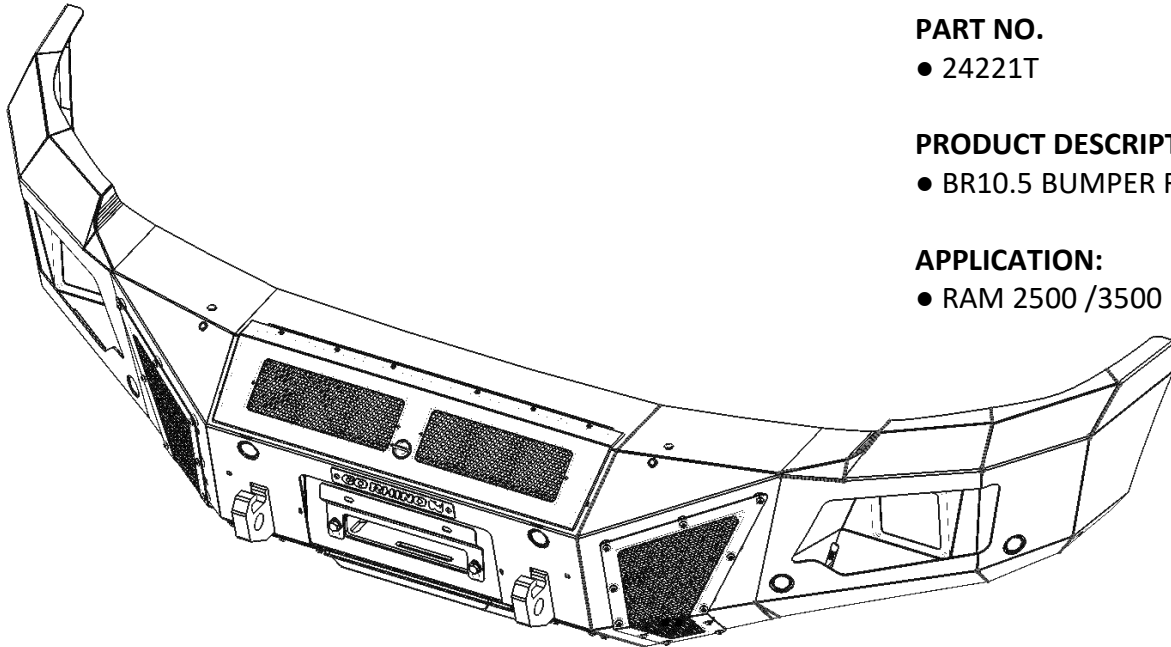


# GO RHINO®

## INSTALLATION INSTRUCTIONS



### PART NO.

- 24221T

### PRODUCT DESCRIPTION:

- BR10.5 BUMPER REPLACEMENT

### APPLICATION:

- RAM 2500 /3500 HD

## 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.

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## 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.

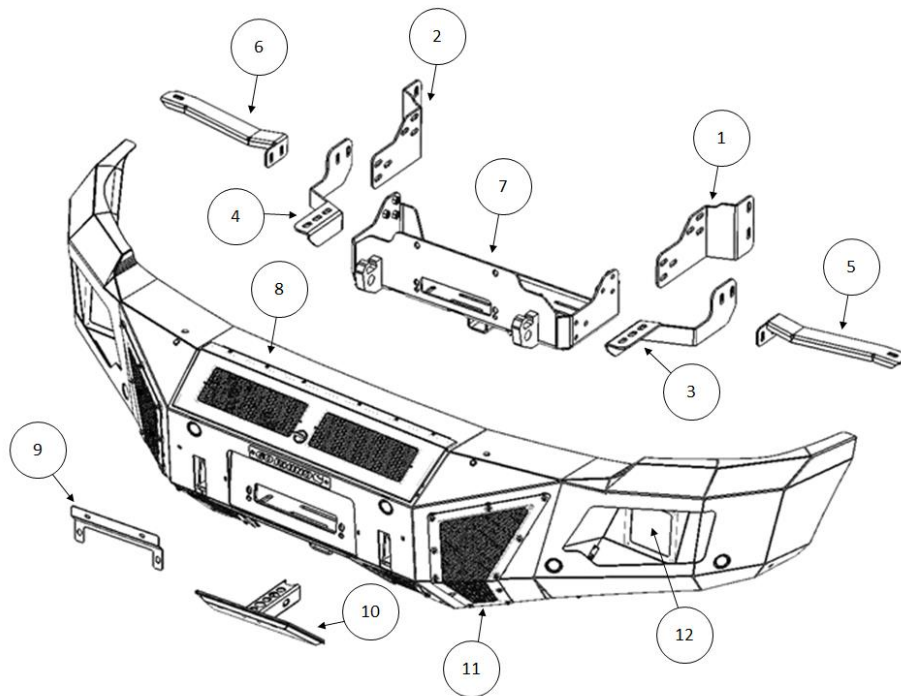
Above all... be safe!

# GO RHINO®

## INSTALLATION INSTRUCTIONS

### PARTS INCLUDED IN THIS LIST:

ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION	ITEM	QTY.	DESCRIPTION
1	1	Frame Bracket (driver)	10	1	Hitch Cover	19	2	3/8" Lock Washer
2	1	Frame Bracket (passenger)	11	1	Vent Covers (pre installed)	20	2	3/8" Hex Nut
3	1	Auxiliary Bracket (driver)	12	1	Light Pod Plates (pre installed)	21	14	1/2" x 1 1/2" Hex Bolt
4	1	Auxiliary Bracket (passenger)	13	1	5/8" Hitch-Pin	22	6	1/2" x 1 1/2" Carriage Bolt
5	1	Support Bracket (driver)	14	1	Hairpin Cotter Pin	23	4	1/2" x 4" Hex Bolt
6	1	Support Bracket (passenger)	15	1	3/8" Threaded Rod	24	30	1/2" Flat Washer
7	1	Winch Tray	16	1	Threaded Knob	25	24	1/2" Lock Washer
8	1	Bumper Shell	17	2	3/8" x 1 1/4" Hex Bolt	26	12	1/2" Hex Nut
9	1	License Plate Bracket	18	5	3/8" Flat Washer			



Go Rhino recommends you, the installer, read this installation instruction manual from front to back before installing the product. You may also [click here](http://www.gorhino.com/Installation-Videos) to view an installation video or visit <http://www.gorhino.com/Installation-Videos>.

### TOOLS NEEDED FOR INSTALLATION:

10mm, 13mm, 15mm, 18mm, 24mm, 7/16", 9/16" & 3/4" Sockets

10mm, 13mm, 15mm, 18mm, 24mm 7/16", 9/16" & 3/4" Wrenches

Slotted Blade Screw Driver

5/32" Hex Key

Ratchet, Ratchet Extensions & Swivel Joint Adapter

Drill Motor & 5/8" Drill Bit

**ESTIMATED TIME FOR INSTALLATION:**

**2 Hour**

If you need installation service for your new product, call the authorized distributor from whom you purchased the product or an authorized installation service company which can be found by calling toll free 1-888-427-4466

# INSTALLATION INSTRUCTIONS

## Factory Bumper Removal Gas Models 2010-Up

**Step-1** Remove the plastic push in connectors securing the splash shield to the bottom of the radiator using the tip of a screwdriver. Leave the splash shield attached to the factory bumper.

If the vehicle has these options or equipment:

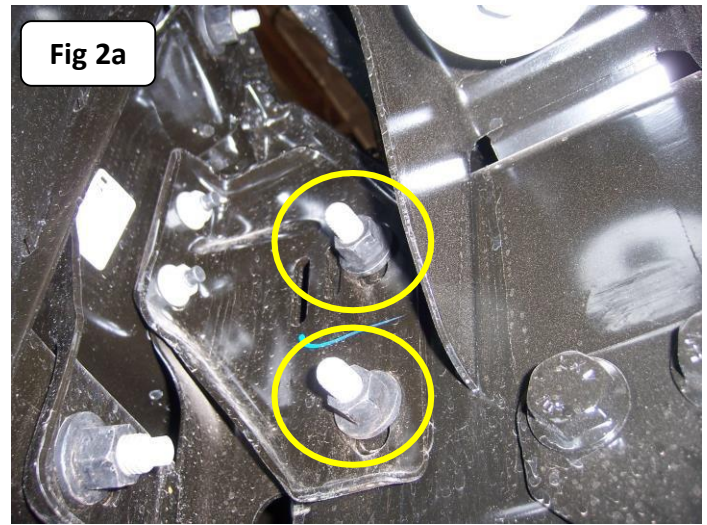
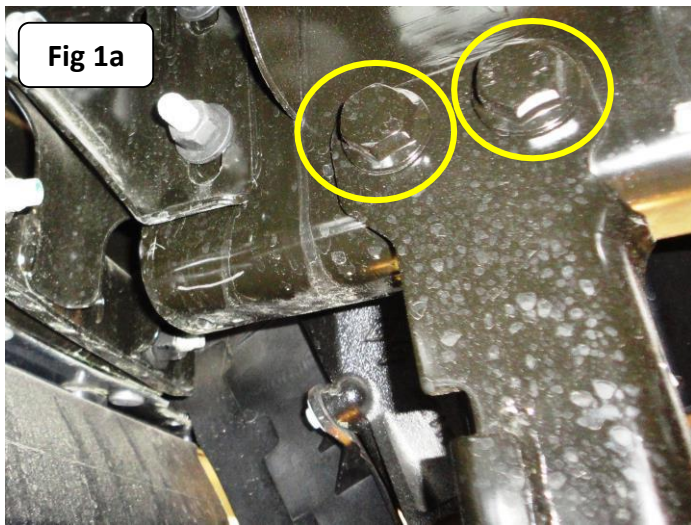
**Fog Lights** / Disconnect the fog light wiring harness on the driver side of the factory bumper.

**Engine Block Heater** / Remove the fasteners securing the power cord to the passenger side of the factory bumper.

**Step-2** Remove the nuts and bolts (2) per side securing the under rider brackets to the frame using a 24mm wrench, socket and ratchet, (Fig 1a).

**Step-3** Remove the nuts (2) per side and paired bolts securing the bumper brackets to the frame using an 18mm socket and ratchet, (Fig 2a). With assistance remove the factory bumper from the vehicle and set it aside.

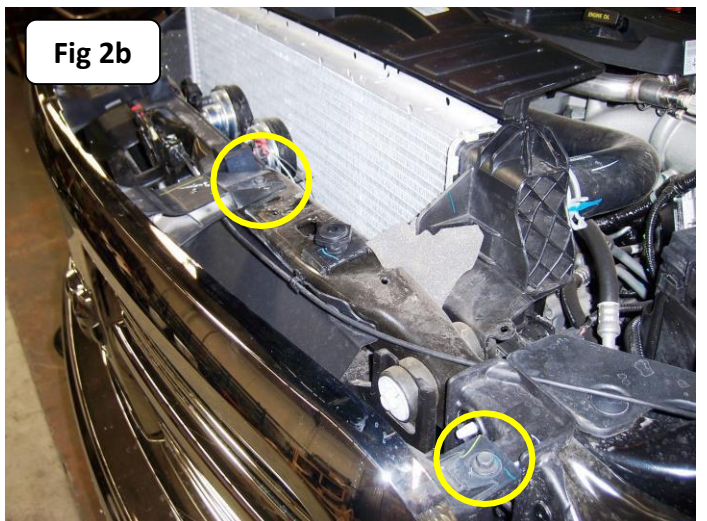
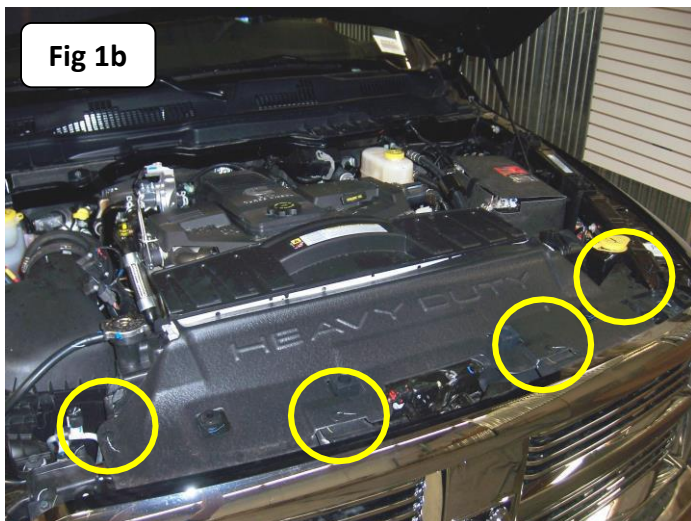
Retain the nuts and paired bolts to attach the replacement bumper brackets.



## Factory Bumper Removal Diesel Models 2010-2012

**Step-1** Open the hood and remove the (4) plastic push in connectors securing the radiator dust cover to the radiator support using the tip of a screwdriver, (Fig 1b). Remove the dust cover from the vehicle.

**Step-2** Remove the (4) screws securing the top of the grille to the radiator support using a 10mm socket and ratchet, (Fig 2b). Slightly rotate the top of the grille forward, then gently pull straight out on the lower section to unsnap the (2) lower clips. Remove the grille from the vehicle.

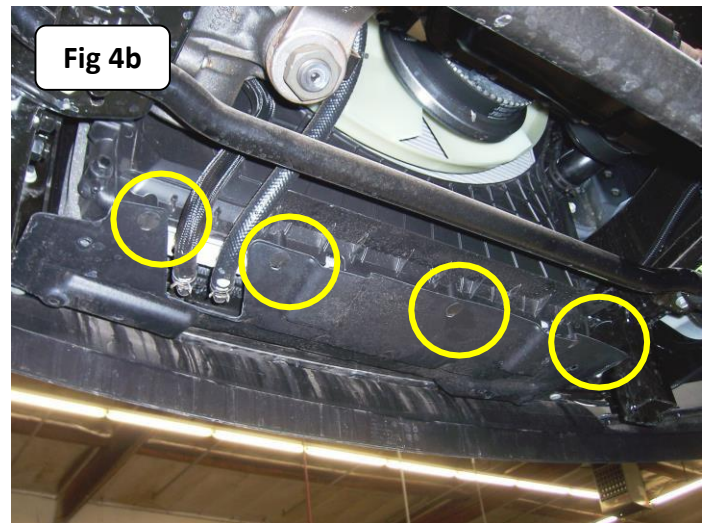
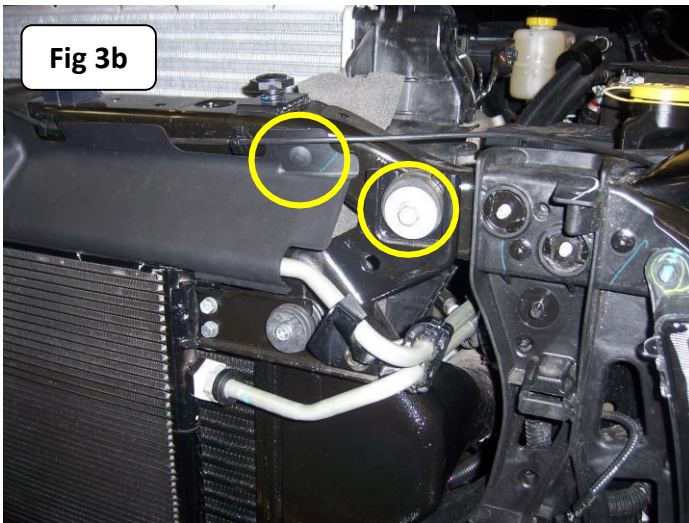


# INSTALLATION INSTRUCTIONS

**Step-3** Remove the (2) plastic push in connectors securing the radiator shield to the radiator support using the tip of a screw driver and the bolts (1) per side securing the top of the intercooler to the radiator support using a 13mm socket and ratchet, (Fig 3b).

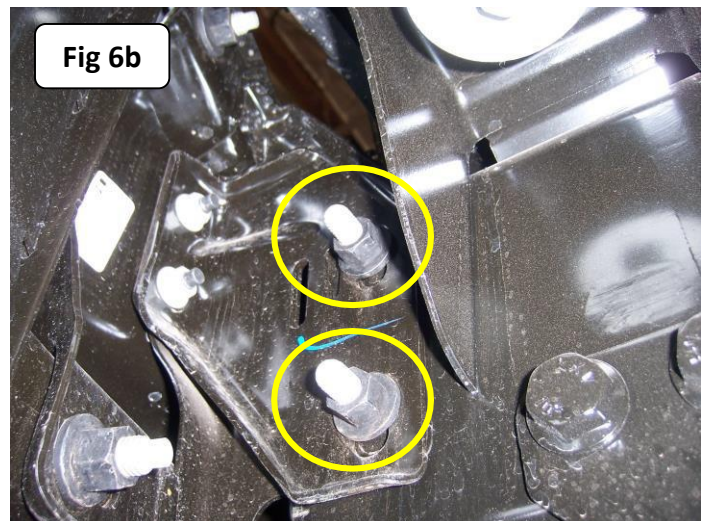
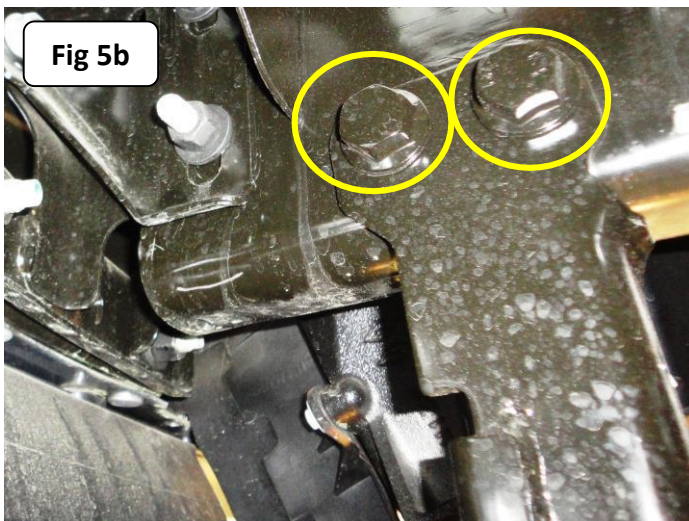
If the vehicle has these options or equipment: Fog Lights / Disconnect the fog light wiring harness on the driver side of the factory bumper. Engine Block Heater / Remove the fasteners securing the power cord to the passenger side of the factory bumper.

**Step-4** Remove the (4) plastic push in connectors securing the splash shield to the bottom of the radiator using the tip of a screwdriver. Leave the splash shield attached to the factory bumper, (Fig 4b).



**Step-5** Remove the nuts and bolts (2) per side securing the under rider brackets to the frame using a 24mm wrench, socket and ratchet, (Fig 5b).

**Step-6** Remove the nuts (2) per side and paired bolts securing the bumper brackets to the frame using an 18mm socket and ratchet, (Fig 6b). With assistance remove the factory bumper from the vehicle and set it aside. Retain the nuts and paired bolts to attach the replacement bumper brackets. **Note:** Slightly lift the intercooler and move it to one side at a time to remove the paired bolts.

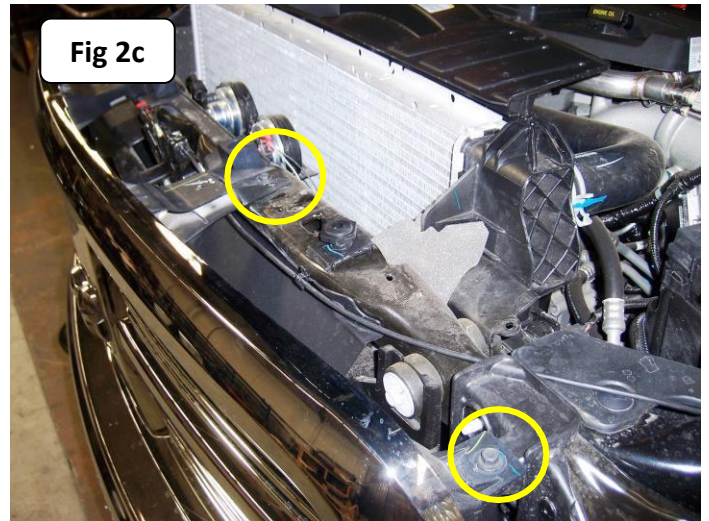
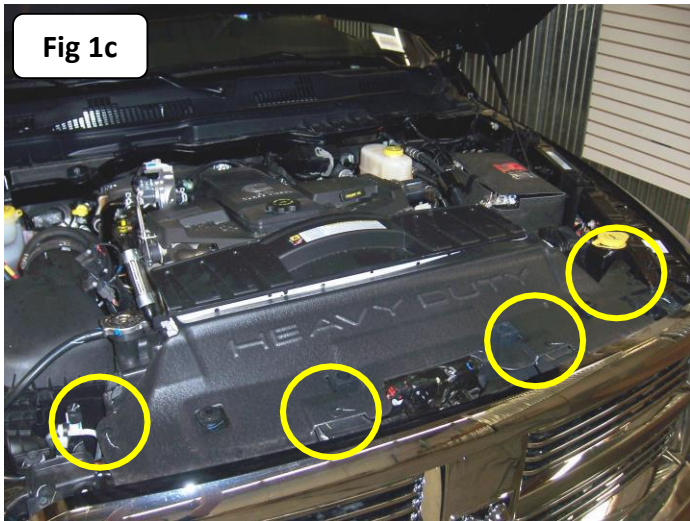


# INSTALLATION INSTRUCTIONS

## Factory Bumper Removal Diesel Models 2013-Up

**Step-1** Open the hood and remove the (4) plastic push in connectors securing the radiator dust cover to the radiator support using the tip of a screwdriver, (Fig 1c). Remove the dust cover from the vehicle.

**Step-2** Remove the (4) screws securing the top of the grille to the radiator support using a 10mm socket and ratchet, (Fig 2c). Slightly rotate the top of the grille forward, then gently pull straight out on the lower section to unsnap the (2) lower clips. Remove the grille from the vehicle.

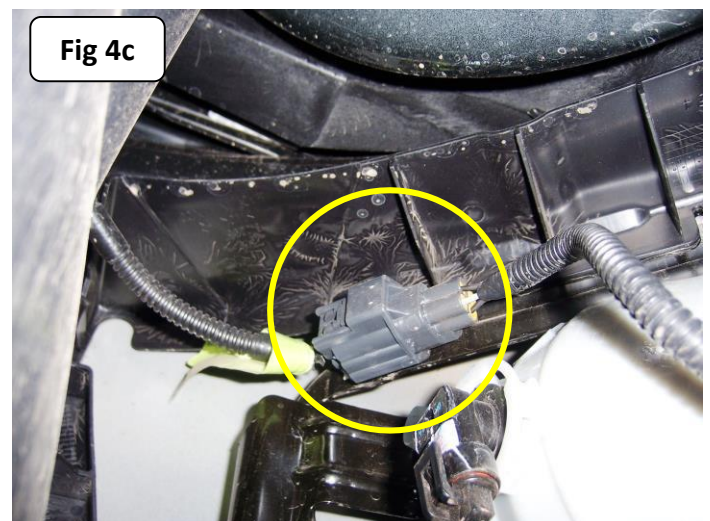
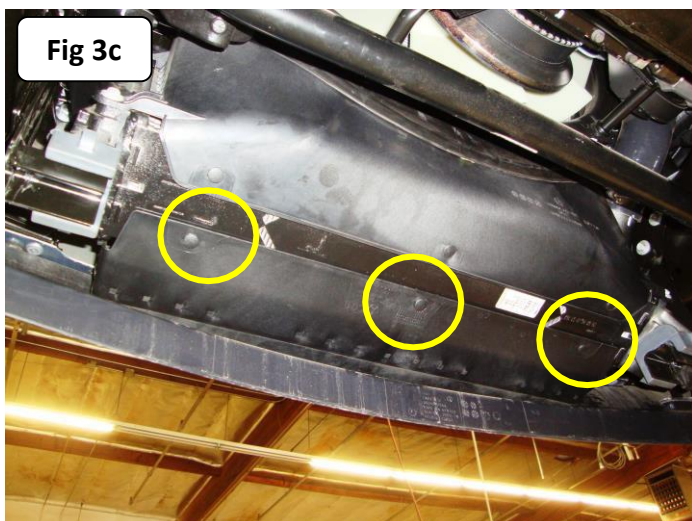


**Step-3** Remove the (3) plastic push in connectors securing the splash shield to the bottom of the radiator using the tip of a screwdriver. Leave the splash shield attached to the factory bumper, (Fig 3c).

If the vehicle has these options or equipment:

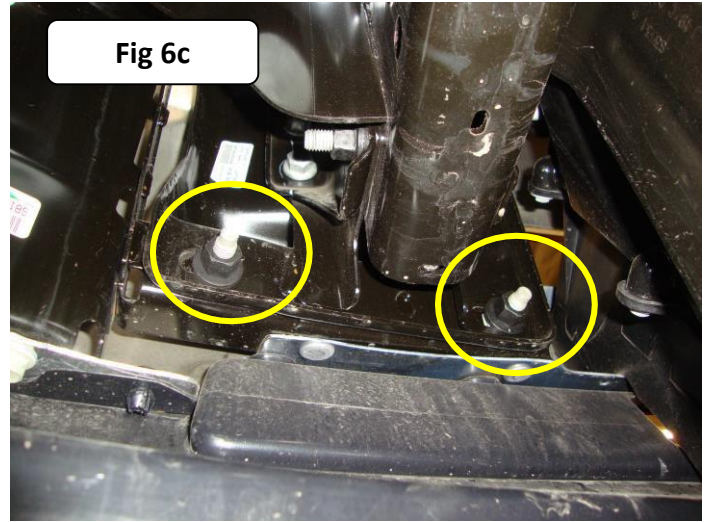
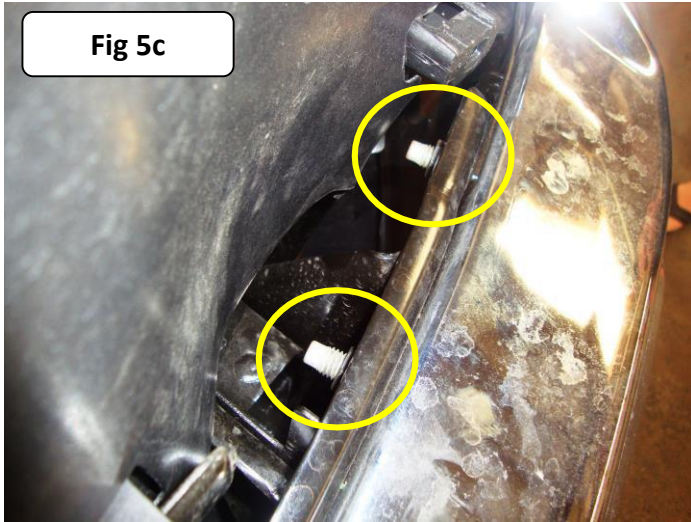
**Fog Lights** / Disconnect the fog light wiring harness on the driver side of the factory bumper, (Fig 4c).

**Engine Block Heater** / Remove the fasteners securing the power cord to the passenger side of the factory bumper.

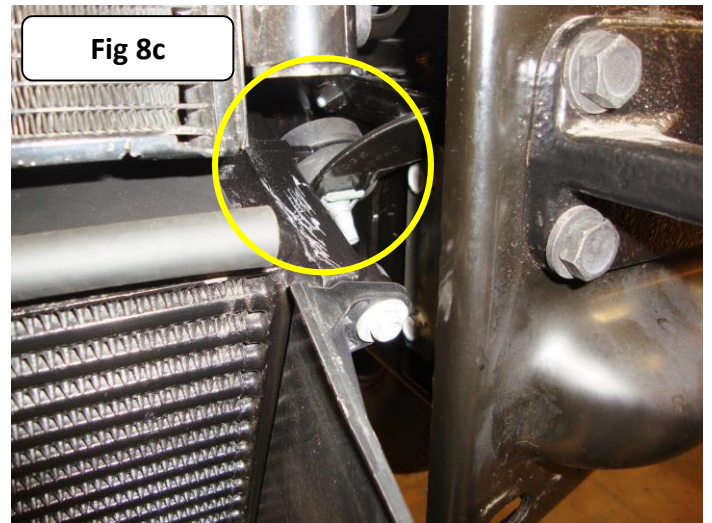
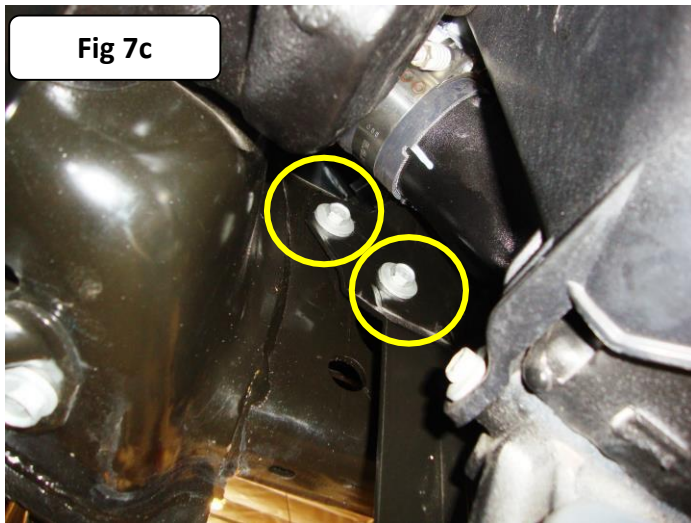


# INSTALLATION INSTRUCTIONS

**Step-4** Remove the nuts from the top and bottom (4) per side securing the bumper to the bumper brackets using an 18mm wrench, socket and ratchet, (Fig 5c & 6c). With assistance remove the factory bumper from the vehicle and set it aside.



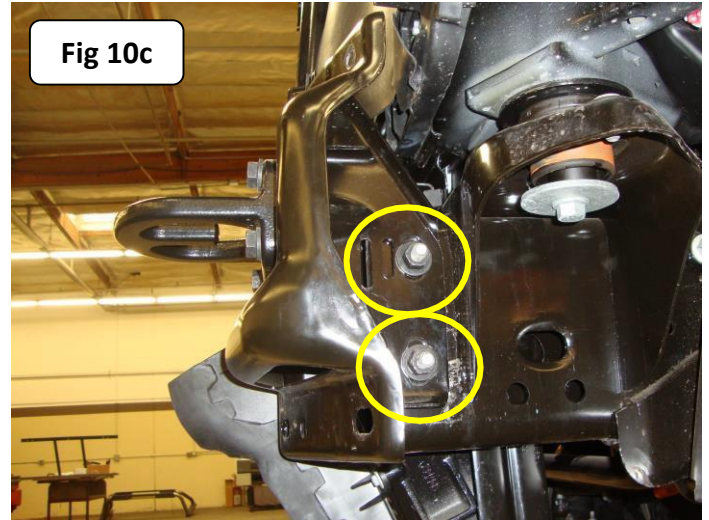
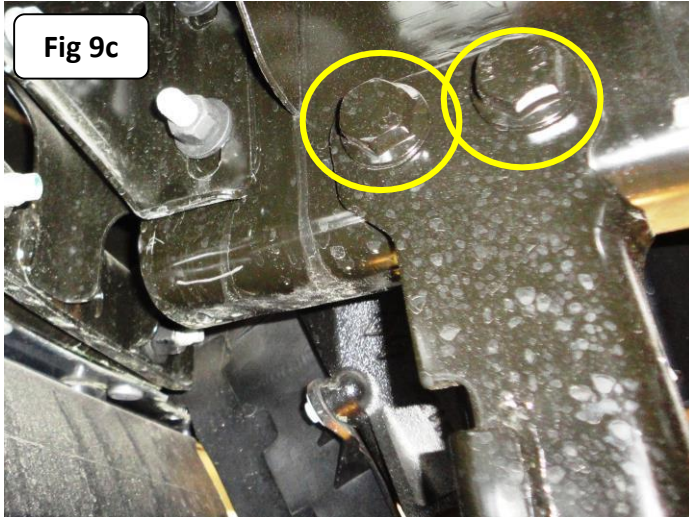
**Step-5** Remove the bolts (3) per side securing the intercooler bracket to the frame and intercooler, (Fig 7c & 8c).



# INSTALLATION INSTRUCTIONS

**Step-6** If equipped remove the nuts and bolts (2) per side securing the under rider brackets to the frame using a 24mm wrench, socket and ratchet, (Fig 9c).

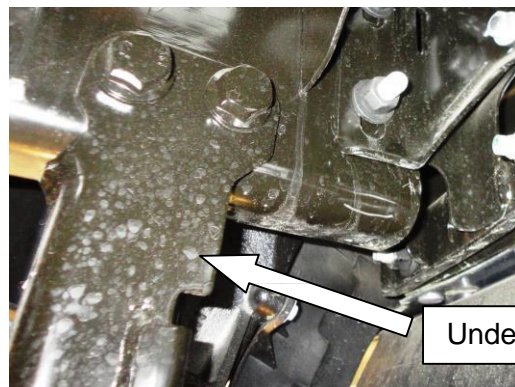
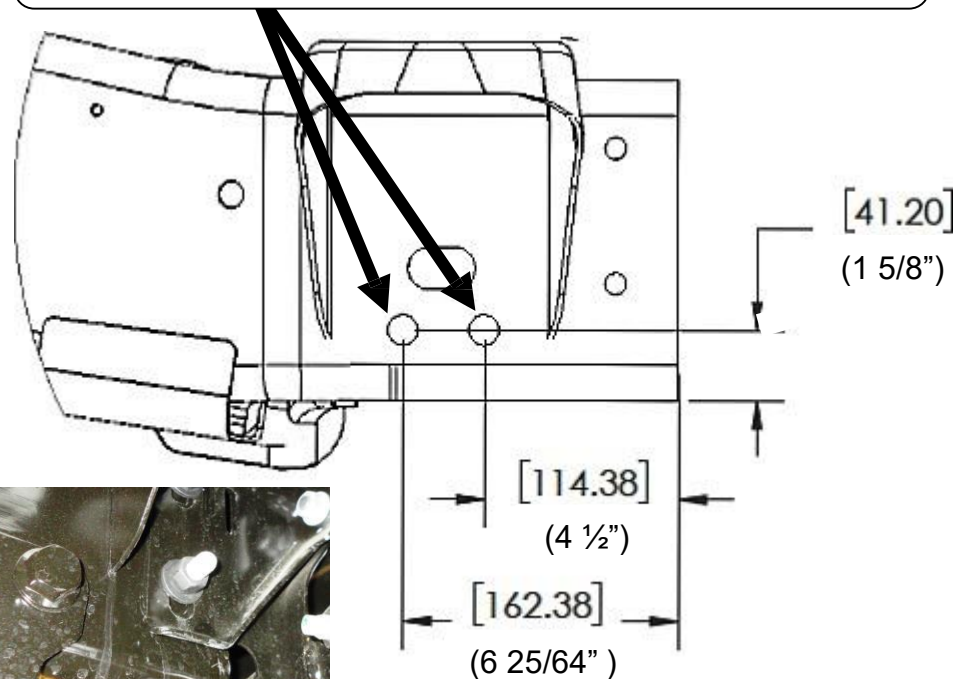
**Step-7** Remove the nuts (2) per side and paired bolts securing the bumper brackets to the frame using an 18mm socket and ratchet, (Fig 10c). Remove the brackets from the frame and set it aside. Retain the nuts and paired bolts to attach the replacement bumper brackets. **Note:** Slightly lift the intercooler and move it to one side at a time to remove the paired bolts.



**Step-8** Remove the (4) bolts and air duct from front of intercooler using a 10mm socket and ratchet. Note: The air duct will not be reinstalled.

Transfer the measurements from the diagram to the outside of the driver and passenger side frame rails. From the outside of the frame rail drill 5/8" holes through the frame rail.

**Note: All models.** If your vehicle does not have the under rider brackets and the attachment holes in the frame rails, drilling holes in the frame rails to attach the bumper replacement auxiliary and support brackets is required. Reference the diagram, and transfer the measurements on the outside of the driver and passenger side frame rails.





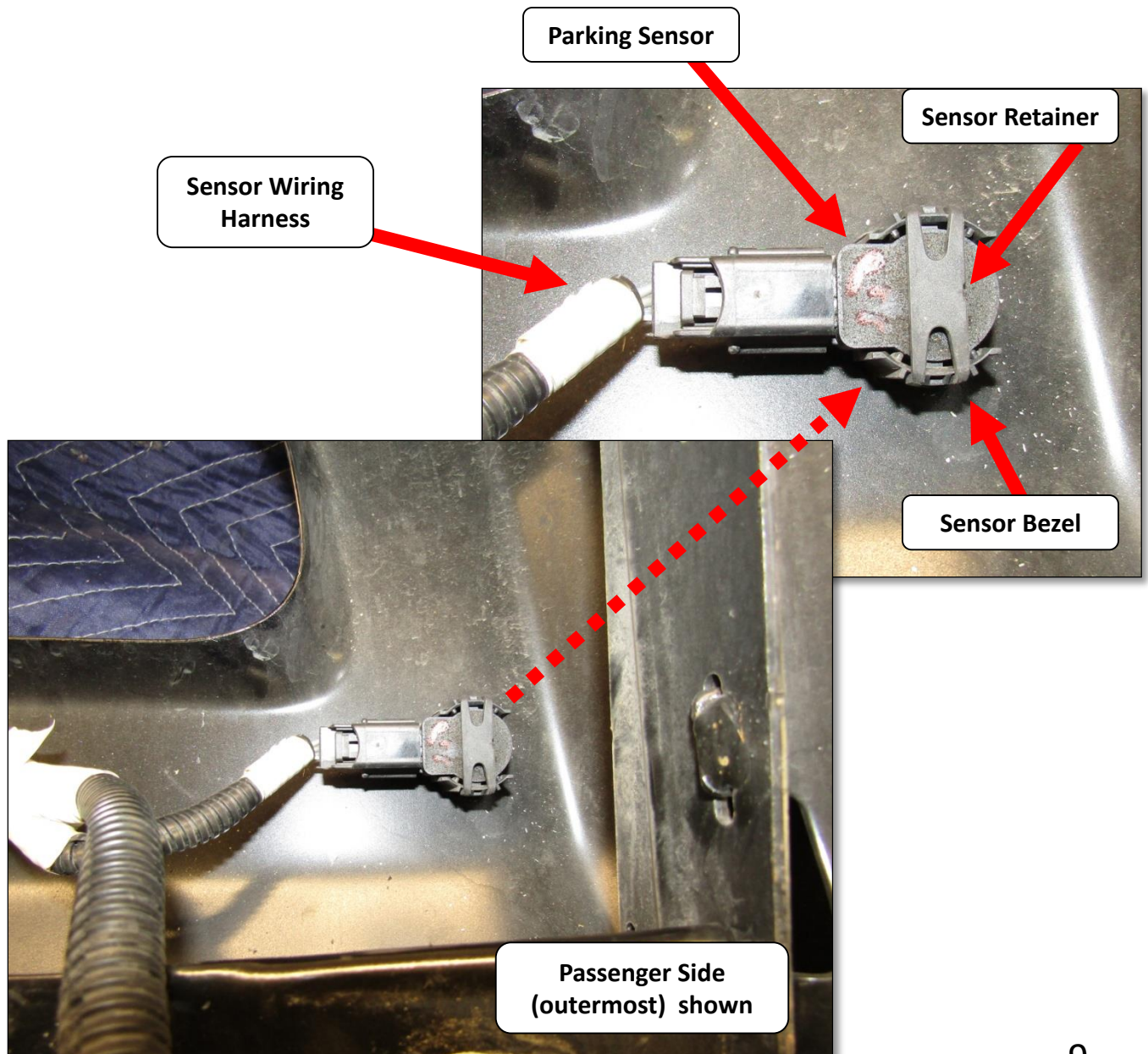
# INSTALLATION INSTRUCTIONS

If your vehicle is not equipped with front Park Assist, move ahead to [page 11](#) of the BR10.5 Bumper Installation instructions. If your vehicle is equipped with front Park Assist, continue with the following steps. **Note:** The Park Assist sensors and sensor bezels have to be installed in the BR10.5 bumper replacement in the same position as removed from the OEM bumper.

**Step-1** Disconnect the parking sensors from the OEM bumper wiring harness and remove the wiring harness from the OEM bumper.

**Step-2** Remove each parking sensor from the bezel by removing the retainer, then gently spreading the bezel tabs and pulling out on the back of the sensor. Note: Do not push on the front of the sensor as this may damage it.

**Step 3** Remove the parking sensor bezels from the OEM bumper by depressing the tabs around the base and pushing the bezel out through the front of the bumper.



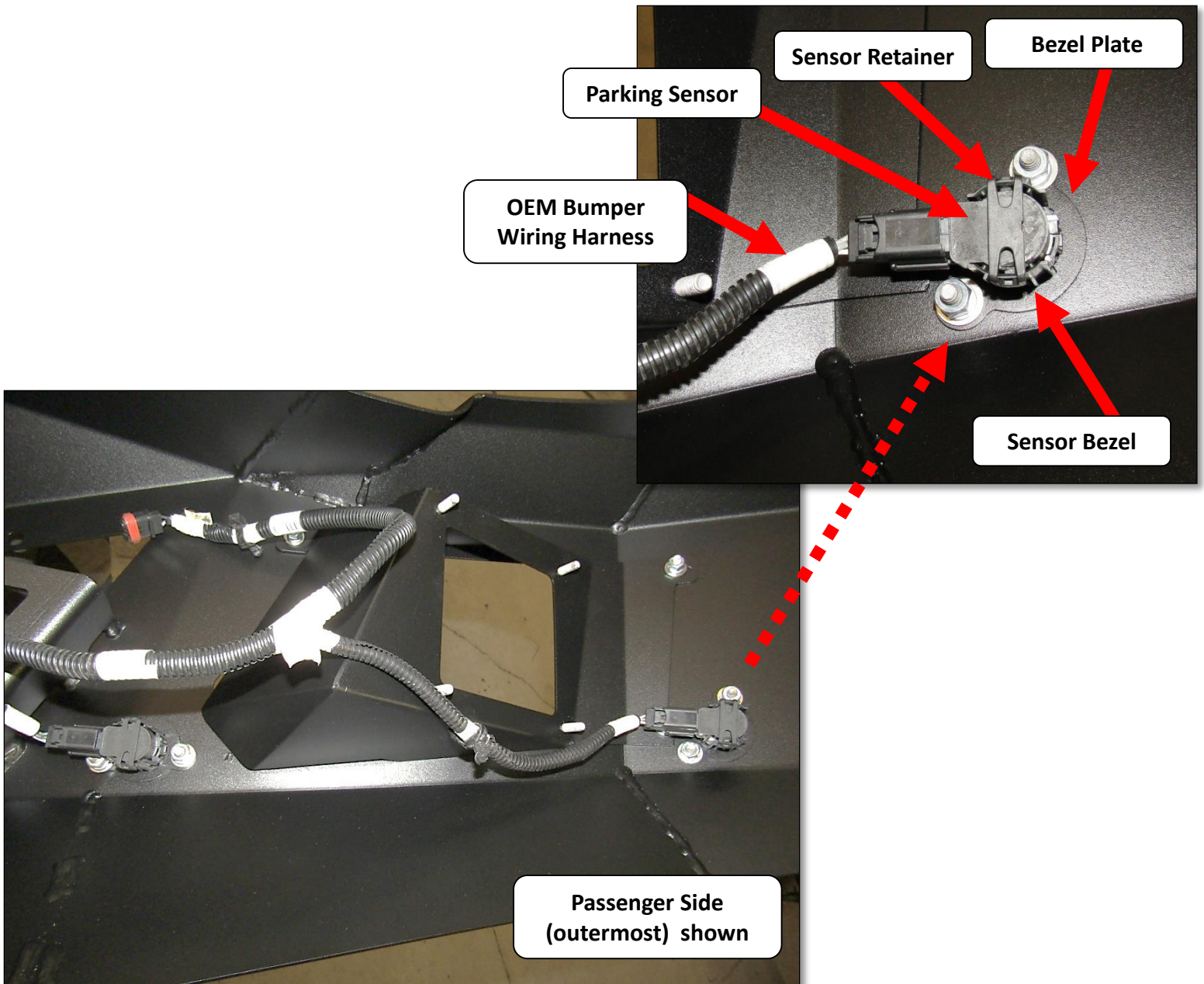
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## INSTALLATION INSTRUCTIONS

**Step-4** Remove the (6) plastic plugs from the sensor bezel plates that are pre installed in the BR10.5 bumper replacement.

**Step-5** Aline the protrusions on each sensor bezel with the profile in the matching bezel plate, then from the front of the BR10.5 bumper push the bezel through the profile in the plate until the tabs around the base lock in position. **Note:** The Park Assist sensors and bezels have to be installed in the BR10.5 bumper replacement in the same position as removed from the OEM bumper.

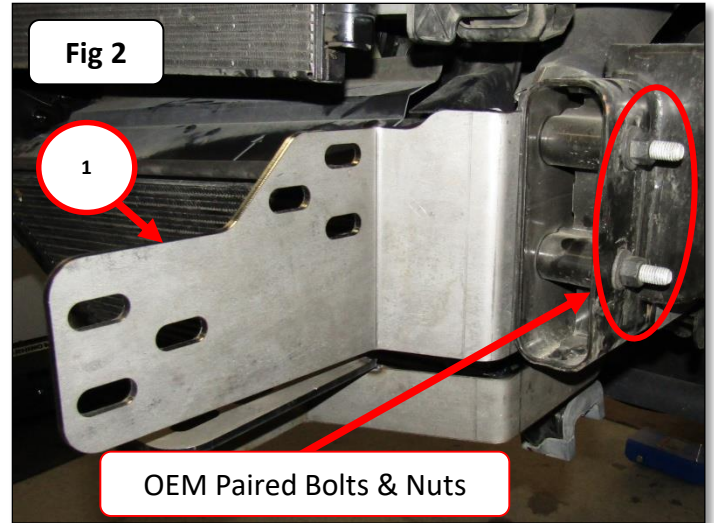
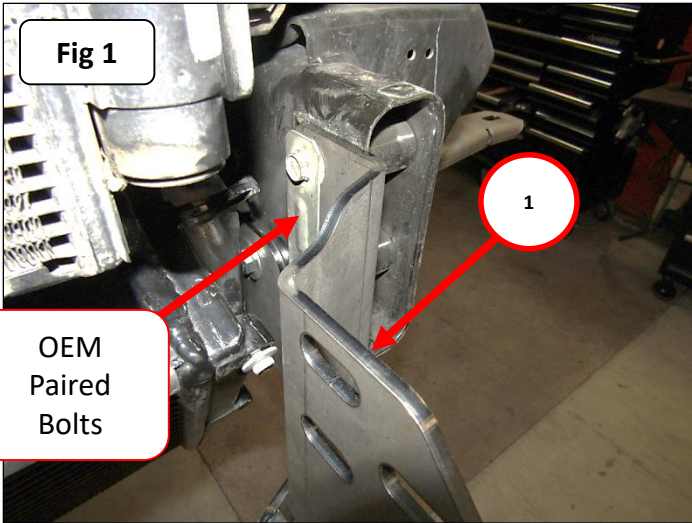
**Step-6** Install the parking sensors in the sensor bezels and retainers, then transfer the OEM bumper wiring harness to the BR10.5 bumper replacement and re-connect to the parking sensors.



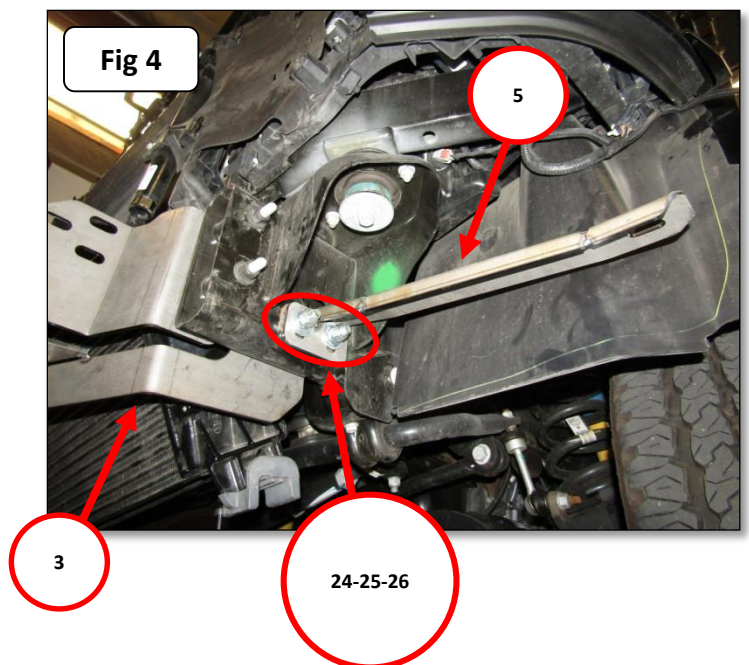
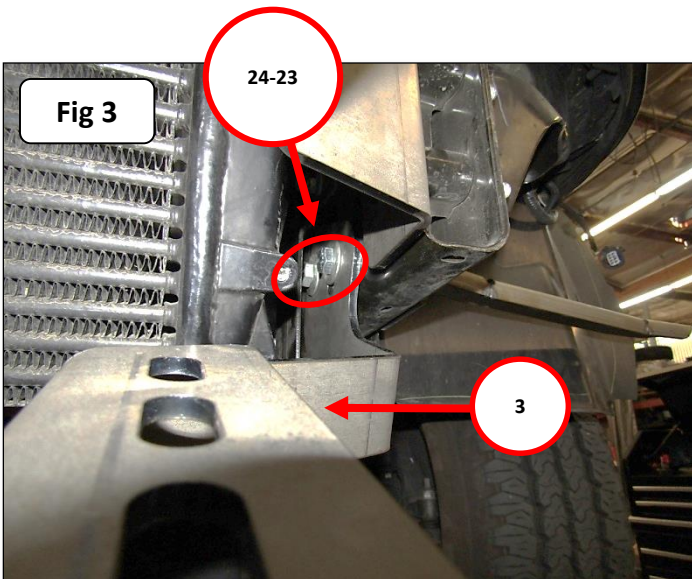
# INSTALLATION INSTRUCTIONS

## BR10.5 Bumper Replacement Installation

**Step-1** Install the driver side frame bracket by positioning the bracket on the inboard side of the frame. Align the holes in the frame bracket with the holes in the frame used for the OEM bumper bracket attachment, and then secure the bracket to the frame using the OEM paired bolts and nuts, (Fig 1 & 2). Leave the nuts and paired bolts loose for final adjustment. Repeat this step to install the passenger side frame bracket.

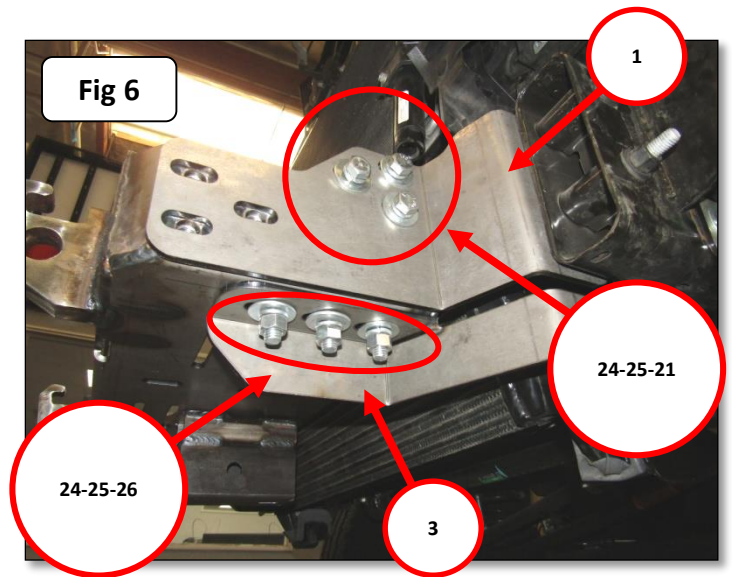
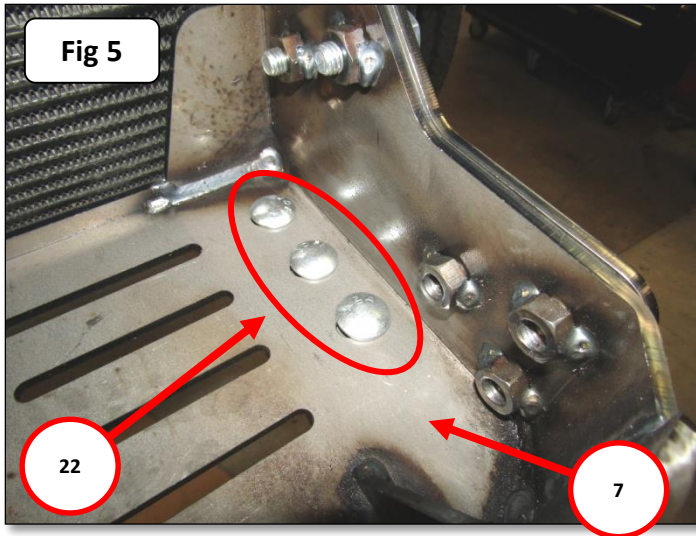


**Step-2** Install the driver's side auxiliary bracket and support bracket by positioning the auxiliary bracket on the inboard side of the frame and the support bracket on the outboard side of the frame. Align the holes in the brackets with the holes in the frame used for the OEM under rider bracket attachment, and then secure the auxiliary bracket and support bracket to the frame using (2) 1/2" x 4" hex bolts, (4) 1/2" flat washers, (2) 1/2" lock washers and (2) 1/2" hex nuts, (Fig 3 & 4). Leave the bolts loose for final adjustment. Repeat this step to install the passenger side auxiliary bracket.



# INSTALLATION INSTRUCTIONS

**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 (3) ½" x 1 ½" hex bolts, (3) ½" flat washers and (3) 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 nuts, (Fig 5, 6 & 7). Leave the nuts and bolts loose for final adjustment.

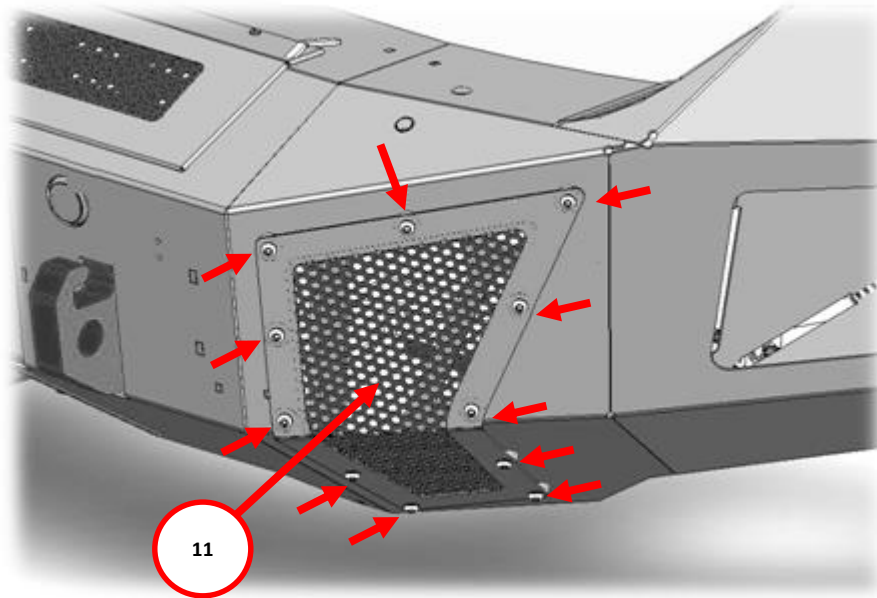


**Note:** If you are installing a winch, place the winch in the winch tray and refer to the winch manufacturer's instructions for installation. Do not install the fairlead at this time.

# INSTALLATION INSTRUCTIONS

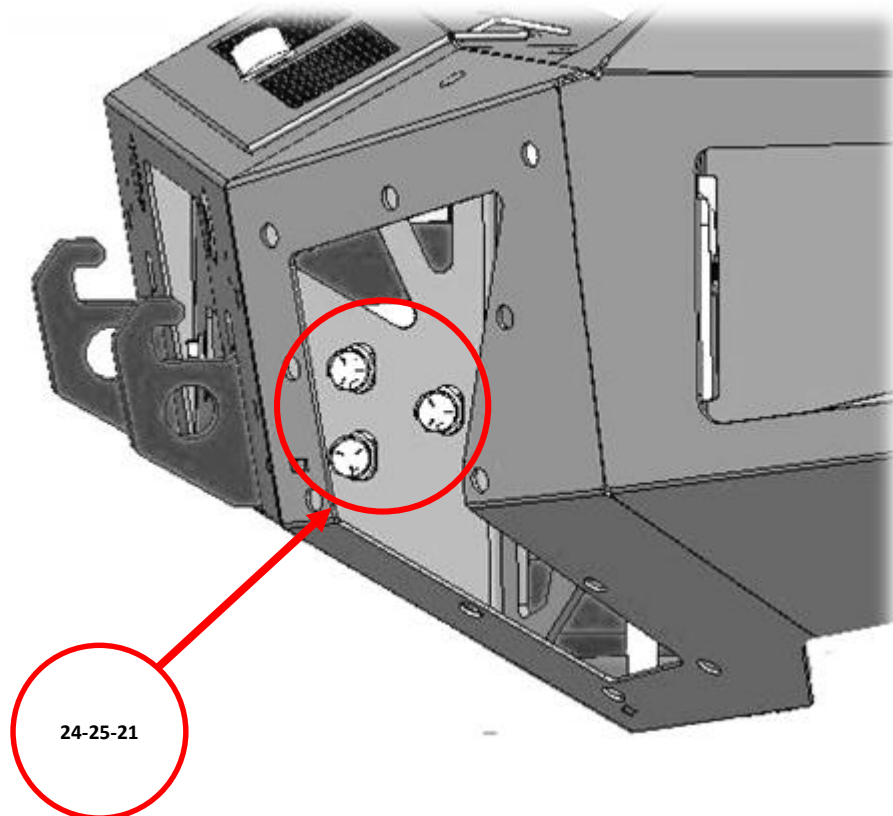
**Step-4** The pre-installed Mesh Vent Covers need to be removed from each side of the bumper using hand tools to slowly remove the bolts, (Fig 8). Note: Using an air assisted impact or ratchet will damage the bolt threads and rubber rivet-nut assembly.

Fig 8



**Step-5** 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, (Fig 9). Leave the bolts loose for final adjustment.

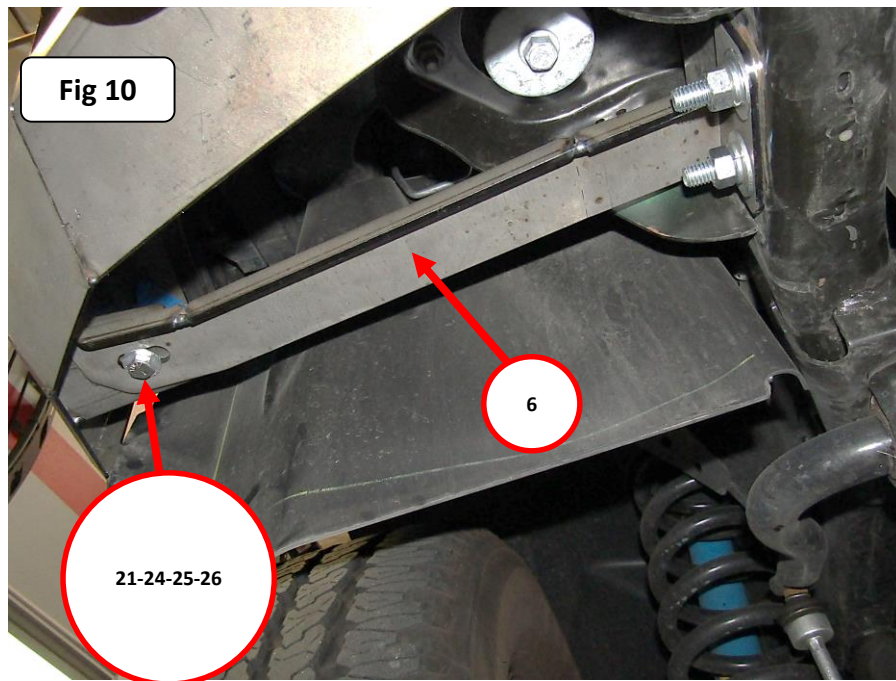
Fig 9



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## INSTALLATION INSTRUCTIONS

**Step-6** Attach the opposite end of each support bracket to the bumper shell bracket using (1) 1/2" x 1 1/2" hex bolt, (2) 1/2" flat washers, (1) 1/2" lock washer and (1) 1/2" hex nut, (Fig 10).



**Step-7** With assistance, adjust and hold the bumper shell visual alignment position, then tighten all supplied nuts and bolts securing all brackets, winch tray and bumper shell.



# GO RHINO®

## INSTALLATION INSTRUCTIONS

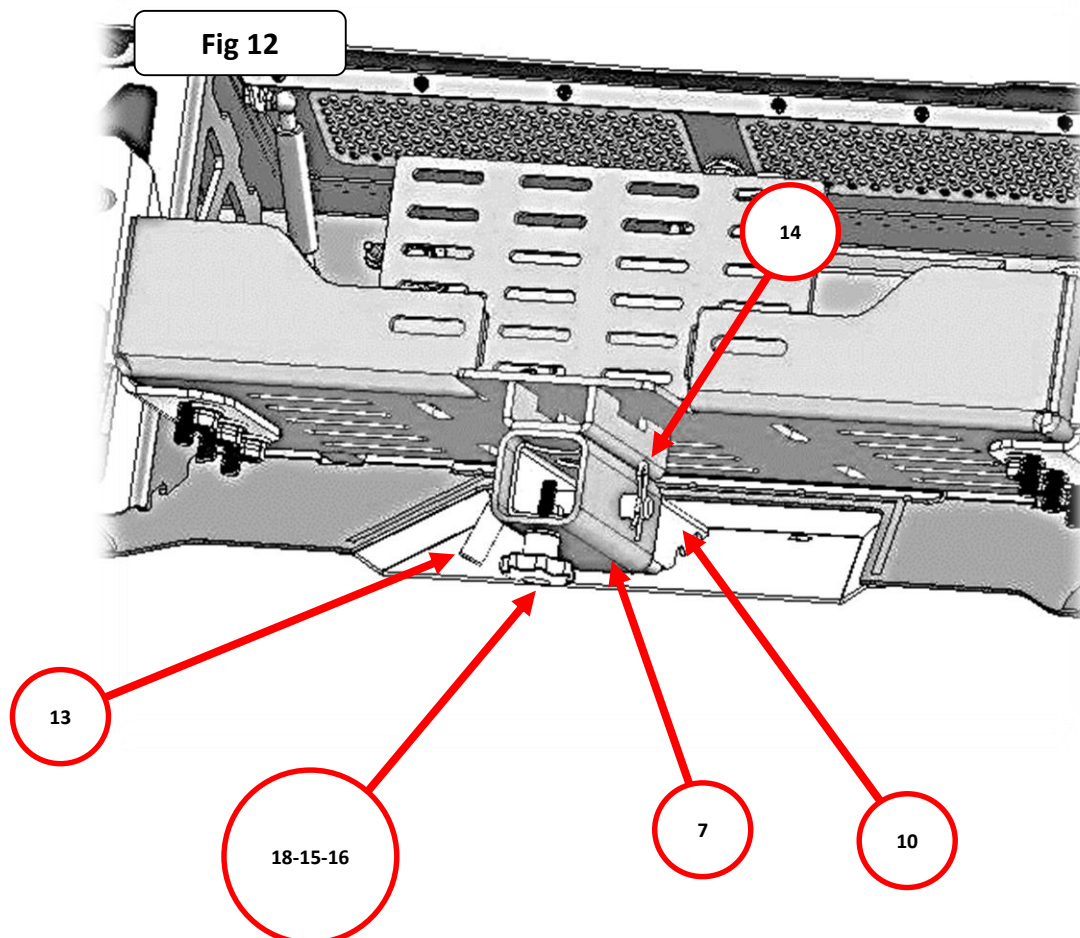
**Step-8** If installing a winch, install the roller fairlead to the bumper shell at this time. Refer to the winch manufacturer's instructions for installation. If installing an BR5.5 bumper replacement optional light bar, install the light bar to the bumper replacement at this time. Refer to the light bar instructions for installation.

**Step-9** 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 4.

**Step-10** Insert the hitch cover bracket into the winch tray receiver tube, (Fig 12).

**Step-11** Align and push the hitch pin through the holes in the winch tray receiver tube and hitch cover bracket, and secure the hitch pin with the hairpin cotter pin, (Fig 12).

**Step-12** Assemble the threaded rod, 3/8" flat washer and knob. Position the threaded rod through the hole in the winch tray receiver tube, screw the rod into the hitch cover bracket then tighten, the knob (Fig 12).

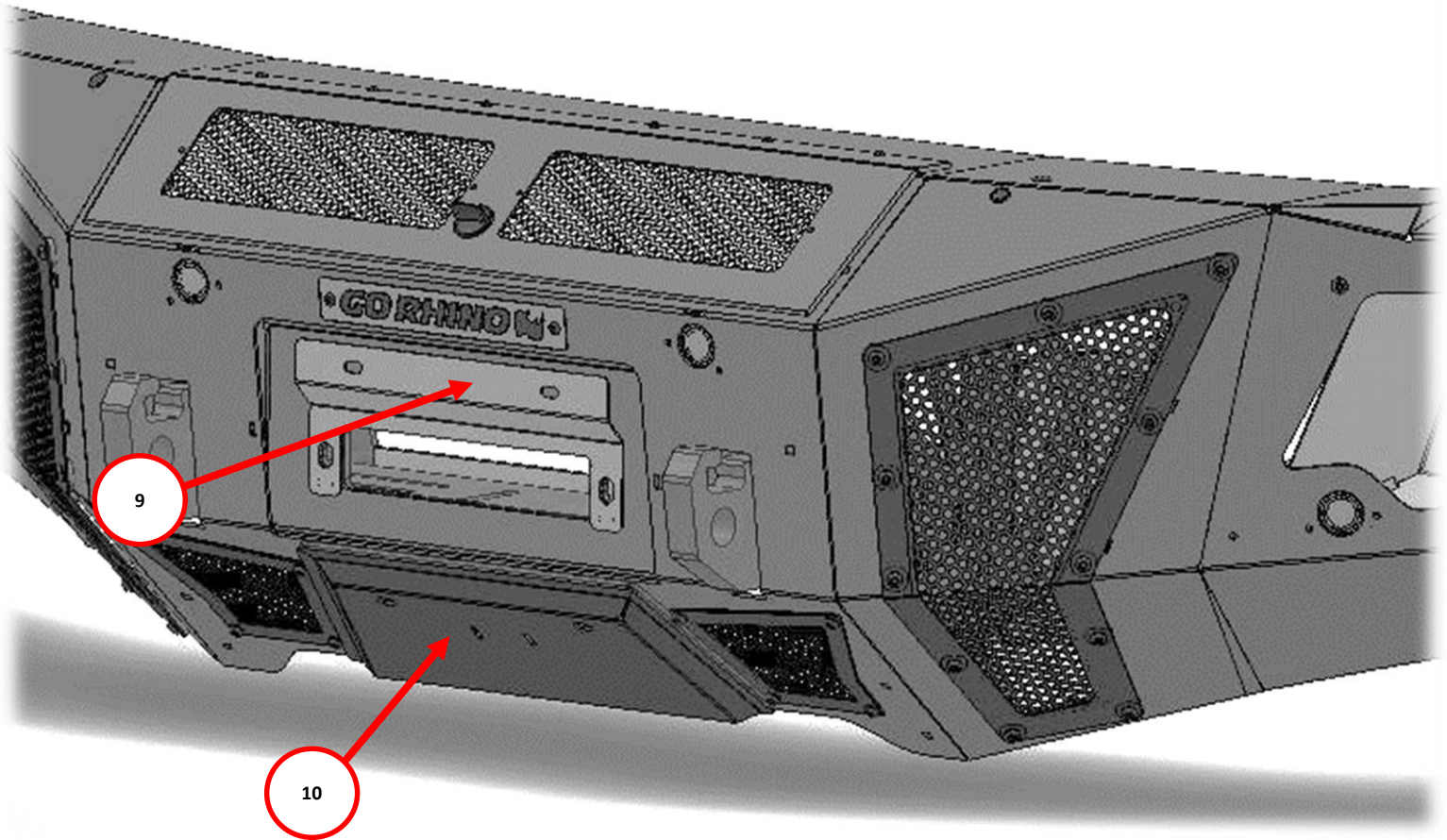


# GO RHINO®

## INSTALLATION INSTRUCTIONS

**Step-13** 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. Attach the license plate to the holes in the license plate bracket. If installing a winch, attach the license plate directly to the holes in the hitch cover, (Fig 13).

Fig 13



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





# INSTALLATION INSTRUCTIONS

## LIMITED WARRANTY

Go Rhino warrants to Buyer that for a period of five (5) years from the date of shipment of the product(s) ("Warranty Period") for black finishes and chrome finishes, that such products will materially conform to the specifications set forth in Go Rhino's specifications in effect as of the date of shipment(s) and will be free from material defects in material workmanship.

Go Rhino warrants to Buyer that for the life of the product(s) from the date of shipment of the product(s) ("Warranty Period") for polished stainless steel finished products purchased after April 2004, that such products will materially conform to the specifications set forth in Go Rhino's specifications in effect as of the date of shipments and will be free from material defects in material workmanship.

Warranty claims must be accompanied with the original invoice and photos of the product. It is the customer's responsibility to clean regularly and protect finish with regular applications of a nonabrasive polish that is compatible with the product's finish.

This warranty covers the cost of the product only and does not include the cost of removal, installation, third party modifications or shipping of the product. In no event shall Go Rhino be liable to buyer or any third party for any damage or harm caused by the product or use thereof, regardless of weather such damages were foreseeable and whether or not Go Rhino has been advised of the possibility of such damages, not withstanding the failure of any agreed or other remedy of its essential purpose. This warranty is void if the product shows signs of alteration, misuse, mishandling, improper care, neglect, improper application and/or damage due to improper installation.

With respect to any such product(s) during the limited warranty period, Go Rhino shall, in its sole discretion, either: (i) provide a one-time repair or replacement of such products (or the defective part) or (ii) credit or refund the price of such products at the pro rata contract rate provided that, if Go Rhino so requests, Buyer shall, at Go Rhino's expense, return such product(s) to Go Rhino. The remedies shall be the Buyer's sole and exclusive remedy and Go Rhino's entire liability for any breach of the limited warrant(ies).

Go Rhino disclaims all other warranties except to the extent that any such warranty cannot be validly disclaimed under applicable law.

### Finish Limited Warranty:

Limited lifetime on stainless steel products (after April 2004)

5 year warranty on black powder coat products

5 year warranty on chrome products

This warranty does not cover exposed welds

Finish warranty covers peeling, flaking, or cracking. Washing all finishes regularly with car wash soap and rinsing well with water is the best method for maintaining the finish on your products. You must also protect the finish with nonabrasive automotive wax on a regular basis. The use of any compound which contains abrasives becomes a self-defeating exercise as the compound scratches the finish and opens it to corrosion. The use of harsh chemicals used to remove bugs and tar may also cause the finish to fail and should be avoided.

If you are unsatisfied with your purchase please contact the establishment you purchased the product from.

If you need to place a warranty claim or need assistance, the Go Rhino customer service team will answer any questions you may have. Please contact the Go Rhino customer service team at 1-888-427-4466 during normal business hours Monday thru Friday 7 am to 5 pm PST. You may also email [warranty@gorhino.com](mailto:warranty@gorhino.com). In order to better serve you please provide a copy of the original invoice / receipt, a photo of the issue you are experiencing and a photo of the vehicle the product is installed on.

All warranty returns must have an approved RGA number. The RGA number must be clearly marked on the exterior of the return package. All approved warranty returns must be shipped to Go Rhino Products, 1002 Carriers Drive, Laredo, Texas 78045.

## PRODUCT REGISTRATION

Please remember to register your new purchase. You may register your product at [www.gorhino.com](http://www.gorhino.com). Registering your product may help speed any future warranty or customer service inquiries.

**Thank you again for purchasing from Go Rhino Products**

Please take a few minutes to view additional products for your vehicle and more at [GORRHINO.com](http://GORRHINO.com)  
These installation instructions are available on the Go Rhino web site along with installation videos for many of our products.

[www.gorhino.com](http://www.gorhino.com)

[www.bigcountryauto.com](http://www.bigcountryauto.com)

[www.gorhinopd.com](http://www.gorhinopd.com)