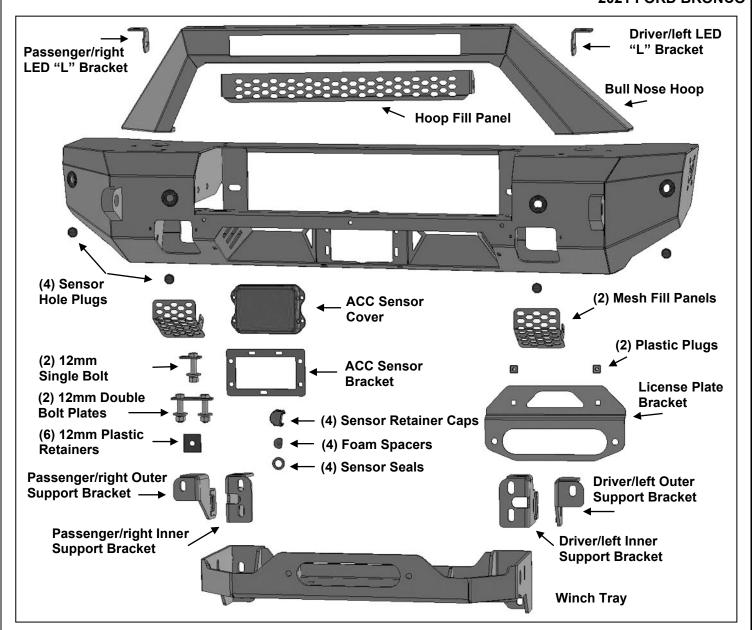


### PARTS LIST: FB14613 FB14614

			,
1	FB2 Front Bumper	6	12-1.75mm Hex Nuts
1	Bull Nose Hoop	2	10-1.5mm x 110mm Hex Bolts
1	Winch Tray Assem.	2	10-1.5mm x 30mm Button Head Bolts
1	Driver/left Inner Support Bracket	4	10mm x 30mm x 2.5mm Large Flat Washers
1	Passenger/Right Inner Support Bracket	2	10mm x 20mm x 2mm Small Flat Washers
1	Driver/left Outer Support Bracket	2	10mm Lock Washers
1	Passenger/Right Outer Support Bracket	2	10-1.5mm Hex Nuts
1	Bull Nose Hoop Mesh Fill Panel	2	10-1.5mm Nylon Lock Nuts
2	Square Mesh Fill Panels	4	8-1.25mm x 25mm Button Head Bolts
1	Driver/left LED "L" Bracket	4	8-1.25mm x 25mm Hex Bolts
1	Passenger/Right LED "L" Bracket	2	8-1.25mm x 16mm Hex Bolts
1	ACC Plastic Cover	14	8mm x 24mm x 2mm Flat Washers
1	ACC Mounting Bracket	10	8mm Lock Washers
1	License Plate Bracket	4	8mm Hex Nuts
2	Plastic Plugs for License Plate	4	8mm Flange Nuts
4	Sensor Retaining Caps	7	6-1.0mm x 25mm Button Head Bolts
4	20mm x 10mm Foam Spacers	4	6-1.0mm x 20mm Combo Bolts
4	15.5mm x 25mm x 2mm Foam Washer	10	6mm x 18mm x 1.6mm Flat Washers
4	Plastic Sensor Hole Plugs	7	6mm Lock Washers
1	Sensor Cover Kit	7	6mm Hex Nuts
6	12mm Plastic Retainers	4	6mm Flange Nuts
2	12mm x 55mm Double Bolt Plates	8	4mm Self Tapping Screws
2	12mm x 55mm Single Bolt Plates	1	6mm Wrench
4	12-1.75mm x 40mm Hex Bolts	1	5mm Wrench
6	12mm x 32mm x 3mm Large Flat Washers	1	4mm Wrench
4	12mm x 24mm x 2.5mm Small Flat Washers	10	Nylon Wire Ties
10	12mm Lock Washers		

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#### PROCEDURE:

## REMOVE CONTENTS FROM BOX AND VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY. ASSISTANCE IS HIGHLY 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 6).

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- b. Release the wiring harness from the clips on the back of the shutter assembly, (Figure 7).
- **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 8)**.
- 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 9**). Remove the triple nut plate.
- 8. Select the driver/left inner and outer Support Brackets, (Figure 10). Attach the Support Brackets to the sides of the frame with the included (1) 10mm x 110mm Hex Bolt, (2) 10mm x 30mm Large Flat Washers, (1) 10mm Lock Washer and (1) 10mm Hex Nut, (Figures 10 & 11). Push Support Brackets up against back of flange on frame, (Figure 11).
- 9. Repeat Steps 7 & 8 to attach the passenger/right Inner and Outer Support Brackets.
- **10.** Reattach the shutter assembly to the vehicle, **(Figure 12)**. Plug shutter harness back into main harness, **(Figure 5)**.
- **11.** Carefully unwrap the Bumper. Remove the Winch Tray from the top of the Bumper, **(Figure 13)**. **NOTE**: Hardware used to attach the Winch Tray to the Bumper is for shipping use only. Discard hardware.
- 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 12)**. 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, **(Figures 14 & 15)**.
- **c.** Attach the Plastic Cover to the front and the ACC sensor and Bracket to the <u>back</u> of the Bumper Mount with the included (4) 6mm x 20mm Button Head Bolts, (4) 6mm Flat Washers, (4) 6mm Lock Washers and (4) 6mm Hex Nuts, **(Figures 16 & 17)**.

### Models without parking sensors:

**a.** From the front of the bumper, push the included (4) Plastic Plugs into the Sensor Mounts on the HD Bumper and the front of the Winch Tray, **(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 the outer sensor mount on the back of the 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)**.
- e. Repeat previous Steps to install remaining sensors.
- **f.** Attach the factory wiring harness to the Bumper and plug into sensors. Secure harness to back of Bumper with included Wire Ties.
- **13.** Determine if Mesh Fill Panels or cube style accessory lights will be installed. **NOTE**: Lights not included. **Mesh Fill Panel installation**, do not install lights with Fill Panels:
  - **a.** Select (1) 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 21)**. Repeat this **Step** to attach the passenger/right Fill Panel.

### Light installation (do not install Mesh Fill Panels):

- a. Attach lights to tabs at top of square openings in Bumper, (Figure 21).
- **14.** Attach the Top Hoop to the top of the Bumper with the included (4) 8mm x 25mm Button Head Bolts, (4) 8mm Lock Washers, (4) 8mm Flat Washers and (4) 8mm Flange Nuts, **(Figure 22)**. **NOTE**: Installation is optional but Hoop must be installed before Bumper is attached to vehicle. Fully tighten Hoop hardware.
- **15.** Insert (1) 12mm Single Bolt Plate through the outer mounting hole in the driver/left mounting plate on the back of the Bumper, (**Figure 23**). Thread (1) 12mm Plastic Retainer onto the Bolt Plate to help hold it in place, (**Figure 24**). Repeat this **Step** to attach (1) 12mm Single Bolt Plate to the outer mounting hole on the passenger/right side of the Bumper. **NOTE**: Plastic Retainers are supplied to help with Bumper installation, use is not mandatory for installation.

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- **16.** With assistance, hold the Bumper assembly up to the end of the frame and Support Brackets. Guide the outer Single Bolt Plates through the frame and outer Support Brackets. Attach the driver/left end of the Bumper to the frame and Bracket with the included (1) 12mm x 32mm Large Flat Washer, (1) 12mm Lock Washer and (1) 12mm Hex Nut, **(Figure 25)**. Repeat this **Step** to attach the passenger/right side of the Bumper. Snug but do not fully tighten hardware.
- **17.** Select the Winch Tray. Slide the Tray onto the top of the Bumper. Select (1) Double Bolt Plate, **(Figures 26 & 29)**. Slide the Bolt Plate down through the driver/left rear corner of the Winch Tray and out through the back of the Tray, frame and inner Support Bracket. Repeat this **Step** to insert the remaining Double Bolt Plate through the passenger/right side of the Tray.
- 18. Next, attach the driver/left side of the Winch Tray to the inner side of the Bumper with the included (2) 12mm x 40mm Hex Bolts, (2) 12mm Lock Washers and (2) 12mm x 24mm mall Flat Washers, (Figures 27 & 29). Leave hardware loose. Repeat this Step to attach the passenger/right side of the Tray to the Bumper.
- **19.** Attach the Double Bolt Plate in the Tray and Bumper to the frame and inner Support Bracket with (2) 12mm x 32mm Large Flat Washers, (2) 12mm Lock Washers and (2) 12mm Hex Nuts, **(Figures 28 & 30)**. Repeat this **Step** to attach the passenger/right side of the Tray to the frame. Do not tighten hardware.
- 20. Center the Bumper to the vehicle and fully tighten all hardware.
- 21. Attach the winch and cable guide to the Winch Tray assembly, (winch and cable guide not included). Models with front license plate, insert the included License Plate Bracket between the cable guide and the front of the Bumper. Attach License Plate Bracket to the front of the Tray with (2) 10mm x 30mm Button Head Bolts, (4) 10mm x 20mm Small Flat Washers and (2) 10mm Nylon Lock Nuts, (Figure 31). Snap the included (2) Plastic Plugs into the square holes in the Bracket for the license plate.
- 22. Remove rubber plugs from top of Bumper as necessary for wiring access to Hoop and Winch.
- **23.** Determine if Mesh Fill Panel or bar style LED light will be installed in Hoop, (light not included). **NOTE**: Check for clearance between light and winch.

**Attach Mesh Fill Panel to Hoop** (Do not install light with Mesh Fill Panel):

- a. Select the driver/left "L" Bracket. Attach the Bracket to the slot on back of Hoop with the included (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, (Figure 32). Repeat this Step to install the passenger/right "L" Bracket.
- **b.** Attach the Mesh Fill Panel to the "L" Brackets with the included (2) 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts, **(Figure 33)**. Push the Fill Panel up against the inside of the Hoop and tighten the hardware.

#### **LED Light Installation with Hoop**, (LED Light Bar not included):

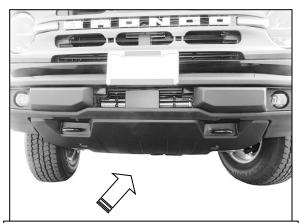
- a. Select the driver/left "L" Bracket. Attach the Bracket to the slot on back of Hoop with the included (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, (Figure 32). Repeat this **Step** to install the passenger/right "L" Bracket.
- **b.** Attach the LED Light Bar to the Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers, (Figure 34).
- **24.** Models with ACC sensor, plug wiring harness into sensor.
- 25. Reinstall the lower splash guard.
- 26. 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**

Unplug wiring harness leading to the front bumper. Remove hex



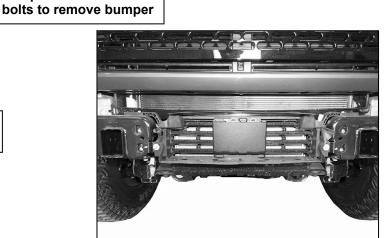
(Fig 1) Remove splash guard (arrow). Model with plastic bumper cover pictured.



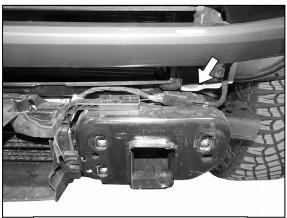
(Fig 2) Models with plastic bumper cover (see Fig 1), remove bumper pads from bumper (driver/left side pictured)



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



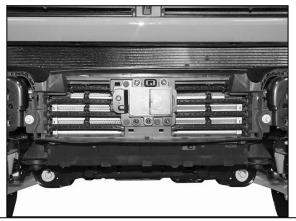
(Fig 4) Remove factory hex bolts from front to remove bumper assembly



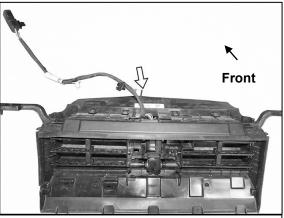
(Fig 5) Unplug harness leading to shutter assembly (arrow)

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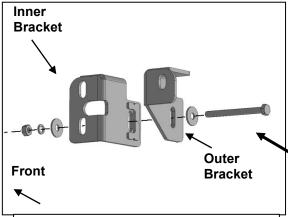
### **Driver/left Side Installation Pictured**



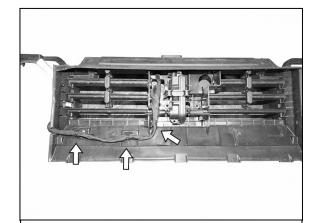
(Fig 6) Remove the shutter assembly. Models with ACC sensor (pictured), unplug and remove sensor from shutter assembly



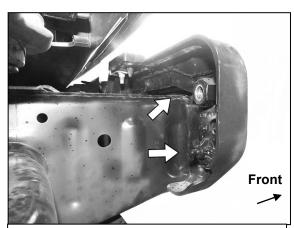
(Fig 8) Models with ACC sensor, insert the ACC plug end down through the hole in the top of the shutter assembly and out through the front (arrow-also see Fig 12)



(Fig 10) Attach driver/left Inner and Outer Support Brackets to end of frame



(Fig 7) Models with ACC sensor, release the clips attaching the wiring harness to the sensor (arrows)

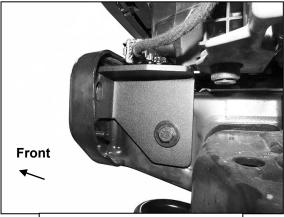


(Fig 9) Remove plastic nuts to remove the triple nut plates (arrows). Passenger/right side pictured

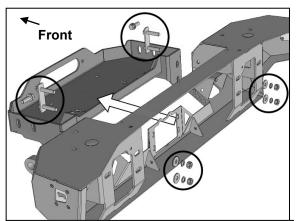
10mm x 110mm Hex Bolt (2) 10mm Large Flat Washers 10mm Lock Washer 10mm Hex Nut

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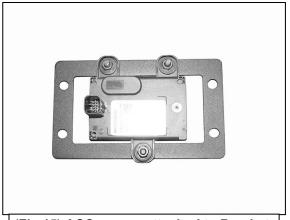
### **Driver/left Side Installation Pictured**



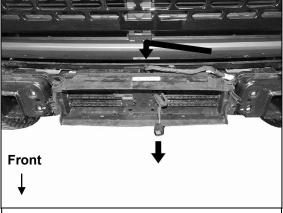
(Fig 11) Driver/left side Outer Support Bracket pictured



(Fig 13) Separate Winch Tray from Bumper. NOTE: Discard attaching hardware (circled)

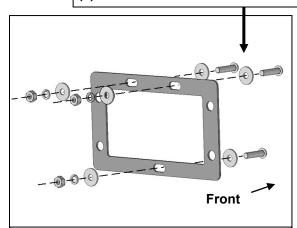


(Fig 15) ACC sensor attached to Bracket



(Fig 12) Models with ACC sensor, reinstall shutter assembly. Gently pull end of harness out through front of shutter assembly until it stops

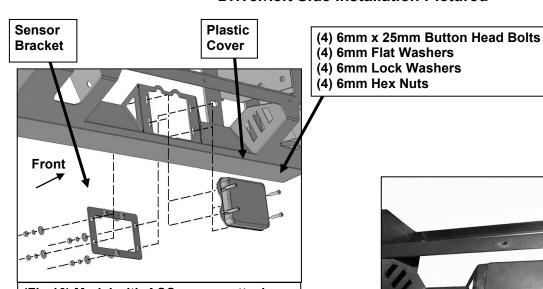
- (3) 6mm x 25mm Button Head Bolts
- (6) 6mm Flat Washers
- (3) 6mm Lock Washers
- (3) 6mm Hex Nuts



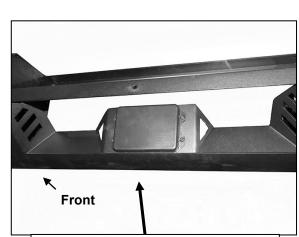
(Fig 14) Models with ACC sensor, attach sensor to back of Mounting Bracket

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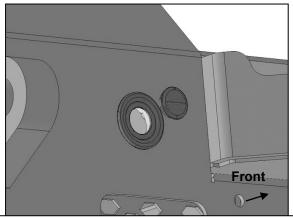
### **Driver/left Side Installation Pictured**



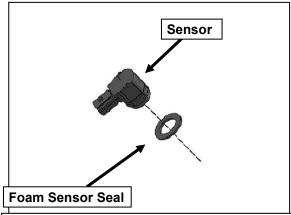
(Fig 16) Model with ACC sensor, attach Plastic Cover to front side of Bumper and attach sensor and Mounting Bracket to back of Bumper.



(Fig 17) Sensor Cover and assembly attached to mount on Bumper



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

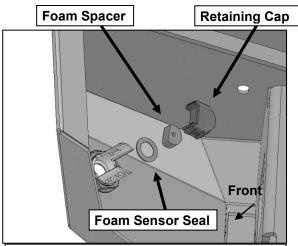


(Fig 19) Remove factory seal from end of sensor. Push Foam Seal onto end of sensor

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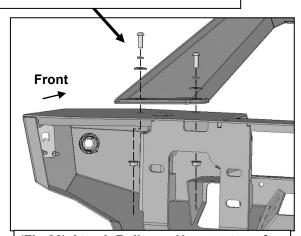
(2) 6mm x 20mm Button

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

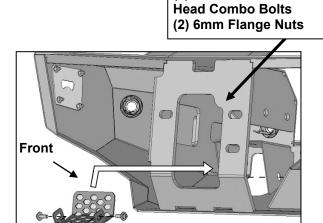


(Fig 20) Push sensor and Seal into back of Mount. Place Foam Spacer over sensor. Snap Retaining Cap onto sensor mount

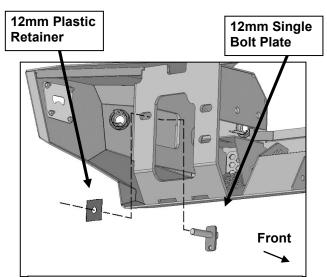
- (2) 8mm x 25mm Button Head Bolts
- (2) 8mm Lock Washers
- (2) 8mm Flat Washers
- (2) 8mm Flange Nuts



(Fig 22) Attach Bullnose Hoop to top of Bumper, installation is optional (driver/left side illustrated)



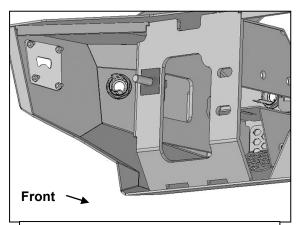
(Fig 21) Attach Mesh Fill Panels or lights (lights not included)



(Fig 23) Insert 12mm Single Bolt Plate into outer slot. Thread 12mm Plastic Retainer onto Bolt Plate to hold in place

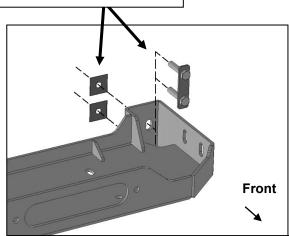
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#### **Driver/left Side Installation Pictured**



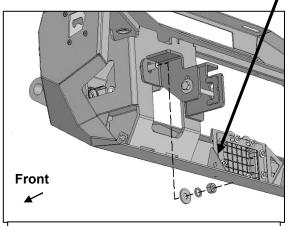
(Fig 24) Thread 12mm Plastic Retainer onto Bolt Plate to hold in place

12mm Double Bolt Plate (2) 12mm Plastic Retainers



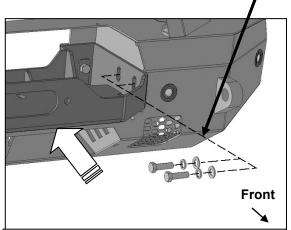
(Fig 26) Insert (1) 12mm Double Bolt Plate into corner of Winch Tray and out through slots. Thread (2) Plastic Retainers onto Bolt Plate to help hold in place (Retainer use is optional)

12mm Large Flat Washer 12mm Lock Washer 12mm Hex Nut



(Fig 25) Attach driver/left side of Bumper to frame and Outer Support Bracket

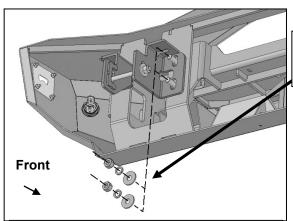
- (2) 12mm x 40mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm x 24mm Small Flat Washers



(Fig 27) Carefully place Winch Tray on top of Bumper. Guide Double Bolt Plates in back of Tray through frame and Inner Support Brackets. Attach side of Tray to inside of Bumper

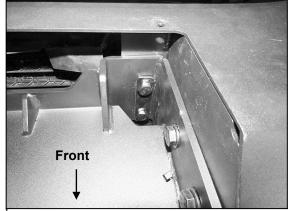
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### **Driver/left Side Installation Pictured**

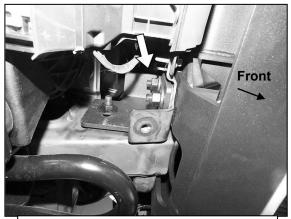


(Fig 28) Attach driver/left side of Bumper to end of frame and Support Bracket

- (2) 12mm Large Flat Washers
- (2) 12mm Lock Washers
- (2) 12mm Hex Nuts

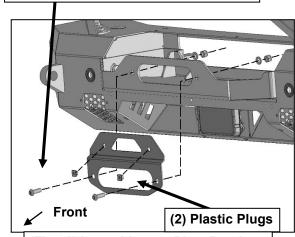


(Fig 29) Driver/left side of Winch Tray attached to Bumper and Bumper attached to frame and Support Bracket



(Fig 30) Driver/left side of Bumper attached to frame and Inner Support Bracket (pictured from below Bumper)

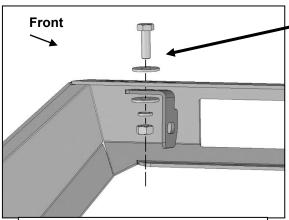
- (2) 10mm x 30mm Button Head Bolts
- (2) 10mm x 20mm Small Flat Washers
- (2) 10mm Nylon Lock Nuts



(Fig 31) Insert License Plate Bracket between cable guide (not included) and front of Bumper if required

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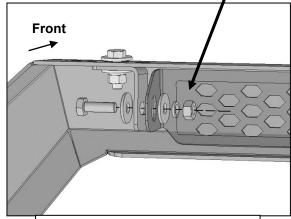
### **Driver/left Side Installation Pictured**



(Fig 32) Attach driver/left "L" Bracket to inside of Bumper Hoop

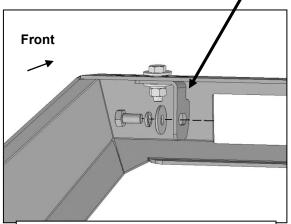
8mm x 25mm Hex Bolt (2) 8mm Flat Washers 8mm Lock Washer 8mm Hex Nut

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



(Fig 33) Attach Mesh Fill Panel to "L" Bracket on inside of Hoop

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



(Fig 34) Attach LED to "L" Brackets on inside of Hoop (light not included)



Complete Installation (light and winch not included)

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