

25500310 Rev. A3 0921

## Safety Message to Installers of Warning Light Equipment

### **▲ WARNING**

People's lives depend on your safe installation of our products. It is important to read, understand, and follow all instructions shipped with this product and the related add-on 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.
- 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, ensure that both sides of the surface are clear of anything that could be damaged.
- 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.
- Frequently inspect the light system to ensure that it is operating properly and that it is securely attached to the vehicle.
- Refer to the instruction sheets included 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.

## Preparing the Mounting Surface

Refer to the installation and maintenance instructions included with the light bar for electrical connections. Plan all cable routings before the installation. It is the installer's responsibility to ensure that the mounting surface can support the mass of the light bar.

## Introduction

These kits are intended to mount select Federal Signal light bars to flat surfaces. The number of brackets and amount of hardware will vary as described in Table 1. This variation is to account for various length light bars.

## Unpacking the Kit

After unpacking the kit, inspect it for damage that may have occurred in transit. If the contents have been damaged, do not install the kit. File a claim immediately with the carrier, stating the extent of the 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.

## Flat Surface Mounting Kit

Table 1 Kit contents

	8653178-1	8653178-2	8653178-3	865302704-2	865302704-3	865100870
Description	QTY	QTY	QTY	QTY	QTY	QTY
Bolt, Carriage, 5/16-18 x 1 in	4	8	12	8	12	N/A
Bolt, Carriage, 3/8-16 x 3.5 in	2	4	6	4	6	4
Washer, Flat, 5/16 in	4	8	12	8	12	8
Washer, Lock, 3/8 in, Split	2	4	6	4	6	4
Nut, Hex, 3/8-16	2	4	6	4	6	4
Nut, Stop, Elastic, 5/16-18	4	8	12	8	12	8
Bracket, Mounting	1	2	3	2	3	2

### **⚠ 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.

### **⚠ WARNING**

**PROPER PREPARATION:** Clean and lightly oil the mounting bolts. Torque the 3/8-inch hardware to 150-175 in-lb. Torque the 5/16-inch hardware to 120-132 in-lb.

### Single Bracket Kit

To mount the single bracket kit:

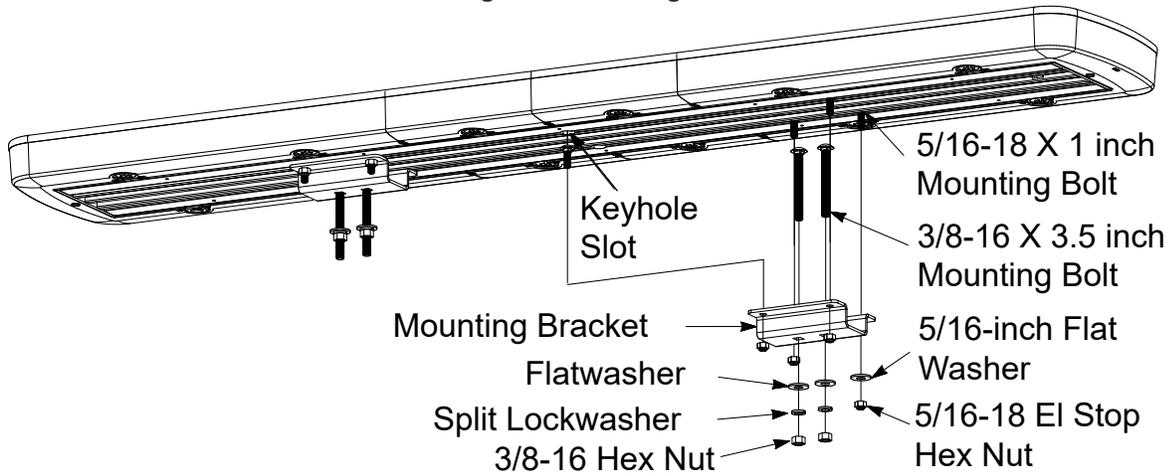
1. Select a suitable flat mounting surface.
2. Using the bracket as a template, mark two drill-position marks for the 3/8-inch carriage bolts.

### **⚠ WARNING**

**DRILLING PRECAUTIONS:** When drilling holes, check the area you are drilling into to ensure that 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.

3. Drill a 13/32-inch hole at the two drill-position marks.
4. Attach the bracket to the bottom of the light bar as shown in Figure 1.

Figure 1 Mounting bracket



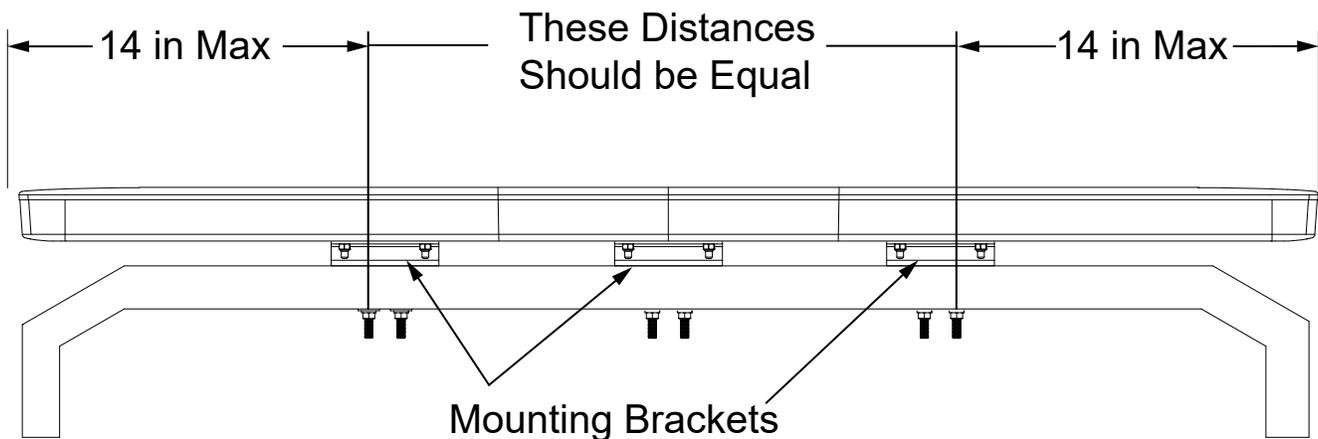
5. Attach the light bar to the mounting surface using the 3/8-inch hardware.

### Double Bracket Kit

To mount the double bracket kit:

1. Select a suitable mounting surface.
2. Center light bar on a flat mounting surface.
3. Using the bracket as a template, mark four drill-position marks for the 3/8-inch carriage bolts. Ensure that the outermost drill position is no more than 14 inches from the end of the light bar. See Figure 2.

Figure 2 Light bar centered on the vehicle roof



**⚠ WARNING**

**DRILLING PRECAUTIONS:** When drilling holes, check the area you are drilling into 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 wire routings going through drilled holes should be protected by a grommet or convolute/split loom tubing.

4. Drill a 13/32-inch hole at the four drill position marks.

## Flat Surface Mounting Kit

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5. Attach brackets to the bottom of the light bar as shown in Figure 1. Use care if turning the light bar over to avoid scratching the domes.

**NOTE:** Some light bars may have 5/16-inch carriage bolts preinstalled.

6. Attach the light bar to the mounting surface using the 3/8-inch hardware.

## Triple Bracket Kit

To mount the triple bracket kit:

1. Select a suitable mounting surface.
2. Center the light bar on a flat mounting surface.
3. Using the bracket as a template, mark six drill-position marks for the 3/8-inch carriage bolts. Ensure that the outermost drill position is no more than 14-inches from inward from the end of the light bar. See Figure 2. Ensure that the third bracket is centered on the light bar.

### **⚠ WARNING**

**DRILLING PRECAUTIONS:** *When drilling holes, check the area you are drilling into to ensure that 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.*

4. Drill a 13/32-inch hole at the six drill-position marks.
5. Attach brackets to the bottom of the light bar as shown in Figure 1. Use care if turning the light bar over to avoid scratching the domes.
6. Attach the light bar to the mounting surface using the 3/8-inch hardware.

## Valor 44- and 51-inch Mounting Kit

To mount the Valor bracket kit:

1. Select a suitable mounting surface.
2. Center the light bar on a flat mounting surface.
3. Using the brackets as templates, mark four drill-position marks for the 3/8-inch carriage bolts. Ensure that the outermost drill position is no more than 8.4 inches and no less than 5.1 inches from the inward from the end of the light bar. See Figures 3 and 4.

Figure 3 Outermost Drill Position Maximum

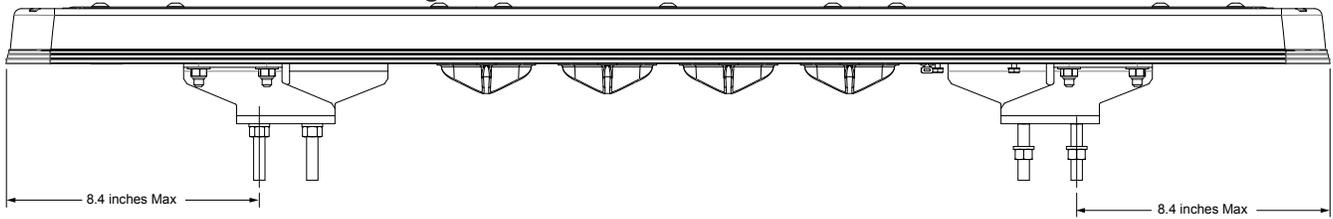
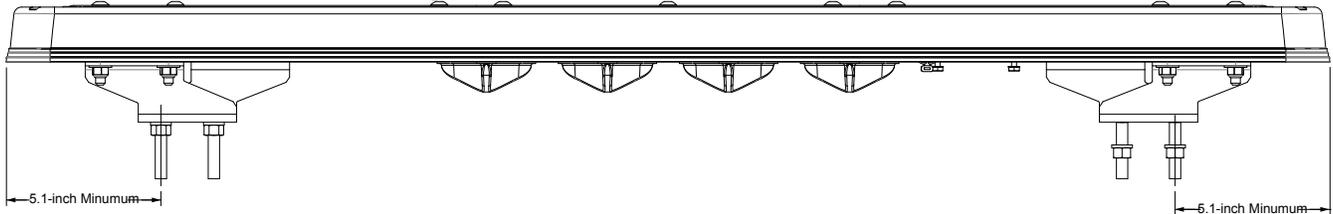


Figure 4 Outermost Drill Position Minimum

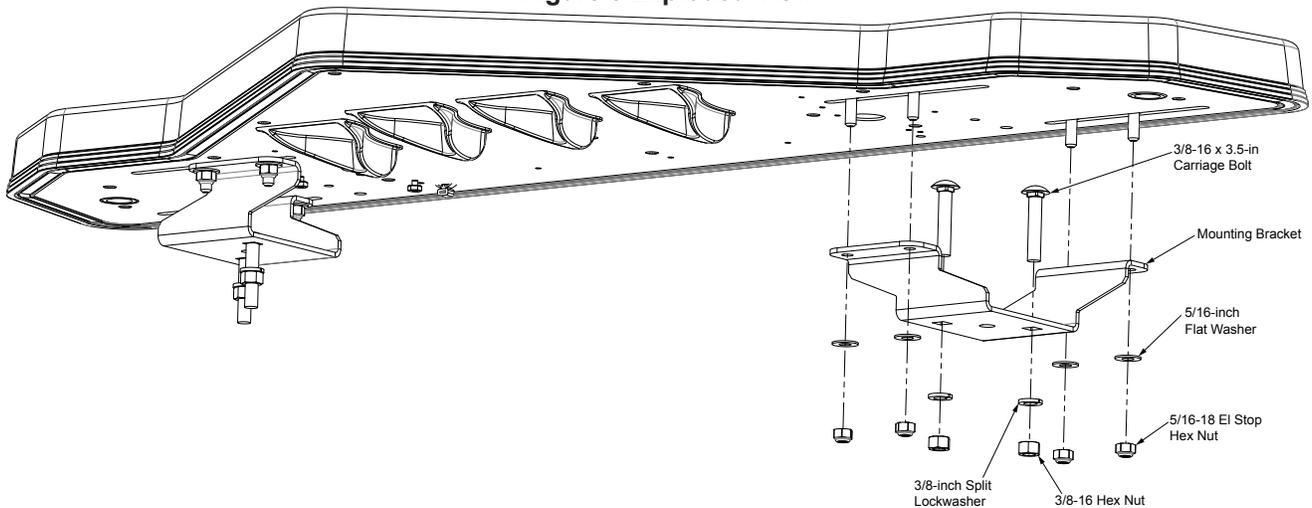


**⚠ WARNING**

**DRILLING PRECAUTIONS:** When drilling holes, check the area you are drilling into to ensure that 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.

4. Drill a 13/32-inch hole at the four drill-position marks.
5. Attach the brackets to the bottom of the light bar as shown in Figure 5. Use care if turning the light bar over to avoid scratching the domes.

Figure 5 Exploded View



6. Attach the light bar to the mounting surface using the 3/8-inch hardware.

## ***Flat Surface Mounting Kit***

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### **Getting Technical Support**

For technical support, please contact:  
Federal Signal Corporation  
Service Department  
Phone: 1-800-433-9132  
Fax: 1-800-343-9706  
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 units returned to Federal Signal for service, inspection, or repair must be accompanied by a Return Material Authorization (RMA). Obtain an 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.

**Ordering Replacement Parts**

To order replacement parts, call Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT) or contact your nearest distributor.



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University Park, Illinois 60484-3167

[www.fedsig.com](http://www.fedsig.com)

Customer Support

Police/Fire-EMS: 800-264-3578 • +1 708 534-3400

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

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

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