



**Assembly, Installation, Operation and
Maintenance Instructions
Rear LD Bumper**

**Part Number:
RLDB003TI**

60 - 180 minutes

Dealer / Installer: Provide a copy of these instructions to the end user of this product. These instructions provide important operating and safety information for proper usage of this product. Demonstrate the proper use of the product with the end user. Have the end user demonstrate that they understand the proper use of the product.

End User: Read and follow all instructions included in this manual. Ask your Dealer / Installer for assistance if you do not understand the proper use of the product. Never remove any decals from the product. Failure to follow these instructions can result in injury or death.

⚠ WARNING ⚠

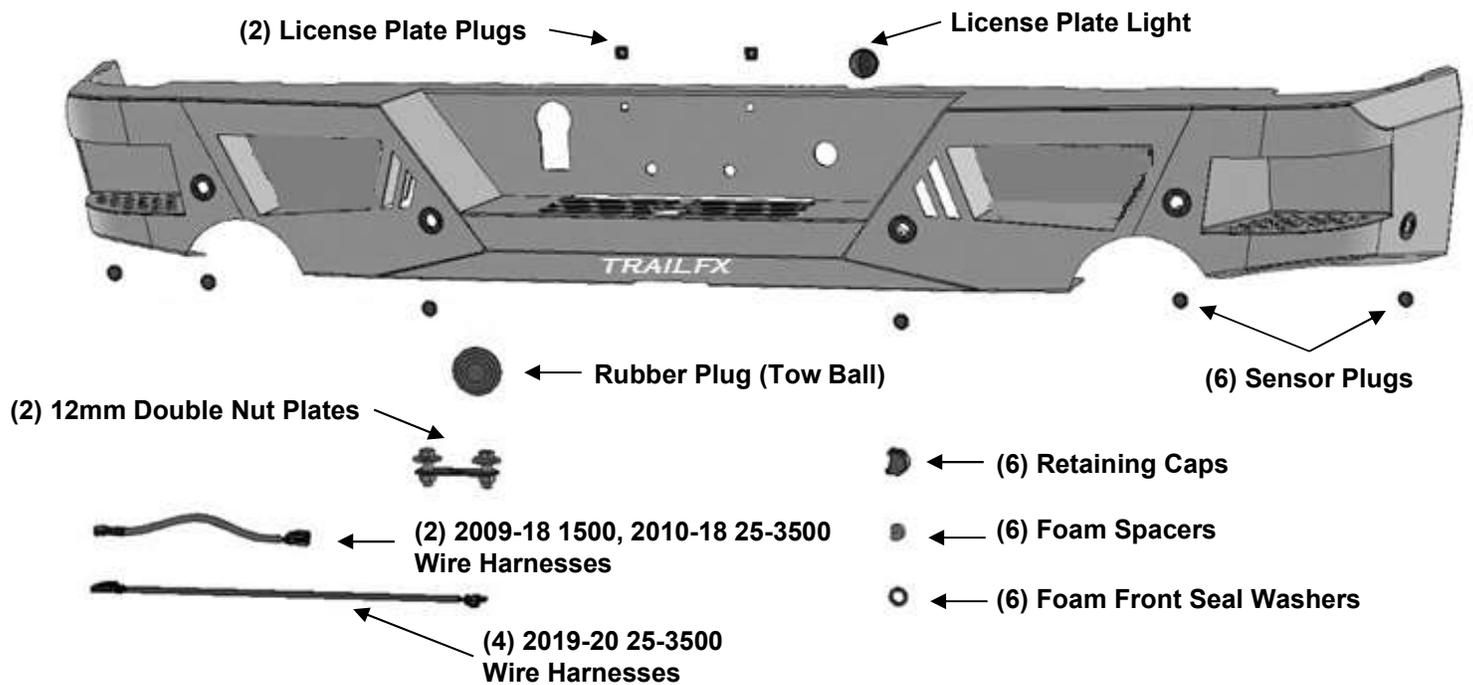
APPLICATION: 2009- 2018 RAM 1500 (Incl. 19-23 Ram 1500 Classic)
 2010-Current RAM 2500/3500

PARTS LIST

Qty	Part Description	Qty	Part Description
1	LD1 Rear Bumper Assembly	4	12-1.75mm x 40mm Hex Bolts
1	Step Hole Plug	4	12mm x 37mm x 3mm Flat Washers
1	Push in License Plate Light	4	12mm Lock Washers
2	Plastic Plugs for license plate mount	2	4mm x 10mm Button Head Bolts
6	Sensor Retaining Caps	4	4mm x 12mm x 1mm Flat Washers
6	20mm x 10mm Foam Spacers	2	4mm Lock Washers
6	15.5mm x 25mm x 2mm Foam Washers	2	4mm Hex Nuts
6	Sensor Hole Plugs	12	4mm Self Tapping Screws
2	2009-18 1500 Wiring Harnesses	10	Nylon Cable Ties 200mm
4	2019-20 25-3500 Wiring Harnesses	1	2.5mm Wrench
1	Sensor Cover Kit	1	4mm Wrench
2	12mm Double Nut Plates		

TORQUE SPECIFICATION

Size	Torque	Size	Torque
4 MM	8.5 ft/lbs	12 mm	70 ft/lbs



INSTALLATION PROCEDURE:

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. BUMPER IS HEAVY, ASSISTANCE IS HIGHLY RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE. ON MODELS WITH DUAL EXHAUST, ALLOW EXHAUST TO COMPLETELY COOL BEFORE STARTING INSTALLATION.

1. Start installation by unplugging the wiring harnesses leading to the rear bumper, (Figures 1 & 2). Move the wiring harnesses away from the bumper.
2. Remove the license plate. Remove the (2) hex bolts behind the license plate, (Figure 3).
3. Place blocks or jack stands under the bumper to support it during bumper bolt removal. Once the bumper has been safely supported, remove the (4) factory bumper bolts, (2 per side), and slide the bumper off of the end of the frame, (Figures 4 & 5). **WARNING!** Assistance is required to hold the bumper in place during hardware removal and to prevent the bumper from falling. Move the bumper to a clean stable work surface.
4. Remove the wiring harness and outer towing harness plug from the factory bumper, (Figure 6). Use the included Wire Ties to attach the factory wiring harness to the LD1 Bumper and away from exhaust.
5. Determine if the bumper is equipped with sensors.

Models without bumper sensors:

- a) From the front of the bumper, push the included Plastic Plugs into sensor mounting holes, (Figure 7).

Models with bumper mounted sensors:

- a) Remove parking sensors from plastic mounts in the factory bumper, (Figure 8). **NOTE:** Label sensors with location for proper reinstallation.
- b) Next, remove the silicone seal from the end of the sensor. Slide the included larger Sensor Seal over front of sensor, (Figures 9 & 10).
- c) Insert sensor with Seal into sensor mount, (Figure 10). Place (1) Foam Spacer onto the end of the sensor.
- d) Push Sensor Retaining Cap onto sensor mount and snap into mounting holes, (Figure 10).
- e) Repeat previous Steps to install remaining sensors.
- f) Attach factory wiring harness to sensors. **NOTE:** Use the included Wiring Harness Extensions as necessary to extend the reach of the harness to the sensors. **IMPORTANT:** kit includes (2) 2009-18 1500 harnesses and (4) 2019-20 25-3500 harnesses, match plugs on Harnesses to sensors and use correct harness as needed.

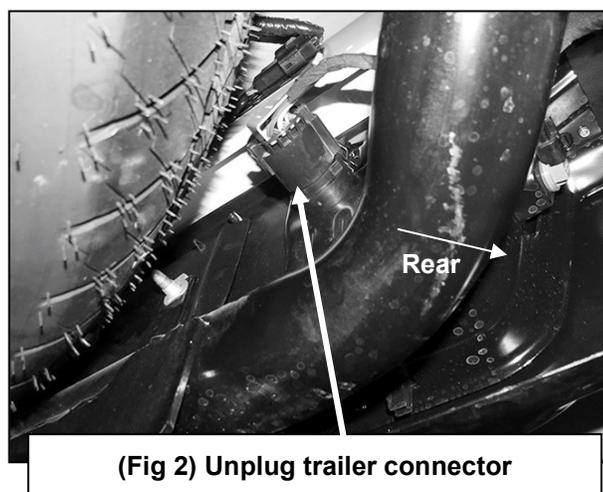
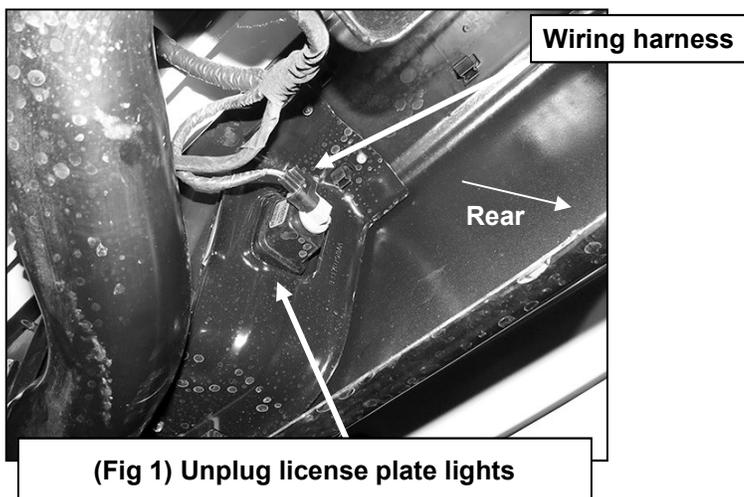
Models with TPMS (tire pressure monitoring system).

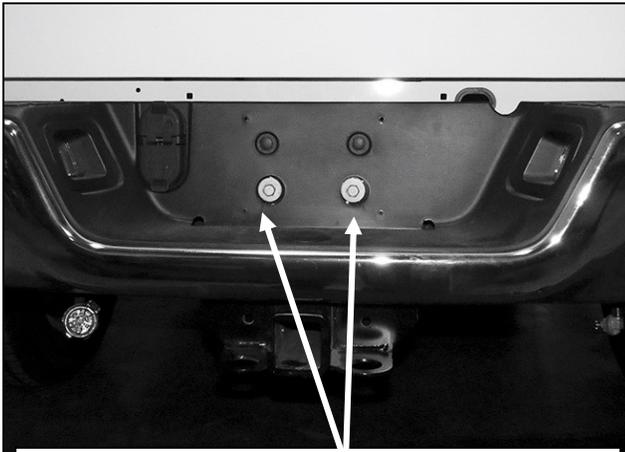
- a) Remove the sensor from the back of the bumper, (Figure 11). NOTE: It may be necessary to partially disassemble the factory bumper to remove the sensor.
 - b) Attach the sensor to tabs on back of bumper with included (2) 4mm Button Head Screws, (4) 4mm Flat Washers, (2) 4mm Lock Washers and (2) 4mm Hex Nuts, (Figure 12). Do Not Overtighten 4mm hardware or damage to sensor could result.
 - c) Once installed, plug wiring harness into TPMS sensor.
6. If installing lights, (lights not included), check for clearance around light. Remove back screens from light housings for additional clearance around lights as required, (Figure 13). IMPORTANT: On models with Dual Exhaust, screens must be removed before installing the Bumper if lights are to be installed.
 7. With assistance, position the Bumper up to the brackets on the ends of the frame. Temporarily support the weight of the Bumper Assembly. WARNING: To avoid possible injury or damage to the vehicle, do not proceed until the Bumper is fully and safely supported.
 8. Line up the (2) mounting holes in the back of the driver/left side of the bumper with the brackets on the end of the frame. Slide (1) 12mm Double Nut Plate behind the mounting plate on the Bumper, (Figure 14). Attach the Bumper to the frame and Nut Plate with (2) 12mm Hex Bolts, (2) 12mm Lock Washers and (2) 12mm Flat Washers, (Figures 14 & 15). Repeat this Step to attach the passenger/right side of the Bumper. Leave hardware loose at this time.
 9. Slowly open the tail gate and check for clearance. Level and adjust Bumper and tighten all hardware.
 10. Snap the trailer plug into the opening in the Bumper, (Figure 16). If necessary, use a flat blade screwdriver to carefully pry the lock tab on the clip out to help lock plug in place.
 11. Insert the included (2) push-in plugs to attach the license plate to the Bumper, (Figure 17). Insert the included License Plate Light into the mounting hole in the bumper.
 12. Connect the license plate light harness to the License Plate Light. Reattach the wiring harness to the back of the trailer plug and back up sensors (if equipped). Use the included Wire Ties to secure the wiring harness to the bumper and frame. Seal off any open wire connections.
 13. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

To protect your investment, Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the LD1 Bumper assembly.

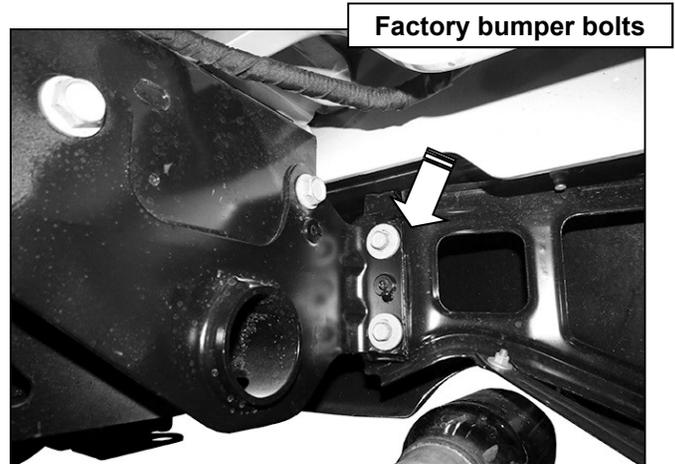
INSTALLATION IMAGES:

Driver/left Side Installation Pictured

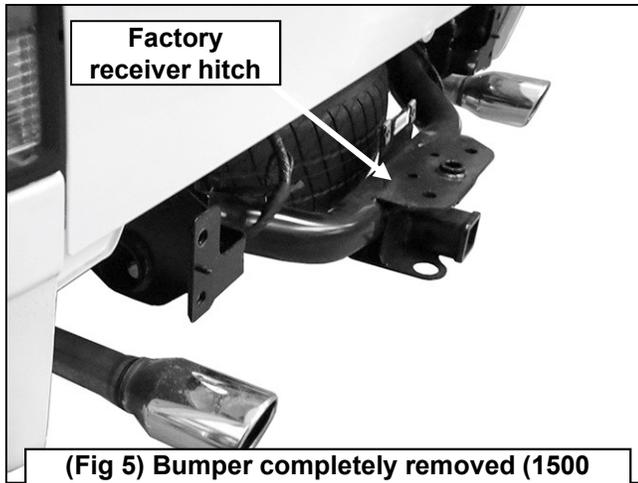




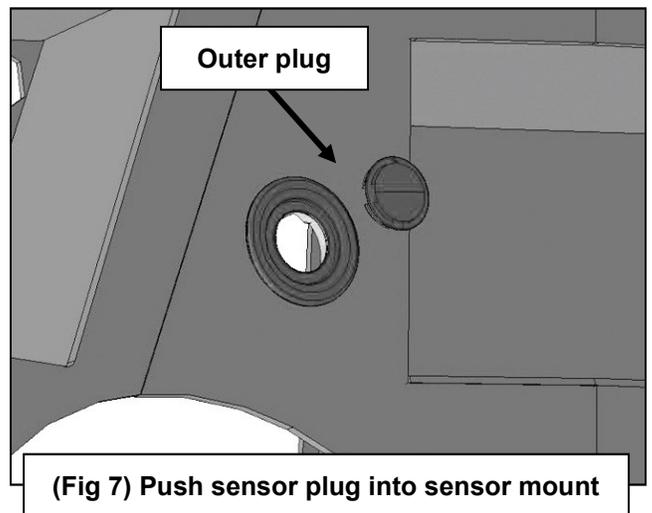
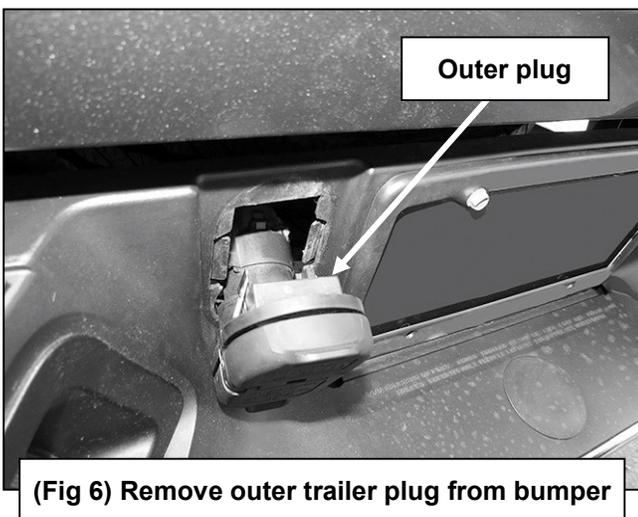
(Fig 3) Remove license plate and (2) hex bolts



(Fig 4) Example of factory bumper bracket with (2) hex bolts pictured from behind bumper



WARNING! Do not remove bumper bolts unless it is properly supported on blocks or stands or the bumper may fall.
Models with dual exhaust, allow exhaust to completely cool before starting installation

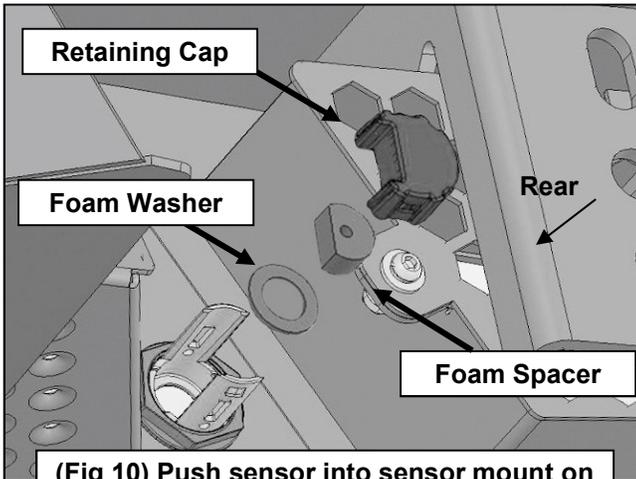




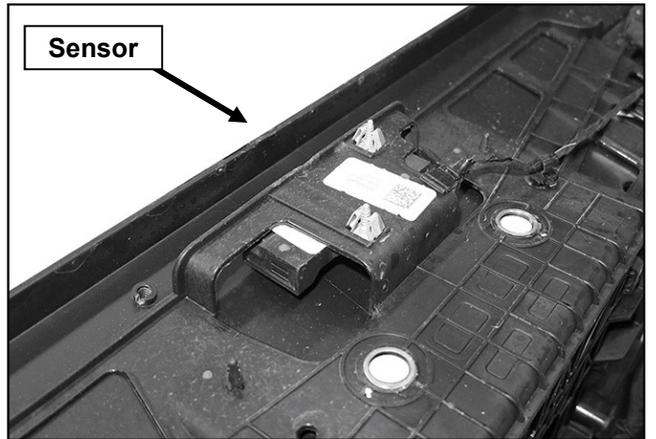
(Fig 8) Unplug the sensor first then remove the sensor from the mount. Disassemble bumper to remove all sensors and harness as equipped



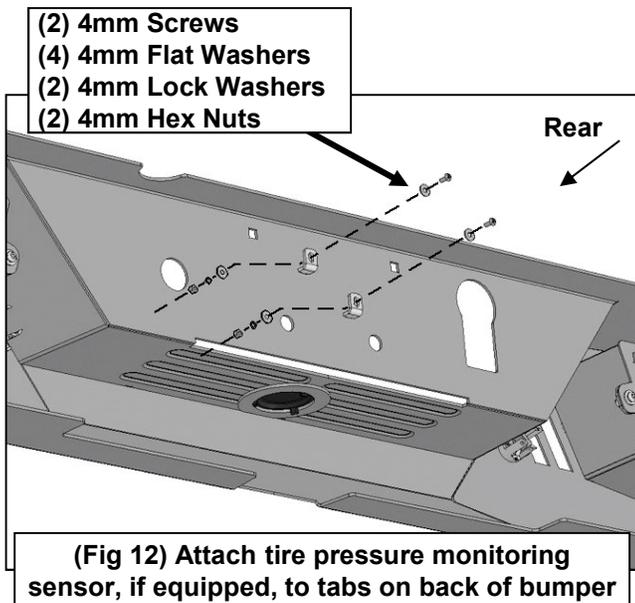
(Fig 9) Remove the sensor from the mount (right) . Remove seal from end of sensor. Push Foam Seal onto end of sensor (Fig 10)



(Fig 10) Push sensor into sensor mount on the back of the Bumper

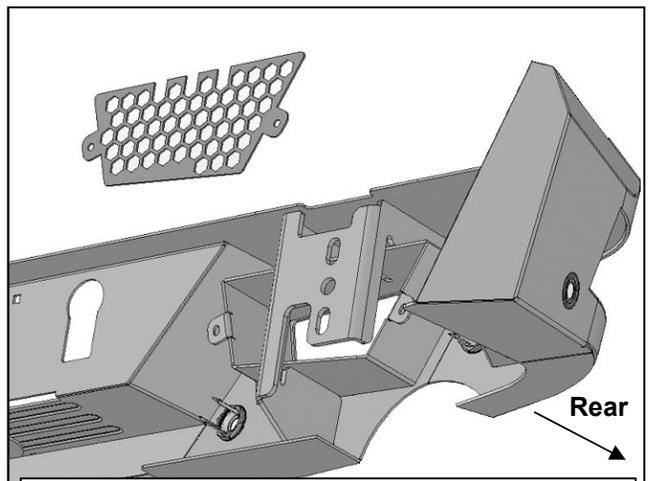


(Fig 11) Remove tire pressure monitoring sensor (TPMS) from back of bumper, if equipped



(Fig 12) Attach tire pressure monitoring sensor, if equipped, to tabs on back of bumper

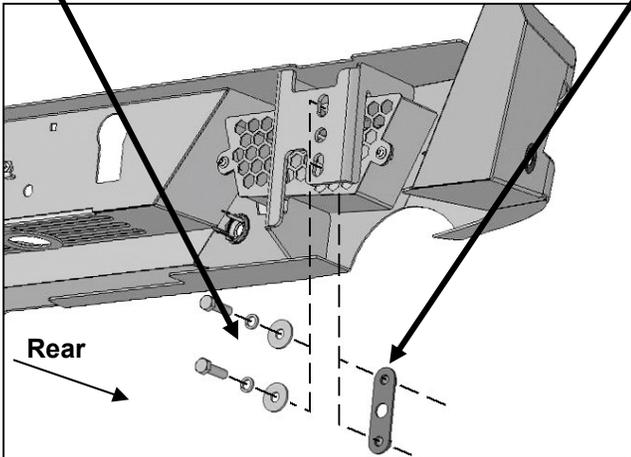
IMPORTANT: On models with dual exhaust, if bumper installation will include accessory lights, check for clearance around lights before installing bumper. Screens cannot be removed once bumper is installed.



(Fig 13) Remove screens if necessary for additional clearance around or access to lights

- (2) 12mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Flat Washers

12mm Double Nut Plate

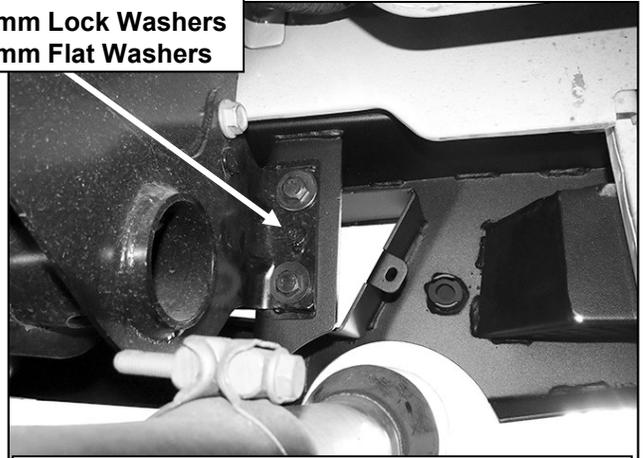


(Fig 14) Attach Bumper to end of frame. Driver/left side illustrated

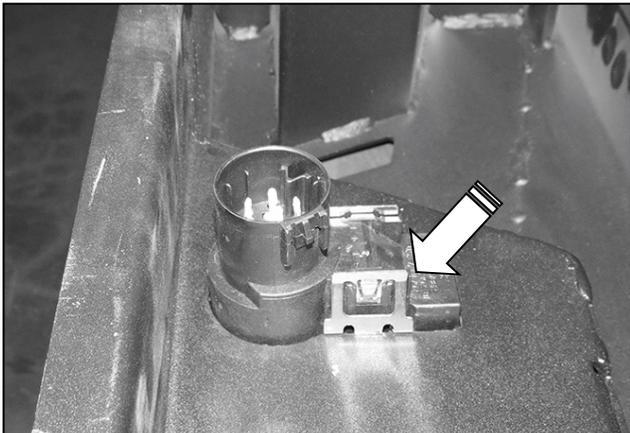
WARNING! Do not crawl under bumper unless it is properly supported on blocks or stands or the bumper may fall.

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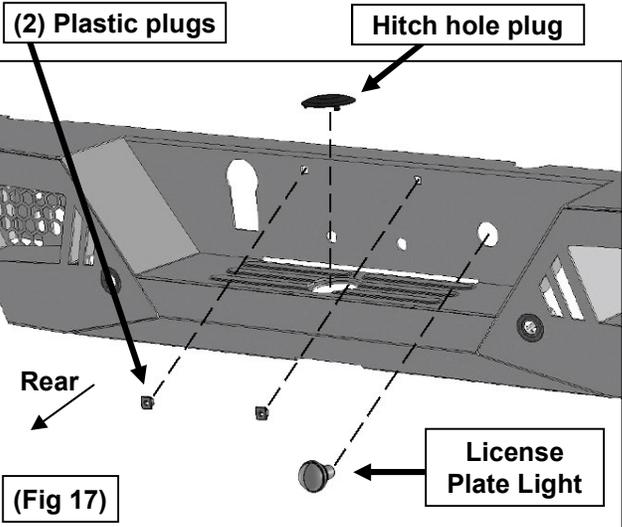
- (2) 12mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Flat Washers



(Fig 15) Driver/left side pictured from behind bumper



(Fig 16) Push plug into place. Carefully bend locking tab outward if necessary



(Fig 17)



PRODUCT CARE

- Periodically check the product to ensure all fasteners are tight and components are intact.
- Regular waxing is recommended to protect the finish of the product.
- Use ONLY Non-Abrasive automotive wax. Use of any soap, polish or wax that contains an abrasive is detrimental and can scratch the finish leading to corrosion.
- Aluminum polish may be used to polish small scratches and scuffs for Stainless Steel finish.
- Mild soap may be used to clean the product for both Stainless Steel and Black finish.

FAQ's

1. Hardware and mounting brackets are not aligning properly

Ensure that hardware is being used on the correct side of vehicle. In some cases, the hardware may appear same for driver and passenger side but may alter the alignment of mounting location. Check mounting brackets for both sides.

2. Products are thumping / rattling after Installation

Ensure that all required mounting brackets / hardware's are installed & tightened correctly.

Suggest using white Lithium / regular grease between metal-to-metal contact.

3. Missing / Excess Hardware

Recheck hardware count as per the part list.

4. Product not installing properly

Ensure the Year / Make / Model as well as cab and bed dimensions are correct for the application. Review all steps for installation to ensure they were followed correctly.

5. Who should be contacted for questions regarding product / installation assistance?

www.trailfx.com / support@trailfx.com or 1-(866) 638-4870

Warranty Terms:

3 Year Limited Warranty:

TrailFX and Keystone Automotive Operations Inc. make no guarantees or warranties for products not manufactured by Keystone Automotive Operations Inc. Such products are covered solely under any applicable warranty of the manufacturer. It is always recommended that the operating instructions and warranty instructions provided by the manufacturer are followed.

Keystone Automotive Operations Inc. warrants its products to be free from manufacturing and material defects to the original purchaser for the length of warranty stated above from the date of retail purchase. If any products are found to have a manufacturing or material defect, the product will be replaced or repaired at the option of TrailFX and Keystone Automotive Operations Inc. with proof of purchase by the original purchaser. The original purchaser shall pay all transportation and shipping costs associated with the return of the defective product and the defective product shall become the property of Keystone Automotive Operations Inc.

The Warranty applies to Keystone Automotive Operations Inc. products used for individual and recreational purposes. Commercial usage of the Keystone Automotive Operations Inc. products limits the warranty to 90-days from date of purchase.

The Warranty applies only to Keystone Automotive Operations Inc. products which are found to be defective in manufacturing or material. This warranty does not apply to normal wear and tear of the finish placed on Keystone Automotive Operations Inc. products.

TrailFX and Keystone Automotive Operations Inc. are not responsible for any labor costs incurred for removal or replacement of the defective product.

TrailFX and Keystone Automotive Operations Inc. are not responsible for repair or replacement of any product under the limited warranty where the product was improperly installed, misapplied, altered, abused, neglected, overloaded, misused or damaged as a result of an accident, including any use of the product not in accordance with all product operating and safety instructions.

Without limiting the generality of the foregoing, TrailFX and Keystone Automotive Operations Inc. shall under no circumstances be liable for any incidental or consequential loss or damage whatsoever arising out of, or in any way relating to any such breach of warranty or claimed defect in, or non-performance of the products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you.

This limited warranty gives you specific legal rights, and you may also have other rights that vary from state to state.