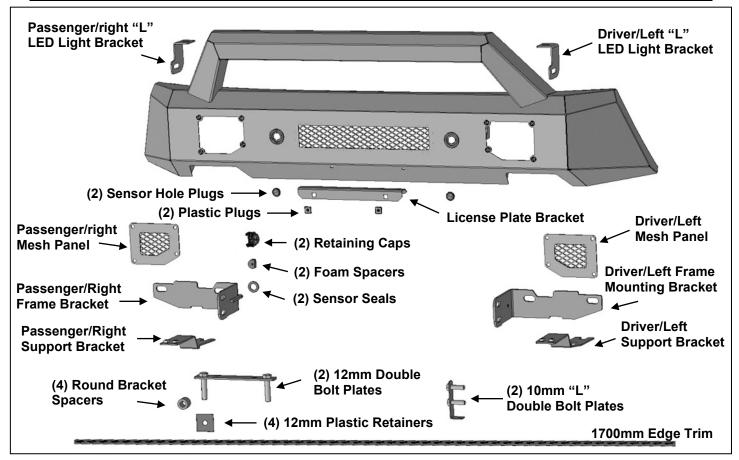
PARTS LIST:

1	Front CS1 Bumper Assembly	2	12-1.75mm x 30mm Hex Bolts
1	Driver/Left Frame Mounting Bracket	12	12mm x 32mm x 3mm Large Flat Washers
1	Passenger/Right Frame Mounting Bracket	10	12mm Lock Washers
1	Driver/Left Support Bracket	6	12mm Hex Nuts
1	Passenger/Right Support Bracket	2	10mm Double Bolt Plates (L-shaped bracket)
1	Driver/Left Mesh Plate	4	10mm x 27mm OD x 3mm Flat Washers
1	Passenger/Right Mesh Plate	4	10mm Lock Washers
1	Driver/Left LED "L" Light Bracket	4	10mm Hex Nuts
1	Passenger/Right LED "L" Light Bracket	2	8-1.25mm x 25mm Hex Bolts
1	License Plate Relocation Bracket	2	8-1.25mm x 16mm Hex Bolts
2	Plastic Plugs for license plate mount	6	8mm x 24mm x 2mm Flat Washers
1	1700mm Bumper Edge Trim	4	8mm Lock Washers
4	Bracket Spacers	2	8mm Hex Nuts
2	Sensor Retaining Caps	12	6mm x 20mm Button Head Combo Bolts
2	20mm x 10mm Foam Spacers	2	6mm x 20mm Button Head Bolts
2	15.5mm x 25mm x 2mm Foam Seals	4	6mm x 18mm x 1.6 Flat Washers
2	Plastic Sensor Hole Plugs	2	6mm Nylon Lock Nuts
4	12mm Plastic Retainers	1	4mm Wrench
2	12mm Wide Double Bolt Plates	4	4mm Self Tapping Screws
4	12-1.75mm x 45mm Hex Bolts		



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PROCEDURE:

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

- **1.** Move to the front of the vehicle. Remove the license plate.
- 2. Unplug the center wire harness located in the opening in the bumper under the license plate on the right side, if equipped, (Figure 1).
- 3. Remove the center plastic cover from the front of the bumper, (Figures 2 & 3). Release the wiring harness from the clips attached to the back of the plastic cover. Models with adaptive cruise control sensor, unplug and remove sensor to access bumper hardware.
- **4.** Place blocks or jack stands under the front bumper to support it during hardware removal. Once the bumper has been safely supported remove the large factory hex nuts from the front of the bumper bracket attaching the bumper to the frame, **(Figure 4)**. **WARNING!** Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling. With assistance, hold the bumper in position, unplug the outer wiring harness located under the Driver/Left headlight, **(Figure 5)**. Remove bumper and place on a stable, clean surface.
- 5. Remove the factory bolt plate from the back of the mount on the frame, (Figure 6). NOTE: Use a small flat blade screwdriver to pry up the metal clips to remove the bolt plate. Select the included longer 12mm Double Bolt Plate, (Figure 7). Insert the Bolt Plate back through the top mounting holes in the frame mount, (Figure 8). From the front, thread (2) 12mm Plastic Retainers onto the Bolt Plate to hold it in place, (Figures 7 & 8). Repeat this Step to install the passenger/right Double Bolt Plate.
- **6.** Reinstall the factory bumper over the Bolt Plates. Attach the driver/left side bottom mounting point on the factory bumper to the end of the frame with (1) 12mm x 30mm Hex Bolt, (2) 12mm Flat Washers, (1) 12mm Lock Washer and (1) 12mm Hex Nut, **(Figure 9)**. Do not fully tighten the hardware at this time. Repeat this **Step** to attach the passenger/right lower mounting point on the factory bumper.
- 7. Slide (2) Bracket Spacers onto the threaded ends on the driver/left side Double Bolt Plate, (Figures 10 & 11). Select the driver/left Frame Bracket, (Figure 12). Attach the Frame Bracket to the Bolt Plate and Spacers with (2) 12mm Flat Washers, (2) 12mm Lock Washers and (2) 12mm Hex Nuts, (Figures 12 & 13). Leave hardware loose. Repeat this Step to install the passenger/right Frame Bracket.
- **8.** Remove the rubber seal around the tow hook. Remove the front tow hook mounting bolt but only loosen the rear mounting bolt. Leave tow hook in place.
- 9. Select the driver/left Support Bracket, (Figure 14). Slide the Support Bracket between the tow hook and the bottom of the frame, (Figures 15 & 16). Replace the factory tow hook bolts with the included longer (2) 12mm x 45mm Hex Bolts, (2) 12mm Lock Washers and (2) 12mm Flat Washers. Do not fully tighten hardware at this time. Repeat this Step to install the passenger/right Support Bracket.
- 10. Carefully unwrap the Bumper. Attach the included Edge Trim to the Bumper, (Figure 17).
- **11.** Determine if vehicle is equipped with parking sensors.

Models without bumper sensors:

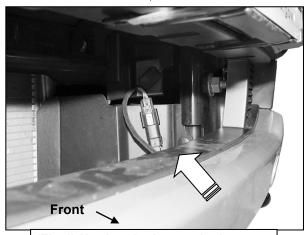
- a. From the front of the bumper, push the included Plastic Plugs into sensor holes, (Figure 18). Models with bumper mounted sensors:
 - a. Remove sensors and wiring harness from plastic panel removed in Step 3, (Figure 19).
 - b. Select (1) sensor. Remove the silicone seal from the end of the sensor, (Figure 20).
 - c. Slide the included larger Foam Seal over front of sensor. (Figure 20).
 - Insert sensor with Seal into sensor mount on CS1 Bumper, (Figure 21).
 - e. Place Thick Foam Spacer over end of sensor. Push Sensor Retaining Cap onto sensor mount and snap into place, (Figure 21).
 - **f.** Repeat previous **Steps** to install remaining sensor.
 - g. Install wiring harness from factory bumper, (Figure 22).
- **12.** On vehicles requiring front license plate, select the License Plate Bracket. Attach the Bracket to the front of the Bumper with the included (2) 6mm x 20mm Button Head Bolts, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts, **(Figure 23)**.
- **13.** With assistance, position the mounting tabs on the back of the Bumper up to the outside of the Frame Brackets. Temporarily support Bumper. **WARNING**: To avoid possible injury or damage to the vehicle, do not proceed until the bumper is fully and safely supported.

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- 14. Select (1) 10mm "L" Double Bolt Plate, (Figure 24). Insert the Bolt Plate through the outer opening in the Bumper. Guide the Bolt Plate into, up and through the back of the Brackets. Attach the Bumper to the Bolt Plate with (2) 10mm Flat Washers, (2) 10mm Lock Washers and (2) 10mm Hex Nuts, (Figures 25 & 26). Do not tighten hardware. Repeat this Step to attach the passenger/right side of the Bumper to the Mounting Bracket.
- **15.** Line up the mounting holes in the driver/left Support Bracket with the holes in the bottom of the Bumper. Attach the Support Bracket to the inside of the Bumper with the included (2) 6mm Button Head Combo Bolts, **(Figures 27 & 28)**. Do not fully tighten hardware. Repeat this **Step** to attach the passenger/right Support Bracket.
- **16.** Check the Bumper for level and center on the vehicle. Adjust the Bumper as necessary and fully tighten all Mounting Bracket hardware. **NOTE**: If additional left-right adjustment is required, temporarily loosen the Frame Bracket hardware and slide the Brackets left or right as necessary and fully tighten Frame Bracket hardware.
- **17.** Top mounted LED light installation (optional-light not included).
 - a. Select driver/left LED "L" Light Bracket. Attach the Bracket to the bottom of the top hoop with (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, (Figure 29). Do not tighten hardware at this time.
 - **b.** Repeat previous **Step** to attach the passenger/right Bracket.
 - **c.** Attach light to Top Brackets with the hardware included with the light or the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers. Adjust the width of the Brackets to the light. **IMPORTANT**: Top Light Brackets are designed to install most 20" to 24" single and double row bar style LED lights.
 - **d.** Fully tighten hardware once adjusted.
- **18.** Once all hardware has been fully tightened, attach Mesh Fill Panels to Bumper with the included (8) 6mm x 20mm Button Head Combo Bolts, **(Figure 30).** Push the included (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory hardware to attach the license plate to the Plastic Plugs.
- 19. 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.

Driver/left Side Installation Pictured



(Fig 1) Unplug the inner wire harness



(Fig 2) Remove the center plastic cover from the factory bumper (arrow)

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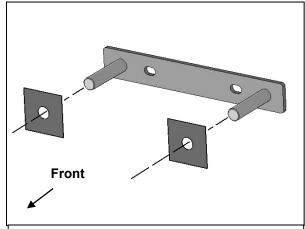
Driver/left Side Installation Pictured



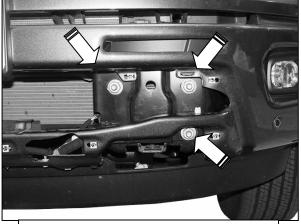
(Fig 3) Center plastic cover removed



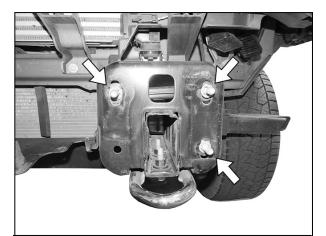
(Fig 5) Pull the bumper out slightly and unplug the outer wire harness



(Fig 7) Insert Double Bolt Plate through top holes in frame. Thread (2) Plastic Retainers onto Bolt Plate to hold in place



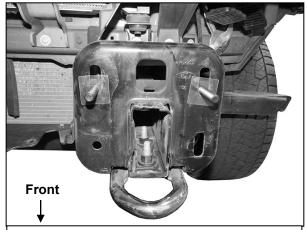
(Fig 4) Remove the hex nuts attaching the bumper to the frame (arrows)



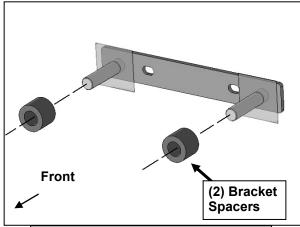
(Fig 6) Use a flat blade screwdriver to pry off the clips attaching the factory bolt plate

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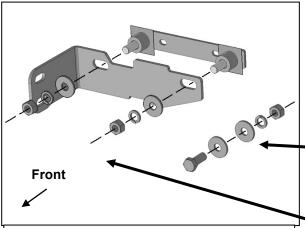
Driver/left Side Installation Pictured



(Fig 8) Driver/left Double Bolt Plate installed



(Fig 10) Slide Bracket Spacers onto threaded end of Bolt Plate

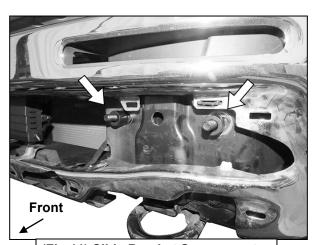


(Fig 12) Attach driver/left Frame Bracket to Spacers and Double Bolt Plate

12mm x 30mm Hex Bolt (2) 12mm Flat Washers 12mm Lock Washer 12mm Hex Nut



(Fig 9) Reinstall factory bumper. Use included 12mm hardware to attach bottom of bumper (arrow)



(Fig 11) Slide Bracket Spacers onto threaded end of Bolt Plate

Also see Figure 9 12mm x 30mm Hex Bolt (2) 12mm Flat Washers 12mm Lock Washer 12mm Hex Nut

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

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Driver/left Side Installation Pictured

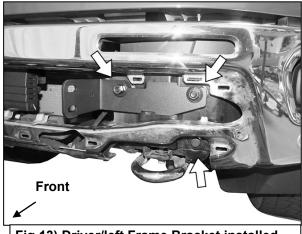
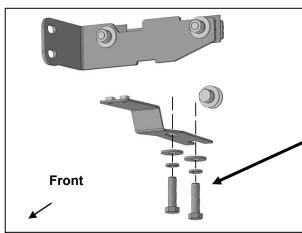
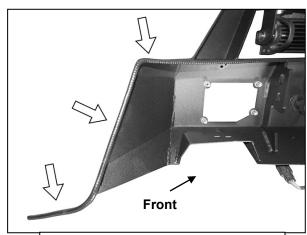


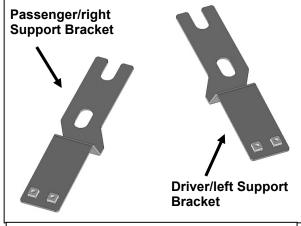
Fig 13) Driver/left Frame Bracket installed



(Fig 15) Use included longer 12mm hardware to attach Support Bracket to bottom of frame

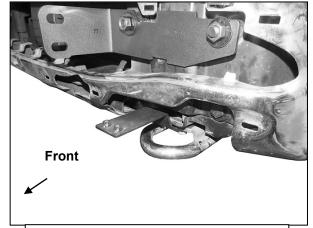


(Fig 17) Push Edge Trim onto both ends of Bumper. Cut Edge Trim to fit



(Fig 14) Select driver/left Support Bracket

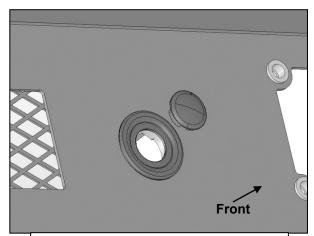
- (2) 12mm x 45mm Hex Bolts
- (2) 12mm Lock Washers
- (2) 12mm Washers



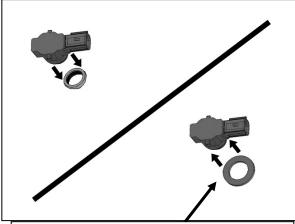
(Fig 16) Support Bracket installed between tow hook and bottom of frame

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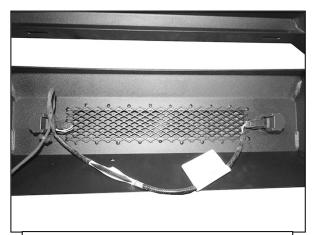
Driver/left Side Installation Pictured



(Fig 18) Models without sensors, push Plugs into sensor mounting holes



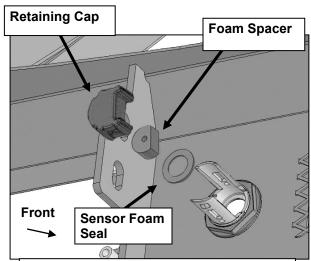
(Fig 20) Remove silicone seal from sensor. Slide large Seal over end of sensor (arrow)



(Fig 22) Sensors and harness installed



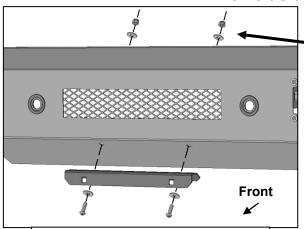
(Fig 19) Models with sensors, remove sensors and harness from plastic panel



(Fig 21) Insert sensor with Foam Seal into sensor Mount. Place Foam Spacer onto sensor. Snap Cap onto sensor and Mount

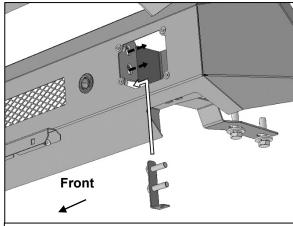
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Driver/left Side Installation Pictured

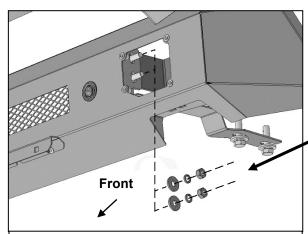


(Fig 23) Attach License plate Bracket to the front of the Bumper

- (2) 6mm x 20mm Button Head Bolts
- (4) 6mm Flat Washers
- (2) 6mm Nylon Lock Nuts



(Fig 24) Insert "L" 10mm Double Bolt Plate



(Fig 25) Driver/left side of Bumper attached to "L" Double Bolt Plate and Bracket

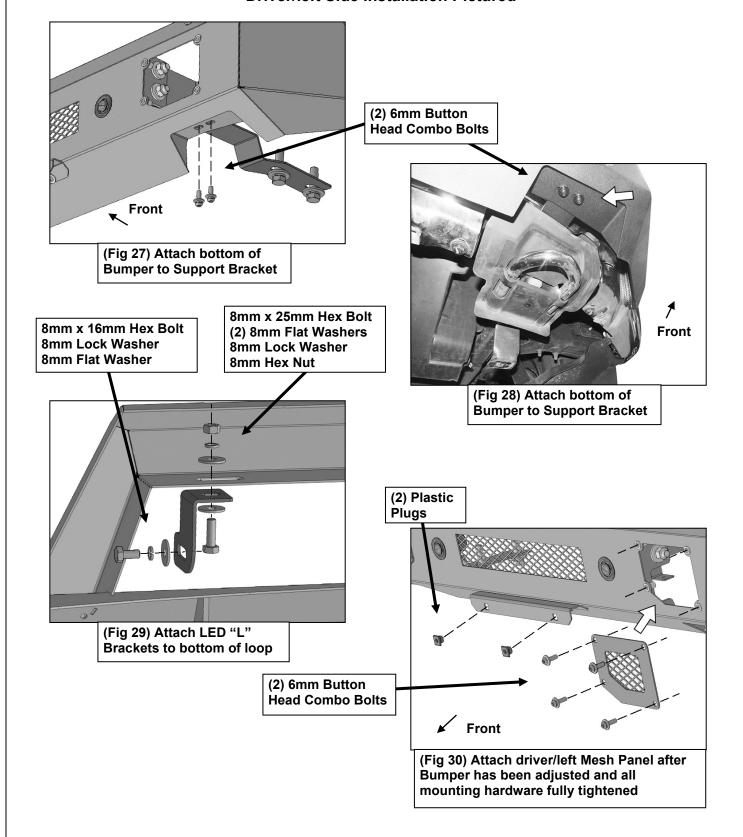
- (2) 10mm Flat Washers
- (2) 10mm Lock Washers
- (2) 10mm Hex Nuts



(Fig 26) Driver/left side of Bumper attached to Double Bolt Plate

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Driver/left Side Installation Pictured



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