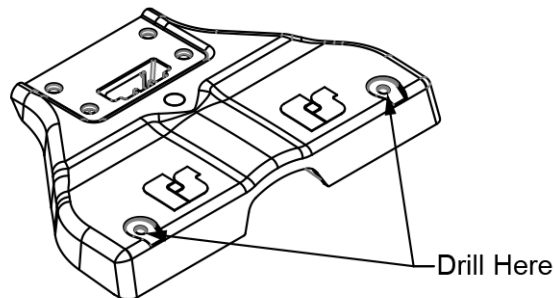
**NOTICE**

**DRILLING PRECAUTIONS:** Before drilling holes, check the area into which you plan to drill to ensure that you do not damage vehicle components while drilling. 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.

To prepare the mounting feet:

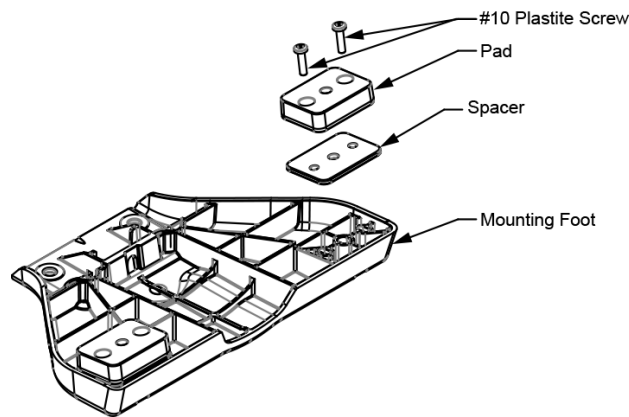
1. Using a 1/4-inch drill bit drill through the two dimples on each foot. See Figure 1.

Figure 1 Drilling location



2. Using the supplied #10 plastite screws attach the pad and needed spacers to the bottom of each foot. See Figure 2.

**Figure 2 Mounting foot bottom view**



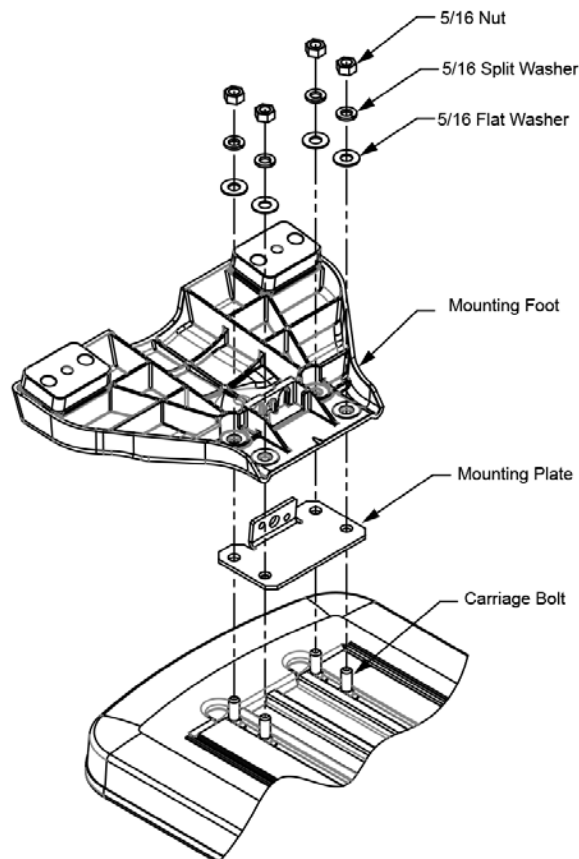
### Installing the Mounting Foot

**⚠ WARNING**

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

1. Turn the light bar upside down on soft rags or cardboard to avoid marring the plastic domes.
2. Insert two 5/16-18 carriage bolts into each track in the aluminum extrusion. Position the bolts to match the holes in the mounting foot. See Figure 3.

**Figure 3 Exploded view**



## ***Allegiant 21-inch Light Bar Low Permanent Mount Kit***

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3. Place a mounting plate and mounting foot over the four carriage bolts. Install four 5/16-inch flat washers, lock washers, and nuts. Leave the nuts just loose enough to enable you to reposition the mounting foot.
4. Repeat steps 1 through 3 for the other side of the light bar.

### **Selecting a Mounting Location on the Vehicle Roof**

Refer to the installation and maintenance instructions included with the lightbar for electrical installation instructions. Plan all cable routing before the installation.

To prepare the vehicle roof:

1. Place the lightbar assembly on the vehicle roof at the selected location. Usually the lightbar assembly should be installed so that it is centered on the door center post.
2. Adjust both mounting foot assemblies in or out until the foot pads rest near the edge of the roof or gutter where the roof is the most rigid. Both the lightbar and the mounting feet should be centered left to right on the vehicle.
3. Ensure that the lightbar is level. To level the lightbar, use additional spacers as needed and/or reposition the lightbar slightly forward or backward.
4. Using the mounting feet as a template, scribe two drill-position marks on each end of the lightbar for the toggle bolts.
5. Carefully remove the lightbar and turn it upside down on soft rags or cardboard.

### **Mounting the Light Bar Assembly**

#### **NOTICE**

***DO NOT OVERTIGHTEN NUTS: To avoid damage to the lightbar, do not overtighten the nuts.***

To mount the lightbar assembly:

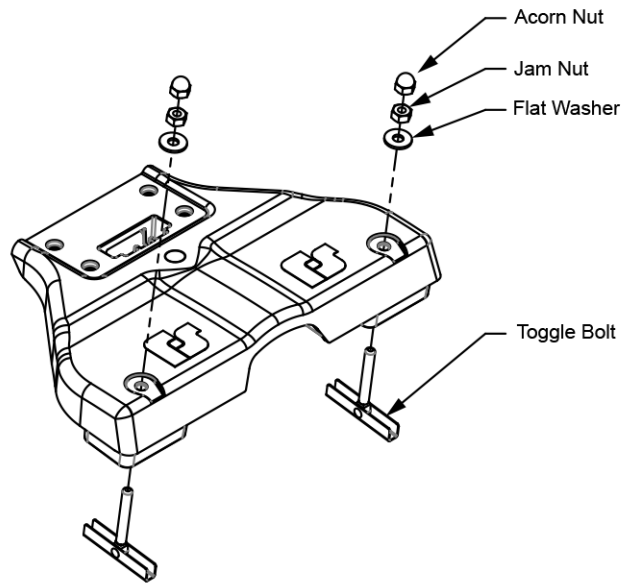
1. Torque the eight 5/16-inch nuts that secure the mounting feet to the light bar to 120 in-lb to 132 in-lb.

#### **NOTICE**

***DRILLING PRECAUTIONS: Before drilling holes, check the area into which you plan to drill to ensure that you do not damage vehicle components while drilling. 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.***

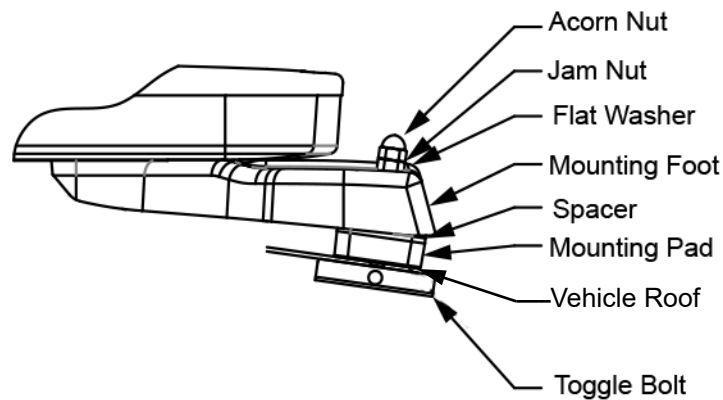
2. Recheck the positions of the four drill position marks for the toggle bolts. Drill a 1/2-inch diameter hole at each of the marks.
3. Insert a toggle bolt in each hole and seal the hole with RTV. See Figure 4.

**Figure 4 Hardware for mounting the light bar to the vehicle**



4. Place the mounting feet down over the ends of the toggle bolts.
5. Install a 1/4-inch flat washer on each toggle bolt and secure it with a jam nut. Tighten each jam nut just until the rubber pad begins to bulge. Do not exceed a torque of 60 in-lb.
6. Saw off the toggle bolts 3/16 inch above the jam nuts and screw the acorn nuts onto the bolts. The lightbar should now be securely anchored to the roof (Figure 5).

**Figure 5 Light bar attached to vehicle roof**



7. Ensure that all fasteners are properly tightened.

**IMPORTANT:** Frequently inspect the lightbar to ensure that all fasteners are tight.

## **Getting Technical Support and Service**

For technical support, please contact:

Federal Signal Corporation  
Service Department  
Phone: 1-800-433-9132  
Email: [empserviceinfo@fedsig.com](mailto: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](http://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](mailto: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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