

GO RHINO®

INSTALLATION INSTRUCTIONS

PART NO.

- 24397T

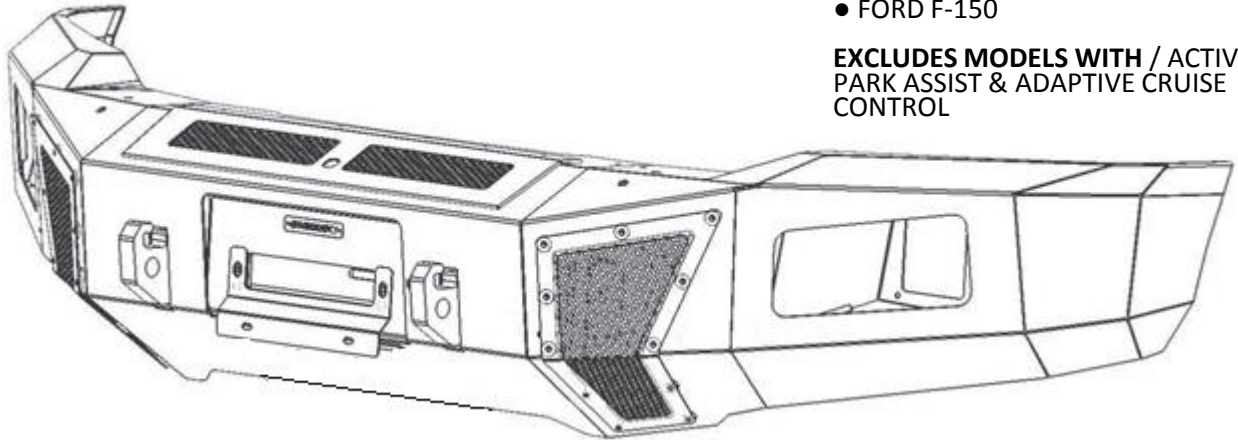
PRODUCT DESCRIPTION:

- BR6 BUMPER REPLACEMENT

APPLICATION:

- FORD F-150

**EXCLUDES MODELS WITH / ACTIVE
PARK ASSIST & ADAPTIVE CRUISE
CONTROL**



PRODUCT SAFETY & LEGAL DISCLAIMER

- **IMPORTANT READ ALL INSTRUCTIONS CAREFULLY BEFORE INSTALLING, FAILURE TO DO SO MAY CAUSE PERSONAL INJURY OR DAMAGE TO PRODUCT AND/OR PROPERTY.**
- **Review the product package and contents prior to beginning the installation.** Take care when opening the packaging and removing items. If a return is needed you will want to return the product in its original packaging if possible.
- This instruction guide is provided as a GENERAL installation guide, some vehicles vary dimensionally and may require additional steps.
- Test fit the product on the vehicle prior to any third party modifications and or finishing. The manufacturer and/or distributors do not accept responsibility for third party charges, labor and or third part replacement modifications. Some modifications may void the factory warranty.
- Exercise due-diligence when installing this product. The manufacturer and distributors of this product do not accept any responsibility for vehicle damage or personal injury resulting from the installation of this product. Careless installation and operation can result in serious injury or equipment damage.
- This product is for general off-road use. All liability for installation and use rests with the owner/operator.
- **INSTALLER:** Once installation is complete, please return this guide along with other documentation included in this product back to the consumer for future reference. The manufacturer/distributors of this product do not guarantee this particular version will be available at a later date.



INSTALLATION INSTRUCTIONS

INJURY HAZARD

Please complete a shop and tool inspection prior to beginning the installation.

- Always make sure you have a clean, dry and well lit work area.
- Always remove jewelry, loose fitting clothing and wear protective gloves and eye protection.
- Always use extreme caution when jacking or raising a vehicle for work. Set the emergency brake and use tire/wheel blocks and jack stands. Refer to the vehicle manufacturer hand book. Utilize the vehicle manufacturers designated lifting points.
- Always use appropriate and adequate care in lifting parts during disassembly and installation. Seek help in lifting heavy or large items into place. Utilize jacks and or lifting devices when available.
- Always insure products are secure during disassembly and installation.
- Always wear eye protection and take steps to protect any exposed skin during the installations. Drilling, cutting and grinding plastic and metal may create flying particles that can cause injury.
- Always use extreme caution when drilling, cutting and or grinding on a vehicle. Thoroughly inspect the area to be drilled, on both sides of material, prior to modification and relocate any objects that may become damaged.
- Always assemble and tighten all fasteners per the installation instructions.
- Always route electrical cables carefully. Avoid moving parts, parts that may become hot and rough or sharp edges.
- Always insulate and protect all exposed wiring and electrical connections.

MAINTENANCE AND CARE

- Always perform regular inspections and maintenance on mounts and related fasteners.
- Periodically check and tighten all fasteners.
- Stripped, fractured, or bent fasteners must be replaced.
- After washing the vehicle make sure to fully dry all surfaces.
- In areas with cold temperatures make sure to wash the product often to remove harmful materials used on road ways.
- Never use abrasive cleaners or polish compounds. Clean with a gentle soap and water. If you use wax use a non-abrasive automotive wax such as pure carnauba wax.

WARNING

Some products have been designed to work together with factory rear sensor systems, factory forward facing sensor systems and factory air bags.

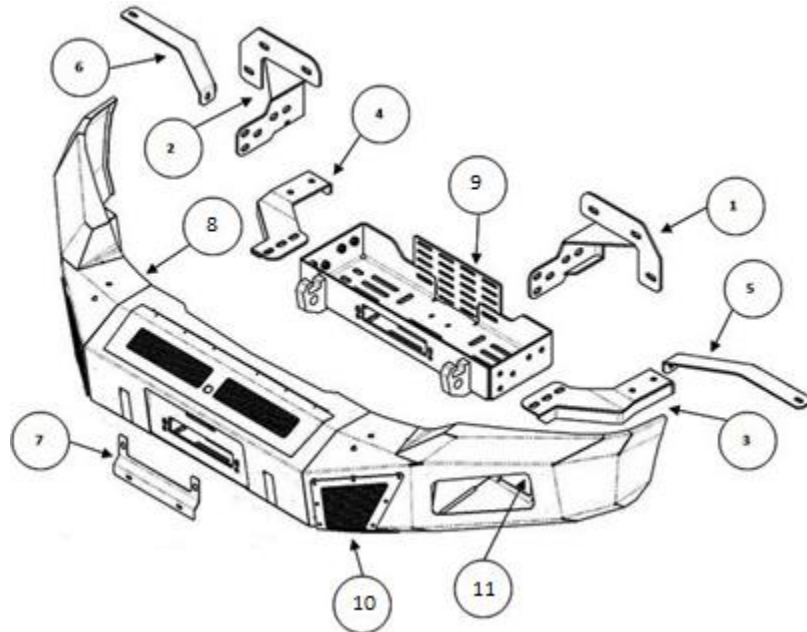
- Installation of some of these products may alter the factory sensor system performance.
- Factory sensors may read shackles or hooks protruding from the fairlead and or tow hooks.
- All sensor testing is completed by Go Rhino Products and or third party testing labs on modified vehicles.
- Sensor sensitivity, factory sensor housing, orientation, and operating conditions are all variables that will influence functionality of the sensors.
- Installation of some product may effect the factory air bag systems.
- Some products allow the use of third party products such as winches, shackles, hooks, etc. Follow the respective manufacturers operating instructions for use with our products.
- Make sure to fully understand the product, it's intended use and operation prior to use.
- Above all... be safe!

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PARTS INCLUDED IN THIS LIST:

ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1	1	Frame Bracket (driver)	10	2	Vent Covers (pre installed)	19	4	3/8" Hex Nut
2	1	Frame Bracket (passenger)	11	2	Light Pod Plates (pre installed)	20	14	1/2" x 1 1/2" Hex Bolt
3	1	Auxiliary Bracket (driver)	12	1	5/8" Hitch-Pin	21	2	Vinyl Gasket
4	1	Auxiliary Bracket (passenger)	13	1	Hairpin Cotter Pin	22	8	1/2" x 1 1/2" Carriage Bolt
5	1	Support Bracket (driver)	14	1	Threaded Rod	23	24	1/2" Flat Washer
6	1	Support Bracket (passenger)	15	1	Threaded Knob	24	24	1/2" Lock Washer
7	1	License Plate Bracket	16	4	3/8" x 1 1/4" Hex Bolt	25	14	1/2" Hex Nut
8	1	Bumper shell	17	8	3/8" Flat Washer	26	2	1/2" Bolt Plate
9	1	Winch Tray	18	4	3/8" Lock Washer			



Go Rhino recommends you, the installer, read this installation instruction manual from front to back before installing the product.

TOOLS NEEDED FOR INSTALLATION:

- 15mm, 18mm, 21mm, 9/16" & 3/4" Sockets
- 15mm, 18mm, 21mm, 9/16" & 3/4" Wrenches
- Slotted Blade Screw Driver
- 5/32" Hex Key
- Ratchet, Ratchet Extensions & Swivel Joint Adapter

ESTIMATED TIME FOR INSTALLATION:

2 Hour

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OEM Bumper Removal

Step-1 Open the hood and disconnect the vehicle battery or batteries.

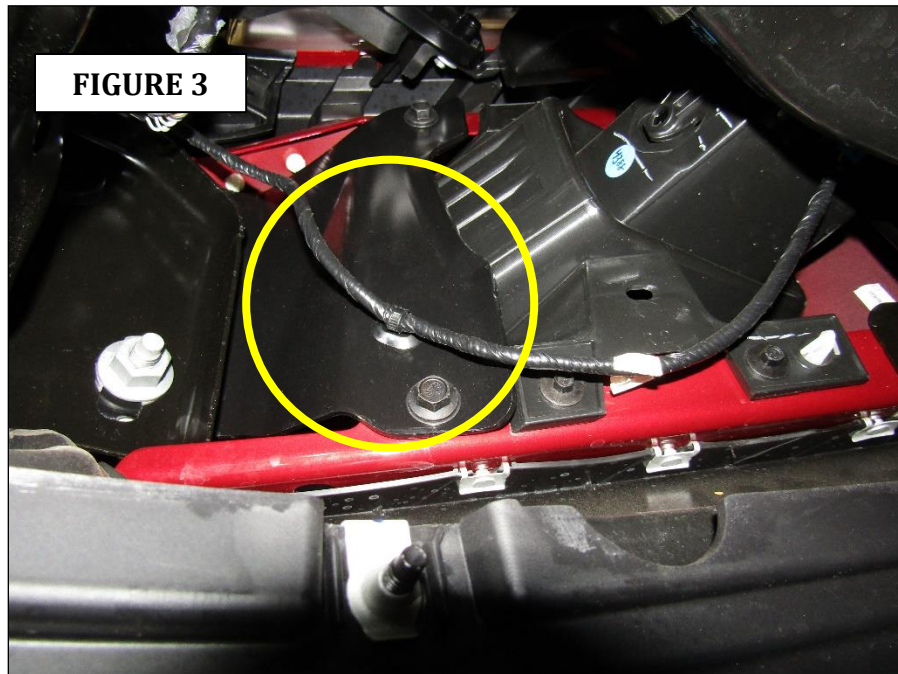
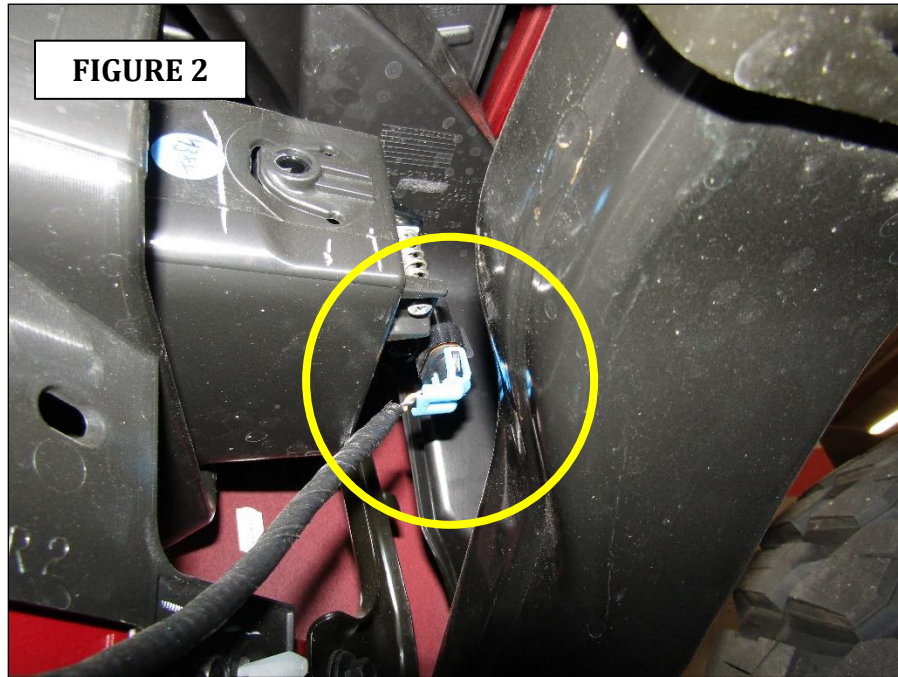
Step-2 Use a flat blade screwdriver to lift the ends then unsnap the fasteners and remove the plastic bumper cover from each side of the OEM bumper, (FIGURE1).



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Step-3 Disconnect the OEM bumper wiring harness, unplug fog light and remove one (1) plastic Push-In blind rivet fastener securing the wiring on each side of the vehicle, (FIGURE 2 & 3).

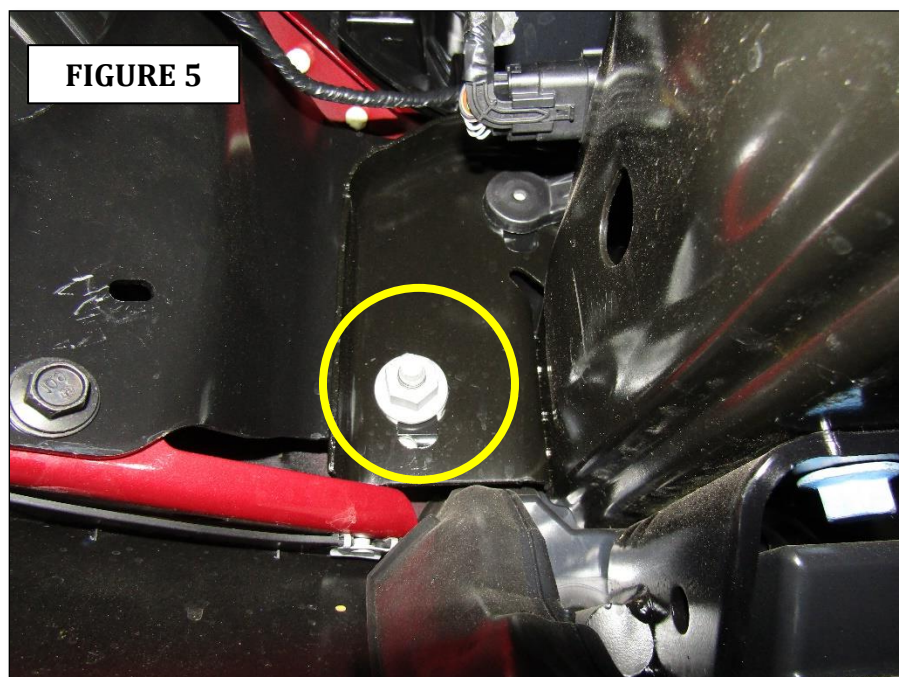
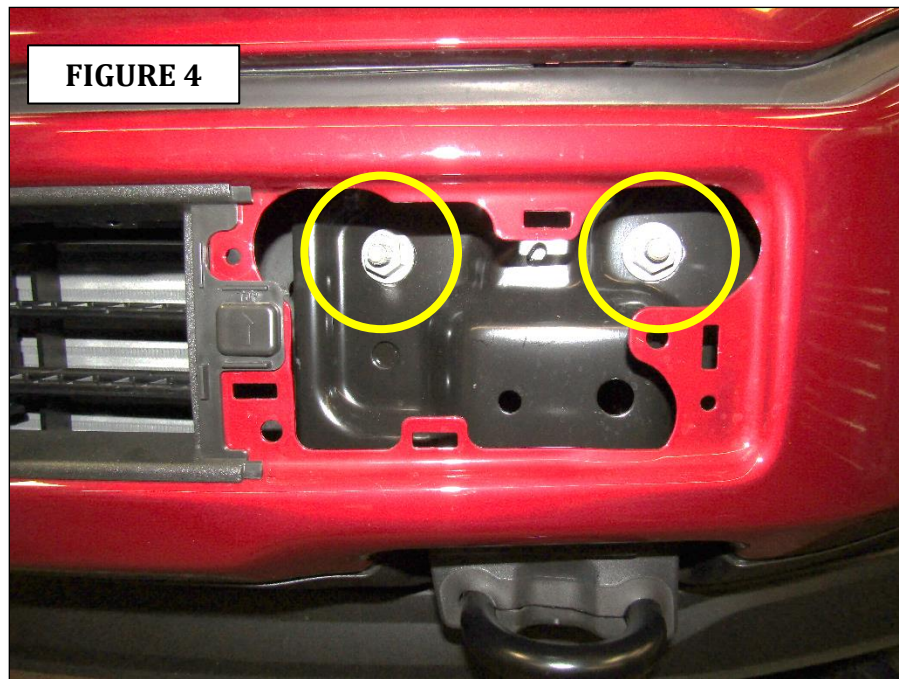


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Step-4 On each side of the vehicle, using a 21mm socket and ratchet remove the nuts (3) per side, (2) located at the front and (1) located at the back securing the OEM bumper bracket to the frame, (FIGURE 4 & 5).

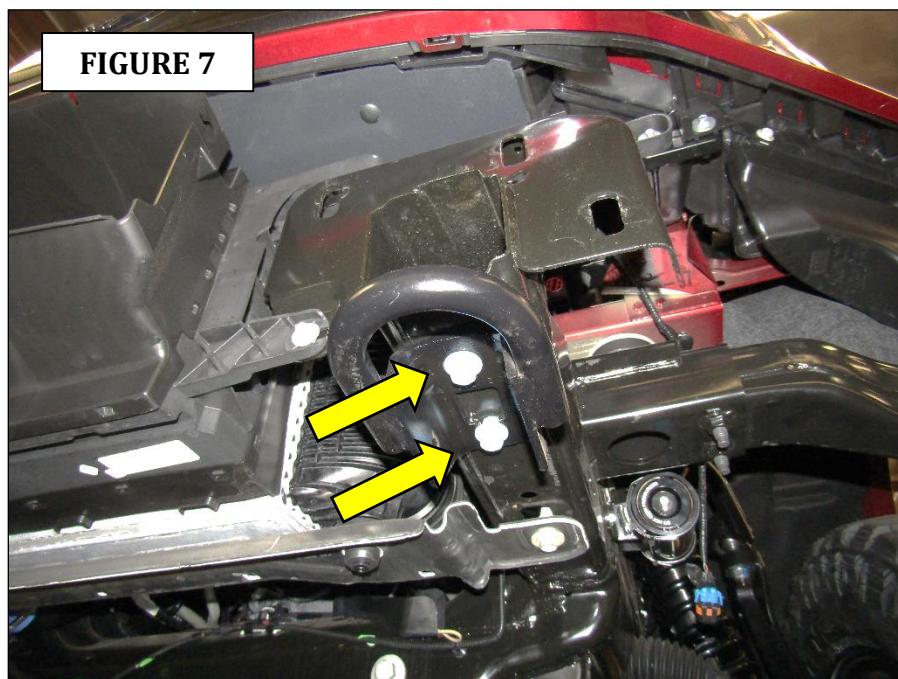
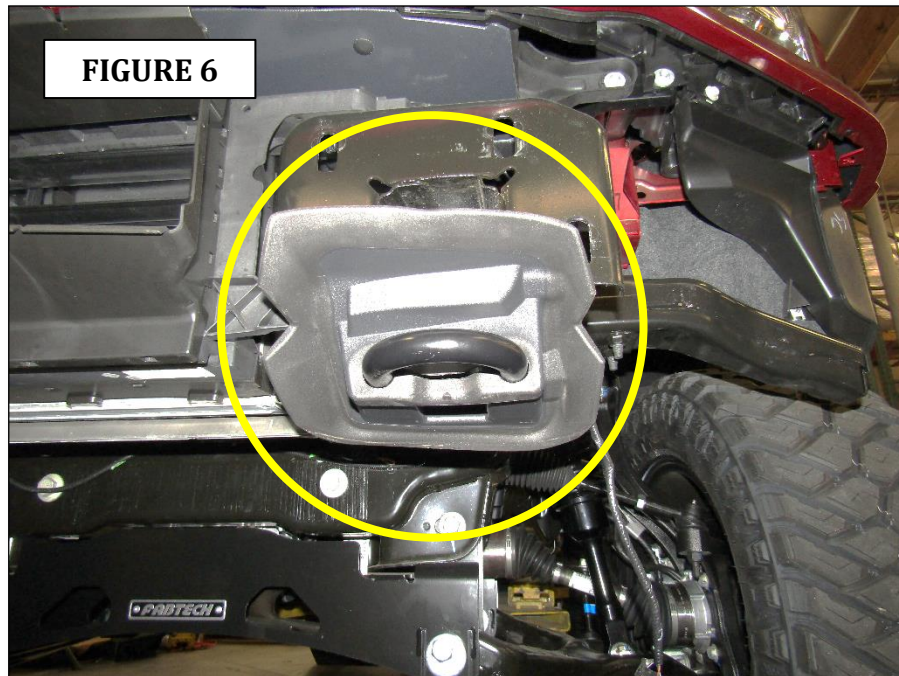
Step-5 With assistance remove the bumper from the vehicle by pulling forward away from the vehicle.



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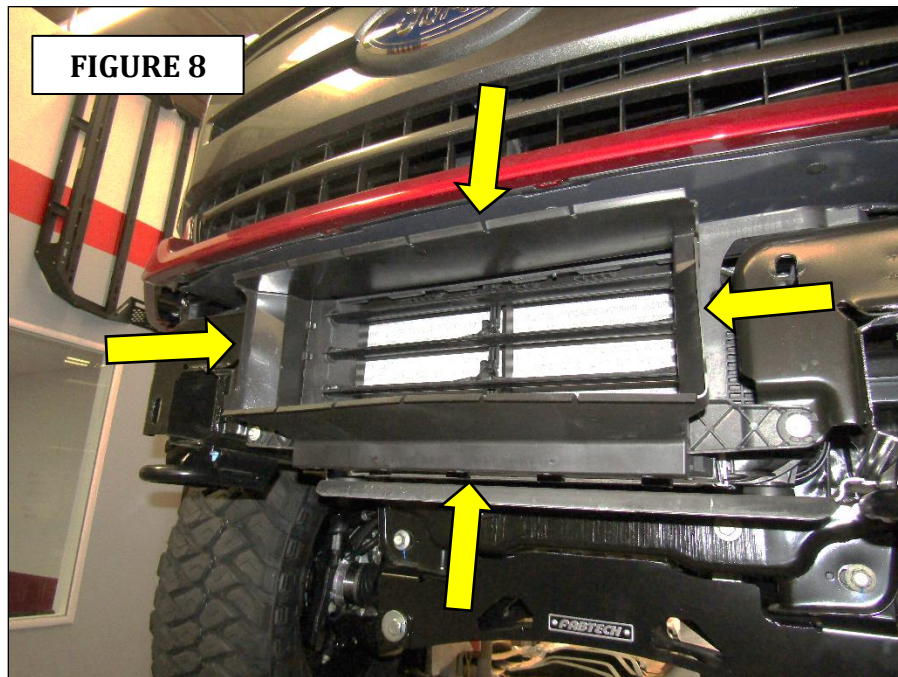
Step-6 If equipped with tow hooks, remove the plastic cover from the tow hook, then using a 15mm socket and ratchet remove the (2) bolts and tow hook from the bottom of the frame. Retain the nut plate and tow hook bolts, (FIGURE 6 & 7).



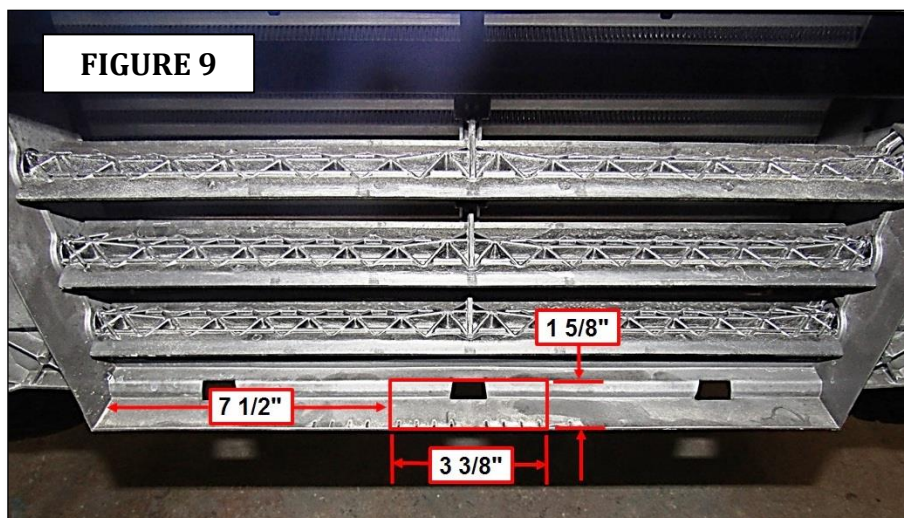
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Models equipped with EcoBoost engine: If your vehicle is equipped with an EcoBoost engine, unsnap the series of clips on all sides, and remove the front section of the air duct louver system for the intercooler, (FIGURE 8).



The air duct housing must be cut and a section removed from the bottom to allow clearance for the Winch Tray. Reference the measurements shown, (FIGURE 9). **Note:** Care must be taken not to damage the louvers when cutting the air duct housing.

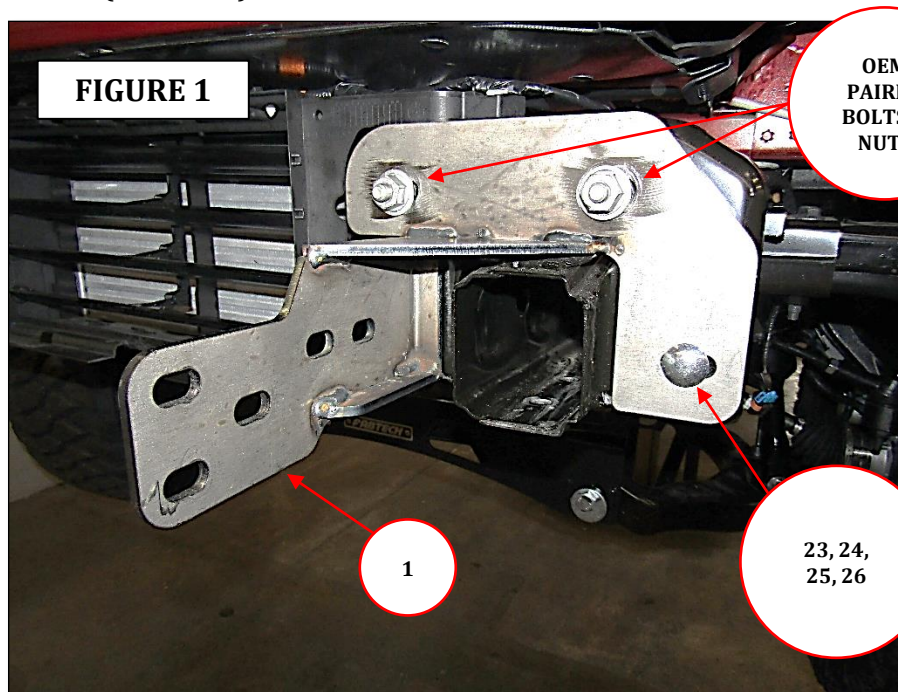


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BR5 Bumper Installation

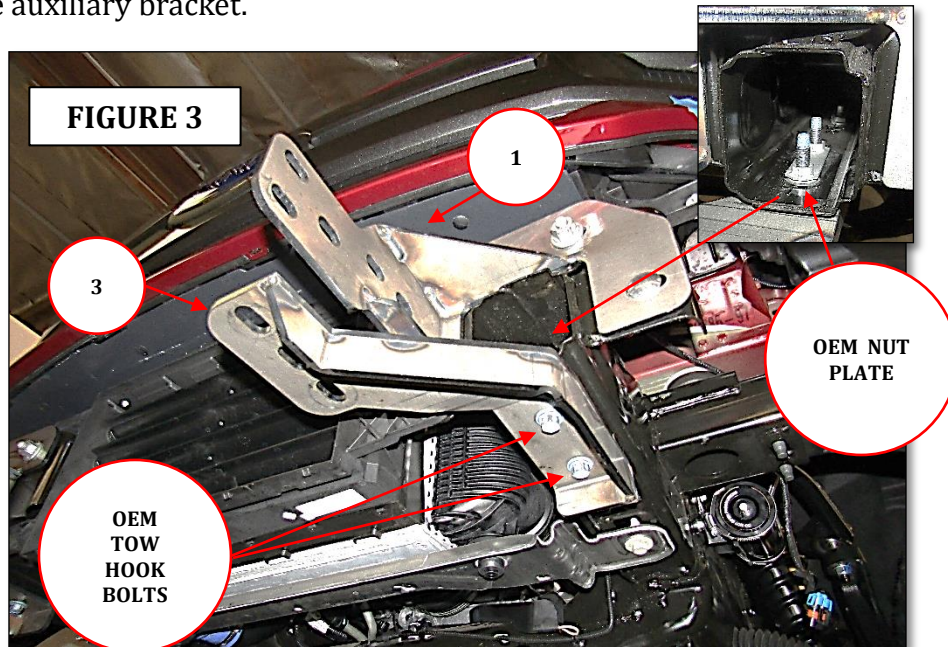
Step-1 Position the driver side frame bracket up to the end of the vehicle frame, align the (2) upper holes in the frame bracket with the factory bumper bracket attachment holes and secure the frame bracket to the frame using the OEM paired bolt plate and nuts. Secure the bottom hole in the frame bracket to the vehicle frame using (1) 1/2" x 1 1/2" carriage bolt, (1) 1/2" flat washer, (1) 1/2" lock washer and (1) 1/2" hex nut supplied, (FIGURE 1). Snug but do not fully tighten the bolts. Repeat to install the passenger side bracket, (FIGURE2).



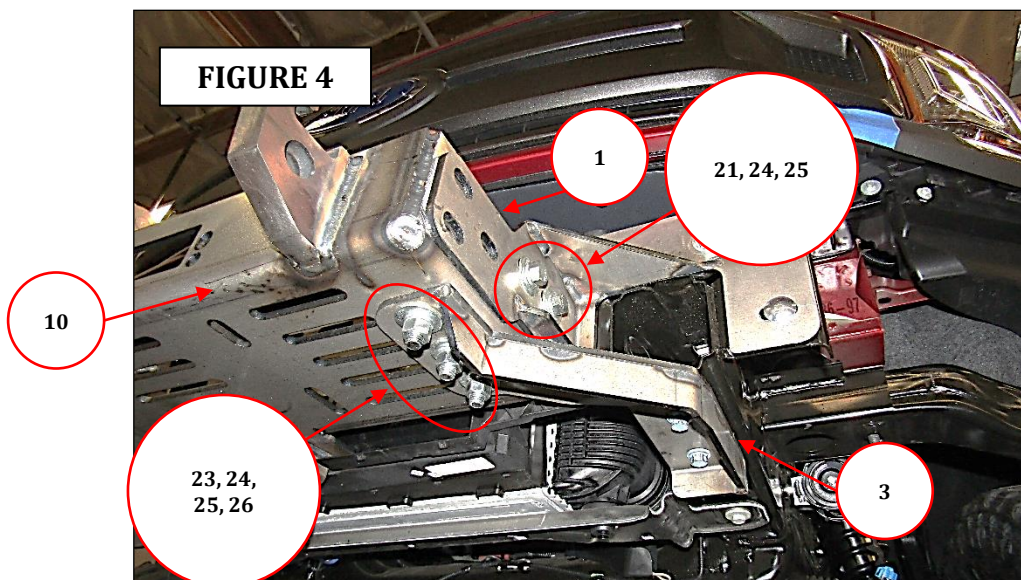
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Step-2 Position the driver side auxiliary bracket on the bottom of the frame, align the holes in the bracket with the tow hook attachment holes and secure the auxiliary bracket to the frame using the factory tow hook bolts and nut plates, (FIGURE 3). If your vehicle is not equipped with factory tow hooks attach the auxiliary bracket to the frame using (2) ½" x 1 ½" hex bolts, (4) ½" flat washers, (2) ½" lock washers and (2) ½" hex nuts supplied. Snug but do not fully tighten the bolts. Repeat to install the passenger side auxiliary bracket.



Step-3 Position the winch tray on top of the auxiliary brackets. Align the holes and secure the winch tray to each frame bracket using (2) ½" x 1 ½" hex bolts, (2) ½" flat washers, (2) ½" lock washers, and to each auxiliary bracket using (3) ½" x 1 ½" carriage bolts, (3) ½" flat washers, (3) ½" lock washers and (3) ½" hex nut, (FIGURE 4). Leave the nuts and bolts loose for final adjustment.



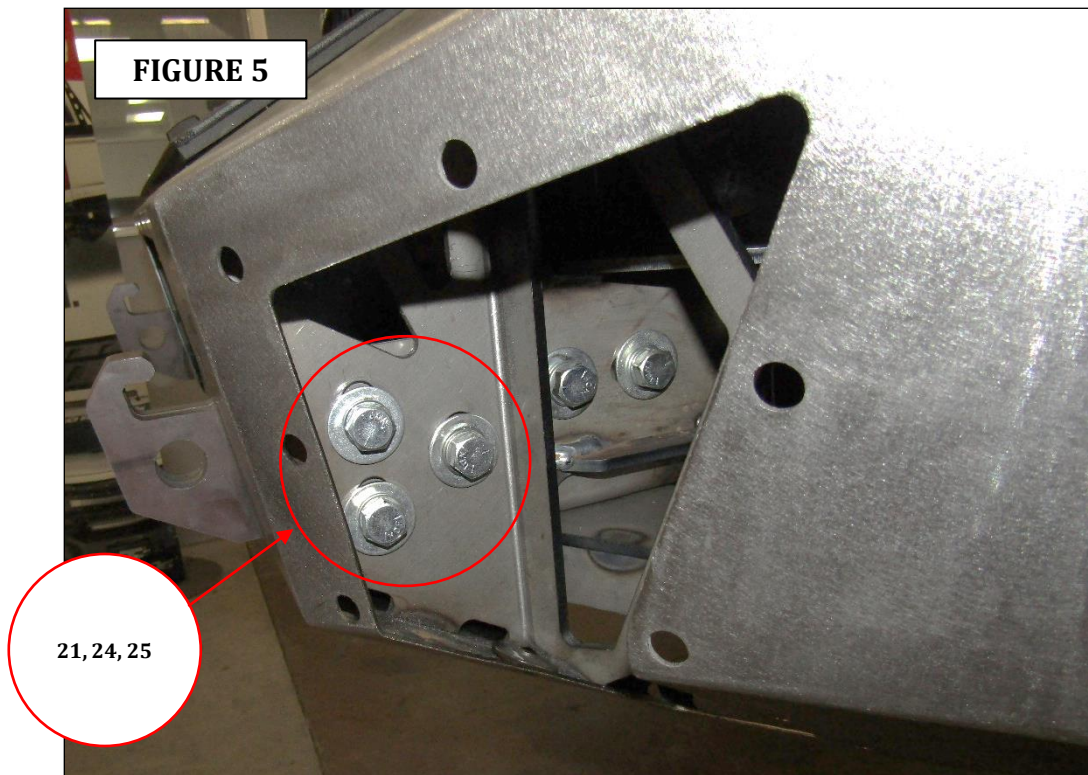


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Note: If you are installing a winch, place the winch in the winch tray and refer to the winch manufacturer's instructions for installation. Do not install the fairlead at this time.

Step-5 The pre-installed Mesh Vent Covers need to be removed using hand tools to slowly remove the bolts. Using an air assisted impact or ratchet will damage the bolt threads and Rubber Rivet-Nut assembly in the bumper shell.

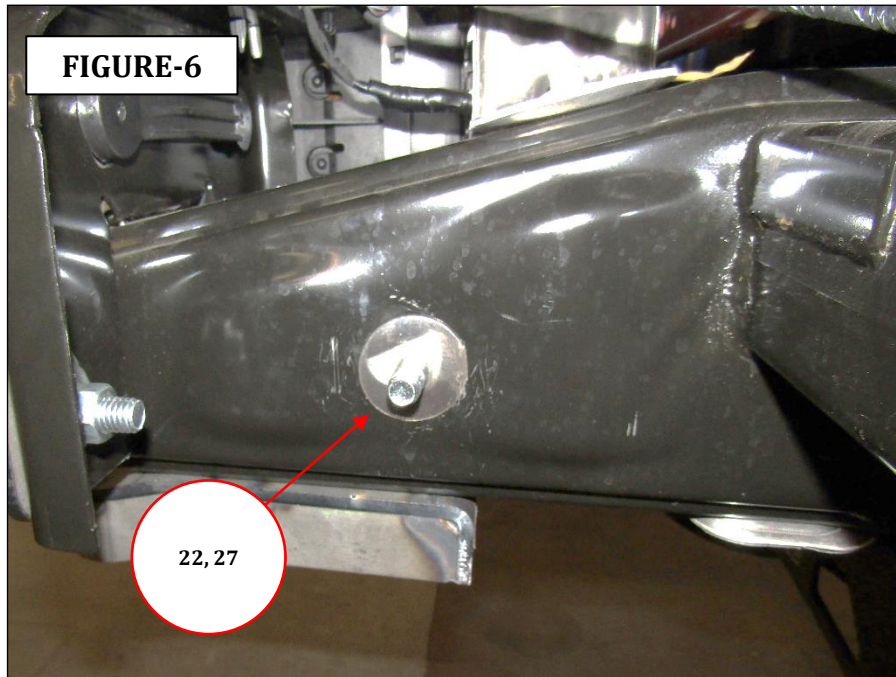
Step-6 With assistance lift the bumper shell up to the vehicle, align the holes in the bumper shell brackets with the holes in the frame brackets, and weld nuts on the winch tray. Secure the bumper shell bracket to each side of the winch tray using (3) ½" x 1 1/2" hex bolts, (3) ½" lock washers and (3) ½" flat washers, (FIGURE 5). Leave the bolts loose for final adjustment.



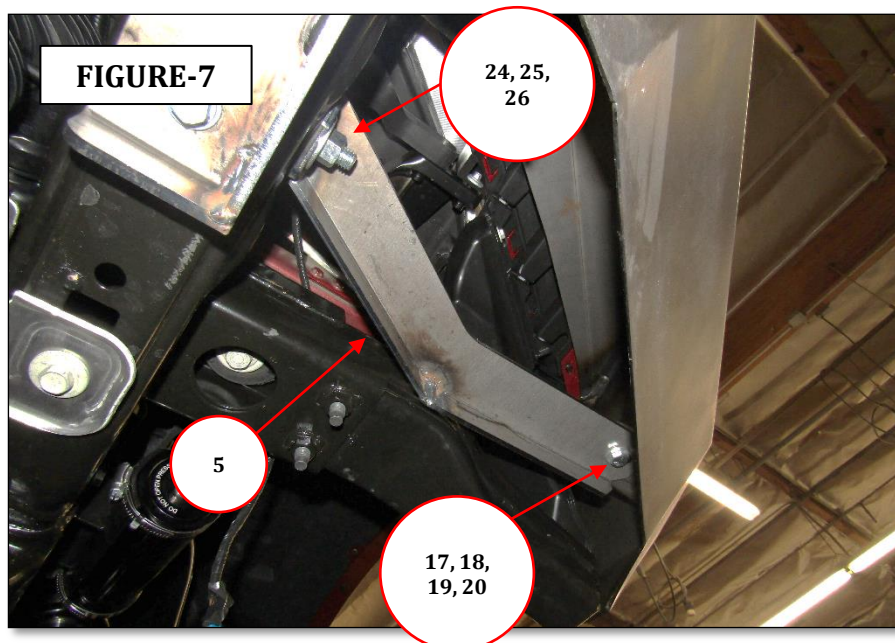
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Step-7 Locate the large hole in the side of the frame, and install (1) 1/2" bolt plate in the frame and install (1) vinyl gasket over the threads to prevent the bolt plate from falling into the frame, (FIGURE 6).



Step-8 Secure the driver side support bracket to the frame using the bolt plate, (1) 1/2" flat washer, (1) 1/2" lock washer and (1) 1/2" hex nut. Attach the opposite end of the support bracket to the bumper shell bracket using (1) 3/8" x 1 1/4" hex bolt, (1) 3/8" lock washer, (2) 3/8" flat washers and (1) 3/8" hex nut, (FIGURE 7). Repeat steps 7 & 8 to install the passenger side support bracket.



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Step-9 With assistance, adjust and hold the bumper shell visual alignment position, then tighten all OEM and supplied nuts and bolts securing the brackets, winch tray and bumper shell.

Note: Verify that the hinged winch cover clears the OEM bumper fascia trim when fully opened, before tightening all nuts and bolts.

Step-10 If installing a winch, install the roller fairlead to the bumper shell at this time. Refer to the winch manufacturer's instructions for installation. If installing an BR bumper replacement optional light bar, install the light bar to the bumper replacement at this time. Refer to the light bar instructions for installation.

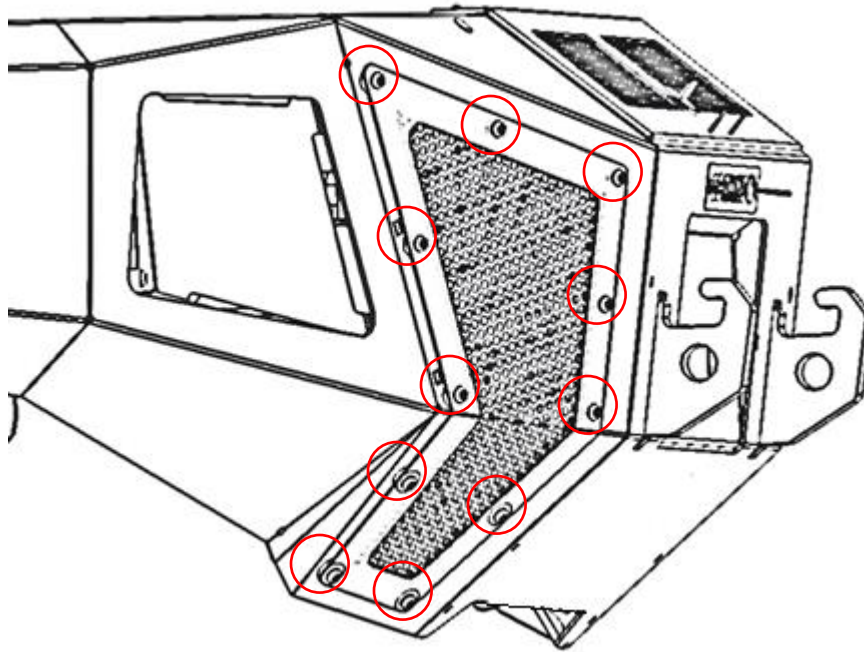


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Step-11 Re-install the passenger and driver side front vent covers to the bumper shell using the ¼" x 1" button head bolts, ¼" plastic flat washers and ¼" rubber rivet-nuts removed in step 5, (FIGURE 9).

FIGURE 9

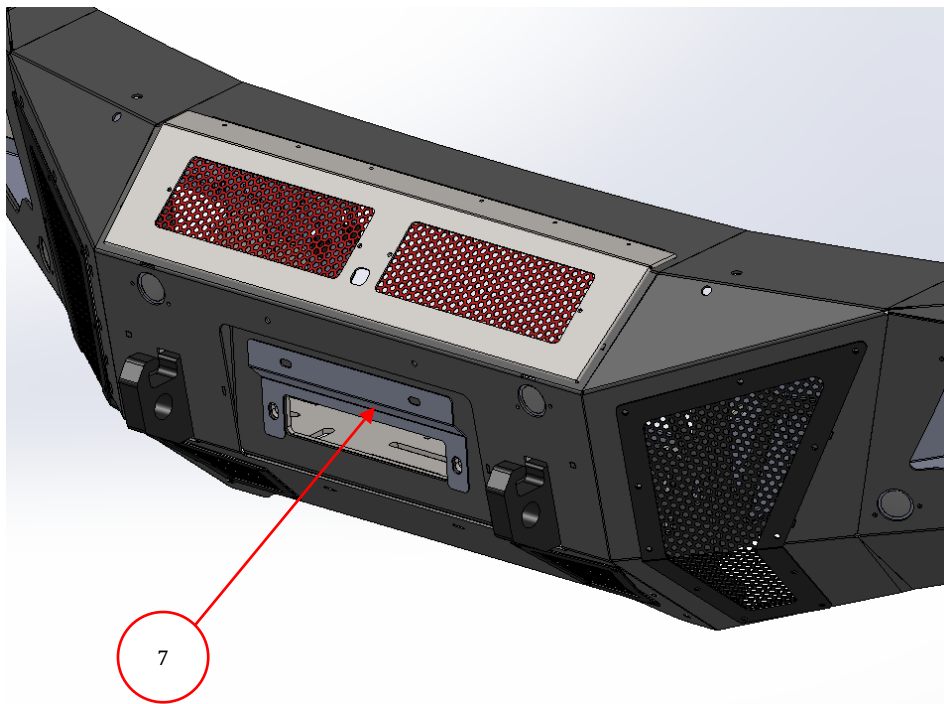


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Step-15 If your state law requires a front license plate, attach the license plate bracket to the holes in the face of the bumper shell, using the supplied 3/8" bolts, washers and nuts. If installing a winch, attach the license plate directly to the holes in the hitch cover, (FIGURE-10).

FIGURE-10



Remember to check and retighten all factory and supplied nuts and bolts periodically.