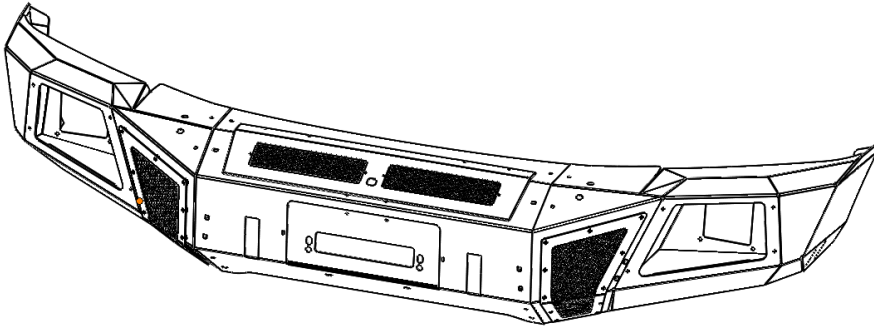


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INSTALLATION INSTRUCTIONS



PART NO.

- 24298T

PRODUCT DESCRIPTION:

- BR6 FRONT BUMPER REPLACEMENT

APPLICATION:

- Ford F-150 2/4WD (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.

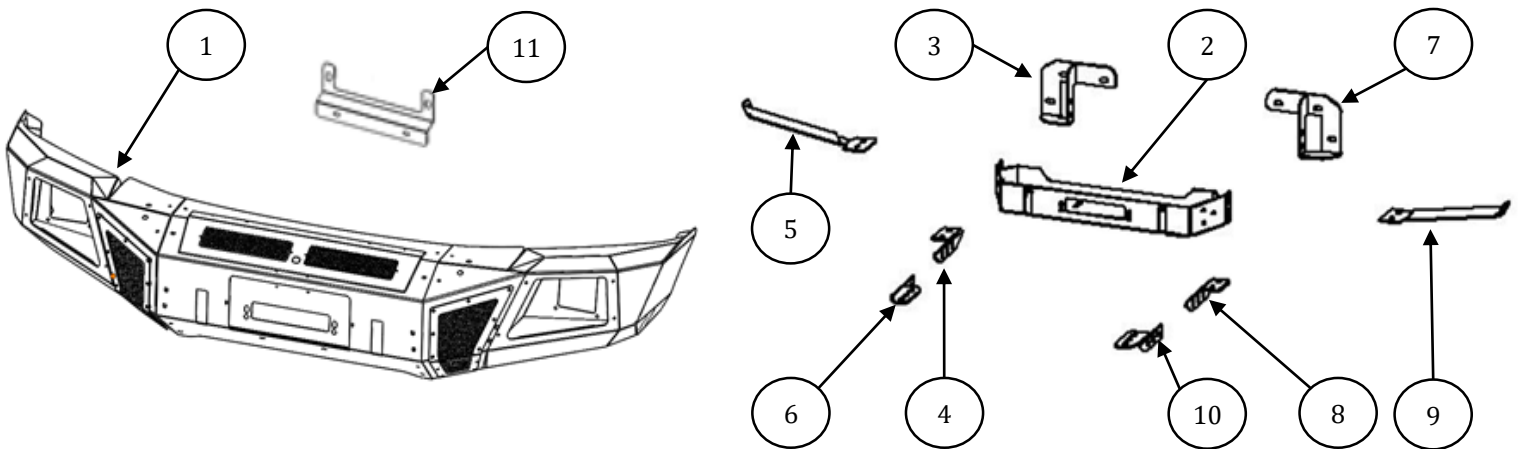
- Installation of some of these products may alter the factory sensor system performance.
- Factory sensors may read shackles or hooks protruding from the fairlead and or tow hooks.
- All sensor testing is completed by Go Rhino Products and or third party testing labs on modified vehicles.
- Sensor sensitivity, 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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INSTALLATION INSTRUCTIONS

PARTS INCLUDED IN THIS LIST:

ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1	1	Bumper Replacement Shell		1	KTE-G24298TG4	22	2	¼" Flat washer
2	1	Mounting Plate / Winch Tray	12	12	½ x 1 ½" Hex head bolt	23	2	¼" Hex lock nut
3	1	Passenger Side Frame Bracket	13	16	½ x 1 ½" Carriage head bolt			
4	1	Passenger Side Winch Bracket	14	34	½" Flat washer		1	KTE-G143402G4
5	1	Passenger Side Auxiliary Bracket	15	28	½" Lock washer	24	2	¼ x ¾" Sems bolt
6	1	Passenger Side Auxiliary Winch Bracket	16	22	½" Hex nut			
7	1	Driver Side Frame Bracket	17	4	3/8" Clip nut			
8	1	Driver Side Winch Bracket	18	6	3/8 x 1 ¼" Hex head bolt			
9	1	Driver Side Auxiliary Bracket	19	2	3/8" Hex nut			
10	1	Driver Side Auxiliary Winch Bracket	20	6	3/8" Flat washer			
11	1	License Plate Bracket	21	6	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:

- Metric & Standard Wrenches, and (3/8" & ½" Drive) Metric & Standard Sockets
- (3/8" & ½") Drive Ratchet, Ratchet Extensions & Swivel Joint Adapter
- Razor Knife
- Slotted Blade Screw Driver
- 5/32" Hex Key

ESTIMATED TIME FOR INSTALLATION:

2 Hour

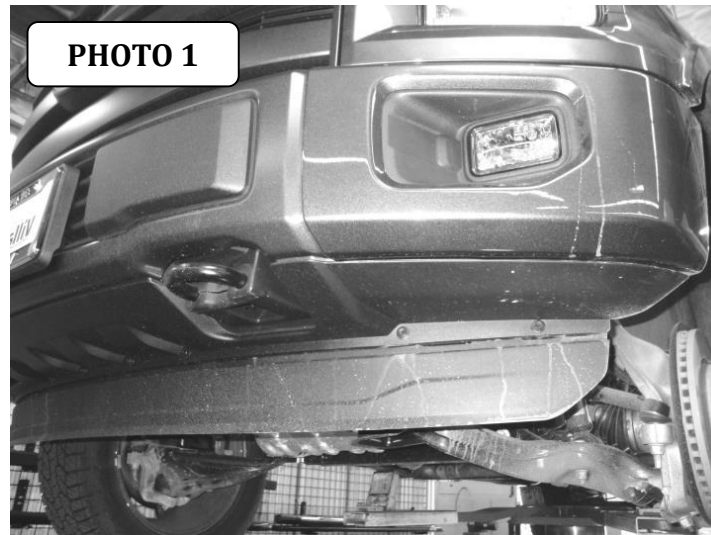
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INSTALLATION INSTRUCTIONS

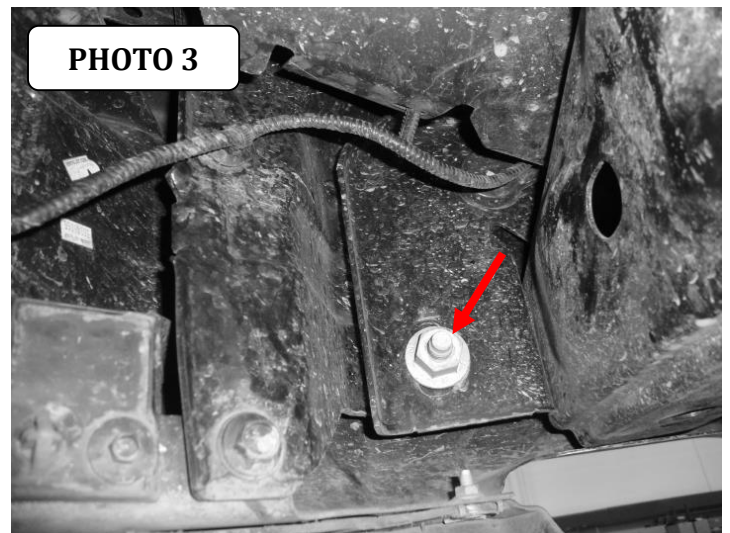
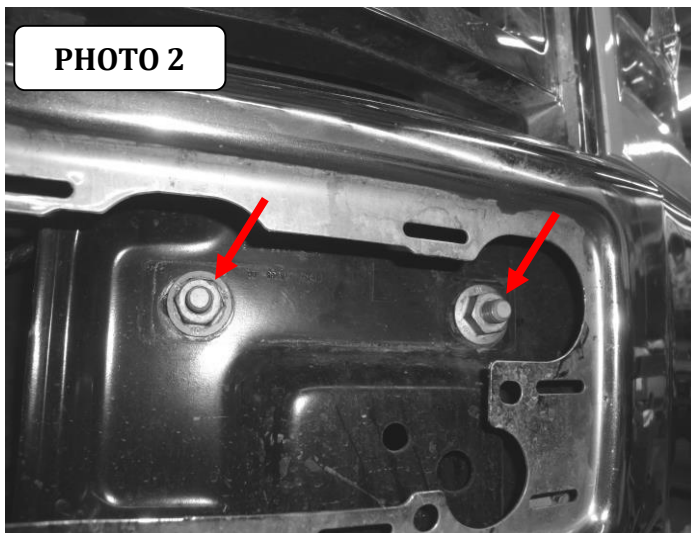
OEM Bumper Removal

Step-1 Remove the 3 plastic clips that are holding the rubber shroud to the top of the factory bumper.

Step-2 Use a flat blade screwdriver to lift the ends then unsnap the fasteners and remove the plastic bumper cover from the center of the factory bumper, (Photo 1).



Step-3 Beginning with the driver side, remove the nuts (3) per side, (2) located at the front and (1) located at the back securing the factory bumper bracket to the frame, (Photo 2 & 3). Repeat for the passenger side.



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INSTALLATION INSTRUCTIONS

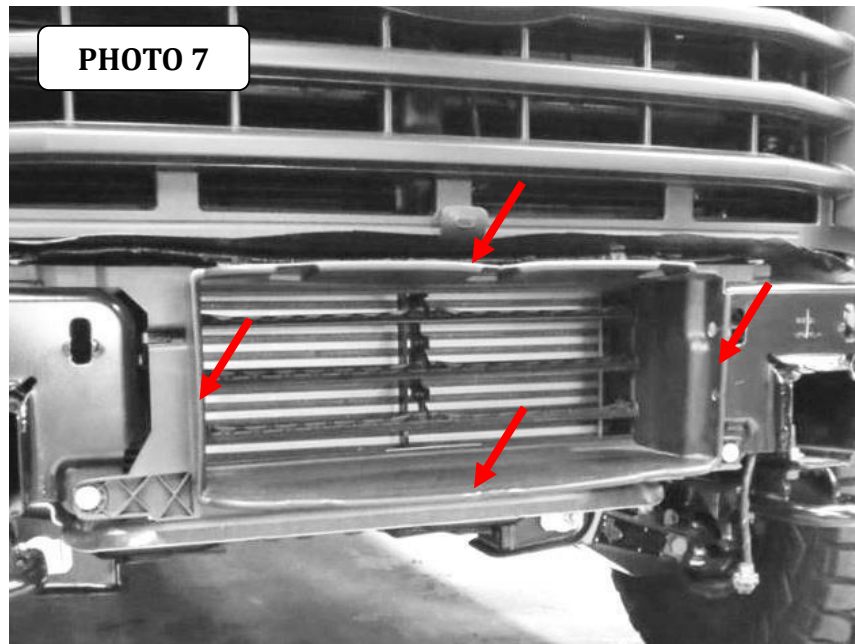
Step-4 Disconnect the wiring harness, unplug the fog lights.

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

Step-6 If equipped with tow hooks, remove the plastic cover from the tow hook, then remove the (2) bolts and tow hook from the bottom of the frame. Retain the nut plate and tow hook bolts.

Bumper Replacement Installation

Models equipped with Ecoboost engine: If your vehicle is equipped with an Ecoboost engine, the perimeter of the shroud for the intercooler must be trimmed to allow clearance for the Mounting Plate/Winch Tray. Use a razor knife to cut the shroud along the transition line from the soft plastic to the hard plastic. **Note:** Care must be taken not to damage the louvers when cutting the shroud.

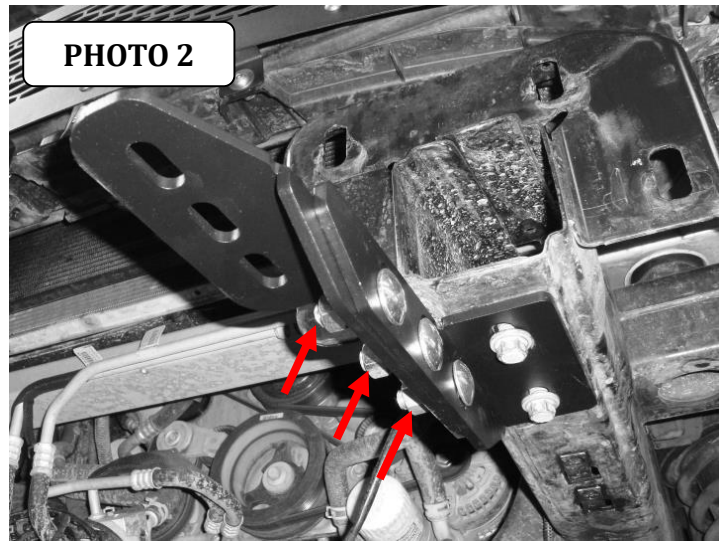
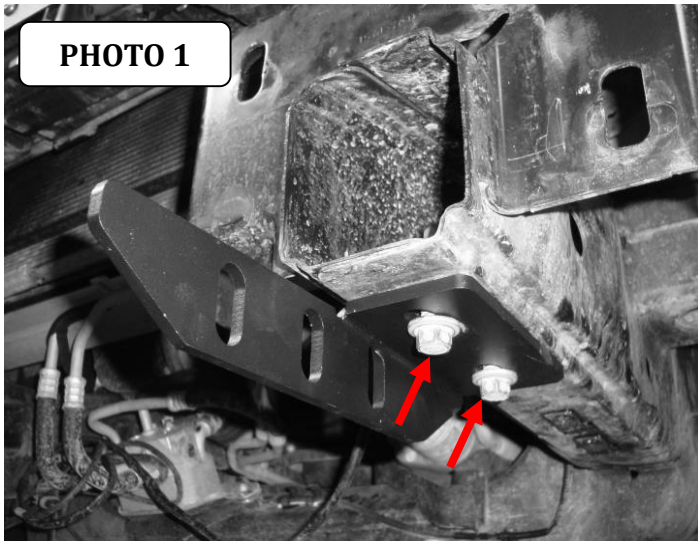


Step-1 Position the driver side auxiliary bracket on the bottom of the frame, align the holes in the bracket with the tow hook attachment holes and secure the auxiliary bracket to the frame using the factory tow hook bolts and nut plates, (Photo 1). If your vehicle is not equipped with factory tow hooks 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.

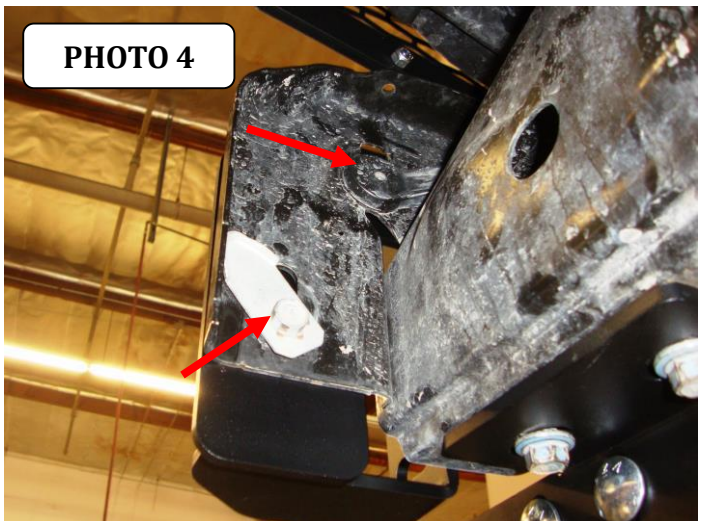
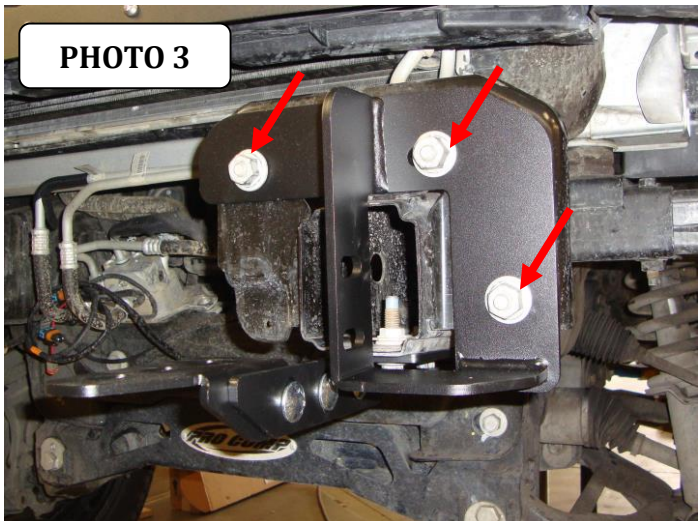
Step-2 Position the driver side extension bracket on the inside of the auxiliary bracket, align the holes in the brackets and secure the extension bracket to the auxiliary bracket using (3) ½" carriage bolts, (3) ½" flat washers, (3) ½" lock washers and (3) ½" hex nuts, (Photo 2). Snug but do not fully tighten the nuts and bolts.

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INSTALLATION INSTRUCTIONS



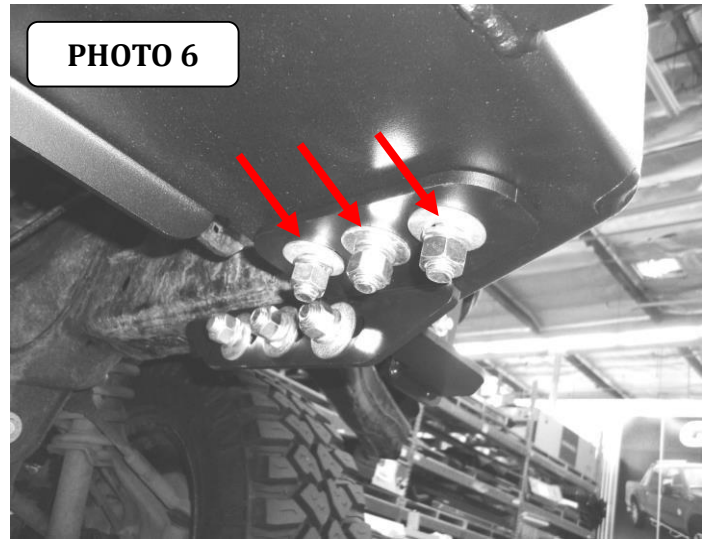
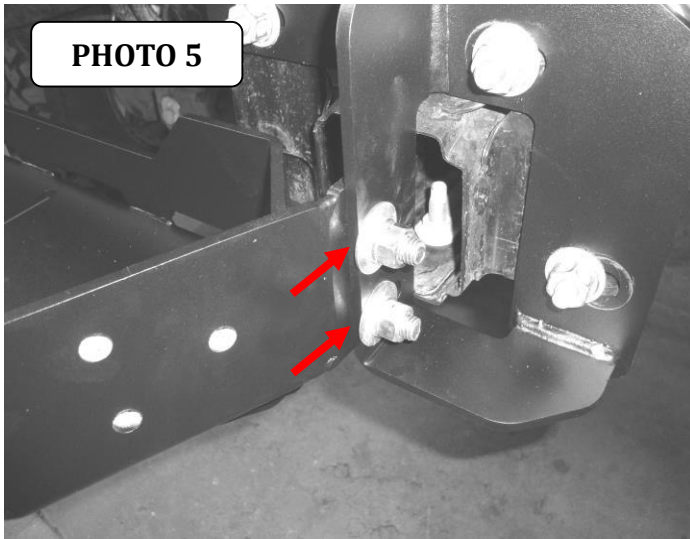
Step-3 Remove the bolt plates from the factory bumper. Position the driver side frame bracket up to the end of the frame, align the holes in the frame bracket with the factory bumper bracket attachment holes and secure the frame bracket to the frame using the factory bolt plates and nuts, (Photo 3 & 4). Snug but do not fully tighten the bolts. Repeat steps 1-3 to install the passenger side brackets.



Step-4 Position the mounting plate/winch tray on top of the extension brackets. Secure the mounting plate/winch tray to each frame bracket using (2) ½" x 1 ½" carriage bolts, (2) ½" flat washers, (2) ½" lock washers and (2) ½" hex nuts, and to each extension bracket using (3) ½" x 1 ½" carriage bolts, (3) ½" flat washers, (3) ½" lock washers and (3) ½" hex nut, (Photo 5 & 6). Snug but do not fully tighten the nuts and bolts.

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Step-5 Adjust the mounting plate/winch tray and brackets to the forward position, center and level the mounting plate/winch tray with the vehicle frame then tighten all factory hex nuts securing the frame brackets, and the supplied nuts and bolts securing the mounting plate/winch tray and frame brackets. Do not tighten the auxiliary and extension bracket nuts and bolts at this time.



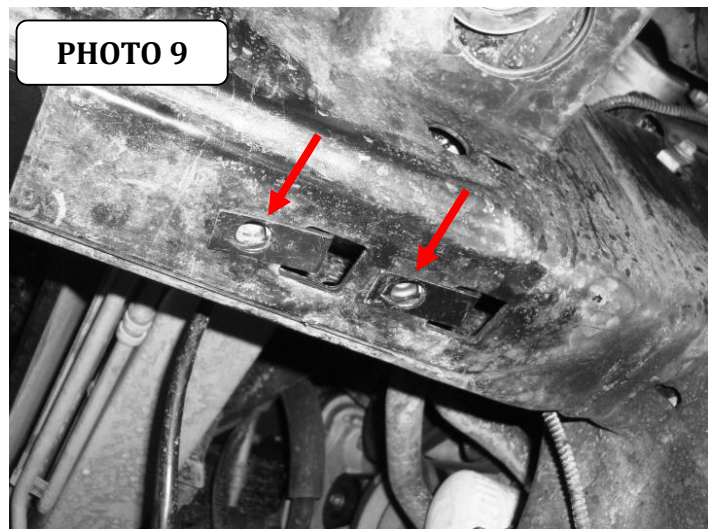
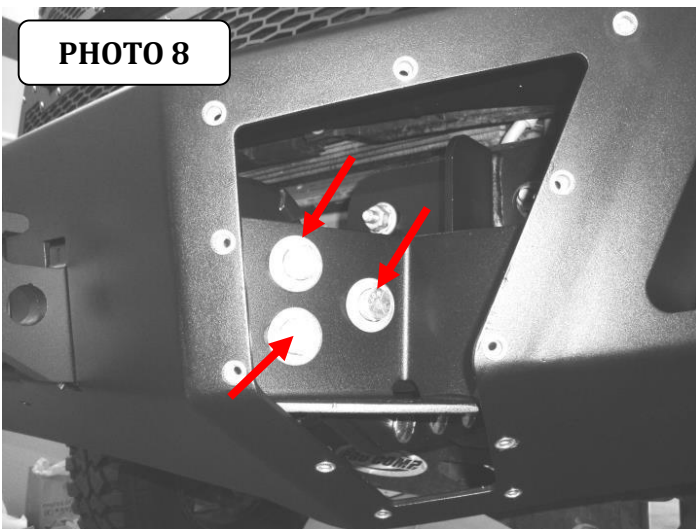
Step-6 If you are installing a winch, place the winch in the mounting plate/winch tray and refer to the winch manufacturer's instructions for installation. Do not install the fairlead at this time.

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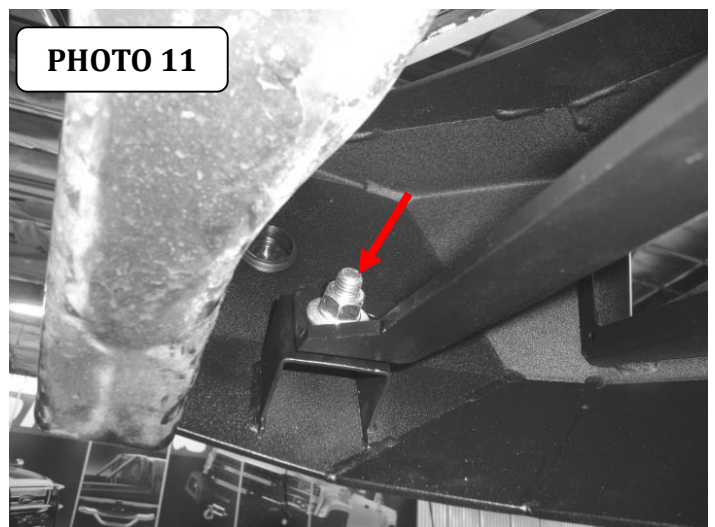
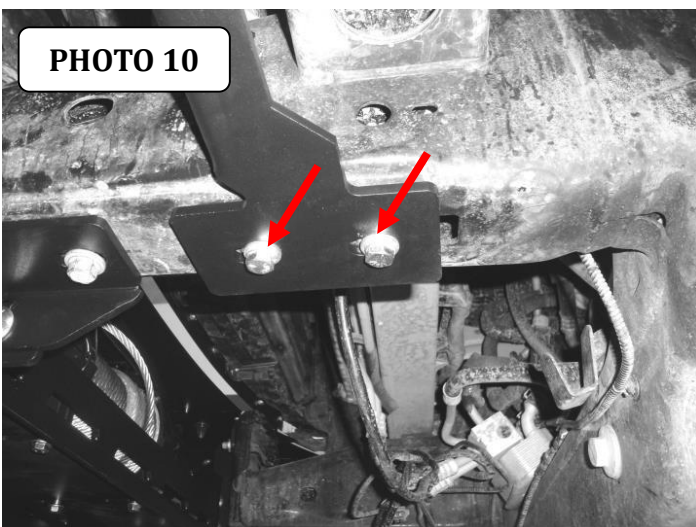
INSTALLATION INSTRUCTIONS

Step-7 With assistance lift the bumper shell up to the vehicle, align the holes in the bumper shell brackets with the weld nuts on the mounting plate/winch tray and secure the bumper shell to each side of the mounting plate/winch tray using (3) $\frac{1}{2}$ " x $1\frac{1}{2}$ " hex bolts, (3) $\frac{1}{2}$ " lock washers and (3) $\frac{1}{2}$ " flat washers, (Photo 8). Leave the bolts loose for final adjustment.

Step-8 Locate the (2) sets of square and round holes in the bottom of the frame, and install $\frac{3}{8}$ " Clip-Nuts in the frame with the threaded end centered over the round hole, (Photo 9).



Step-9 Secure the driver side support bracket to the bottom of the frame using the Clip-Nuts, (2) $\frac{3}{8}$ " x $1\frac{1}{4}$ " hex bolts, (2) $\frac{3}{8}$ " lock washers and (2) $\frac{3}{8}$ " flat washers. Attach the opposite end of the support bracket to the bumper shell bracket using (1) $\frac{1}{2}$ " x $1\frac{1}{2}$ " hex bolt, (1) $\frac{1}{2}$ " lock washer, (2) $\frac{1}{2}$ " flat washers and (1) $\frac{1}{2}$ " hex nut, (Photo 10 & 11). Repeat step to install the passenger side support bracket.



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INSTALLATION INSTRUCTIONS

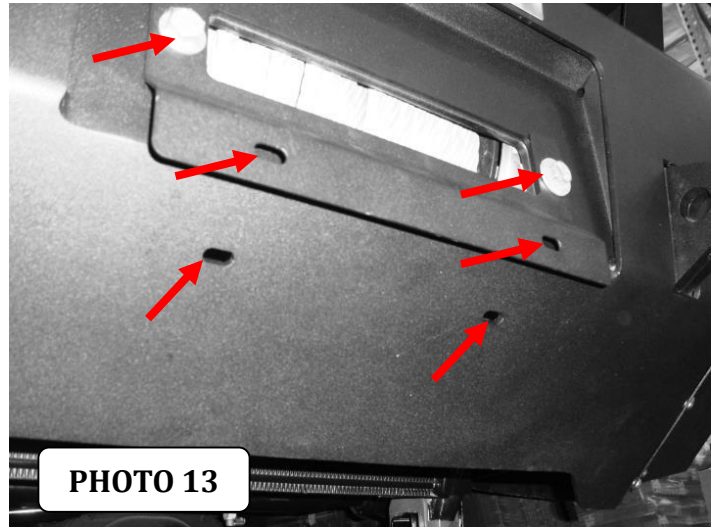
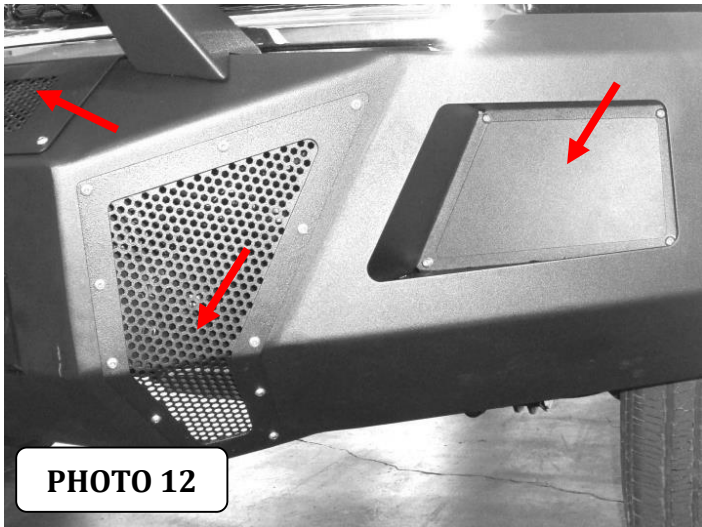
Step-10 With assistance, adjust and hold the bumper shell visual alignment position, then tighten all factory and supplied nuts and bolts. Note: It may be necessary to loosen the nuts and bolts securing the mounting plate/winch tray and brackets.

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 optional light bar, install the light bar to the bumper replacement at this time. Refer to the light bar instructions for installation.

Step-11 Install the winch cover and driver and passenger side front vent covers to the bumper shell using the supplied $\frac{1}{4}$ " x $\frac{3}{4}$ " button head bolts, (Photo 12). **Note:** Do not over tighten bolts, reference tightening torque (71 in. lbs.).

Step-12 Install the flush mount light pods to the bumper shell using (4) $\frac{1}{4}$ " x $\frac{3}{4}$ " button head bolts and (4) $\frac{1}{4}$ " nylon lock nuts, (Photo 12).

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 $\frac{3}{8}$ " bolts, washers and nuts, and the license plate to the (2) obround holes in the license plate bracket using the supplied $\frac{1}{4}$ " bolts and nuts, (Photo 13).



If installing a winch, attach the license plate directly to the (2) obround holes in the lower face of the bumper shell using the supplied $\frac{1}{4}$ " bolts and nuts, (Photo 13).

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