

25500630 Rev. A0 0320

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 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).

Table 1 Kit contents and tools needed (See Figure 1)

Item	Qty.	Description	Tool Needed
1	1	Push Bar	Ratchet
2	1	Driver Outer Clamp Bracket	Screwdriver
3	1	Passenger Outer Clamp Bracket	14 mm Wrench
4	1	Driver Inner Clamp Bracket	14 mm Socket
5	1	Passenger Inner Clamp Bracket	Allen Wrench
6	1	Driver Support Strap	15 mm Socket
7	1	Passenger Support Strap	13 mm Socket
8	1	Driver Support Clamp Bracket	10 mm Socket
9	1	Passenger Support Clamp Bracket	8 mm Socket
10	2	M10 Button Head Bolt	6 mm Socket
11	6	M10 Belleville® Washer	Ratchet Ext.
12	6	M10 Serrated Flange Hex Nut	Torque Wrench
13	6	M12 Button Head Bolt	Hammer
14	6	M12 Belleville Washer	Utility Knife
15	6	M12 Serrated Flange Hex Nut	
16	8	M8 Hex Head Bolt	
17	8	M8 Flat Washer	
18	8	M8 Lock Washer	
19	4	M10 Hex Head Bolt	

Installing the Push Bar

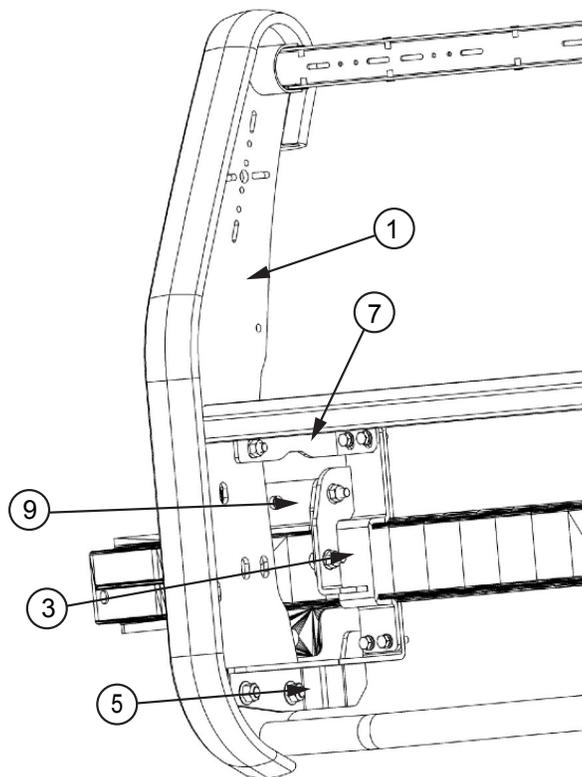
⚠ WARNING

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.

Figure 1



To install the push bar:

1. Remove the entire front grille and fascia (referred to as the front clip) from the front of the vehicle. There are several plastic fasteners and metal screws securing it. Take care not to damage the clip when you remove it. See Figures 2, 3, 4, 5 and 6.

Figure 2

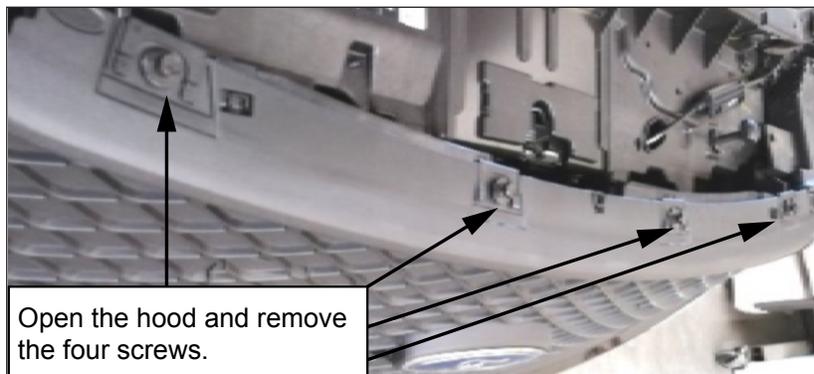


Figure 3

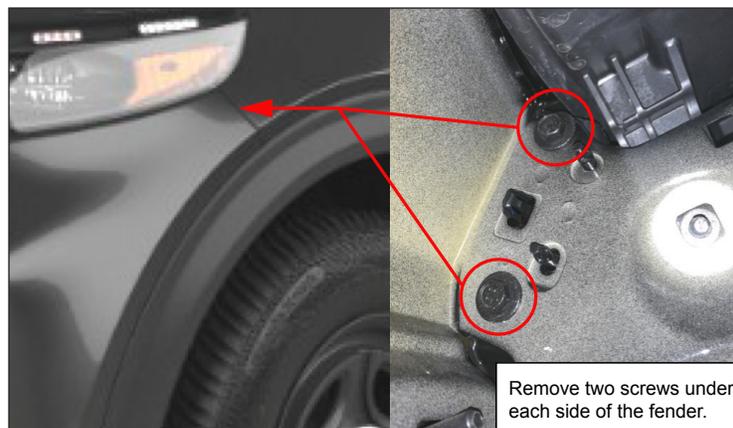


Figure 4



Figure 5

Figure 6



2. Carefully disengage the whole front clip and remove it.
3. Pull the radiator airflow chutes forward to detach them from the radiator support. See Figure 7.

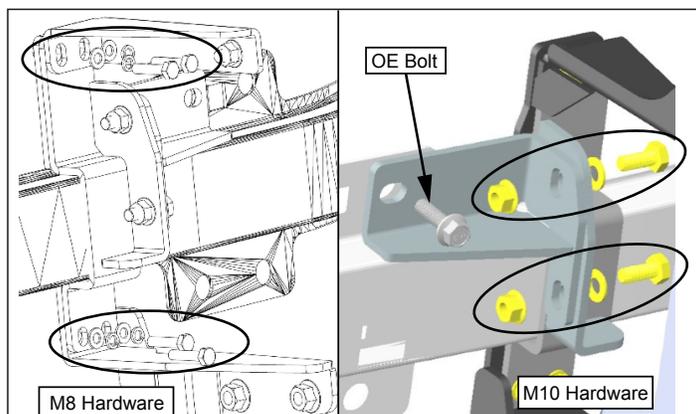
Figure 7



4. Install driver and passenger inner clamp brackets (Items 4 and 5) using the outer clamp brackets (Items 2 and 3), clamp support brackets (Items 8 & 9), M8 hardware, four M10 flange nuts, four M10 flat washers, and four M10 hex bolts. Reuse the factory bolt with the outer clamp bracket. Leave them loose for now. See Figures 8 and 9.

Figure 8

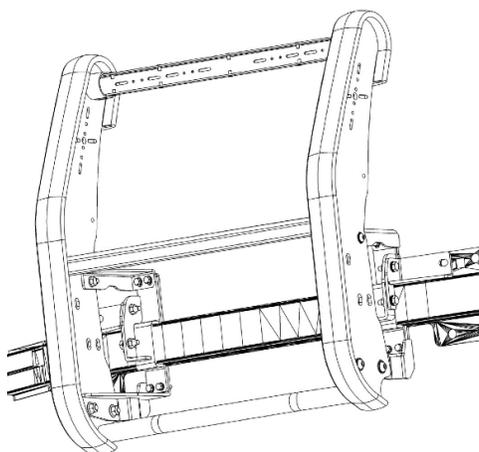
Figure 9



5. With the front clip still removed, hold the push bar up to the brackets and adjust them so that they are centered and will allow the push bar to fit over them loosely. See Figure 10.

NOTE: If installing the Pit Bar, refer to INST SHT PN 25500631.

Figure 10

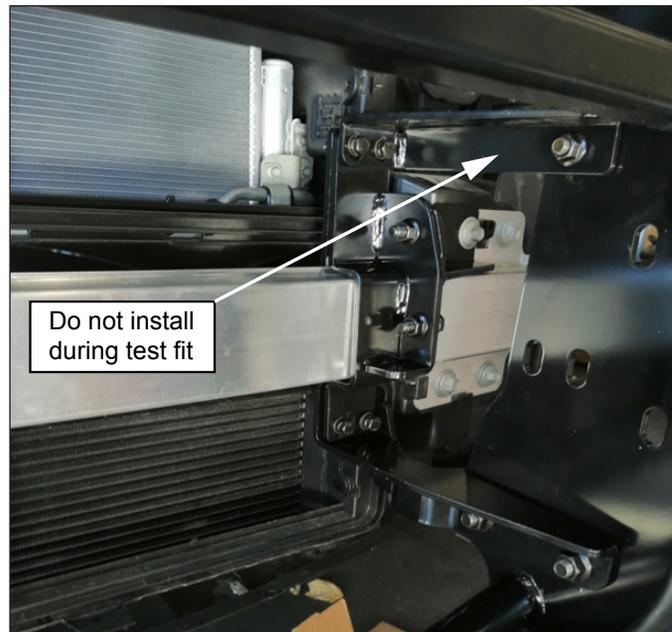


- When you are satisfied with the bracket positioning, tighten the M10 hardware to 30-35 ft-lb and the lower M8 hardware to 24-28 ft-lb. This ensures that the brackets are located properly. See Figure 11. **DO NOT THE INSTALL UPPER MOUNTING BRACKET DURING THE TEST FIT.**

NOTES:

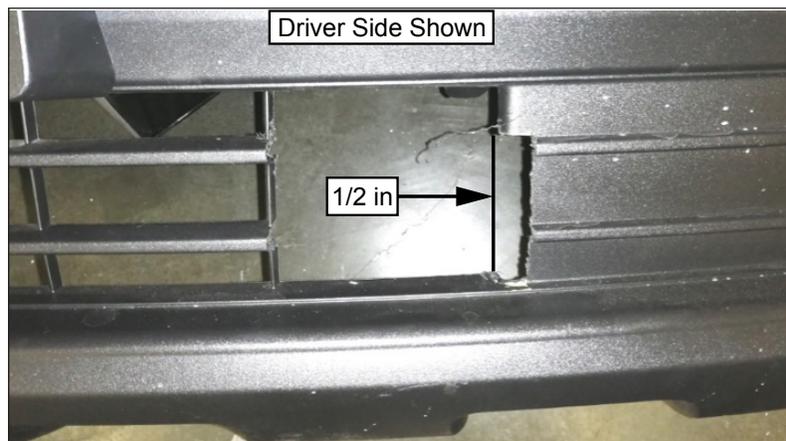
- The upper M8 hardware does not need to be tightened yet.
- If installing the Pit Bar, refer to INST SHT 25500631.

Figure 11



- Remove the push bar to reinstall the fascia and trim. Reinstall the radiator airflow chutes per Figure 6 by trimming them as needed to clear the brackets. Before installing the front fascia, trim the lower grille slots and trim 1/2 inch into the solid area at both grille ends as shown in Figure 12. Carefully reinstall the front grille and fascia.

Figure 12

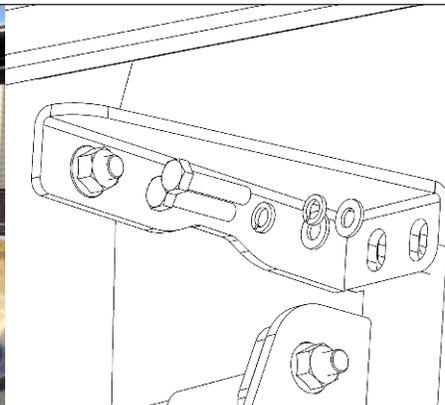


- Remove the four upper M8 hardware that was previously installed in the outer and inner clamp brackets. Install the upper mounting brackets (Items 6 and 7) onto the outer clamp brackets as shown in Figures 13 and 14. Leave the hardware loose for now.

Figure 13



Figure 14



9. Loosely install the push bumper to the lower bracket using the M12 hardware and to the upper support brackets using M10 hardware. (Figures 15 and 16).

NOTE: If lights are to be installed, install them on the push bar prior to bolting the push bar to the vehicle.

Figure 15

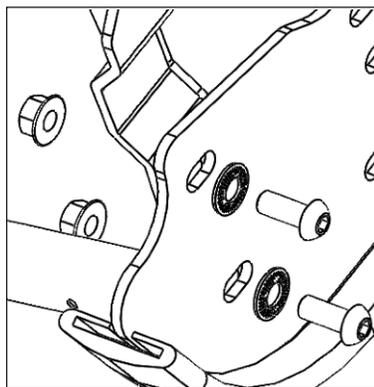
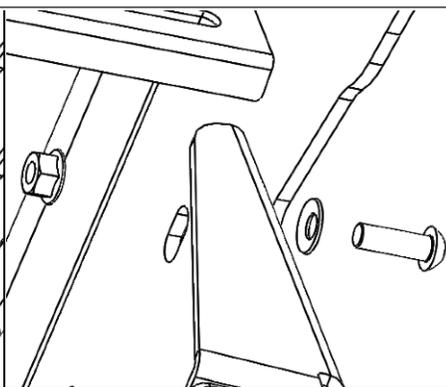


Figure 16

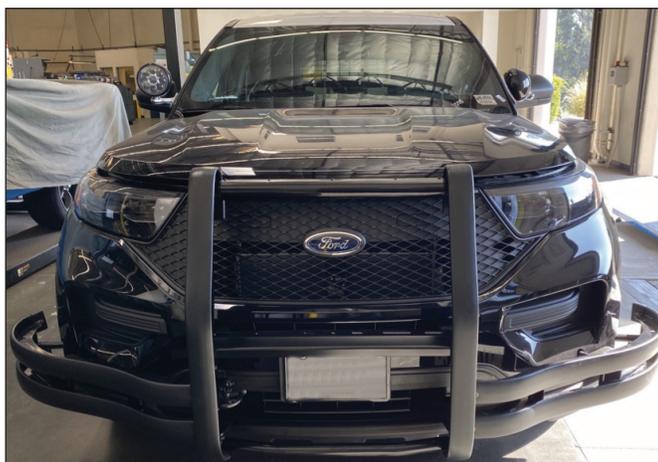


10. Align and adjust the push bar as necessary.

11. Tighten all remaining hardware (including the M8 hardware which is accessible using a long extension):

- M12 to 50-55 ft-lb
- M10 to 30-35 ft-lb
- M8 to 24-28 ft-lb

Figure 17



Maintaining the Push Bar Assembly

Regularly clean stainless steel and glossy 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 scratching the stainless steel surfaces, follow the grain of the steel while polishing. Take care not to apply the polish to the light heads.

Getting Technical Support

For technical support, please contact:

Federal Signal Corporation
Service Department
Phone: 1-800-433-9132
Email: 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. 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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