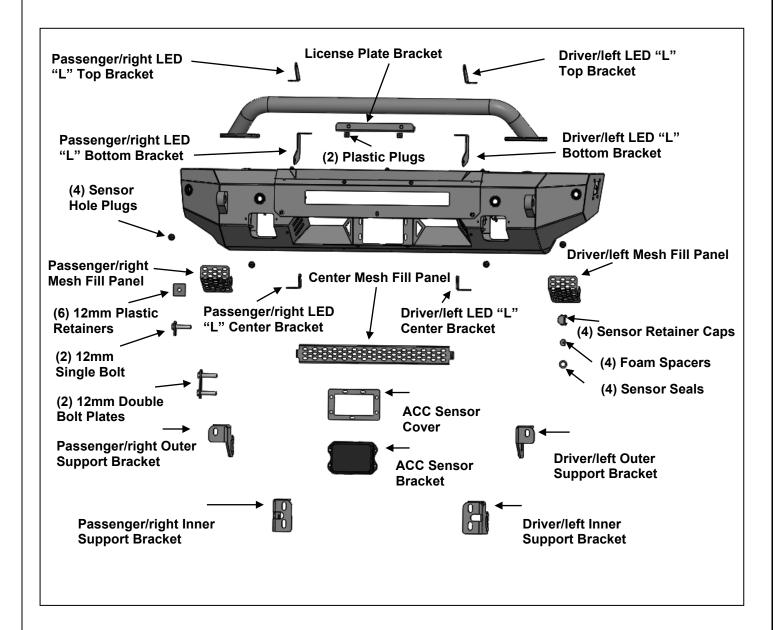


# **PARTS LIST: FB14615 FB14616**

Qty	Description	Qty	Description
1	LD Bumper	6	12mm Lock Washers
1	Bull Nose Hoop	6	12mm Hex Nuts
1	DS/left LED "L" Top Bracket (for BN Hoop)	2	10-1.5mm x 110mm Hex Bolts
1	PS/right LED "L" Top Bracket (for BN Hoop)	4	10mm x 30mm x 2.5mm Flat Washers
1	DS/left LED "L" Bottom Bracket (for BN Hoop)	2	10mm Lock Washers
1	PS/right LED "L" Bottom Bracket (for BN Hoop)	2	10mm Hex Nuts
1	DS/left LED "L" Bracket (center light bar)	4	8-1.25mm x 25mm Button Head Bolts
1	PS/right LED "L" Bracket (center light bar)	6	8-1.25mm x 25mm Hex Bolts
1	Center Mesh Fill Panel (center light bar)	4	8-1.25mm x 16mm Hex Bolts
2	Mesh Fill Panels (Cube LED)	20	8mm x 24mm x 2mm Flat Washers
1	DS/Left Inner Frame Support Bracket	14	8mm Lock Washers
1	PS/Right Inner Frame Support Bracket	6	8mm Hex Nuts
1	DS/Left Outer Frame Support Bracket	4	8mm Flanged Nuts
1	PS/Right Outer Frame Support Bracket	7	6-1.0mm x 25mm Button Head Bolts
1	ACC Mounting Bracket	2	6-1.0mm x 20mm Button Head Bolts
1	Plastic Sensor Cover	4	6mm x 20mm Combo Allen Bolts
1	Sensor Cover Kit	10	6mm x 18mm x 1.6mm Flat Washers
4	Plastic Sensor Hole Plugs	4	6mm x 12mm x 1.6mm Flat Washers
4	Sensor Retaining Caps	7	6mm Lock Washers
4	20mm x 10mm Foam Washers	7	6mm Hex Nuts
4	15.5mm x 25mm x 2mm Foam Washers	4	6mm Flanged Nuts
1	License Plate Bracket	2	6mm Nylon Lock Nuts
2	Plastic Plugs for License Plate	1	Allen Wrench S=5
2	12mm x 55mm Bolt Plates	1	Allen Wrench S=4
2	12mm x 55mm Double Bolt Plates	8	4mm Self Tapping Screws
6	12mm Plastic Retainers	10	Nylon Wire Ties
6	12mm x 32mm x 3mm Flat Washers		



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#### 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)**.
- **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.
- **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, **(Figure 6)**.
- **c.** Reroute the ACC plug end of the harness down through the hole in the top of the shutter assembly and out through the front, **(Figure 7)**.
- 7. Remove the plastic nuts attaching the triple nut plate to the back of the driver/left bumper mounting flange on the end of the frame, (**Figure 8**). Remove the triple nut plate.
- 8. Select the driver/left inner and outer Support Brackets, (Figure 9). Attach the Support Brackets to the sides of the frame with the included (1) 10mm x 110mm Hex Bolt, (2) 10mm Flat Washers, (1) 10mm Lock Washer and (1) 10mm Hex Nut, (Figures 9 & 10). Push Support Brackets up against back of flange on frame, (Figure 10).
- 9. Repeat Steps 7 & 8 to attach the passenger/right Inner and Outer Support Brackets.
- **10.** Reinstall the shutter assembly to the vehicle. **IMPORTANT**: Replace the (2) factory hex bolts attaching the upper shutter brackets to the top of the frame with the included (2) 6mm x 20mm Hex Bolts, (2) 6mm Lock Washers and (2) 6mm Flat Washers, (Figure 11).
- **11.** Carefully unwrap the Bumper. Temporarily remove (6) 6mm Button Head Combo Bolts and (6) 6mm Flange Nuts that attach the center Cover Plate to the bumper. Save this hardware for later, **(Figure 12)**
- **12.** Determine if the vehicle is equipped with ACC sensor (Adaptive Cruise Control), and parking sensors.

#### Models with ACC sensor:

- **a.** Gently pull the end of the harness out from the shutter assembly, **(Figure 13)**. Do not pull out the harness, only extend the plug end of the harness.
- **b.** Select the rectangular Sensor Mounting Bracket, **(Figure 14)**. Attach the ACC sensor to the Bracket with the included (3) 6mm x 20mm Button Head Bolts, (6) 6mm Flat Washers, (3) 6mm Lock Washers and (3) 6mm Hex Nuts, **(Figure 15)**.
- c. Attach the ACC sensor and Bracket assembly along with the Plastic Cover with the included (4) 6mm x 20mm Button Head Bolts, (4) 6mm Flat Washers, (4) 6mm Lock Washers and (4) 6mm Hex Nuts to the mount bracket on the front of the Bumper assembly, (Figures 16 & 17). The ACC sensor and bracket assembly will mount to the back of the Bumper bracket and the plastic cover will mount to the front. Center the assembly in the slots of the Bumper mount bracket and fully tighten hardware.

#### Models without parking sensors:

- **a.** From the front of the bumper, push the included Plastic Plugs into the Sensor Mounts, **(Figure 18)**. **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 19).
- c. Insert sensor with Seal into sensor mount on back of Bumper, (Figure 20).
- **d.** Place Foam Spacer over end of sensor. Push Sensor Retaining Cap onto sensor mount and lock into mounting holes, **(Figure 20)**.

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- e. Repeat previous Steps to install remaining sensors.
- f. Install the factory wiring harness and plug into sensors. Attach harness to back of Bumper.
- 13. Select driver/left LED "L" Bracket for center LED light. Attach the LED bracket to the bumper with (1) 8mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer, and (1) 8mm Hex Nut. Repeat this step to attach the passenger/right LED "L" Bracket, (Figure 21)
- **14.** Determine if Mesh Fill Panels or LED accessory lights will be installed. **NOTE**: Lights not included. **Mesh Fill Panel installation**, do not install lights with Fill Panels:
  - **a.** Select driver/left Fill Panel. Attach Fill Panel to tabs on back of Bumper with the included (2) 6mm Button Head Combo Bolts and (2) 6mm Flange Nuts, **(Figure 22)**. Repeat this **Step** to attach the passenger/right Fill Panel.
  - b. Select the center Fill Panel. Attach Fill Panel to the LED "L" Brackets from **Step 13** with (2) 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers, and (2) 8mm Hex Nuts, **(Figure 23)** Light installation (do not install Mesh Fill Panels):
  - a. Attach cube style lights to tabs at top of square openings in Bumper, (Figure 21).
  - **b.** Attach bar style LED light to LED "L" Brackets from **Step 13** with (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers, and (2) 8mm Flat Washers, **(Figure 24) Note:** This location is designed to fit a standard **20in Single Row** bar style LED light
- **15.** Attach the Top Hoop to the top of the Bumper with the included (4) 8mm x 25mm Button Head Bolts, (8) 8mm Flat Washers, (4) 8mm Lock Washers and (4) 8mm Hex Nuts, **(Figure 25)**. **NOTE**: Hoop must be installed before Bumper is attached to vehicle. Fully tighten Hoop hardware.
- **16.** Insert (1) 12mm Single Bolt Plate through the outer mounting hole in the Mounting Bracket and Bumper, (**Figure 26**). Thread (1) 12mm Plastic Retainer onto the Bolt Plate to help hold it in place, (**Figure 26**). Repeat this Step to attach (1) 12mm Double Bolt Plate to the (2) inner mounting holes, (**Figure 26**). **NOTE**: Plastic Retainers are supplied to help with Bumper installation, use is not mandatory.
- 17. Repeat Step 16 to attach the Bolt Plates to the passenger/right side of the Bumper.
- **18.** With assistance, hold the Bumper assembly up to the end of the frame and Support Brackets. Guide the Bolt Plates through the frame and Brackets. Attach the driver/left end of the Bumper to the frame and Brackets with the included (3) 12mm Flat Washers, (3) 12mm Lock Washers and (3) 12mm Hex Nuts, (**Figure 27—29**). Repeat this **Step** to attach the passenger/right side of the Bumper.
- **19.** Center the Bumper to the vehicle and fully tighten all hardware.
- 20. Models with ACC sensor, plug wiring harness into sensor, (Figure 30)
- 21. Models with front license plate, attach the included License Plate Bracket onto the center Cover Panel with (2) 6mm Hex Bolts, (4) 6mm Flat Washers, and (2) 6mm Nylon Lock Nuts, (Figure 31). Snap the included (2) Plastic Plugs into the Bracket.
- 22. Reinstall the center Cover Panel onto the bumper assembly using the hardware from Step 12 (Figure 32)
- **23.** Determine if bar style LED light will be installed on Hoop. **NOTE**: Light not included. Upper LED Light Installation with Hoop, (LED Light Bar and Hoop installation optional):

#### **Models without Front License Plate:**

- **a.** Select the Left and Right "L" Top Brackets. Attach Brackets below Hoop with the included (2) 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts, (Figure 33).
- **b.** Attach the LED Light Bar to the Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm x 24mm Flat Washers, (Figure 33).

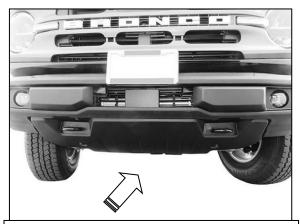
#### **Models with Front License Plate:**

- a. Select the Left and Right "L" Bottom Brackets. Attach Brackets above Hoop with the included (2) 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts, (Figure 34).
- **b.** Attach the LED Light Bar to the Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm x 24mm Flat Washers, (**Figure 34**).
- **24.** All models, reinstall the lower splash guard.
- **25.** 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 Bumper.

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



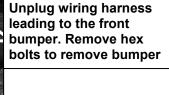
(Fig 1) Remove splash guard (arrow). Model with plastic bumper cover pictured.



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

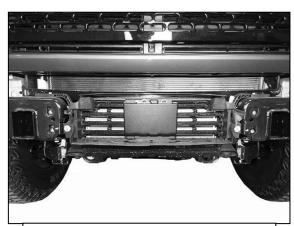


(Fig 3) Model with steel bumper, remove cover from bumper (driver/left side pictured)





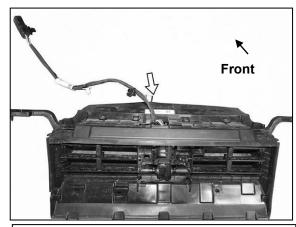
(Fig 5) Remove the shutter assembly. Models with ACC sensor (pictured), unplug and remove sensor from shutter assembly



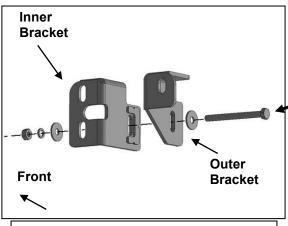
(Fig 4) Remove factory hex bolts from front to remove bumper assembly

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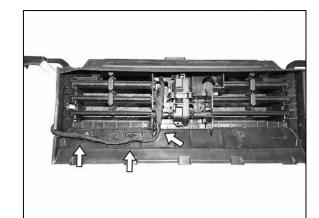
#### **Driver/left Side Installation Pictured**



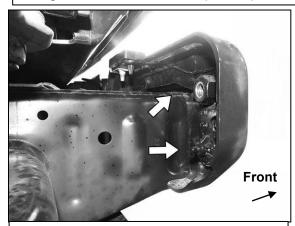
(Fig 7) Models with ACC sensor, insert the ACC plug end down through the hole in the top of the shutter assembly and out through the front (arrow-also see Fig 11)



(Fig 9) Attach driver/left Inner and Outer Support Brackets to end of frame

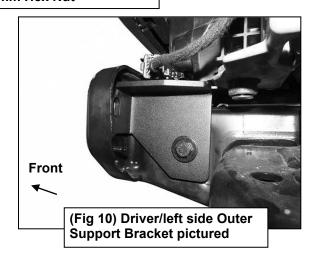


(Fig 6) Models with ACC sensor, remove the wiring harness to the sensor (arrows)



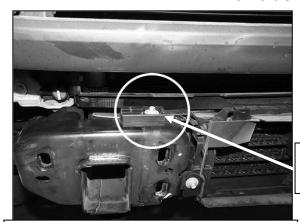
(Fig 8) Remove plastic nuts to remove the triple nut plates (arrows). Passenger/right side pictured

10mm x 110mm Hex Bolt (2) 10mm Flat washers 10mm Lock Washer 10mm Hex Nut



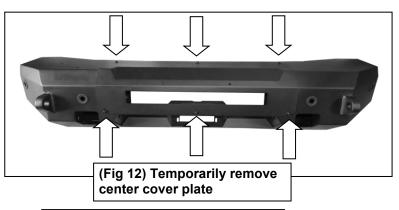
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#### **Driver/left Side Installation Pictured**

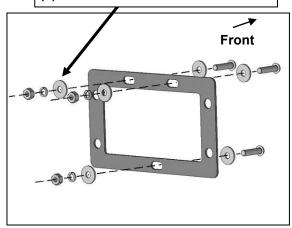


6mm x 20mm Hex Bolt 6mm Lock Washer 6mm Flat Washer

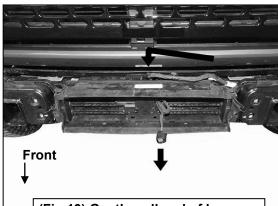
(Fig 11) Reinstall shutter assembly. Replace factory top bolts (circle-1 per side) with included hardware. Passenger/right pictured



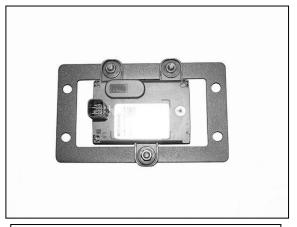
- (3) 6mm x 25mm Button Head Bolts
- (6) 6mm Flat Washers
- (3) 6mm Lock Washers
- (3) 6mm Hex Nuts



(Fig 14) Models with ACC sensor, attach sensor to back of Mounting Bracket



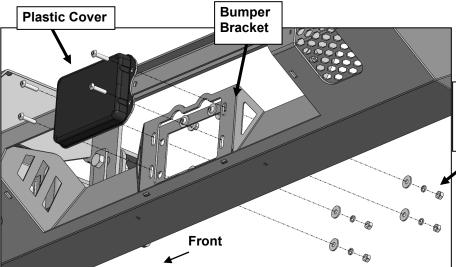
(Fig 13) Gently pull end of harness out through front of shutter assembly until it stops



(Fig 15) ACC sensor attached to Bracket

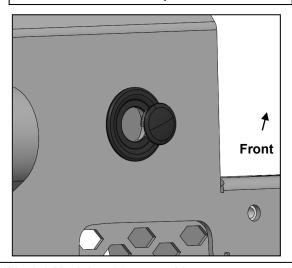
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#### **Driver/left Side Installation Pictured**

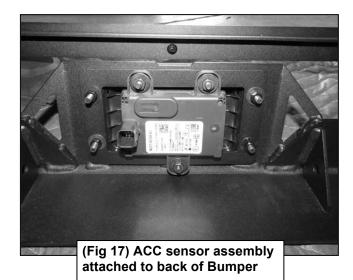


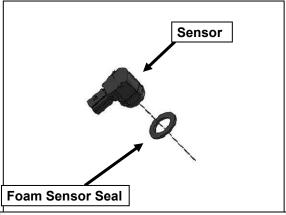
- (4) 6mm x 25mm Button Head Bolts
- (4) 6mm Flat Washers
- (4) 6mm Lock Washers
- (4) 6mm Hex Nuts

(Fig 16) Model with ACC sensor, attach Plastic Cover to front side of Bumper Bracket and attach sensor and Mounting Bracket to back of Bumper Bracket.



(Fig 18) Models without parking sensors, push the included Plugs into sensor mounts

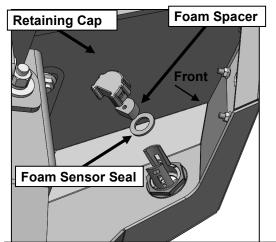




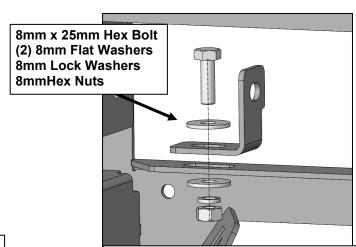
(Fig 19) Remove factory seal from end of sensor. Push Foam Seal onto end of sensor

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

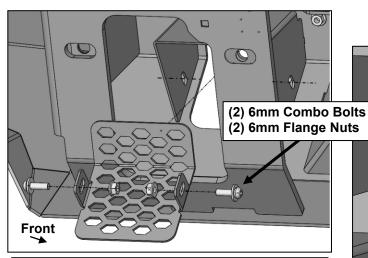


(Fig 20) Push sensor and Seal into back of Mount. Place Foam Spacer over sensor. Snap Retaining Cap onto sensor mount

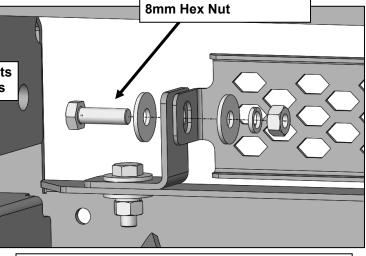


(Fig 21) Attach driver/left "L" bracket onto bumper

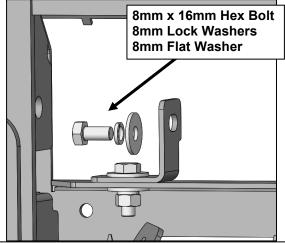
8mm x 25mm Hex Bolt (2) 8mm Flat Washers 8mm Lock Washer



(Fig 22) Attach Mesh Fill Panel or cube light (light not included) to driver/left side of Bumper



(Fig 23) Attach center Mesh Fill Panel to driver/left side of Bumper

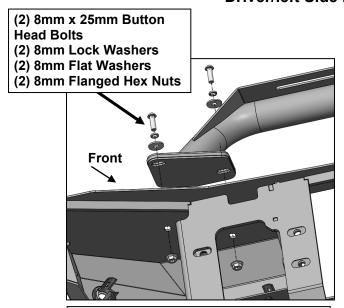


(Fig 24) Attach bar style LED light to center "L" brackets in Bumper

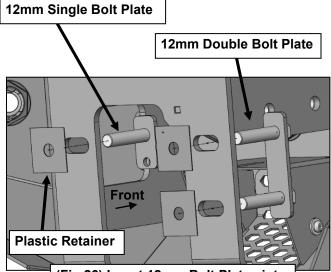
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#### **Driver/left Side Installation Pictured**

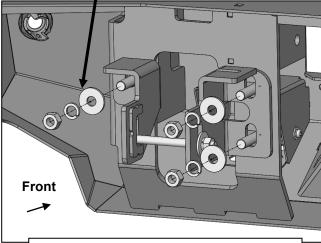


(Fig 25) Attach Hoop to top of Bumper

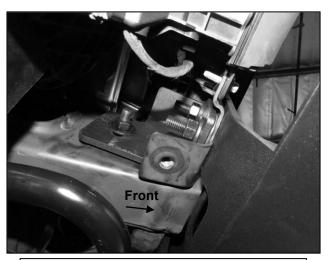


(Fig 26) Insert 12mm Bolt Plates into Bumper mount bracket and thread 12mm Plastic Retainers onto Bolt Plates to help hold in place

- (3) 12mm Flat Washers
- (3) 12mm Lock Washers
- (3) 12mm Hex Nuts



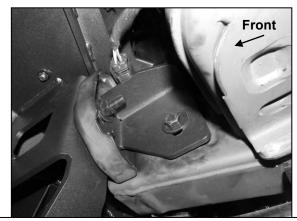
(Fig 27) Attach driver/left side of Bumper to end of frame and Support Brackets



(Fig 28) Driver/left side of Bumper attached to Double Bolt Plate pictured from below

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# **Driver/left Side Installation Pictured**

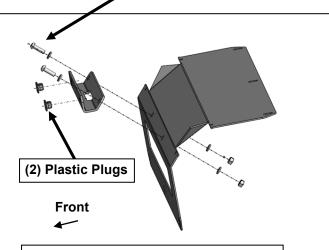


(Fig 29) Driver/left side of Bumper attached to outer Single Bolt Plate pictured from below

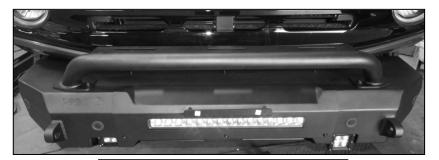


(Fig 30) Plug ACC harness connector into ACC sensor

- (2) 6mm Button Head Bolts
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts

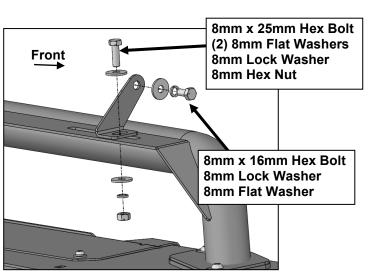


(Fig 31) Attach License Plate Bracket to front of center Cover Panel (optional)

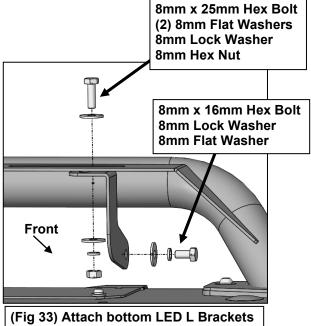


(Fig 32) Reinstall center Cover Plate

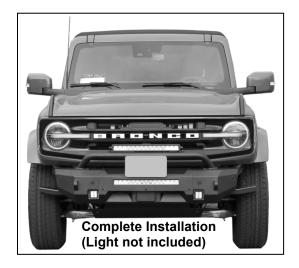
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(Fig 34) Attach top LED L Brackets above tab on back of Hoop (optional) (with license plate)



(Fig 33) Attach bottom LED L Brackets below tab on back of Hoop (optional) (No license plate)



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