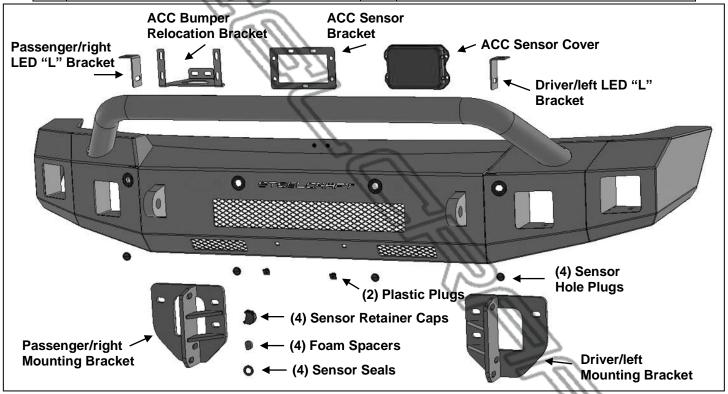
PARTS LIST:

1	Fortis Bull Nose Front Bumper	6	12-1.75mm x 50mm Hex Bolt
1	Driver/left Mounting Bracket	12	12mm x 24mm x 2.5mm Flat Washers
1	Passenger/Right Mounting Bracket	6	12mm Lock Washers
1	Driver/left LED "L" Bracket	6	12-1.75mm Hex Nuts
1	Passenger/Right LED "L" Bracket	4	8-1.25mm x 25mm Hex Bolts
	ACC Plastic Cover	2	8-1.25mm x 16mm Hex Bolts
1	ACC Assem to Bumper Bracket	10	8mm x 24mm x 2mm Flat Washers
1	ACC Mounting Bracket	6	8mm Lock Washers
2	Plastic Plugs for License Plate	4	8mm Hex Nuts
4	Sensor Retaining Caps	7	6-1.0mm x 25mm Button Head Bolts
4	20mm x 10mm Foam Spacers	10	6mm x 18mm x 1.6mm Flat Washers
4	15.5mm x 25mm x 2mm Foam Washer	7	6mm Lock Washers
4	Plastic Sensor Hole Plugs	7	6mm Hex Nuts
1	Sensor Cover Kit	8	4mm Self Tapping Screws
	11011	1	4mm Wrench



PROCEDURE:

REMOVE CONTENTS FROM BOX AND VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY. ASSISTANCE IS RECOMMENDED.

- 1. Start installation from under the front of the vehicle and remove the splash guard, (Figure 1).
- 2. Determine if the vehicle is equipped with plastic bumper cover or steel option bumper.

Models with plastic bumper cover:

a. Remove the plastic covers from the front of the bumper, (Figures 1 & 2).

Models with optional steel bumper:

- a. Remove the covers surrounding the tow hooks, (Figure 3).
- 3. Unplug the wiring harness leading to the front bumper. **NOTE**: Harness plug is located behind the driver/left side of the bumper below the headlight, **(Figure 3)**.

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- 4. From the front, remove the factory hex bolts attaching the bumper assembly to the end of the frame, (Figures 2—4). NOTE: Use assistance to hold the bumper in place while removing the mounting bolts.
- 5. On models with plastic bumper only, remove the seals around the lower tow hooks, (Figure 2).
- **6.** Temporarily unplug and remove the shutter assembly, **(Figure 4—6)**.

Models with ACC (adaptive cruise control) sensor.

- a. Remove the sensor from the front of the shutter assembly, (Figure 5).
- **b.** Release the wiring harness from the clips on the back of the shutter assembly and remove harness, (**Figure 6**).
- 7. Select the driver/left Mounting Bracket, (Figure 7). Reuse the (3) factory hex bolts to attach the Bracket to the end of the frame, (Figure 8). Do not fully tighten hardware at this time. Repeat this **Step** to attach the passenger/right Mounting Bracket, (Figure 9).
- **8.** Reattach the shutter assembly to the vehicle.
- **9.** Determine if the vehicle is equipped with ACC sensor (Adaptive Cruise Control), and parking sensors.

Models with ACC sensor:

- **a.** Select the rectangular Sensor Mounting Bracket, **(Figure 10)**. Attach the ACC sensor to the Bracket with the included (3) 6mm x 25mm Button Head Bolts, (6) 6mm Flat Washers, (3) 6mm Lock Washers and (3) 6mm Hex Nuts, **(Figure 11)**.
- **b.** Select the Relocation Bracket. Attach the Plastic Cover to the front and the ACC sensor and Mounting Bracket to the <u>back</u> of the Relocation Bracket with the included (4) 6mm x 25mm Button Head Bolts, (4) 6mm Flat Washers, (4) 6mm Lock Washers and (4) 6mm Hex Nuts, **(Figure 12)**.
- c. Carefully unwrap the Bumper.
- **d.** Remove the (2) Plugs from the top of the Bumper. Attach the ACC sensor and Bracket assembly to the front of the Bumper with the included (2) 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts, **(Figure 13)**. Fully tighten sensor Bracket hardware.

Models without parking sensors:

- **a.** From the front of the bumper, push the included Plastic Plugs into the Sensor Mounts, **(Figure 14)**. **Models with parking sensors:**
- **a.** Remove sensors and wiring harness from the factory bumper. Note the location of each sensor for proper reinstallation.
- **b.** Remove the silicone seal from the end of the sensor. Slide the included larger Sensor Seal over front of sensor, **(Figure 15)**.
- c. Insert sensor with Seal into sensor mount on back of Bumper, (Figure 16).
- **d.** Place Foam Spacer over end of sensor. Push Sensor Retaining Cap onto sensor mount and lock into mounting holes, **(Figure 16)**.
- **e.** Repeat previous Steps to install remaining sensors.
- f. Install the factory wiring harness into the Fortis Bumper and plug into sensors. Attach harness to back of Bumper. Models with ACC sensor, carefully unwrap the wiring harness leading to the ACC sensor to extend the reach of the harness and plug into ACC sensor.

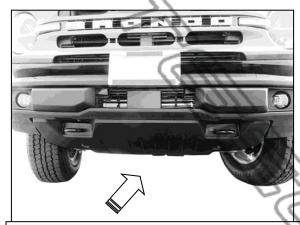
10. Center LED light installation (sold separately).

- a. Select the Left/Right "L" Brackets, (Figure 17). 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 17). Adjust light then fully tighten hardware. IMPORTANT: "L" Brackets are offset and can be installed on either side to accommodate different widths of lights.
- **c.** Follow light manufacturer's instructions to properly wire the light to the vehicle.
- **11.** With assistance, position the Bumper assembly up to the (2) Frame Brackets. **WARNING**: To avoid possible injury or damage to the vehicle, do not proceed until the Bumper is fully and safely supported.
- **12.** Attach the Bumper to the Frame Brackets with (6) 12mm x 50mm Hex Bolts, (12) 12mm Flat Washers, (6) 12mm Lock Washers and (6) 12mm Hex Nuts, **(Figures 18 & 19)**. Snug but do not fully tighten hardware.
- **13.** Level and adjust the Bumper to the vehicle and tighten all hardware.

- **14.** Models with front license plate, install (2) plastic License Plate Plugs into the holes in the Bumper, **(Figure 20)**. Reuse factory screws to attach license plate to Plugs.
- 15. All models, reinstall the lower splash guard.
- **16.** 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 Fortis Bumper.

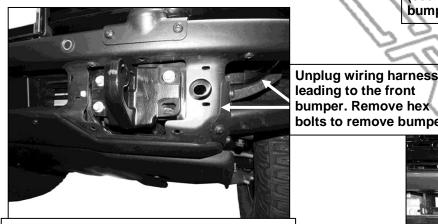
Driver/left Side Installation Pictured



(Fig 1) Remove splash guard (arrow). Model with plastic bumper cover pictured.

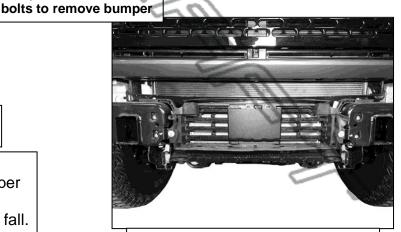


(Fig 2) Models with plastic bumper cover (see Fig 1), remove bumper pads from bumper (driver/left side pictured)



(Fig 3) Model with steel bumper, remove cover from bumper (driver/left side pictured)

WARNING! To avoid possible injury or damage to vehicle, do not remove bumper bolts unless the bumper is properly supported on blocks or stands or it may fall.

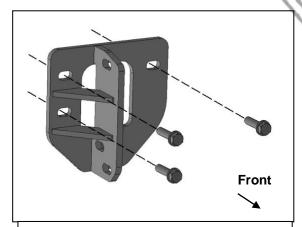


(Fig 4) Remove factory hex bolts from front to remove bumper assembly

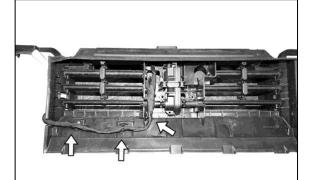
Driver/left Side Installation Pictured



(Fig 5) Remove the shutter assembly. Models with ACC sensor (pictured), unplug and remove sensor from shutter assembly



(Fig 7) Reuse the factory bumper bolts to attach the Mounting Brackets. Driver/left side Bracket illustrated



(Fig 6) Models with ACC sensor, remove the wiring harness to the sensor (arrows)



(Fig 8) Driver/left side Bracket installed

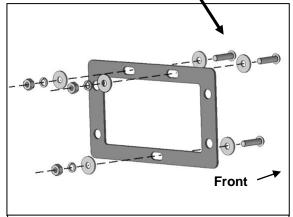
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Driver/left Side Installation Pictured



(Fig 9) Mounting Brackets installed

- (3) 6mm x 25mm Button Head Bolts
- (6) 6mm Flat Washers
- (3) 6mm Lock Washers
- (3) 6mm Hex Nuts

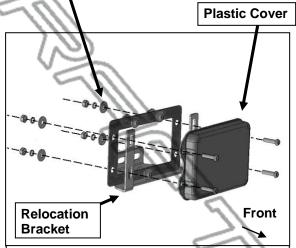


(Fig 10) Models with ACC sensor, attach sensor to back of Mounting Bracket



(Fig 11) ACC sensor attached to Bracket

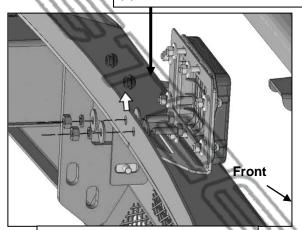
- (4) 6mm x 25mm Button Head Bolts
- (4) 6mm Flat Washers
- (4) 6mm Lock Washers
- (4) 6mm Hex Nuts



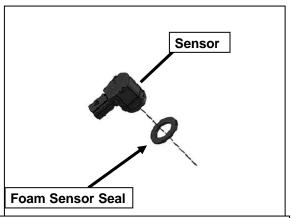
(Fig 12) Model with ACC sensor, attach Plastic Cover to front side of Relocation Bracket. Attach sensor and Mounting Bracket to back of Relocation Bracket.

Driver/left Side Installation Pictured

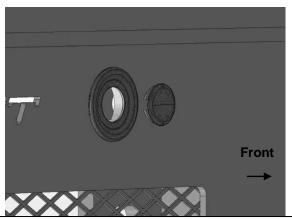
- (2) 8mm x 25mm Hex Bolts
- (4) 8mm Flat Washers
- (2) 8mm Lock Washers
- (2) Hex Nuts



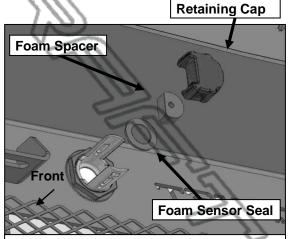
(Fig 13) Attach sensor assembly to top of Bumper



(Fig 15) Remove factory seal from end of sensor. Push Foam Seal onto end of sensor



(Fig 14) Models without parking sensors, push the included Plugs into sensor mounts



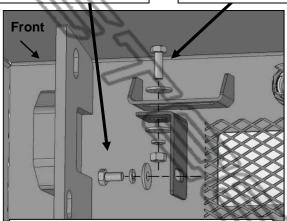
(Fig 16) Push sensor and Seal into back of Mount. Place Foam Spacer over sensor. Snap Retaining Cap onto sensor mount

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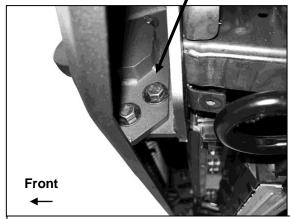
Driver/left Side Installation Pictured

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 17) Attach LED L Brackets above or below tab on back of Hoop (optional)

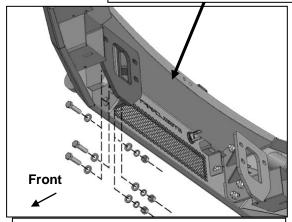
- (3) 12mm x 50mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



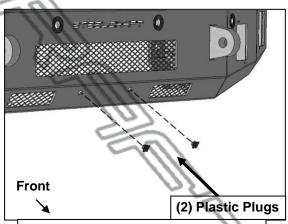
(Fig 19) Driver/left side of Bumper attached to Double Bolt Plate pictured from below

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

- (3) 12mm x 50mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



(Fig 18) Attach driver/left side of Bumper to end of frame and Support Brackets



(Fig 20) Attach License Plate Bracket to front of Bumper (optional)