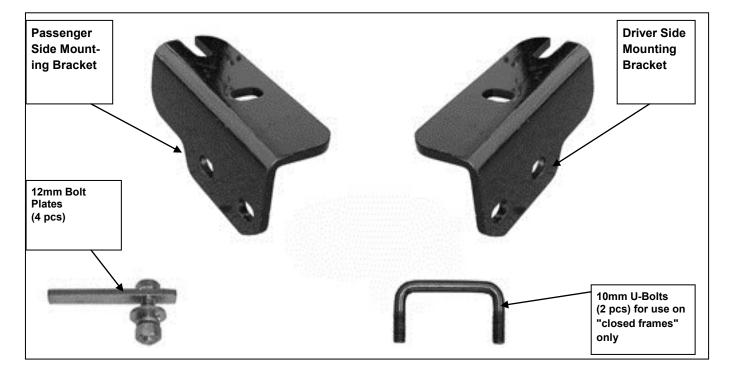


INSTALLATION INSTRUCTIONS

APPLICATION: 2004-2015 FORD F-150 & 2003-2014 FORD EXPEDITION E-SERIES BULL BAR: 31-5390 & 31-5490

AUTOMOTIVE PRODUCTS,

ITEM	QUANTITY	DESCRIPTION	TOOLS NEEDED
1	1	BULL BAR AND SKIDPLATE ASSEMBLY	RATCHET
2,3	2	MOUNTING BRACKET, DRIVER/PASSENGER	TORQUE WRENCH
4	4	M12 BOLT PLATE	18MM SOCKET
5	4	M12 HEX HEAD BOLT	18MM WRENCH
6	8	M12 LOCK WASHER	16MM WRENCH
7	4	M12 SMALL FLAT WASHER (BRACKET TO FRAME MOUNTING)	16MM SOCKET
8	8	M12 LARGE FLAT WASHER (BULL BAR TO BRACKET MOUNTING)	UTILITY KNIFE
9	8	M12 HEX NUT	
10	2	M10 U-BOLT (USE ON CLOSED FRAMES)	
11	4	M10 FLAT WASHER	
12	6	M10 LOCK WASHER	
14	4	M10 HEX NUT	





PROCEDURE:

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CARE FULLY BEFORE STARTING INSTALLATION.

NOTE: It may be necessary to remove/relocate the front license plate and license plate bracket. It is not required, but strongly recommended. If local/state law requires a license plate, license plate relocation kit is available.

NOTE: It may be necessary to remove the lower plastic portion of the bumper to gain access to the ends of the frame rails. The indented pockets in the lower bumper will need to be cut out to allow the Mounting Brackets to pass through.

2. Vehicles with Factory Tow Hooks

Remove tow hooks by removing the front bolt and only loosening the rear bolt. Slide the tow hooks off. Keep the factory double nut plate in the frame and aligned with the holes. **NOTE:** This Bull Bar is not compatible with the factory tow hooks, so you will not be reinstalling the tow hooks.

Position the Mounting Bracket up to the bottom of the frame and secure it with the factory tow hook bolts and factory double nut plate. (Figure 1).

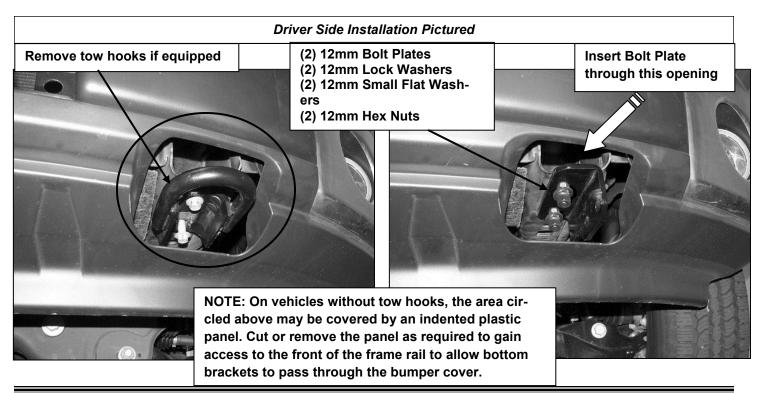
Vehicles without Tow Hooks

Starting on the driver side of the vehicle, insert (1) 12mm Bolt Plate through the opening in the open front end of the frame and down through the rear hole in the bottom of the frame, (Figure 2). Thread (1) 12mm Small Flat Washer, (1) 12mm Lock Washer and (1) 12mm Hex Nut onto the threaded end of the Bolt Plate. Slide the slotted end of the driver side Mounting Bracket under the nut and washers. Insert the second 12mm Bolt Plate through the remaining hole toward the front of the Mounting Bracket. Secure with (1) 12mm Lock Washer, (1) 12mm Small Flat Washer and (1) 12mm Hex Nut. Snug but do not tighten the hardware at this time.

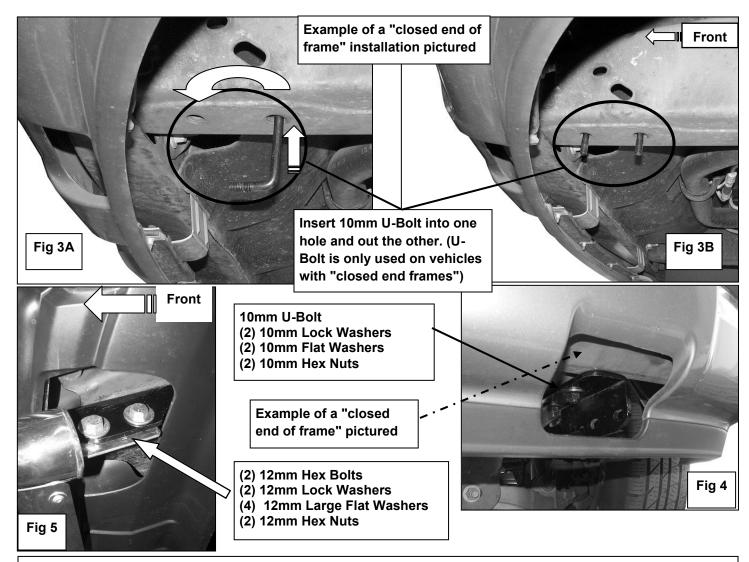
Vehicles with "closed ends" on front of frame

Starting on the driver side of the vehicle, locate the two holes on the bottom of the frame. Insert (1) 10mm U-Bolt into one hole and out the other, (Figure 3A & 3B). Hold the driver side Mounting Bracket in position with the slotted end toward the rear. Secure the Mounting Bracket to the U-Bolt with (2) 10mm Flat Washers,

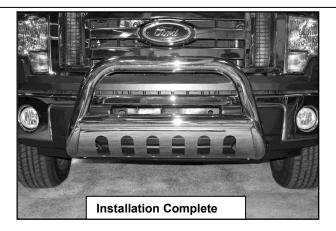
- (2) 10mm Lock Washers and (2) 10mm Hex Nuts, (Figure 4). Snug but do not fully tighten the hardware.
- 3. Repeat the appropriate Step 3 for the passenger side Mounting Bracket installation.
- 4. With help position the Bull Bar on the inside of the Mounting Brackets. Use the included (4) 12mm Hex Bolts, (4) 12mm Lock Washers, (8) 12mm Large Flat Washers and (4) 12mm Hex Nuts to attach the Bull Bar to the Mounting Brackets, (Figure 5). Do not fully tighten at this time.
- 5. Align and adjust the Bull Bar as necessary, tighten and torque all hardware. M10 to 30-35 ft-lbs., M12 to 50-55 ft-lbs.







NOTE: On vehicles without tow hooks, this area may be covered by an indented plastic panel. Cut or remove the panel as required to gain access to the front of the frame rail to allow bottom brackets to pass through the bumper cover.



CARE INSTRUCTIONS

- REGULAR WAXING IS RECOMMENDED. DO NOT USE ANY TYPE OF POLISH OR WAX THAT MAY CONTAIN ABRASIVES.
- STAINLESS STEEL PRODUCTS CAN BE CLEANED WITH MILD SOAP AND WATER. STAINLESS STEEL POLISH SHOULD BE USED TO POLISH SMALL SCRATCHES.
- GLOSS BLACK FINISHES SHOULD BE CLEANED WITH MILD SOAP AND WATER.

