

GO RHINO®

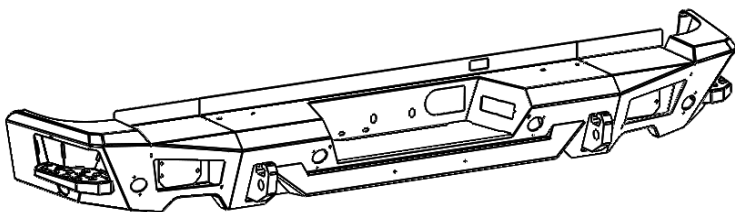
INSTALLATION INSTRUCTIONS

PART NO.

- 28130T

PRODUCT DESCRIPTION:

- BR20 BUMPER REPLACEMENT



APPLICATION:

- RAM 1500

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.

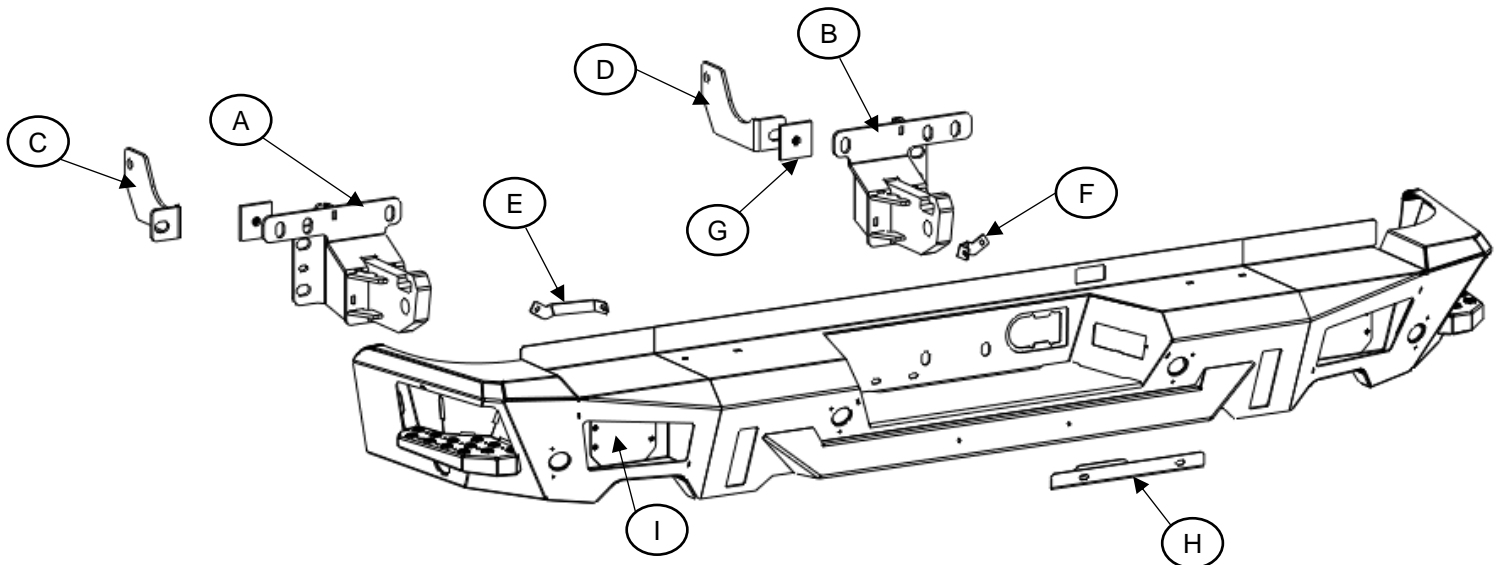
- Installation of some of these products may alter the factory sensor system performance.
- Factory sensors may read shackles or hooks protruding from the fairlead and or tow hooks.
- All sensor testing is completed by Go Rhino Products and or third party testing labs on modified vehicles.
- Sensor sensitivity, 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
A	1	Frame Bracket (driver)	J	6	Sensor plates (pre-installed)	S	2	¼ x ¾" Carriage Bolt
B	1	Frame Bracket (passenger)	K	6	½ x 1 ½" Carriage Bolt	T	2	¼ x ¾" Hex Bolt
C	1	Auxiliary Bracket (driver)	L	8	½ x 1 ½" Hex Bolt	U	4	¼" Flat Washer
D	1	Auxiliary Bracket (passenger)	M	18	½" Flat Washer	V	2	¼" Lock Washer
E	1	Light Bracket (driver)	N	14	1/2" Lock Washer	W	2	¼" Hex Nut
F	1	Light Bracket (passenger)	O	11	½" Hex Nut	X	2	¼" Lock Nut
G	2	Nut plate	P	2	¼ x ¾" Hex Bolt	Y	2	Zip-Tie
H	1	License Plate Bracket	Q	2	¼" Flat Washer			
I	2	Light Pods Plates (pre-installed)	R	2	¼" Lock Nut			



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

TOOLS NEEDED FOR INSTALLATION:

- 3/4" Socket & Wrench
- 9/16" Socket & Wrench
- 8, 10, 12 & 18mm Socket
- Ratchet & Extension

ESTIMATED TIME FOR INSTALLATION:

1.5 Hour

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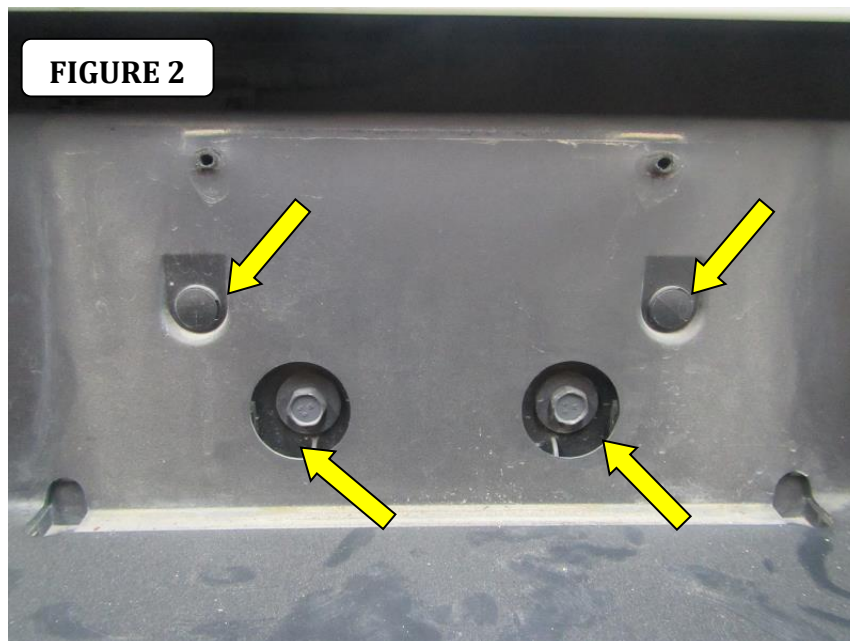
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OEM Bumper Removal

Step-1 From under the vehicle, on the driver side, disconnect the bumper wiring harness from the vehicle wiring harness (FIGURE 1).



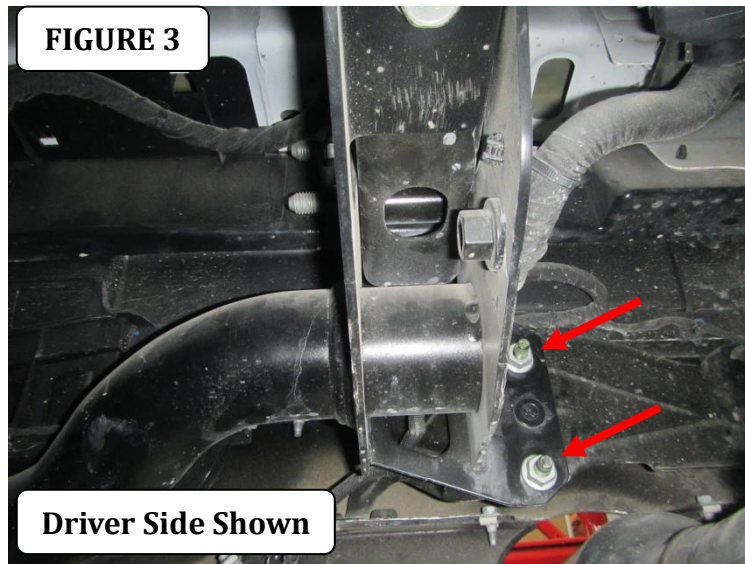
Step-2 Remove the license plate then remove (2) screws securing the rear bumper, and the (2) plastic clips (FIGURE 2).



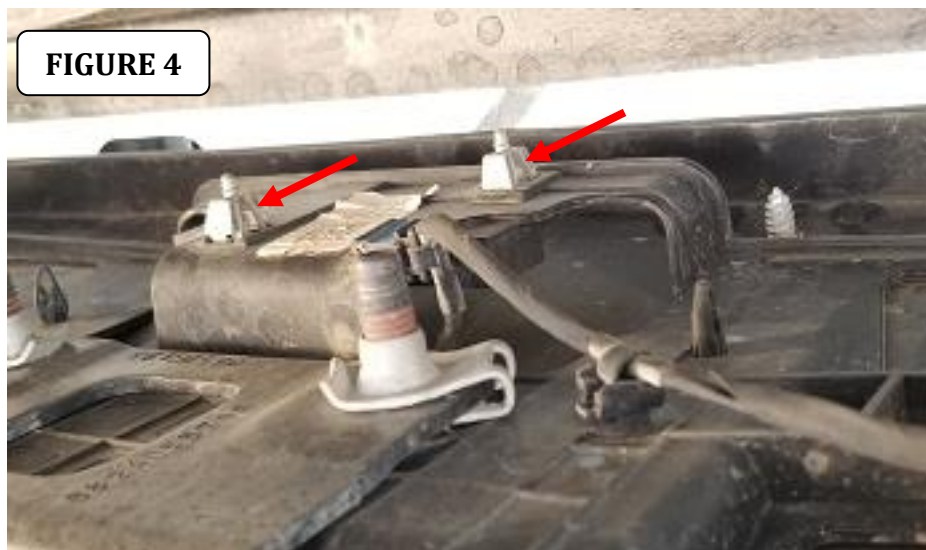
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Step-3 From underneath on each side of the vehicle, using a 18mm socket remove (2) nuts securing the OEM bumper , (FIGURE 3). Remove the OEM bumper from vehicle.



Step-4 Remove the key sensor from the OEM bumper. Release the two fasteners from the support by squeezing their tabs. Unplug the key sensor. Figure 4.



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Step-5 Remove each parking sensor from the plastic bezel by gently spreading the bezel tabs and pulling out on the back of the sensor. Figure 5. Note: Do not push on the front of the sensor as this may damage it.

FIGURE 5

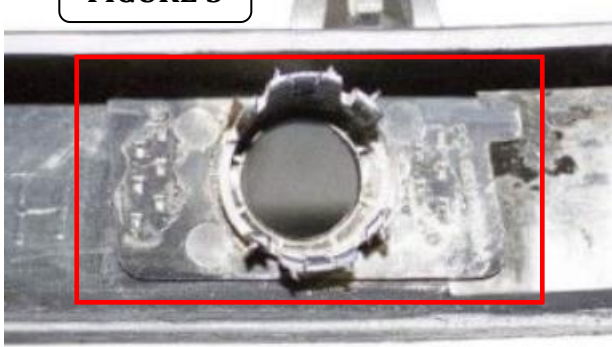


FIGURE 6

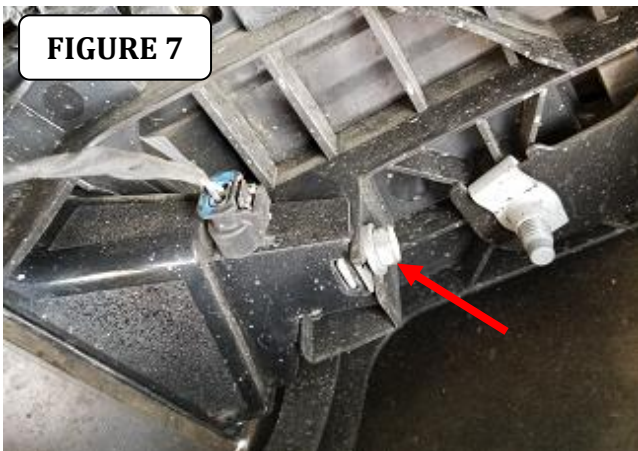


Step-6 Remove the parking sensor bezels from the OEM bumper by using a cutting knife to cut carefully the plastic welds holding the parking sensor bezel. Figure 6. NOTE: The sensors have to be positioned in the bumper replacement in the same location (inner and outer), (driver and passenger) as removed from the OEM bumper.

Step-7 Unplug the wiring connector on the back side of the OEM bumper for the trailer plug, and remove the trailer plug from the OEM bumper by pressing in the tabs on the back side of the trailer plug and pushing it out from the front of the bumper.

Step-8 Remove the license tag lights by loosening the bolt that holds the tag light using a 10mm socket. Figure 7. Unplug the wiring connector. NOTE: You will use the bolt removed later.

FIGURE 7

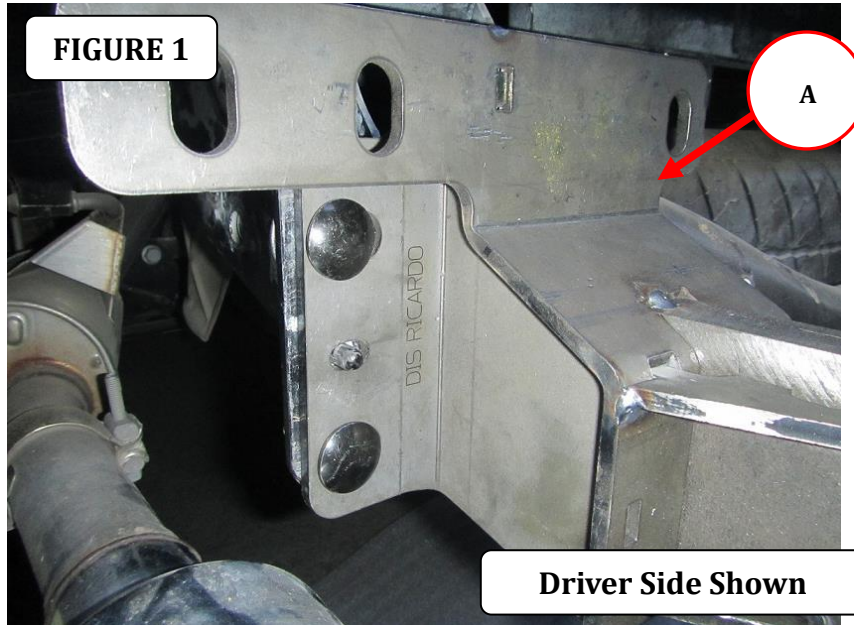


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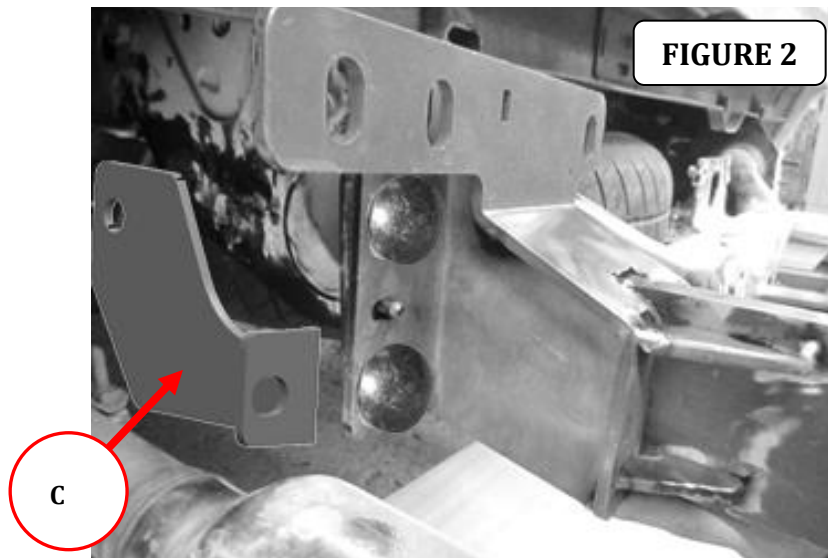
INSTALLATION INSTRUCTIONS

BR20.5 Bumper Installation

Step-1 Install the driver side frame bracket by positioning the bracket up to the end of the receiver hitch member plate, align the upper hole and secure using (1) ½" x 1 ½" carriage bolt, (1) ½" flat washer, (1) ½" lock washer and (1) ½" hex nut. Leave the nut loose for final adjustment. Figure 1.



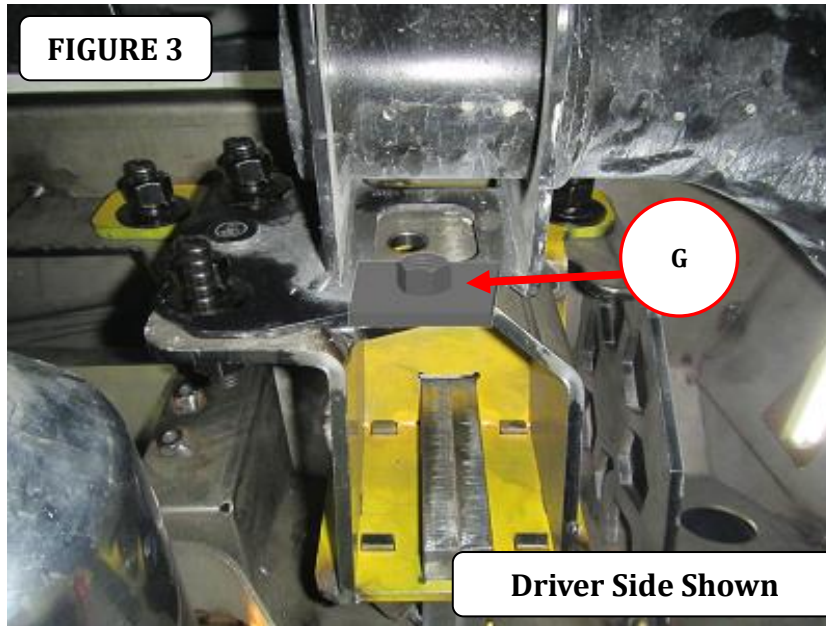
Step-2 Place the auxiliary bracket by positioning the bracket against the bracket of the receiver hitch, align the holes and secure to the receiver hitch bracket using (1) ½" x 1 ½" hex bolt, (1) ½" flat washer, (1) ½" lock washer. Secure to the lower bolt on the frame bracket using (1) ½" flat washer, (1) ½" lock washer and (1) ½" hex nut. Leave the bolt and nut loose for final adjustment. Figure 2. **NOTE:** On passenger side use (1) ½" x 1 ½" hex bolt, (1) ½" flat washer, (1) ½" lock washer and (1) ½" hex nut to attach the auxiliary bracket to the receiver hitch bracket.



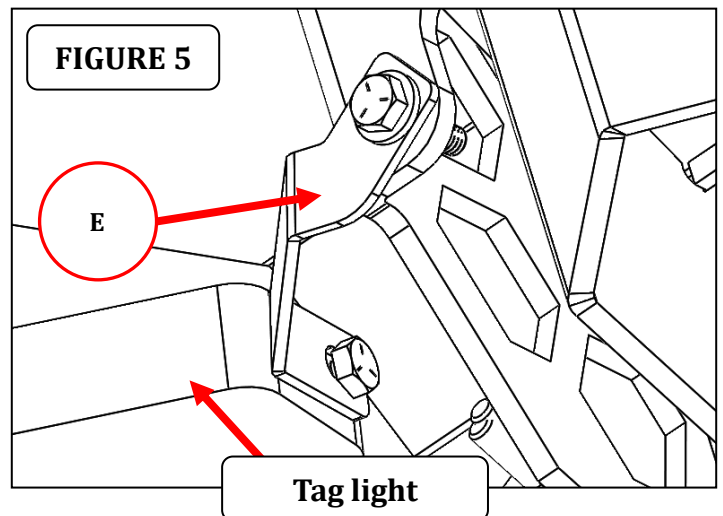
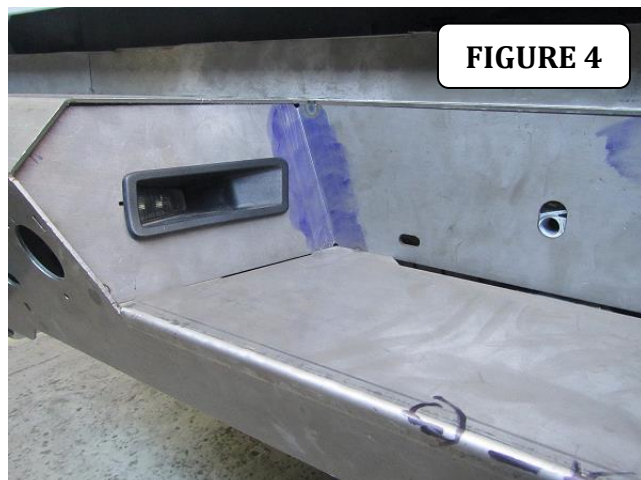
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Step-3 Attach the nut plate by introducing at the back of the receiver hitch support, align the nut and secure using (1) ½" x 1 ½" hex bolt, (1) ½" flat washer, (1) ½" lock washer. Leave the bolt loose for final adjustment. Figure 3.



Step-4 Install in the driver side the tag light housing by positioning the housing through the slot in the BR20.5 bumper, figure 4. Secure the housing to the bumper using the tag light bracket with (1) ¼" x ¾" hex bolt, (1) ¼" flat washer and (1) ¼" lock nut, and the bracket to the housing with the factory bolt previously removed. Figure 5. Tighten the bolts. Repeat for the passenger side tag light housing.



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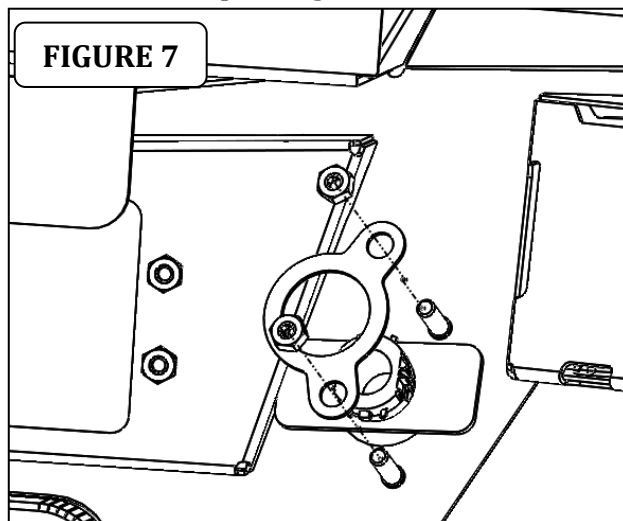
Step-5 From the front of the BR20.5 bumper, install the trailer plug by pressing it into its precut hole in the bumper until the metal clips move into place, figure 6.



Step-6 Remove the (6) plastic plugs from the sensor bezel plates that are preinstalled in the BR20.5 bumper.

Step-7 Aline each sensor bezel in the BR20.5 sensor openings, attach to the rear of the BR5.5 bumper using the sensor bezel plates, (2) ¼" lock washers and (2) ¼" lock nuts. Figure 7. **Note:** The Park Assist sensors and bezels have to be installed in the BR20.5 bumper replacement in the same position as removed from the OEM bumper. If necessary you will have to trim the parking sensor bezel to ensure the same position as they came off the OEM bumper.

Step-8 Install the parking sensors in the sensor bezels and transfer the OEM bumper wiring harness to the BR20.5 bumper and re-connect to the parking sensors.

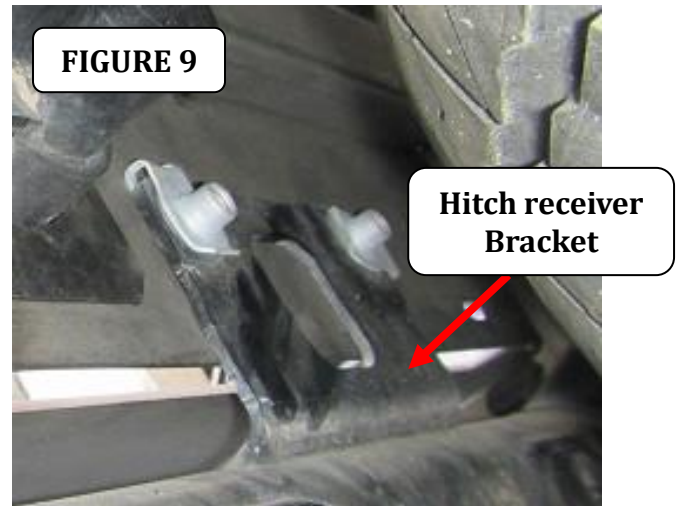
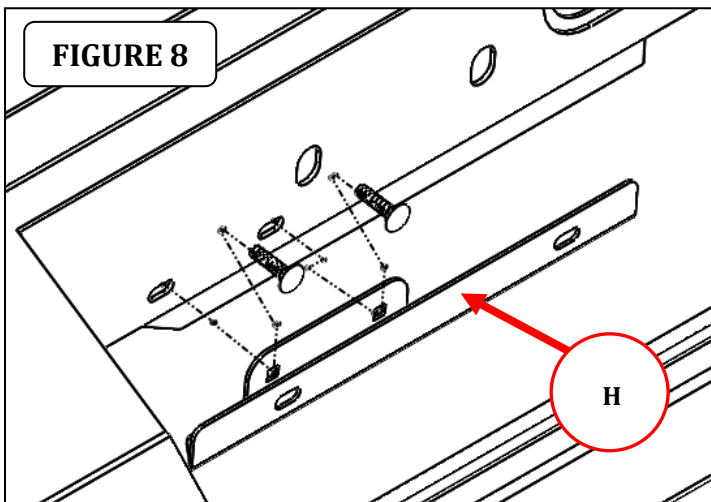


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Step-9 If your state law requires a rear license plate, attach the license plate bracket to the holes in the face of the bumper shell using (2) ¼ x ¾" carriage bolt, (2) ¼" flat washers and (2) ¼" lock nuts. Figure 8.

Step-10 Use the zip-ties to secure the key sensor to the hitch receiver bracket. Figure 9.



Step-11 With assistance lift the BR20.5 bumper up to the vehicle, and position the bumper so the driver and passenger side frame bracket D-Shackle mounts protrude out through the rectangular openings in the bumper.

Step-12 Align the holes and attach the frame brackets using (3) ½" x 1-½" carriage bolts, (3) ½" flat washers, (3) ½" lock washers and (3) ½" Hex nuts, figure 10. Leave the nuts and bolts loose for final adjustment.



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INSTALLATION INSTRUCTIONS

Step-13 Attach the center of the BR20.5 bumper to the receiver hitch using the (2) OEM bolts removed in step 4 of the OEM bumper removal , figure11.

Step-14 Reconnect the wiring connector to the trailer plug, and the bumper wiring harness connector to the vehicle wiring harness connector.



Step-15 Align the BR20.5 bumper with the vehicle, verify that the tailgate clears the top of the bumper replacement when lowered, then tighten all nuts and bolts.

