

25500246 Rev. B0 0218

## **Safety Message to Installers and Service Personnel of Emergency Vehicle Safety Equipment**

### **⚠ WARNING**

The lives of people depend on your proper installation and servicing of Federal Signal products. It is important to read and follow all instructions shipped with this product. In addition, 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 be sure 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, be sure that both sides of the surface are clear of anything that could be damaged. Remove all burrs from drilled holes to prevent electrical shorts, grommet all drilled holes through which wiring passes. Also 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 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). Disposal of all shipping materials must be carried out in accordance with national and local codes and standards.

### **⚠ WARNING**

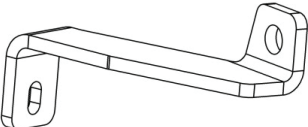
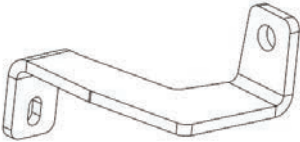
**PUSH BUMPER PRECAUTION:** *Installing a push bumper or pit bar on a vehicle may raise the vehicle's minimum collision speed for airbag deployment. It is imperative that police officers wear safety belts when operating their motor vehicle. Failure to follow this warning may cause serious injury or death.*

### **NOTICE**

**THREAD DAMAGE AND GALLING:** *To prevent thread damage and galling, anti-seize lubricant must be used on all stainless steel fasteners.*

**Table 1** Kit contents and tools needed

Item	Qty.	Description	Tools Needed
1	1	Push Bumper Assembly	Ratchet
2	1	Driver-Side Lower Mounting Bracket	Utility Knife
3	1	Passenger-Side Lower Mounting Bracket	18 mm Socket
4	1	Driver-Side Upper Support Bracket	15 mm Socket
5	1	Passenger-Side Upper Support Bracket	14 mm Socket
6	2	8 mm Thick Round Spacer	Pry Tool
7	2	Double Nut Plate	Allen Wrench
8	6	M12 Hex Cap-Screw 40 mm Long (Yellow Zinc)	Torque Wrench
9	8	M12 Flat Washer 24 mm OD (Yellow Zinc)	Socket Extension
10	8	M12 Split Lockwasher (Yellow Zinc)	--
11	2	M8 Hex Cap Screw (Yellow Zinc)	--
12	2	M8 Flat Washer 16 mm OD (Yellow Zinc)	--
13	2	M8 Split Lockwasher (Yellow Zinc)	--
14	6	M12 Hex Button Head Screw (Stainless)	--
15	6	M12 Cupped Washer (Stainless)	--
16	6	M12 Serrated Flange Nut (Stainless)	--

ITEM 4	2015 - 2017 Models	ITEM 4	2018 Models
			

## Installing the Push Bumper

**NOTE:** There is no need to remove the front bumper to install the push bumper assembly.

1. **For vehicles without factory tow hooks:** Trim the plastic in the areas shown in Figures 1 and 2..
2. **For vehicles without factory tow hooks:** See Figure 3 on page 4. Slide one double-nut plate into the frame and line it up with the existing holes. Loosely install the lower mounting brackets using the supplied M12 hardware as shown in Figure 4. Trim the screws if they interfere with the lower mounting bracket. Repeat this step for the passenger side.
4. **For vehicles with factory tow hooks:** Remove the tow hooks and loosely install the lower mounting brackets to the factory nut plates using the supplied M12 hardware (Figure 4 on page 4). Trim the screws if they interfere with the lower mounting bracket (Figure 5).
5. See Figures 6 through 12 starting on page 4. Remove all factory hardware and clips attached to the grille. Remove the headlight covers, then remove the grille.
6. For 2018 Models Only: Remove plastic covers that are located above the location of the tow hooks to expose (3) nuts on each side. Remove the nuts in order to remove the front bumper. See Figures 13-14.
7. See Figure 13 on page 5. Remove the factory bumper bolt.
8. See Figure 14 on page 5. Install the upper mounting bracket using the supplied M8 hardware. Tighten the hardware to 15 ft-lb.
9. Reinstall the grille, then the headlight covers.
10. See Figure 15 and 16 on page 6. With assistance, hold the push bumper up to the installed brackets. Loosely attach the push bumper to the brackets using the supplied M12 hardware.
11. Align and adjust the push bumper as necessary. Tighten and torque all M12 hardware to 50-55 ft-lb.

Figure 1

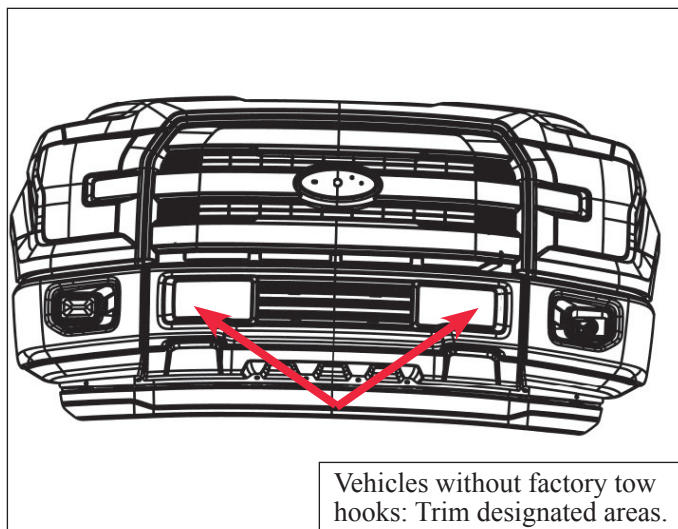


Figure 2

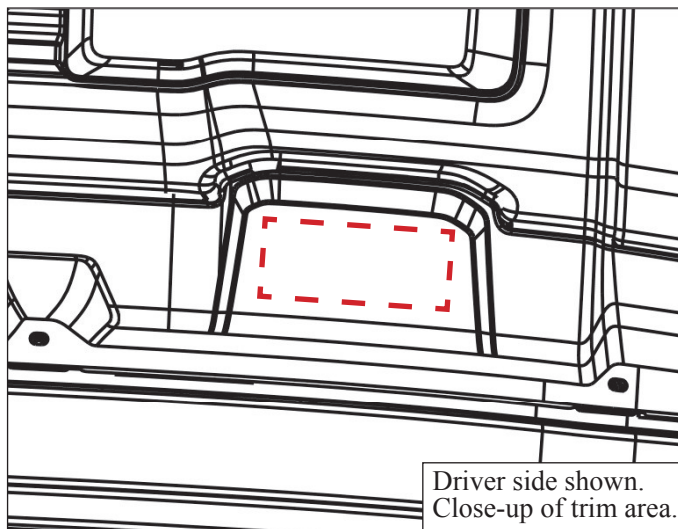




Figure 3

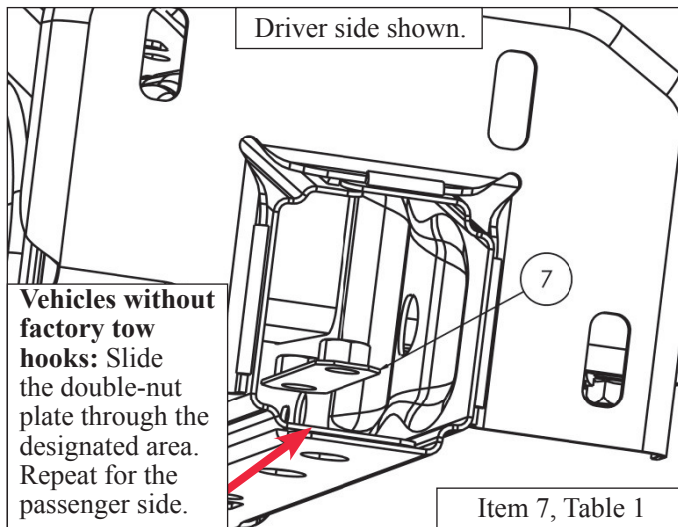


Figure 4

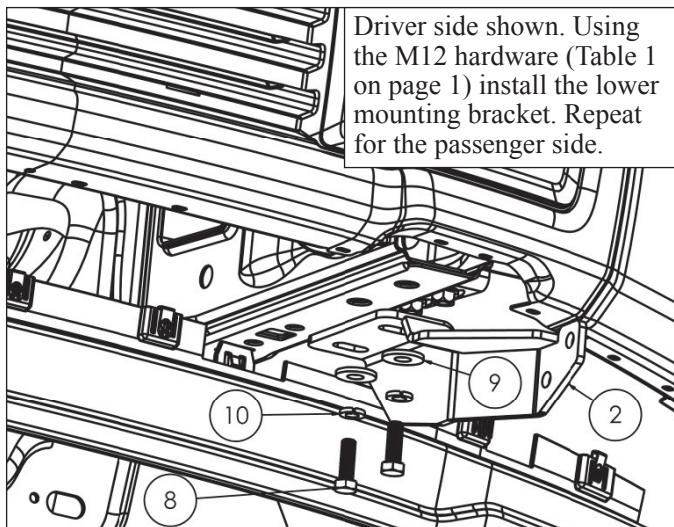


Figure 5

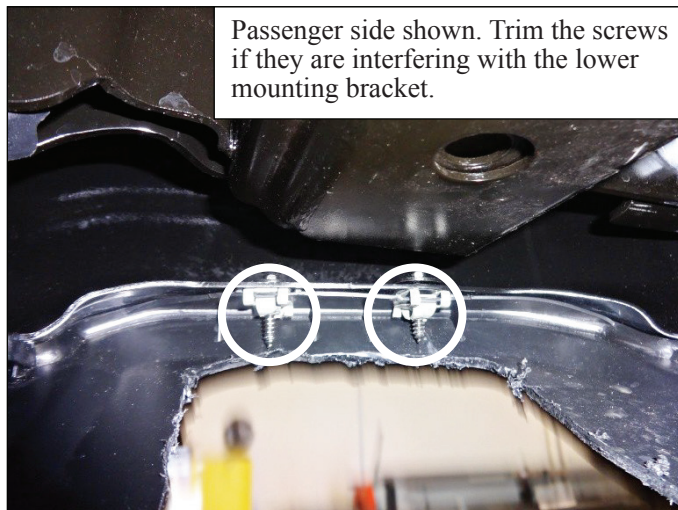


Figure 6

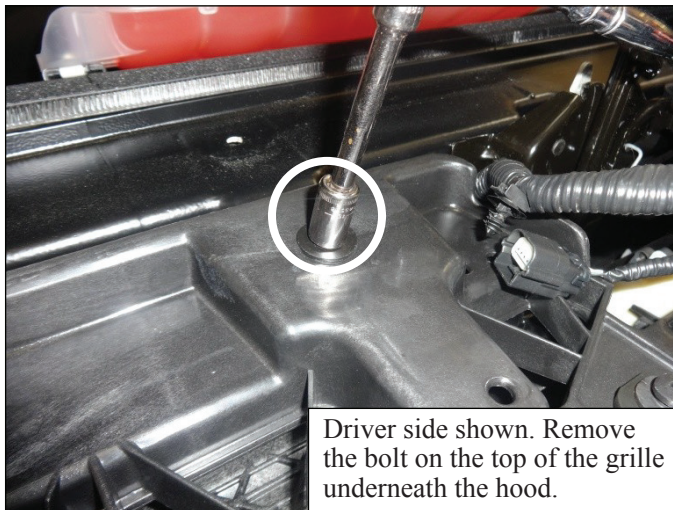


Figure 7

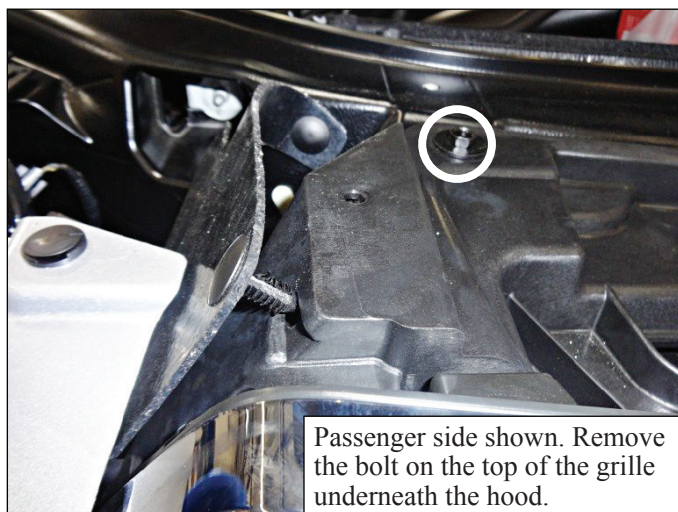


Figure 8





Figure 9

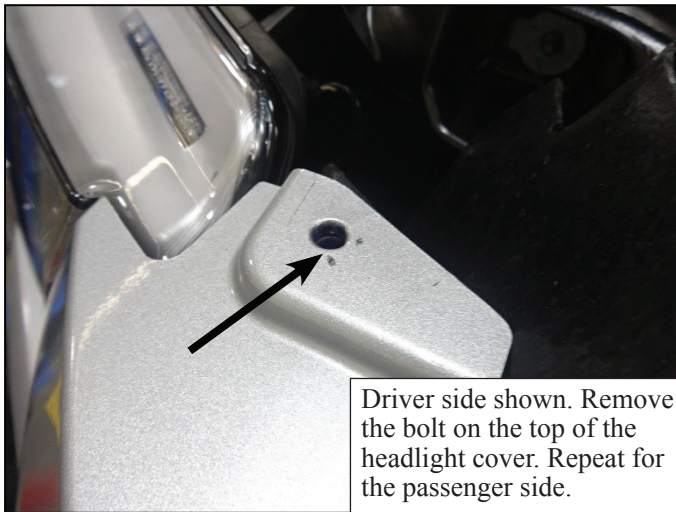


Figure 10

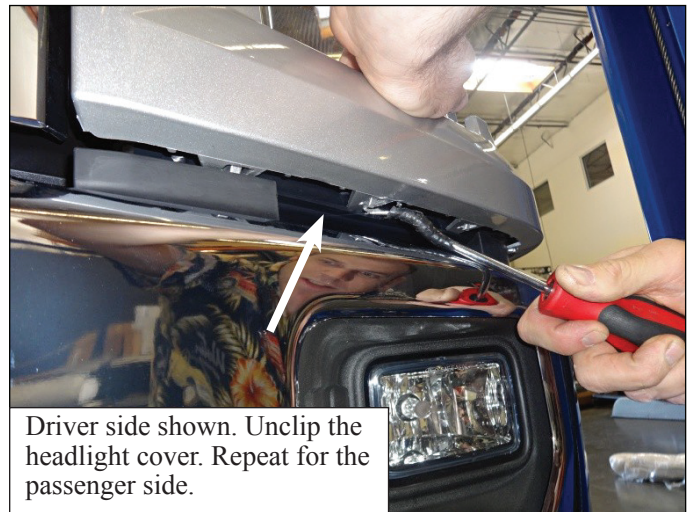


Figure 11



Figure 12

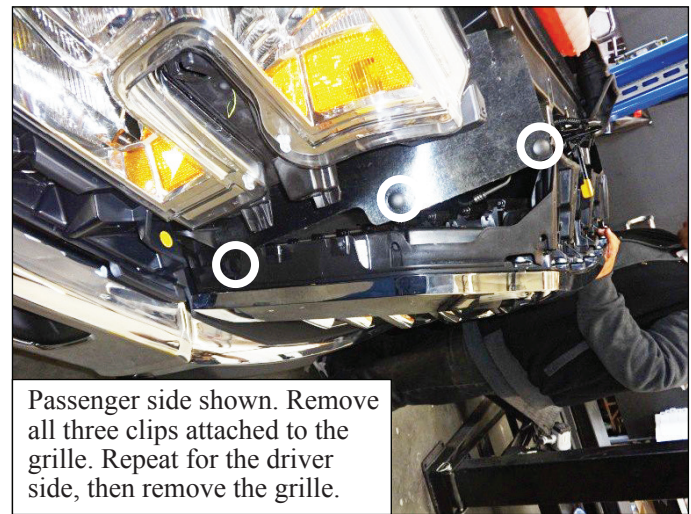


Figure 13

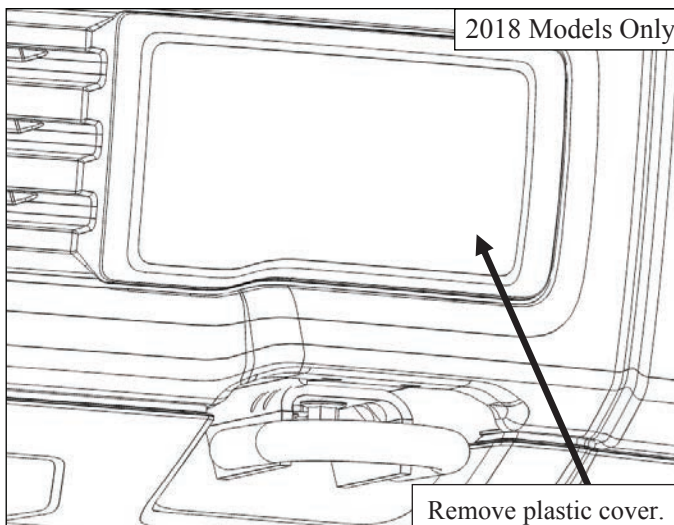


Figure 14

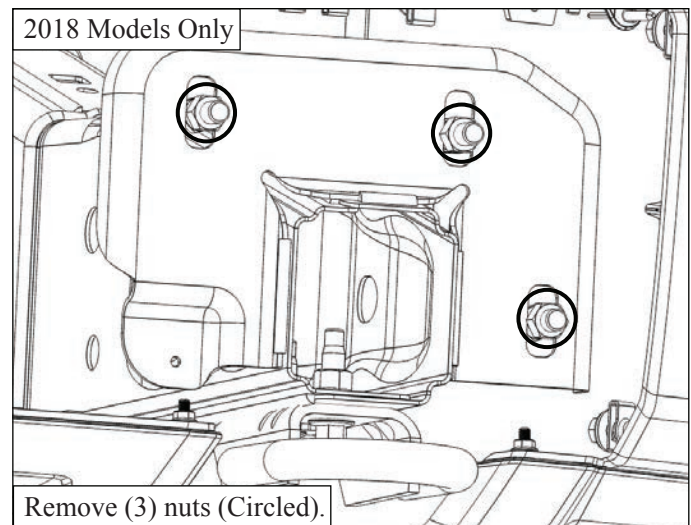




Figure 15

Passenger side shown. Remove the bumper bolt that is furthest to the left under the rubber cover. Repeat for the driver side.



Figure 16

Order of hardware for upper mounting bracket. Driver Side Shown.

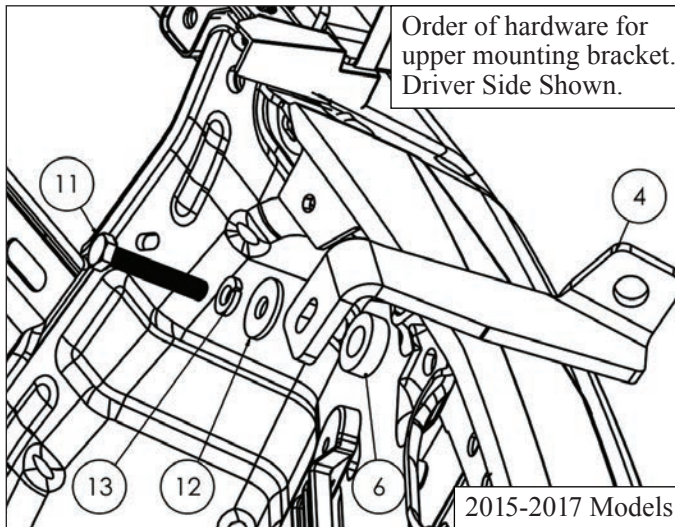


Figure 17

Order of hardware for upper mounting bracket. Driver Side Shown.

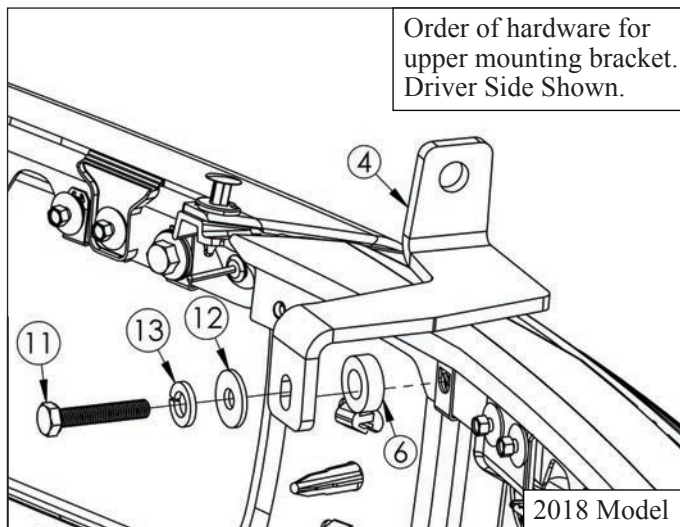


Figure 18

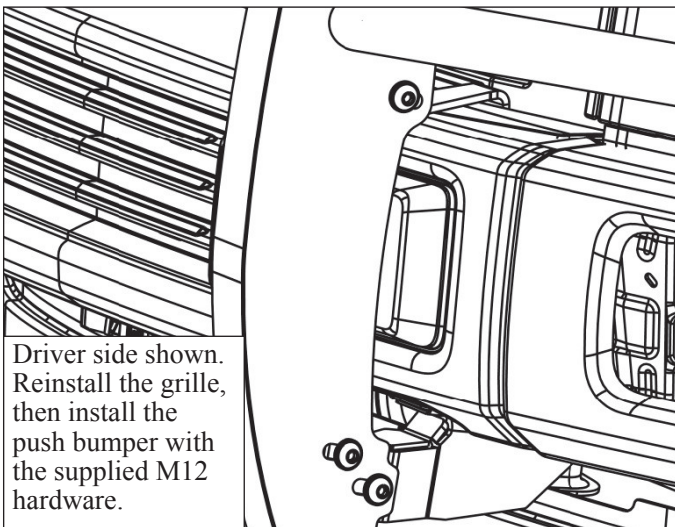
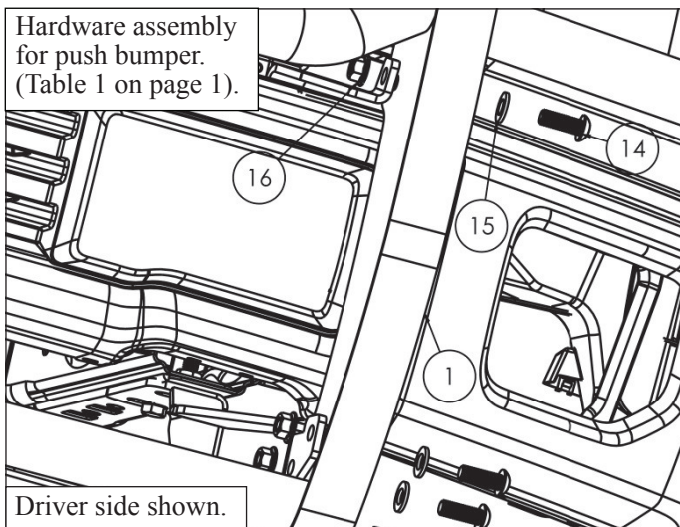


Figure 19

Hardware assembly for push bumper. (Table 1 on page 1).



Driver side shown.

Figure 20

Installation complete.



## **Maintaining the Push Bumper**

Regularly clean stainless steel and gloss black finishes with a mild soap and water. Apply a non-abrasive wax or polish. To polish small scratches on stainless steel, use stainless steel polish. To avoid making scratches on the stainless steel surfaces, follow the grain of the steel while polishing.

## **Getting Technical Support and Service**

Federal Signal Corporation will service your equipment or provide 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 number. The RMA number can be obtained from your local distributor or Federal Signal. Please provide a brief explanation of the service requested or the nature of the malfunction. Contact your local dealer/distributor for replacement parts availability or contact the Federal Signal Service Department (7 a.m. to 5 p.m., Monday through Friday, Central Time) at:

Service Department  
Federal Signal Corporation  
2645 Federal Signal Drive  
University Park, IL 60484-3167  
800-433-9132, 800-343-9706 (fax)



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