

25500797 Rev A2 0423

## **Safety Message to Installers and Service Personnel of Emergency Vehicle Safety 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. Listed below are some other important safety instructions and precautions you should follow.

### **Before Installation or Service**

#### *Qualifications*

- To properly install or service this equipment, you must have a good understanding of automotive electrical procedures and systems along with proficiency in the installation and service of safety warning equipment. Always refer to the vehicle service manuals when installing equipment on a vehicle.

#### *Electrical Hazards*

- Never attempt to install aftermarket equipment that connects to the vehicle wiring without reviewing a vehicle wiring diagram available from the vehicle manufacturer. Ensure that your installation will not affect vehicle operation and safety functions or circuits.

### **During Installation or Service**

- To avoid a battery explosion, always disconnect the negative battery cable first and reconnect it last. Avoid a spark when connecting near or to the battery. The gasses produced by a battery can cause a battery explosion that could result in vehicle damage and serious injury.
- Do not install equipment or route wiring or a plug-in cord in the deployment path of an airbag.
- Before mounting any components, check the manual to ensure that the component you are installing is suitable for use in that area of the vehicle. Many components are not suitable for use in the engine compartment or in other areas subject to extreme environmental exposure.
- When drilling into a vehicle structure, ensure that both sides of the surface are clear of anything that could be damaged. Remove all burrs from drilled holes to prevent electrical shorts, and grommet all drilled holes through which wiring passes. Ensure that mounting screws do not cause electrical or mechanical damage to the vehicle.

### **After Installation or Service**

- If a vehicle seat is temporarily removed, verify with vehicle manufacturer if the seat needs to be recalibrated for proper airbag deployment.
- To ensure proper operation, test all vehicle functions, including horn operation, vehicle safety functions, and vehicle light systems. Ensure that installation has not affected vehicle operation or changed any vehicle safety function or circuit.
- After installation and testing are complete, provide a copy of these instructions to instructional staff and all operating personnel.
- File these instructions in a safe place and refer to them when maintaining and/or reinstalling the product.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death.

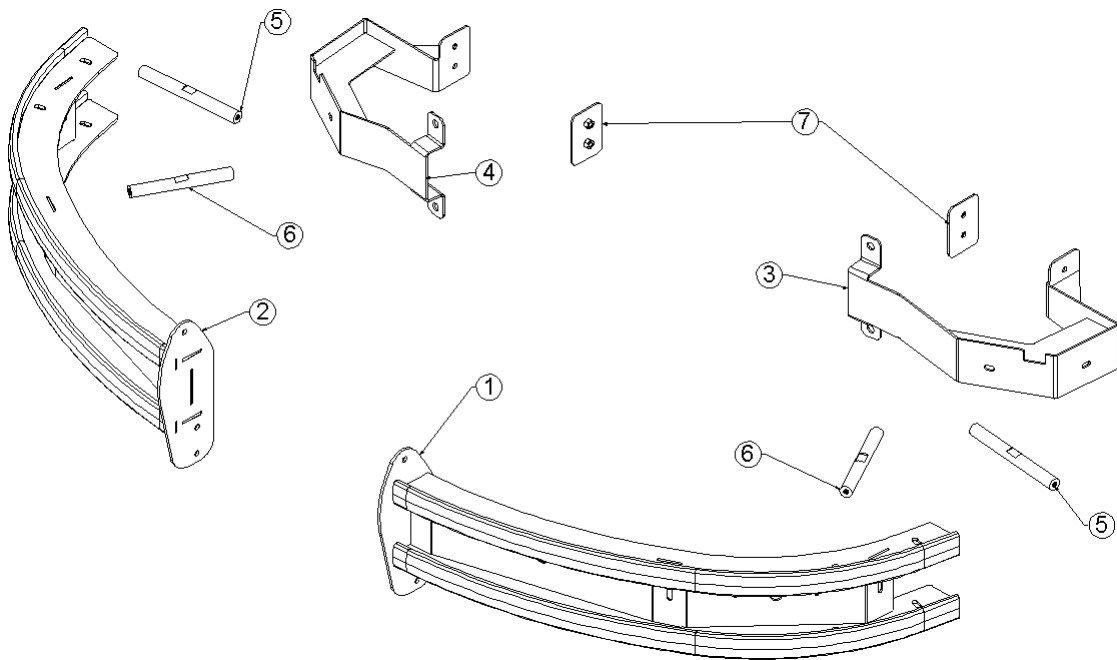
### Unpacking the Product

After unpacking the product, 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 the damage. Failure to identify damage before installation could lead to rejection of any claim. 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. If you are missing any parts, contact Federal Signal Customer Support at 1-800-264-3578, 7 a.m. to 5 p.m., Monday through Friday (CT).

**Table 1 Kit contents**

Item	Description	Qty.
1	Driver Side Lower Guard Assembly	1
2	Passenger Side Lower Guard Assembly	1
3	Driver Side Mounting Bracket	1
4	Passenger Side Mounting Bracket	1
5	Long Spacer Rod	2
6	Short Spacer Rod	2
7	Back Bracket Assembly	2
8	5/16-18 x 1-inch Hex Head Bolt	12
9	5/16-18 x 1.5-inch Button Head Bolt	4
10	5/16 Flat Washer	22
11	5/16 Lock Washer	16
12	5/16 Hex Nut	4

**Figure 1 Kit parts**



## Installing the Lower Guard

### **⚠ WARNING**

**PUSH BUMPER PRECAUTION:** Installing a push bumper on a vehicle may raise the vehicle's minimum collision speed for airbag deployment. It is imperative that police officers wear safety belts when operating the motor vehicle. Failure to follow this warning may cause serious injury or death.

### **NOTICE**

**THREAD DAMAGE AND GALLING:** Use anti-seize lubricant on all stainless steel fasteners to prevent thread damage and galling.

To install the lower guard:

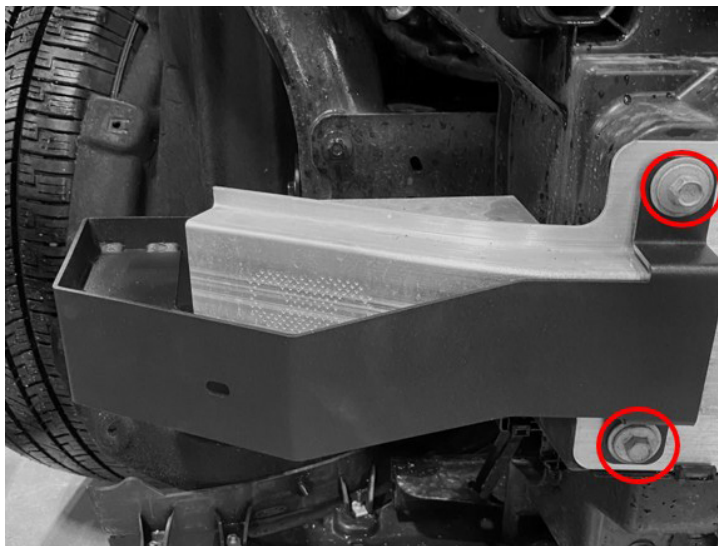
1. Starting from step 5 on instruction sheet 25500796 for the push bumper, locate the mounting and back brackets (Items 3-5).
2. Remove the four bolts from the vehicle bumper in the locations shown in Figure 2.

Figure 2 Remove the bolts



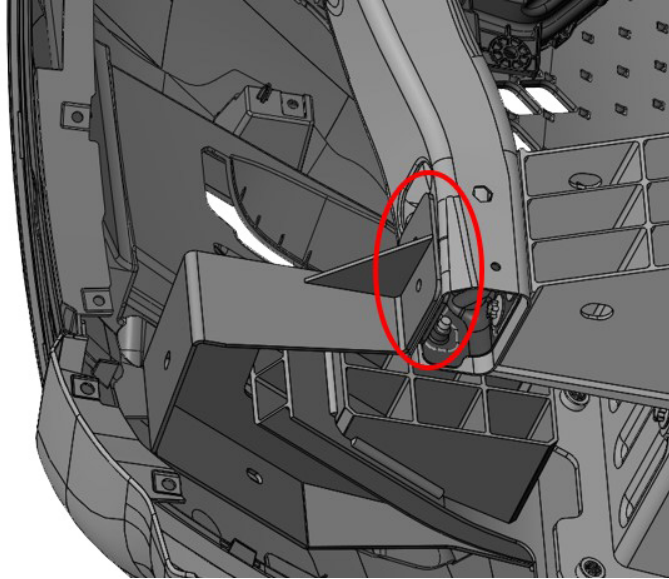
3. Slide the mounting bracket (Item 3 or 4) over the vehicle bumper and loosely reinstall the factory bolts. See Figure 3.

Figure 3 Slide mounting bracket over bumper (passenger side shown)



4. Using the 5/16-18 hex head bolt, flat washer, and lock washer, slide the back bracket inside the front frame post as shown in Figure 4.

**Figure 4 Slide back bracket inside front frame post**



5. Tighten all hardware, and then repeat steps 3 and 4 for the opposite side.
  - Torque factory bolts to 35 ft-lb
  - Torque 5/16-inch bolts to 24-28 ft-lb
6. Using a soft tape measure and Figure 5 as a reference of where to measure from, make a mark at 3-1/8 inches on the front fascia.

**NOTE:** Figures 5-8 show the driver side of the fascia.

**Figure 5 Side post vertical measurement**



- Using the soft tape measure and Figures 6 and 7 as a reference, make an intersecting mark at 4-1/4 inches and at 12-7/8 inches. Make sure that the tape is parallel to the indicated line on the fascia when making the measurement.

**Figure 6 Side post horizontal measurement**



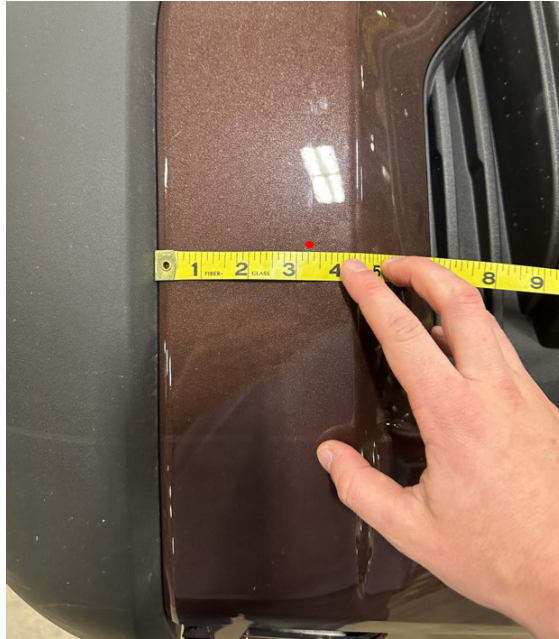
**Figure 7 Front post horizontal measurement**





- Using the soft tape measure and figure 8 as a reference, make an intersecting mark at 3 and ¼-inch.

**Figure 8 Front post vertical measurement**



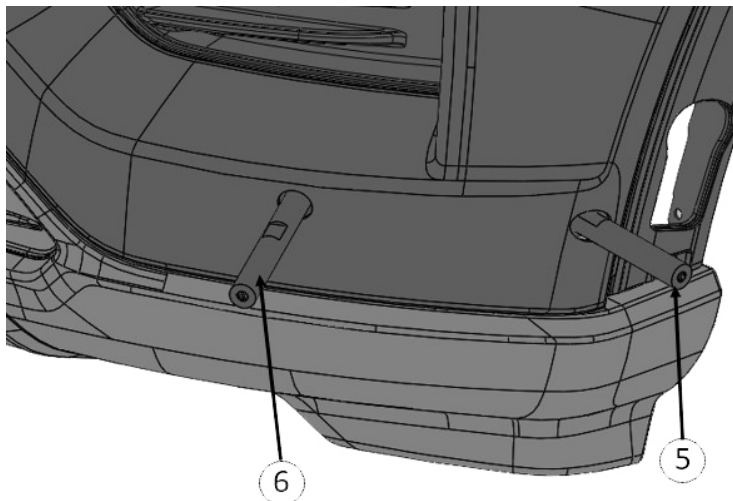
**NOTICE**

**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.

**IMPORTANT:** *Trimming is required on the front fascia.*

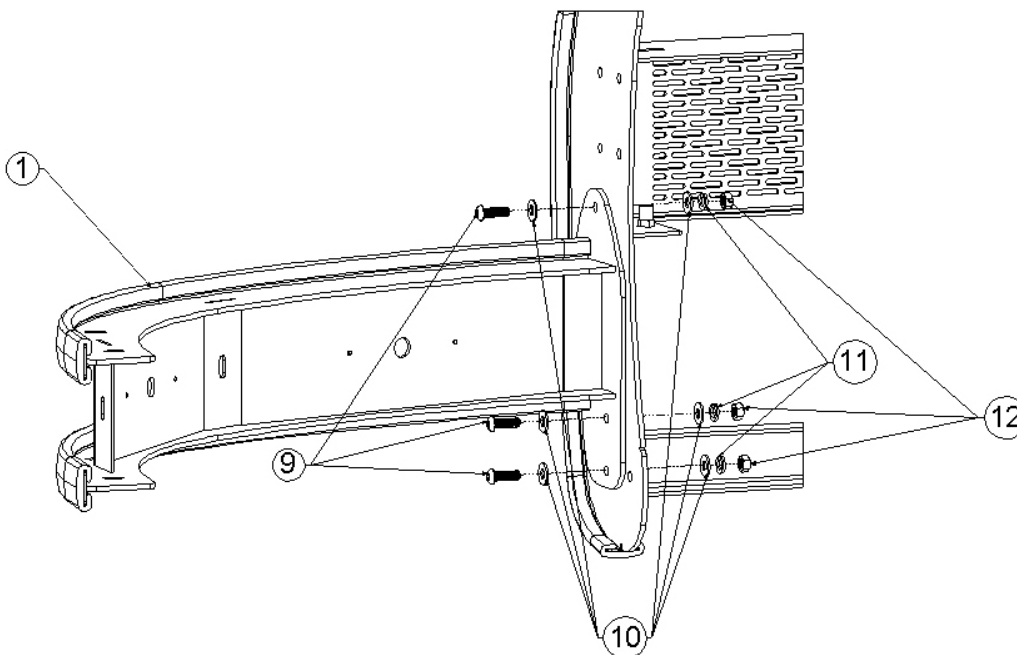
- Using a 1-inch hole saw, cut out the two holes and then clean the edges.
- Repeat the steps for the opposite side.
- Return to instruction sheet 25500796 for the push bumper and proceed with installing the front fascia of the vehicle, but leave the fender area open so you can access the lower guard mounting brackets. Proceed with the push bumper installation. Once complete, continue with the lower guard installation.
- Slide one short spacer rod into the front facing hole of the fascia and attach to the mounting bracket using a 5/16-inch hex head bolt, flat washer, and lock washer. Slide one long spacer rod into the side hole of the fascia and attach to the mounting bracket using a 5/16-inch hex head bolt, flat washer, and lock washer. Repeat these steps on the opposite side. See Figure 9.

Figure 9 Attach the mounting bracket



13. Referring to the note in step 8 of instruction sheet 25500796 for the push bumper, remove the forward-most bolt on the lower bracket of the push bumper and loosely attach the lower guard to the side of the push bumper using the 5/16-inch button head bolt, flat washer, lock washer and hex nut. See Figure 10.

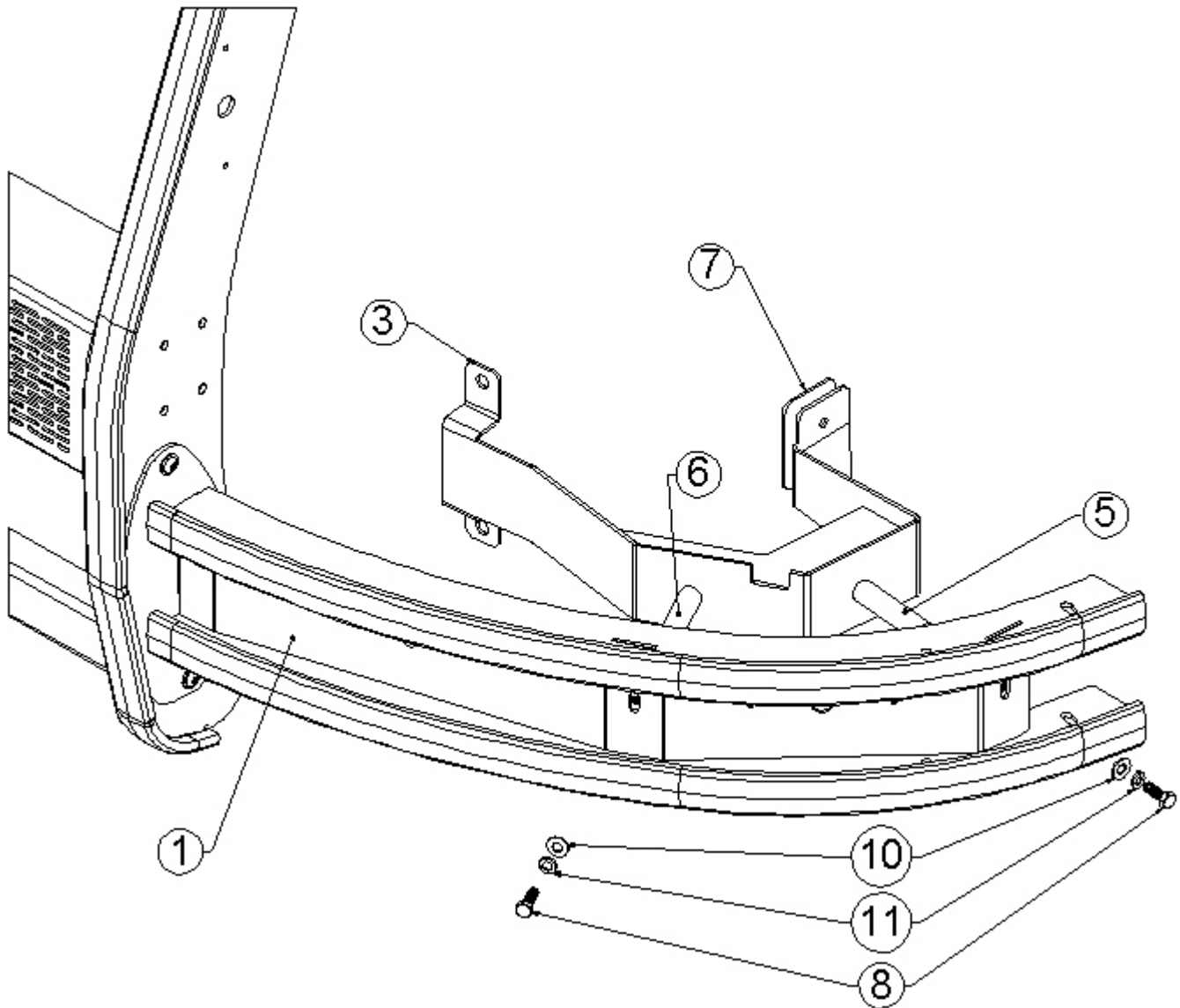
Figure 10 Attach the lower bracket



**14.** Using the 5/16-inch hex bolt, flat washer, and lock washer, loosely attach the lower guard assembly to the spacer rods protruding from the front fascia. Align and adjust the lower guard as necessary, and then tighten all hardware on the current side. See Figure 11.

- Torque 5/16-inch bolts to 24-28 ft-lb

**Figure 11 Attach lower guard assembly**



**15.** Repeat steps 13 and 14 for the opposite side.



### **Maintaining the Lower Guard Assembly**

Regularly clean the textured powder coat finishes with either a soft cloth or a brush with a mild soap and warm water. Avoid using any harsh chemicals, as this will damage the product's finish. Pressure washing this product is the most efficient way to remove heavy dirt and grime. The pressure washer should be used on a low pressure setting with filtered water for best results. Using high pressure can damage the product's finish.

### **Getting Technical Support**

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 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.



**FEDERAL SIGNAL**  
Safety and Security Systems

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