

25500233 Rev. A0 0915

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.

Table 1 Kit contents and tools needed (Figure 1)

Item	Qty.	Description	Tools Needed
1	1	Push Bar Assembly	Ratchet
2	2	Lower Mounting Bracket (driver side shown)	Screwdriver
3	2	Clamp Bracket (driver side shown)	14 mm Wrench
4	2	Upper Mounting Bracket (driver side shown)	14 mm Socket
5	4	M12 Cupped Washer, (Black Plated S.S.)	Allen Wrench
6	4	M12 Flange Nut (Black-Plated S.S.)	18 mm Wrench
7	4	M12 Hex Socket Button-Head Screw (Black Plated S.S.)	15 mm Wrench
8	2	M10 Cupped Washer (Black-Plated S.S.)	13 mm Socket
9	2	M10 Flange Nut (Black-Plated S.S.)	10 mm Socket
10	2	M10 Hex Socket Button-Head Screw (Black Plated S.S.)	8 mm Socket
11	8	M8 Hex-Head Bolt (Black Zinc)	6 mm Socket
12	4	M8 Flange Nut (Black Zinc)	Ratchet Extension
13	8	M8 Flat Washer (Black Zinc)	Torque Wrench
14	4	M8 Split Lock Washer (Black Zinc)	Hammer
15	2	M12 Flat Washer (Yellow Zinc)	Utility Knife
16	2	M12 Flange Nut (Yellow Zinc)	
17	2	M12 Long Hex Bolt (Yellow Zinc)	
18	4	Oil Cooler Relocator Bracket (use with Turbo only)	
19	4	M6 Carriage Screw (Black Zinc) (use with Turbo only)	
20	4	M6 Flange Nut (Black Zinc) (use with Turbo only)	
--	1	3/4" Plastic Split Loom (use with Turbo only)	

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 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.

Figure 1 Exploded view of installed push bar (see Table 1)

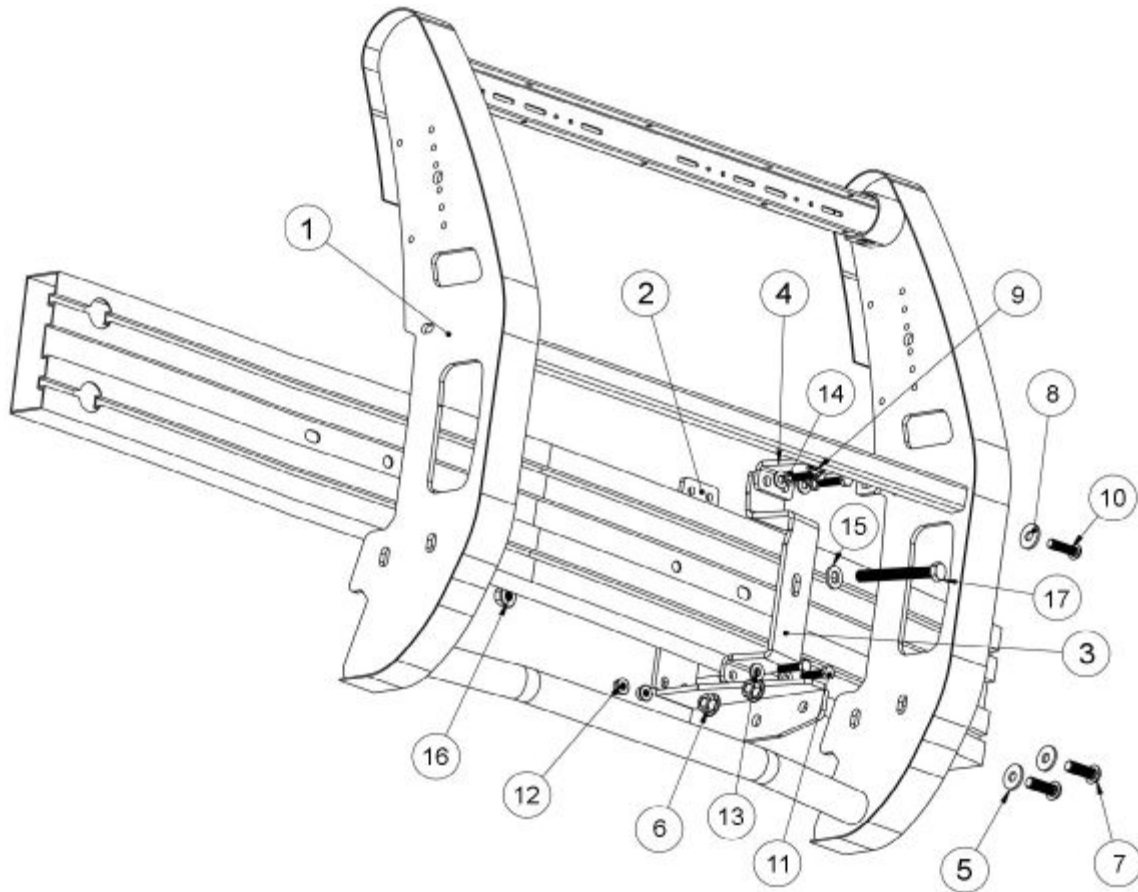
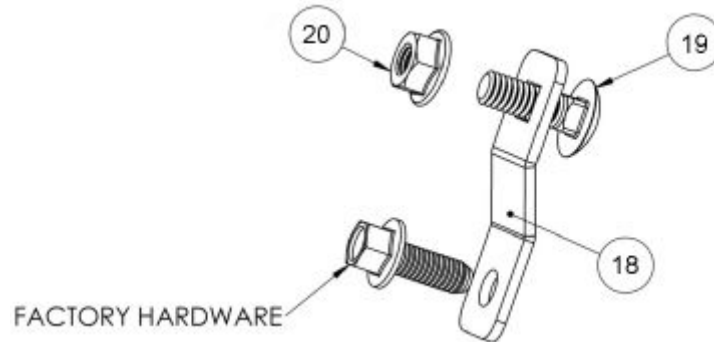


Figure 2 Oil cooler relocater bracket and hardware orientation (2015 Turbo only)



Installing the PBX01 and PBX05 (2016+) Push Bars on the Ford Police Interceptor® Utility (2012 and newer)

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 a number of plastic fasteners and metal screws securing it. Take care not to damage the clip you remove it (Figures 3, 4 and 5).
2. If the vehicle has excess material hanging off the lower edge of the bumper channel it must be trimmed in the area shown in (Figure 6) with a grinder or saw in order to allow the brackets to fit. Alternatively, a hammer can be used to flatten the edge flush. Refer to Figure 6.

Figure 3



Figure 4

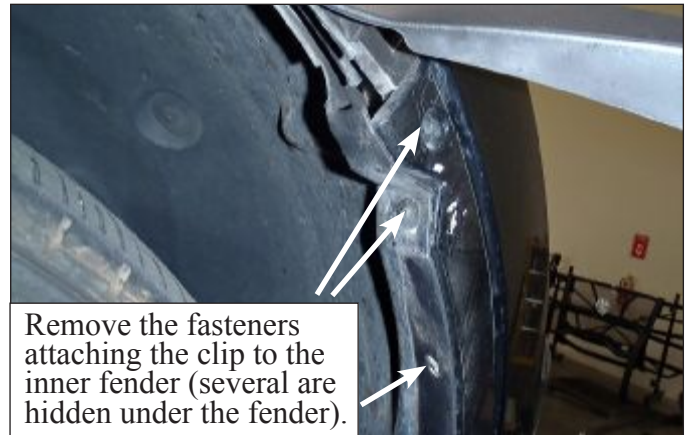


Figure 5

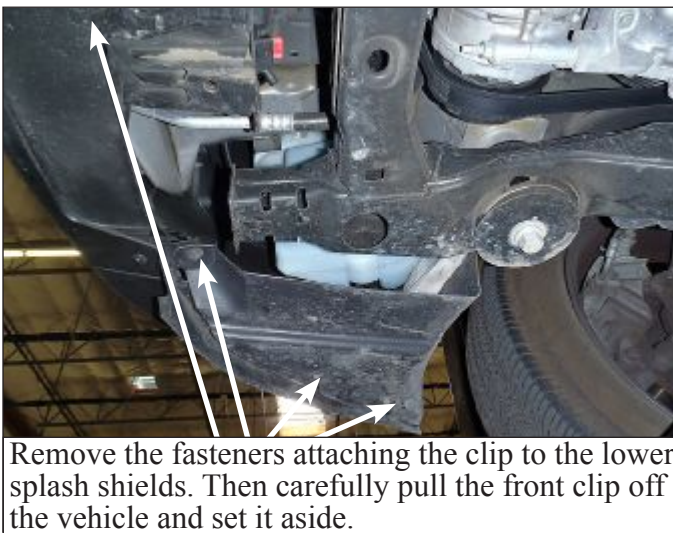
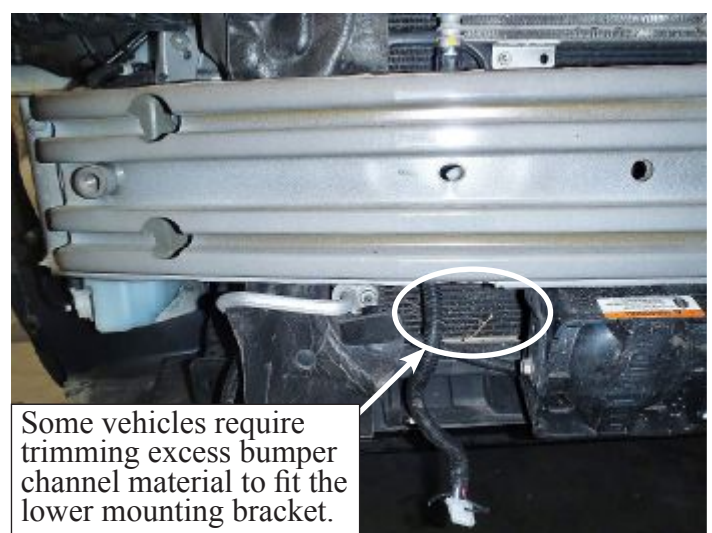


Figure 6



3. **For 2015+ Turbo equipped vehicles only:** The oil cooler must be relocated vertically in order to allow the Push Bumper mounting brackets to fit. Remove the factory hardware attaching the oil cooler to the vehicle. Re-use this hardware to attach the relocater brackets to the vehicle. Use the supplied M6 carriage screws and flange nuts to re-attach the oil cooler to the relocater brackets. Use the supplied split loom tubing to protect the oil line from chafing. Refer to Figures 7 and 8 on page 5.

Figure 7

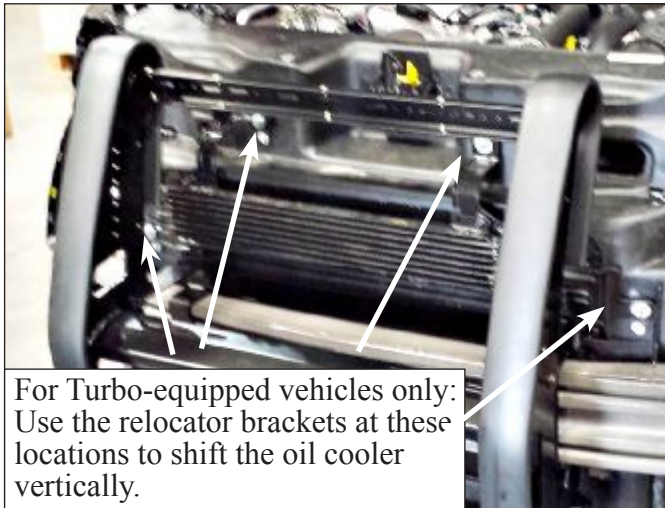
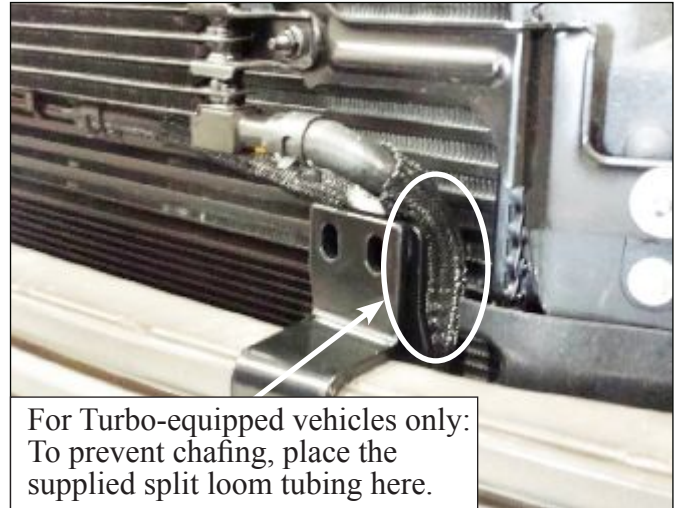


Figure 8

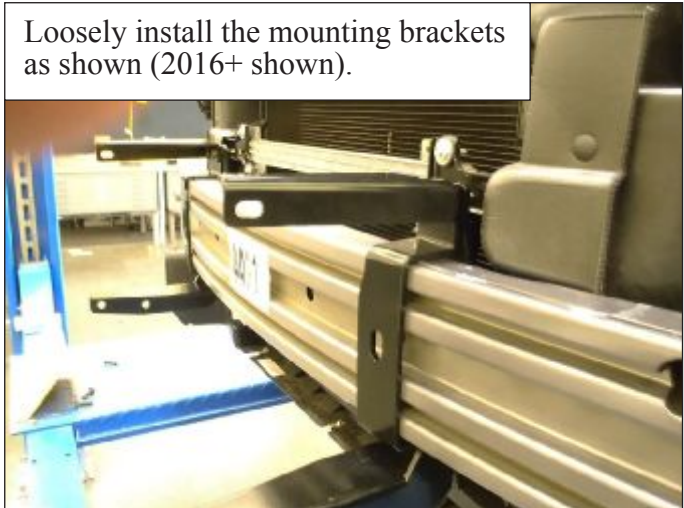


4. Loosely install the mounting brackets, clamp and upper brackets to the exposed bumper bar as shown in (Figures 9 and 10). The long M12 bolts go all the way through the bumper channel. The M8 hardware is used to secure the clamp bracket and upper bracket to the mounting bracket.

Figure 9



Figure 10



5. With the front clip still removed from the vehicle, 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. When you are satisfied with the bracket positioning tighten the long M12 bolts 40-45 ft-lb and the lower M8 hardware 24-28 ft-lb. This ensures that the brackets are located properly.

NOTE: The upper support brackets need to stay a little loose to allow the clip to fit back over them.

6. Test fit the vehicle's front clip (the upper support brackets may need to be pushed slightly inboard in order to allow the clip to slip over them). There is a plastic crash channel inside the clip that will interfere with the brackets. Trim the crash channel as necessary in order to reinstall the front clip (removing it from the front clip makes trimming easier). Additionally, there is a lower grille in the clip that will interfere with the lower mounting brackets; either remove it or trim it as necessary. Refer to Figure 11 on page 6.

Figure 11

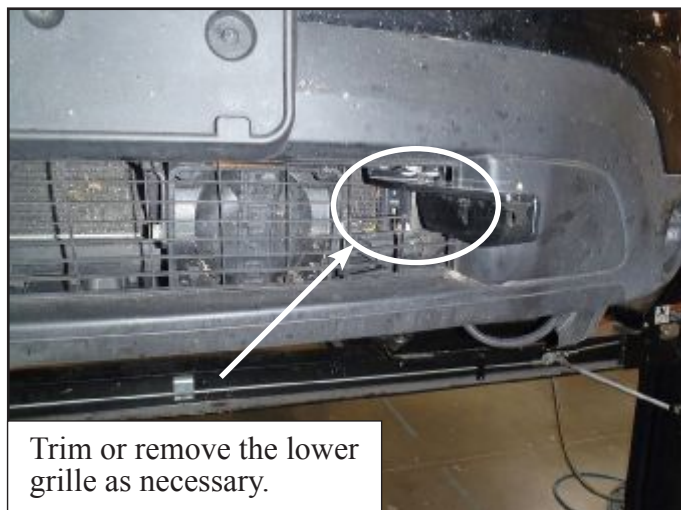


Figure 12

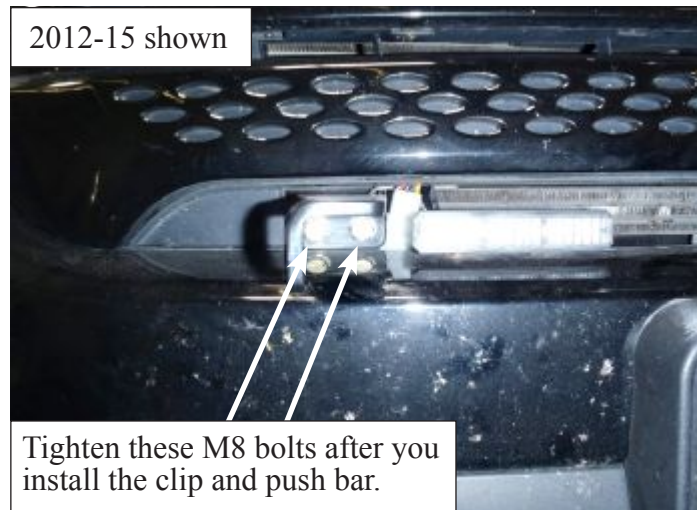
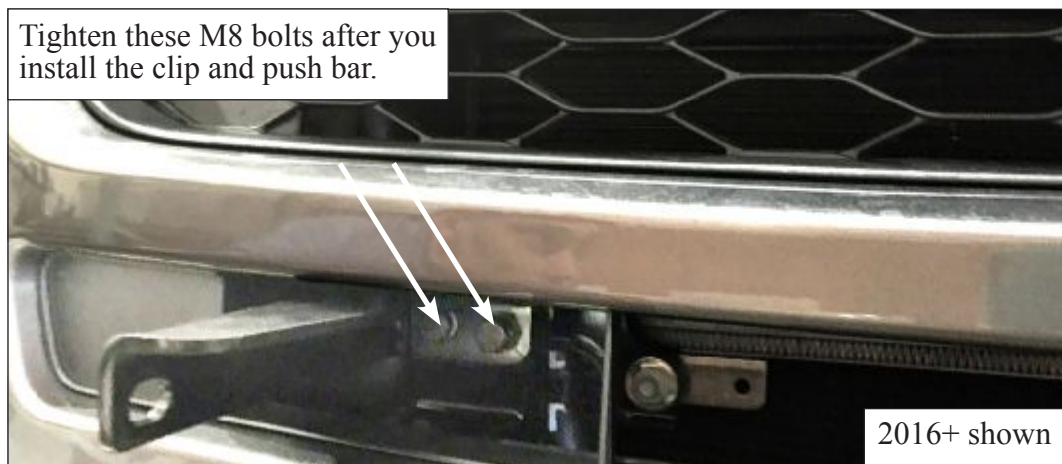


Figure 13



8. Reinstall the front clip in reverse order that it was removed. Re-install the plastic radiator cover.
9. Loosely install the push bar to the lower brackets using the black M12 hardware and to the upper support brackets using the black M10 hardware.
NOTE: If lights are to be installed, it is best to install them on the push bar prior to bolting the push bar to the vehicle.
10. Align and adjust the push bar as necessary.
11. Tighten all remaining fasteners as follows:
 - M6: to 7-8 ft-lb
 - M8: 24 to 28 ft-lb (including the M8 hardware that is accessible using a long extension as shown in Figures 12 and 13).
 - M10 to 30-35 ft-lb
 - M12 to 50-55 ft-lb

Figure 14



Figure 15



Maintaining the Push Bar Assembly

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 scratching the stainless steel surfaces, follow the grain of the steel while polishing. Take care not to apply the polish to the lightheads.

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



2645 Federal Signal Drive, University Park, IL 60484-3167
Phone: 708-534-3400 • 800-264-3578 Fax: • (800) 682-8022
www.fedsig.com

Police Interceptor is a registered trademark of the Ford Motor Company.