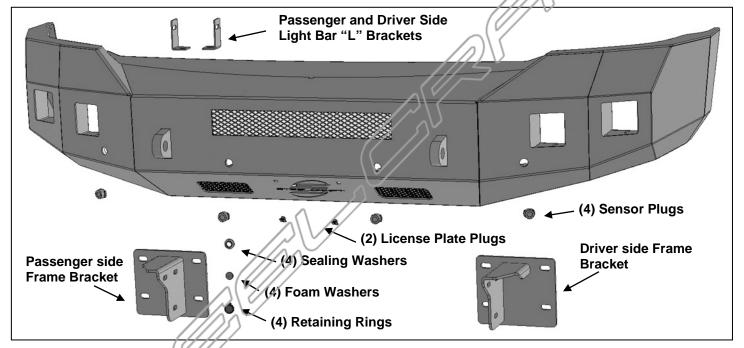


#### **PARTS LIST:**

1	Fortis Front Bumper	6	12-1.75mm x 45mm Hex Bolts
1	Driver/left side Frame Bracket	12	12mm x 32mm x 3mm Flat Washers
1	Passenger/right side Frame Bracket	6	12mm Lock Washers
1	Driver/left side Light Bar Bracket	6	12mm Hex Nuts
1	Passenger/right Light Bar Bracket	2	8-1.25mm x 25mm Hex Bolts
2	License Plate Plastic Plugs	2	8-1.25mm x 16mm Hex Bolts
4	Sensor Plugs	6	8mm x 24mm x 2mm Flat Washers
4	Sealing Washers	4	8mm Lock Washers
4	20mm x 2mm Foam Washers	2	8mm Hex Nuts
4	Retaining Rings	8	4mm Button Head Bolts
1	Sensor Cover Kit	1	2.5mm Allen 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.

- 1. Open the hood and remove the plastic cover from the top of the radiator and the grille, (Figure 1). Temporarily remove the plastic grille.
- 2. Remove the license plate and bracket. On models with factory fog lights and/or bumper sensors, unplug the wiring harness leading to the bumper. Move the wiring harness away from the bumper.
- 3. Release the rubber air deflector from the back of the bumper, if equipped, and remove it from the vehicle. Next, remove the hardware at each end of the bumper attaching the bumper supports to each side of the frame, (Figure 2).
- 4. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been supported, remove the lower bumper bolts attaching the inner bumper bracket to the frame bracket. Next, from above the bumper, remove the (2) bumper bolts from each side, (Figure 3). WARNING! Assistance is required to hold the bumper in place during bolt removal to prevent it from falling. Remove the bumper assembly.
- 5. Remove the bumper brackets and tow hooks, (if equipped), from the end of frame, (Figures 4 & 5).

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- **6.** Select the Driver/left Frame Bracket. Reuse (4) factory bumper bracket hex bolts to attach the Bracket to the end of the Frame, **(Figures 6 & 7)**. Repeat this Step to install the passenger/right Frame Bracket. Do not fully tighten hardware at this time.
- 7. Carefully unpack the Bumper assembly.
- **8. Optional Center LED light installation**, (sold separately). **NOTE**: Light may be easier to install in Bumper before Bumper Assembly is attached to Brackets.
  - a. Select the Driver side "L" Bracket. **NOTE**: "L" Brackets are offset for universal fitment for most LED bar style lights. Attach the Bracket to the top of the mounting rab on the back of the Bumper with the included (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, **(Figure 8)**. Do not tighten hardware at this time.
  - **b.** Repeat Previous Step for Passenger side "L" Bracket installation.
  - **c.** Attach the LED Light Bar to the Brackets with (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers, **(Figure 8)**. Do not fully tighten hardware at this time.
  - d. Center and adjust light position and tighten hardware.
  - **e.** Follow light manufacturer's instructions to wire the light to the vehicle's electrical system once Bumper has been fully installed.
- **9.** Sensors must be installed in Bumper, if equipped, before installing Bumper Assembly.

## Models without bumper sensors:

- a. Select the included (4) Rubber Plugs, (Figure 9)
- **b.** From behind bumper, push Plugs into sensor mounting sleeves.

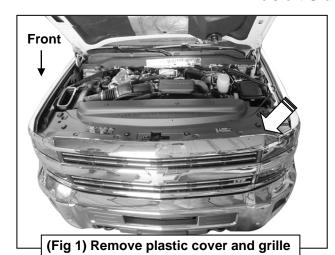
#### **Models with bumper mounted sensors:**

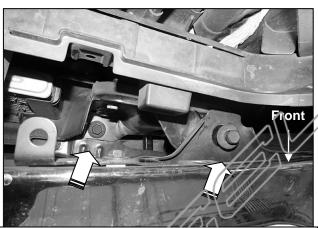
- a. Remove the wiring harness and sensors from the factory bumper, (Figure 10).
- **b.** Trim off the plastic tabs on the sensor to make sure the sensor fits snug inside the sensor sleeve. Remove the small factory sealing washer from the sensor. Slide the provided larger (1) Sealing Washer onto the front of the sensor, **(Figure 11)**.
- c. Push the sensor in from the back of the Bumper until it is flush with the Bumper face. Attach (1) 20mm x 2mm Adhesive Foam Washer to (1) Retaining Ring. Push the Retaining Ring into the sensor sleeve to secure sensor in place, (Figure 12). NOTE: Make sure the tabs on the Retaining Ring fit into the holes on the sensor sleeve.
- d. Repeat the Previous Steps to install each sensor.
- e. Install factory wiring harness into Bumper, (Figure 13). Plug all sensors into the harness.
- 10. With assistance, position the Bumper Assembly up to the inside of the Frame 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.
- **11.** Attach the Bumper to the Brackets with the included (6) 12mm x 45mm Hex Bolts, (12) 12mm Flat Washers, (6) 12mm Lock Washers and (6) 12mm Hex Nuts, **(Figures 14 & 15)**. Do not fully tighten hardware at this time.
- 12. Level and adjust the bumper and fully tighten all hardware.
- 13. Plug the sensor harness into the main wiring harness, (Figure 16).
- **14.** If front license plate is required, insert (2) Plastic Plugs into the square holes in the Bumper, (**Figure 17**). Reuse the factory screws to attach the license plate to the Plastic Plugs.
- **15.** Do periodic inspections to the installation to make sure that all hardware is secure and tight.

**To protect your investment**, wax this product after installing. Regular waxing is recommended to add a protective layer over the finish. 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.

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





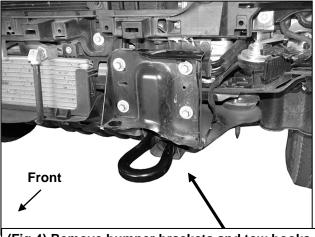
(Fig 3) Remove bumper bolts (arrows) to remove bumper (driver side pictured from above)



(Fig 5) Remove bumper brackets and tow hooks



(Fig 2) Remove bumper supports between frame and outer ends of bumper (Driver side pictured)

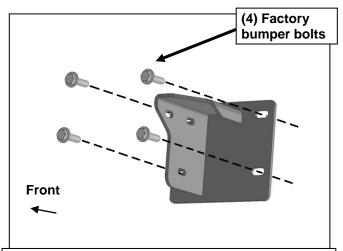


(Fig 4) Remove bumper brackets and tow hooks

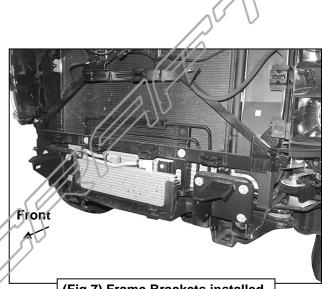
**WARNING!** Do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.

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



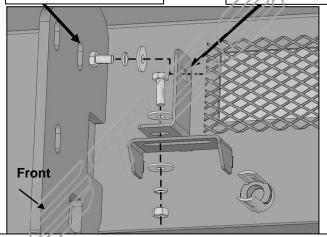
(Fig 6) Reuse factory bolts to attach Frame Bracket to end of frame (driver/left Bracket illustrated)



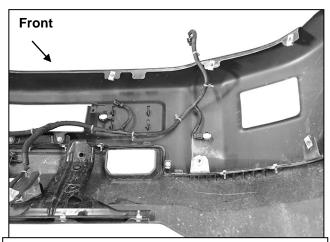
(Fig 7) Frame Brackets installed

8mm x 16mm Hex Bolt 8mm Lock Washer 8mm Flat Washer

8mm x 25mm Hex Bolt (2) 8mm Flat Washers 8mm Lock Washer 8mm Hex Nut



(Fig 8) Universal LED Brackets (light not included)

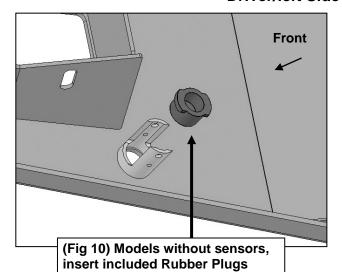


(Fig 9) Remove wiring harness for fog lights and/or sensors from original bumper if equipped

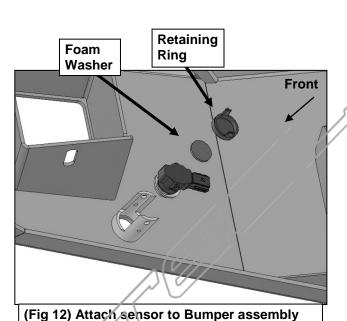
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Sealing Washer

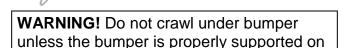
## **Driver/left Side Installation Pictured**



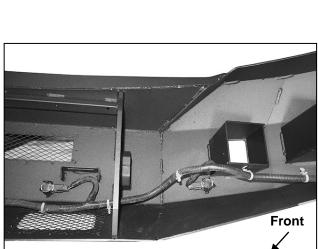
**NOTE**: Sensor plugs fit snug in sockets. Use of the 4mm Screws is optional. 4mm Screws can also be used to apply slight pressure to lock the sensors in place or to aim the sensor. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.



(Fig 11) Remove silicone seal from sensor. Slide larger Seal over end of sensor (arrow)

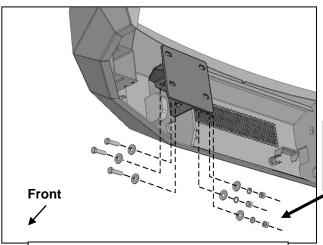


blocks or stands or the bumper may fall.

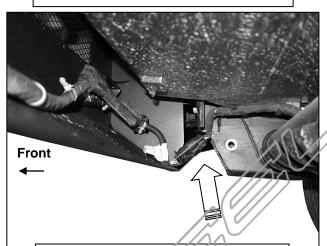


(Fig 13) Install and connect wiring harness

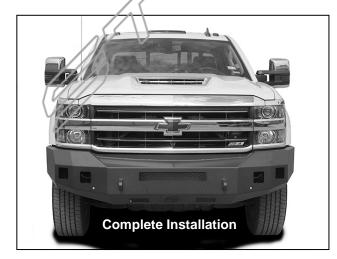
#### **Driver/left Side Installation Pictured**



(Fig 14) Attach Bumper assembly to Frame Brackets (Driver side pictured)

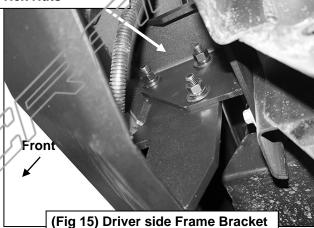


(Fig 16) Plug bumper harness (if equipped) into main harness (arrow)

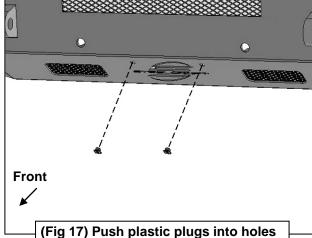


**WARNING!** Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.

- (3) 12mm x 45mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



(Fig 15) Driver side Frame Bracket attached to Bumper assembly



(Fig 17) Push plastic plugs into holes in Bumper for license plate if required

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