

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. 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.

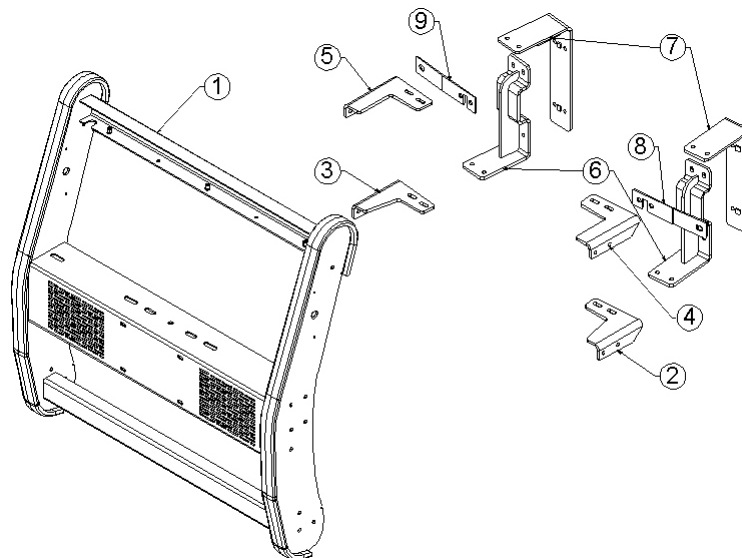
Unpacking the Product

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 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 (See Figure 1)

Item	Description	Qty.
1	Push Bumper Assembly	1
2	Driver Side Lower Bracket	1
3	Passenger Side Lower Bracket	1
4	Driver Side Upper Bracket	1
5	Passenger Side Upper Bracket	1
6	Lower Bumper Bracket	2
7	Upper Bumper Bracket	2
8	Driver Side Locating Bar	1
9	Passenger Side Locating Bar	1
10	5/16-18 x 1.25-inch Hex Head Bolt	8
11	5/16-18 x 1.5-inch Hex Head Bolt	8
12	5/16-18 x 1.5-inch Button Head Bolt	8
13	5/16 Flat Washer	40
14	5/16 Lock Washer	24
15	5/16 Hex Nut	16

Figure 1 Kit parts



Installing the Push Bumper

⚠ 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 push bumper:

1. Remove the front fascia per the manufacturer's instructions. Refer to Figures 2, 3, 4, 5, and 6 for the locations of all fasteners that need to be removed to remove the fascia.

Figure 2 Fascia fastener locations in wheel well

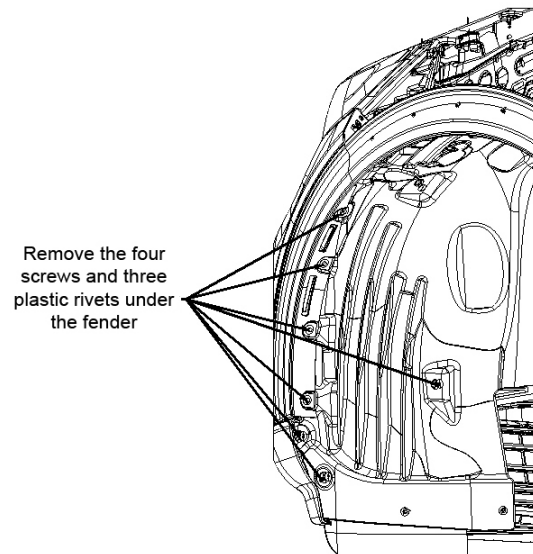


Figure 3 Fascia fastener locations under vehicle

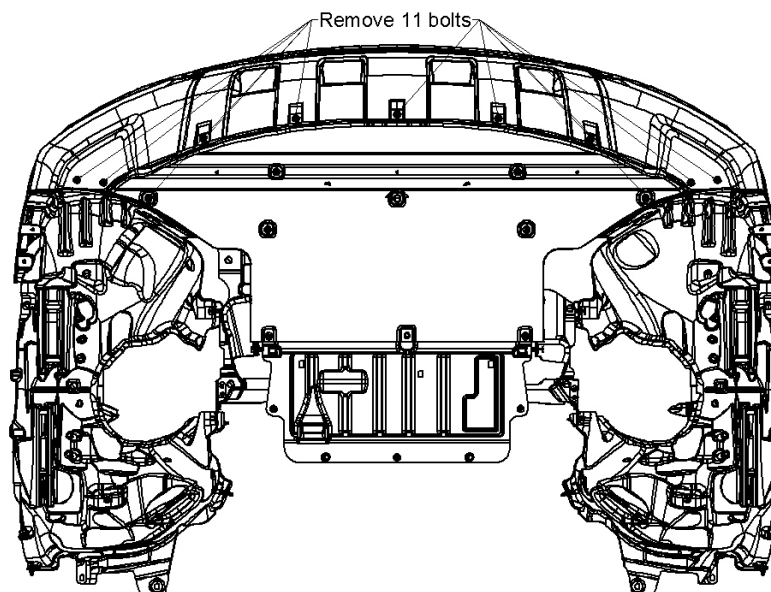


Figure 4 Fascia fastener locations under hood

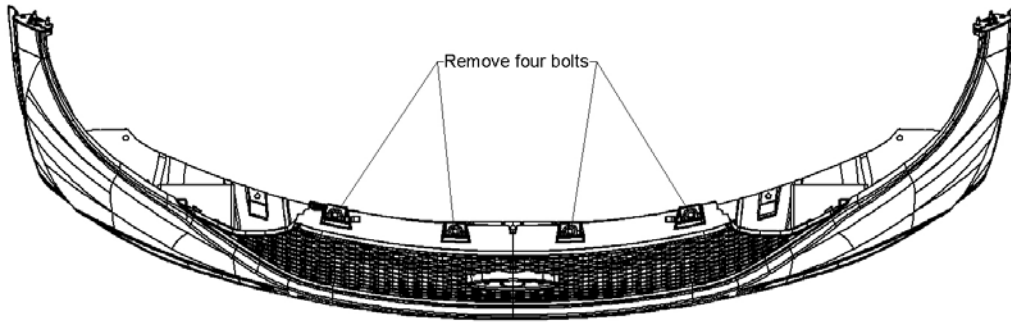
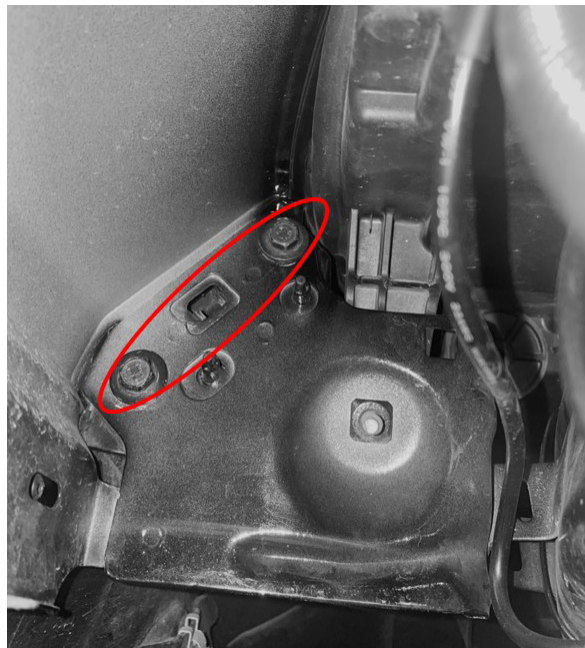


Figure 5 Fascia fastener fender location

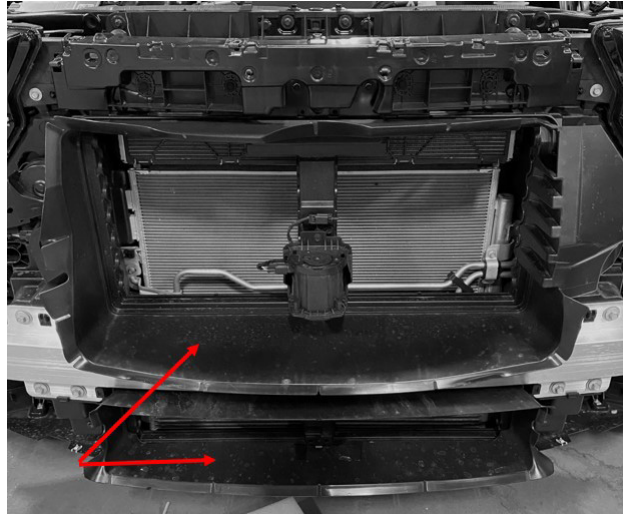


Figure 6 Fascia fender fasteners to be removed



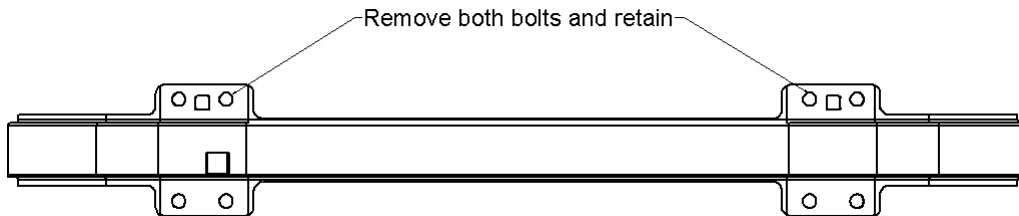
2. Pull the radiator airflow chutes forward to detach them from the radiator support. See Figure 7.

Figure 7 Radiator airflow chutes to be removed



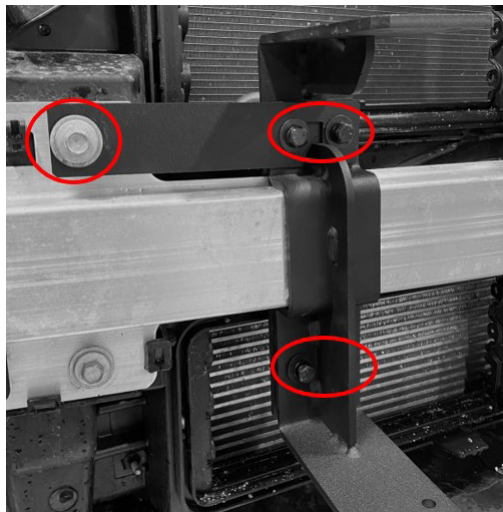
3. Remove the bolts from the vehicle bumper in the locations shown in Figure 8.

Figure 8 Remove bolts



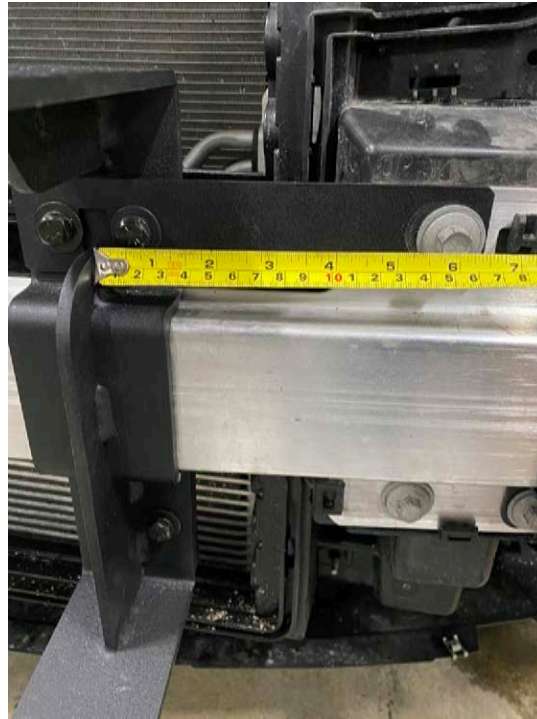
4. Loosely install the driver and passenger bumper brackets and the driver and passenger locating bars (Items 6, 7, 8 and 9) to the vehicle's bumper as shown in Figure 9 using the flat washers, lock washers, and 5/16-18 by 1.25-inch hex head bolt. Reuse the factory bolts that were removed in the previous step with the locating bars.

Figure 9 Passenger side brackets installed



5. To ensure that the brackets will pass through the fascia unobstructed, ensure that the distance from the middle rib of the lower bumper bracket to the center of the factory bolt is approximately six inches. Tighten all hardware.
- Torque factory bolt to 35 ft-lb
 - Torque 5/16-inch bolts to 24-28 ft-lb

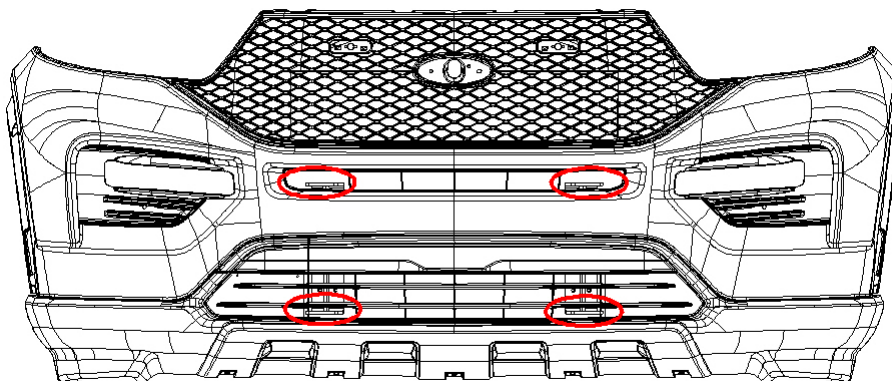
Figure 10 Bracket location



NOTE: If installing the the lower guard, refer to instruction sheet part number 25500797 that is included with the lower guard assembly.

6. Trim the radiator airflow chutes as needed to clear the brackets and reinstall them to the radiator support.
7. Carefully reinstall the fascia back onto the vehicle, ensuring that the brackets protrude through the indicated locations in Figure 11.

Figure 11 Reinstall fascia

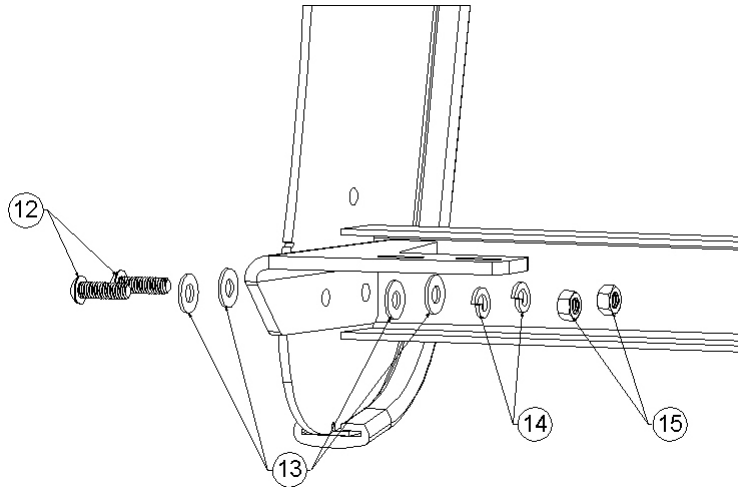


- Using the 5/16-18 by 1.5-inch button head bolts, lock washers, flat washers, and hex nuts, install the driver and passenger upper and lower brackets to the push bumper. See Figure 12.

NOTE: If installing the lower guard, do not tighten the forward-most bolt on the lower bracket.

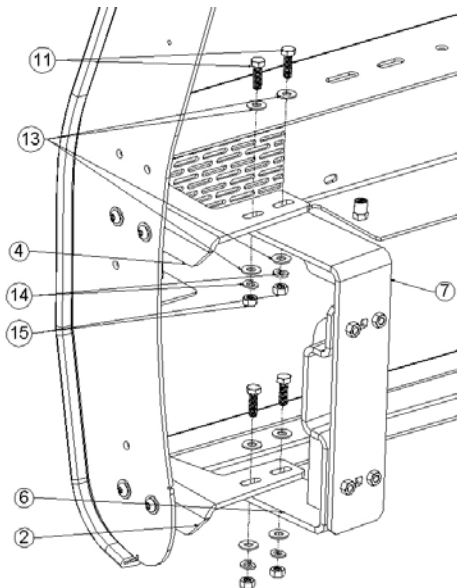
- Torque 5/16-inch bolts to 24-28 ft-lb

Figure 12 Attach brackets to push bumper



- With the assistance of another technician, position the push bumper over the brackets that are installed on the vehicle and insert the 5/16-18 by 1.5-inch hex head bolts, lock washers, and flat washers through each bracket and loosely tighten. See Figure 13.

Figure 13 Insert bolts, lock washers, and flat washers



- Align and adjust the push bumper as necessary and tighten all hardware.

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

Maintaining the Push Bumper 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

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. 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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