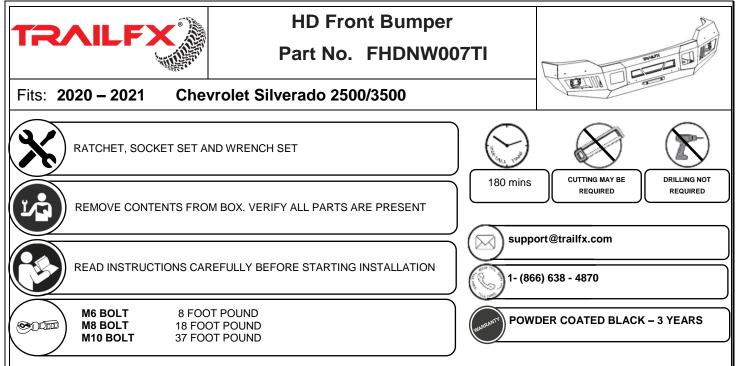
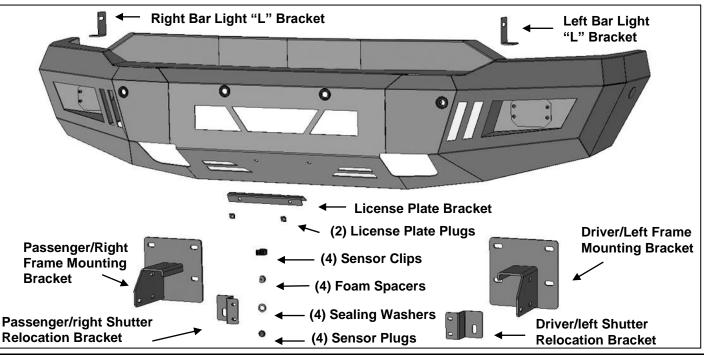
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PARTS LIST:			
Qty	Part Description	Qty	Part Description
1	LD-1 Front Bumper	6	10-1.5mm x 35mm Hex Bolts
1	Driver/left Mounting Bracket	12	10mm x 27mm x 3mm Flat Washers
1	Passenger/right Mounting Bracket	6	10mm Lock Washers
1	Driver/left Shutter Relocation Bracket	6	10mm Hex Nuts
1	Passenger/right Shutter Relocation Bracket	2	8-1.25mm x 25mm Hex Bolts
1	Driver/left "L" LED Light Mounting Bracket	2	8-1.25mm x 16mm Hex Bolts
1	Passenger/right "L" LED Light Mounting Bracket	6	8mm x 24mm x 2mm Flat Washers
1	License Plate Bracket	4	8mm Lock Washers
2	Plastic Plugs for License Plate	2	8mm Hex Nuts
4	Sensor Plugs	2	6-1.0mm x 20mm Button Head Bolts
4	Retaining Caps	4	6-1.0mm x 20mm Hex Bolts
4	Sealing Washers	8	6mm x 18mm x 1.6mm Flat Washers
4	20mm x 10mm Foam Spacers	4	6mm x 12mm x 1.6mm Flat Washers
1	Sensor Cover Kit	6	6mm Nylon Lock Nuts
10	Wire Ties	8	4mm Self Tapping Screws
		1	4mm Wrench



## 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.

- Start installation at the driver/left wheel opening. Remove the hardware attaching the fender liner to the front of the fender and the end of the plastic body panel, (Figure 1). Carefully pull the fender flare out to release the clips attaching it to the body panel, (fascia), and end of the fender, (Figure 2). IMPORTANT: Only release the forward end of the flare, it is not necessary to remove the flare. Remove the screws attaching the end of the fascia panel to the front fender, (Figure 3). Repeat this Step to release the passenger/right end of the fascia from the fender.
- 2. Pull along the center below the grille to release the remainder of the clips and remove the fascia, (Figure 4).
- Open the hood and remove the hood release handle. Remove the plastic cover from the top of the radiator and the grille, (Figure 4). Reinstall hood release handle. Remove the hardware attaching the grille and pull it straight out from the vehicle. On models with grille mounted camera, unplug harness leading to the camera and remove the grille, (Figures 5 & 7).
- 4. Unplug all wiring harnesses leading to the front bumper, (Figure 6). Remove the license plate and bracket if equipped, (Figure 7). Move all harnesses away from bumper.
- 5. Remove the outer bumper supports from both ends of the bumper, (Figure 8).
- 6. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, from above the bumper, remove the (2) factory upper and lower bumper bolts from each side, (Figure 9). WARNING! Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling. Remove the bumper assembly.
- 7. Remove the factory bumper brackets from the end of frame, (Figure 10 & 11). On models with lower radiator shutter assembly, unplug and remove the assembly, (Figure 10).
- 8. Select the driver/left Frame Mounting Bracket, (Figure 12). Reuse the factory hardware to attach the Bracket to the frame, (Figures 12 & 13). Repeat this Step to install the passenger/right Bracket.
- 9. On models equipped with lower radiator shutter system, remove shutter assembly from outer plastic housing, (Figure 14). Select the driver/left Relocation Bracket. Use the previously installed bottom, inner factory bolt to attach the Bracket to the front of the Frame Bracket, (Figure 15). Repeat this Step to attach the passenger/right Bracket to the passenger/right Frame Bracket. Attach the shutter assembly to the front of the Relocation Brackets with the included (4) 6mm x 20mm Hex Bolts, (8) 6mm x 18mm STD Flat Washers and (4) 6mm Nylon Lock Nuts, (Figure 15). Do not overtighten the 6mm hardware or damage to the shutter assembly may result. Plug wiring harness into shutter assembly
- 10. Reinstall fascia, grille and top cover removed in Step 3.
- 11.Carefully remove all sensors and the wiring harness from the back of the OE bumper, (Figure 16). Note location of each sensor for correct reinstallation.

## Models without bumper sensors:

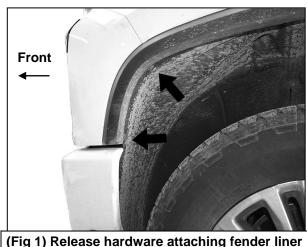
- a. Insert (1) Plug into the outer hole in the Sensor Mount, (Figure 17).
- **b.** Repeat to plug remaining (3) mounting holes in Bumper. Continue to **Step 12**.

## Models with bumper mounted sensors:

- a. Select the driver/left outer sensor. Remove the seal from the end of the sensor, (Figure 18). Replace the seal with the included larger Foam Seal.
- **b.** Push the sensor into the Mount from the back until it is flush with the front of the Mount.
- c. Push (1) Foam Spacer onto the back end of the sensor, (Figure 19).
- d. Snap (1) Sensor Retaining Cap onto the Sensor Mount, (Figure 19).
- e. Repeat the previous Steps to install the remaining sensors in order from factory bumper.
- **f.** Install the factory bumper wiring harness for sensors and fog lights as equipped. Run wiring harness over/through Brackets to reach sensors.
- **12.Center LED light installation** (sold separately).

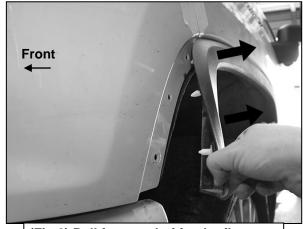
- a. Select the L/R "L" Brackets, (Figure 20). Attach the Brackets to the top of the (2) mounting tabs welded onto the back of the bumper with the included 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts. Leave loose at this time.
- b. Attach the LED light assembly to the "L" Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers, (Figure 20). Do not fully tighten hardware at this time. IMPORTANT: "L" Brackets are designed for 8mm light mounting hardware only. Modify "L" Brackets if necessary or use brackets supplied by the light manufacturer if possible, to install hardware larger than 8mm.
- c. Follow light manufacturer's instructions to properly wire the light.
- 13. Accessory Light Installation (optional-light available separately):
  - a. Remove cover from the driver/left side of the Bumper, (Figure 21).
    - **b.** Reuse the hardware to attach accessory light to mounting holes in Bumper. **NOTE**: Bumper is designed for surface mount style light installation only.
    - c. Repeat previous Steps to install passenger/right side light.
  - d. Follow instructions supplied with lights to attach to vehicle electrical system.
- 14. With assistance, position the Bumper Assembly up to the outside of the Brackets. Temporarily support the weight of the Bumper. **WARNING**: To avoid possible injury or damage to the vehicle, do not proceed until the Bumper is fully and safely supported.
- 15. Line up the (3) holes in the driver/left side of the Bumper with the (3) slots in the Frame Bracket. Attach the Bumper to the Bracket with the included (3) 10mm x 35mm Hex Bolts, (6) 10mm Flat Washers, (3) 10mm Lock Washers and (3) 10mm Hex Nuts, (Figure 22). Do not fully tighten hardware at this time. Repeat this Step to attach the passenger/right side of Bumper to the Frame Bracket.
- **16.** Level and adjust the Bumper and fully tighten all hardware.
- 17. If front license plate is required, attach the License Plate Bracket to the holes in the Bumper with the included (2) 6mm x 20mm Button Head Screws, (4) 6mm x 12mm Small Flat Washers and (2) 6mm Nylon Lock Nuts, (Figure 23). Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the Plastic Plugs.
- **18.** 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 Front Bumper assembly.



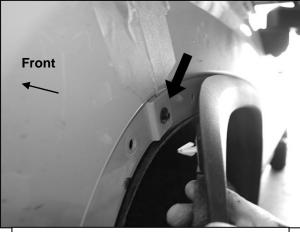
from plastic panel (fascia-see arrows)

## **Driver/left Side Installation Pictured**



(Fig 2) Pull front end of fender flare out and away from fender. Do not remove flare, only release the front section

## **Driver/left Side Installation Pictured**



(Fig 3) Remove screws attaching plastic fascia panel to front end of fender (arrow)

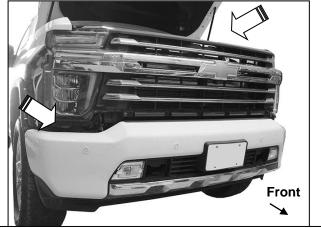


(Fig 5) Disconnect harness to camera (if equipped) and remove grille

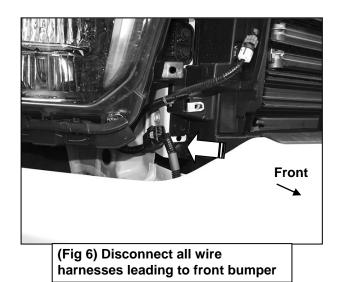


(Fig 7) Grille and fascia removed

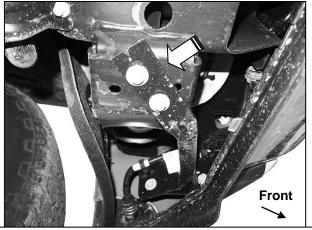
Remove plastic cover from top of grille



(Fig 4) Remove plastic fascia from top of bumper

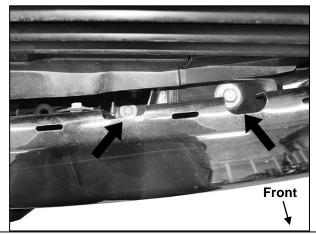


# **Driver/left Side Installation Pictured**

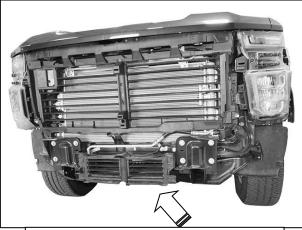


(Fig 8) Remove outer bumper supports attached to bottom of frame (driver/left pictured)

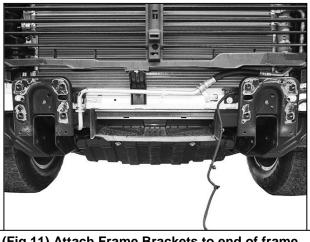
WARNING! Do not crawl under bumper unless it is properly supported on blocks or stands or the bumper may fall.



(Fig 9) From above, remove the hex bolts attaching the driver/left side of bumper to the frame, (arrows)

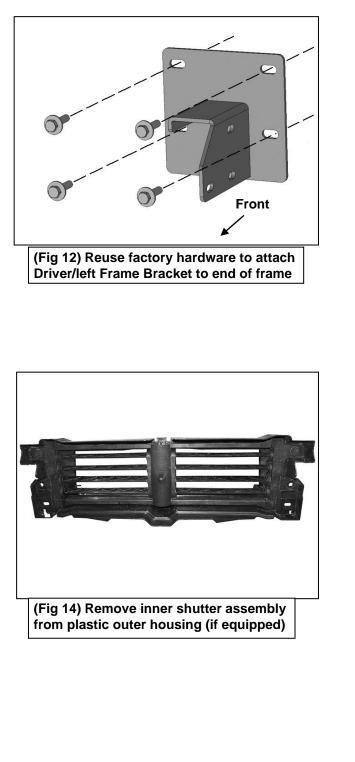


(Fig 10) Remove bumper brackets and shutter assembly (arrow) if equipped

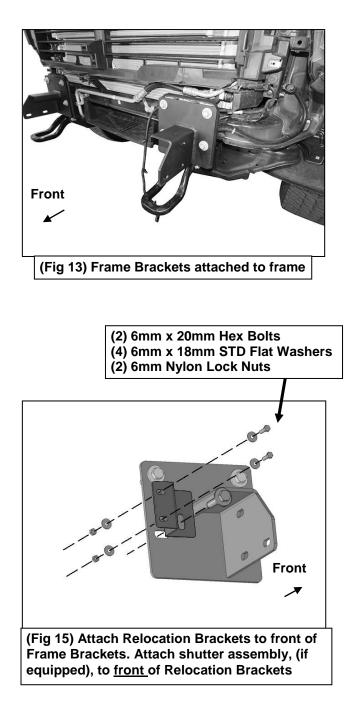


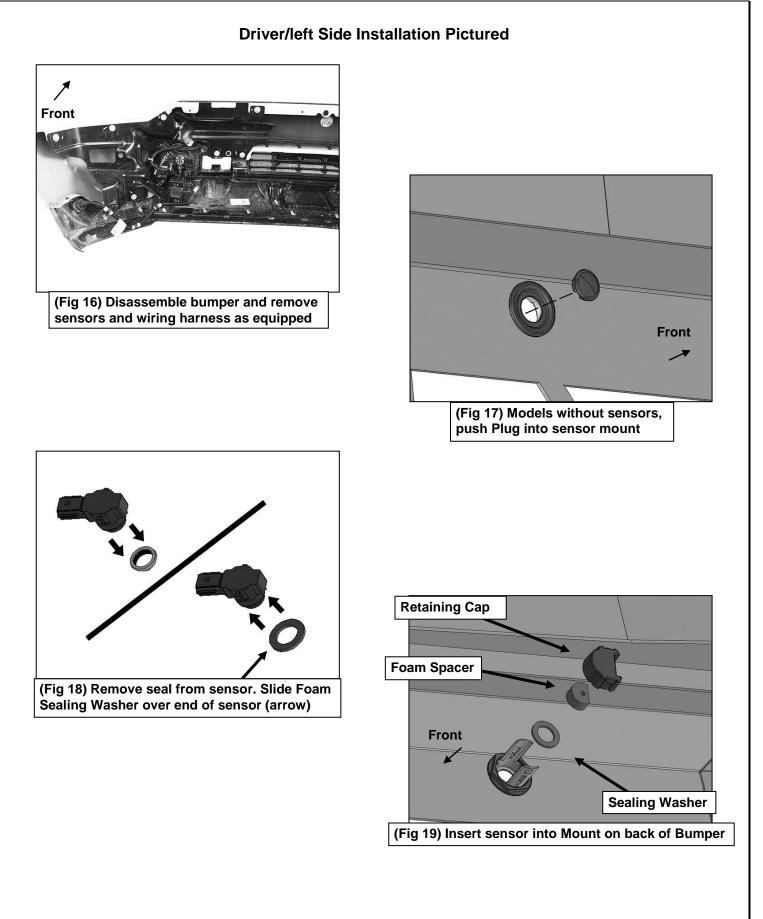
(Fig 11) Attach Frame Brackets to end of frame

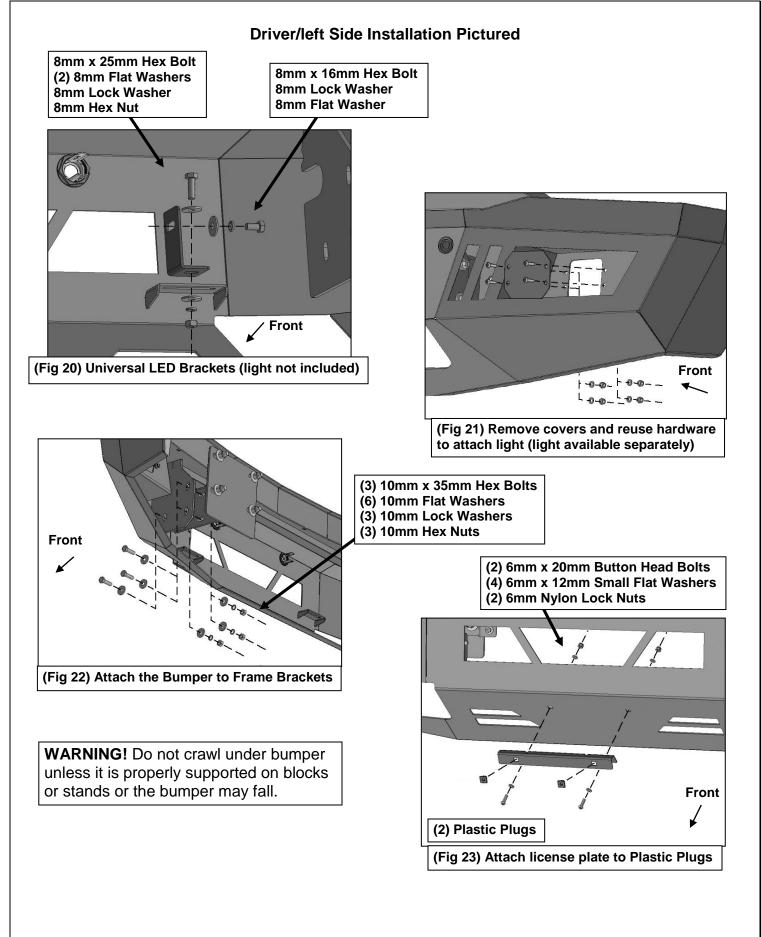
# **Driver/left Side Installation Pictured**



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







### 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.
- Mild soap may be used to clean the Black finish product.

#### FAQ's

1. Hardware and mounting brackets are not aligning properly

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

2. Bumper is not aligning with vehicle

Bumper Brackets may be interchanged or reversed (Driver / Passenger Side). Check Brackets for each side as well ensure the proper hardware has been used for each side.

3. Products are thumping / rattling after installation.

Ensure that all required mounting brackets / hardware's are installed & tighten correctly. Suggest using white lithium / regular grease between metal to metal contact.

- 4. Missing / Excess Hardware. Recheck hardware count as per the part list.
- 5. 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.

#### 6. Who should be contacted for questions regarding product / installation assistance? www.trailfx.com / support@trailfx.com 1-(866) 638-4870

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