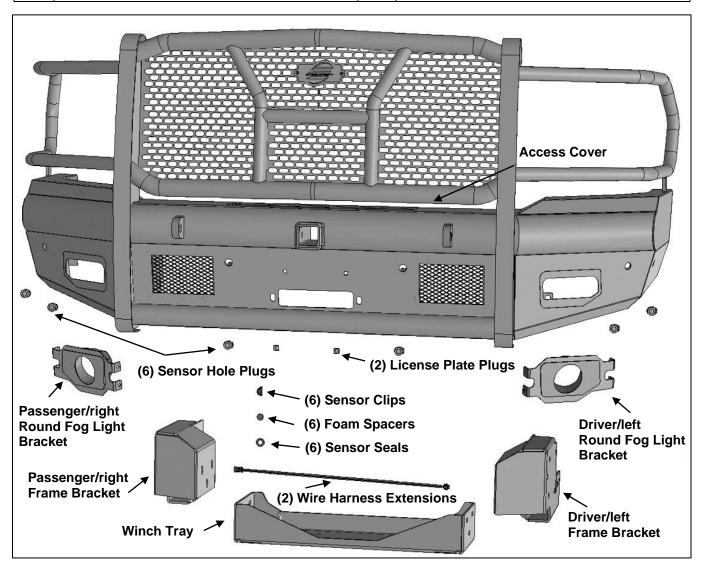
PARTS LIST:

1	Front Bumper Assembly	40	12mm x 37mm OD x 3mm Flat Washers
1	Driver/left Frame Mounting Bracket	20	12mm Lock Washers
1	Passenger/right Frame Mounting Bracket	20	12mm Hex Nuts
1	Winch Tray	5	6mm x 25mm Combo Bolts (access cover only)
1	Access Cover	6	6mm x 25mm Hex Bolts
1	Driver/left Round Fog Light Adapter	12	6mm x 22mm x 2mm Flat Washers
1	Passenger/right Round Fog Light Adapter	6	6mm Nylon Lock Nuts
6	15.5mm x 25mm x 2mm Foam Washers	20	4mm x 10mm Socket Head Screws
6	Retaining Clips	16	4mm x 8.65mm x .8mm Flat Washers
6	20mm x 2mm Foam Spacer	8	4mm Lock Washers
6	Rubber Sensor Plugs	8	4mm Hex Nuts
2	Sensor Harness Extensions	1	4mm Wrench
2	License Plate Mounting Plugs	1	2.5mm Wrench
8	12-1.75mm x 100mm Hex Bolts	1	Sensor Cover kit
12	12-1.75mm x 50mm Hex Bolts		



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PROCEDURE:

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. BUMPER IS HEAVY, ASSISTANCE IS HIGHLY RECOMMENDED. CUTTING MAY BE REQUIRED.

- 1. Remove the license plate. On models with bumper mounted sensors and/or fog lights, unplug the wiring harness leading to the front bumper. Move the wiring harnesses out of the way.
- 2. Remove the hardware attaching the fender liners to the ends of the bumper, (Figure 1).
- 3. Remove the tow hooks and hardware, (Figure 2). NOTE: Tow hooks cannot be reinstalled.
- 4. Locate the factory bumper bolts attaching the inner bumper brackets to the end of the frame, (Figure 2). With assistance, remove the (2) long hex bolts per side to remove the bumper assembly, (Figure 2). WARNING! Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling.
- **5.** Remove the lower frame extension from the driver/left side of the frame, **(Figure 3)**. **NOTE**: Lower frame extensions cannot be reinstalled.
- 6. Select the driver/left Frame Mounting Bracket, (Figure 4). Attach the Mounting Bracket to the frame with the included (4) 12mm x 100mm Hex Bolts, (8) 12mm Flat Washers, (4) 12mm Lock Washers and (4) 12mm Hex Nuts, (Figures 4 & 5). Snug but do not fully tighten hardware at this time. Repeat this Step to install the passenger/right side Mounting Bracket, (Figure 5).
- 7. Select the Winch Tray assembly. Line up the Winch Tray between the Mounting Brackets. Attach the Winch Tray to the Mounting Brackets with (6) 12mm x 50mm Hex Bolts, (12) 12mm Flat Washers, (6) 12mm Lock Washers and (6) 12mm Hex Nuts, (Figures 6—8). Do not fully tighten hardware.
- **8.** If installing winch, attach winch to Winch Tray at this time. Winch must be installed before Bumper is placed in position against Brackets. Attach winch cable guide, (available separately), to Bumper assembly. Follow manufacturer's instructions to properly wire the winch to the electrical system.
- **9.** Carefully remove both fog light assemblies, all sensors and the wiring harness from the back of the OE bumper, **(Figure 9)**. Note location of each sensor for correct reinstallation.

Models without bumper sensors:

- a. Select the included (6) Rubber Plugs.
- **b.** From behind bumper, push plugs into sensor mounting holes, **(Figure 10)**. Use the included 4mm Screws to lock Plugs in mounting sleeves if desired.

Models with bumper mounted sensors:

- **a.** Select the driver/left outer sensor. Remove the seal from the end of the sensor, **(Figure 11)**. Replace the seal with the included larger Foam Seal.
- **b.** Push the sensor into the matching mounting socket in the back of the Bumper.
- c. Apply (1) Foam Washer to the plug end of the sensor, (Figure 12). Trim Washer as required.
- d. Secure the sensor to the socket with (1) Sensor Retaining Clip, (Figure 12).
- **e.** Move to the next sensor location. Repeat previous Steps to install the next sensor as you go across the Bumper.
- **f.** Reinstall the factory wiring harness. Use the included (2) Harness Extensions to reach sensors as required. **NOTE**: It may be necessary to remove some of the outer wiring cover to extend the reach of the harness to the sensors.
- **a.** Secure harness to the Bumper as required.
- **10.** With assistance, position the Bumper assembly up to the outside of 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. 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 13 & 14)**. Snug but do not fully tighten hardware.
- 11. Level and adjust the Bumper to the vehicle and tighten all hardware.
- 12. On models with fog lights, determine style of fog light.

Models equipped with rectangular fog lights:

- **a.** Select the driver/left fog light assembly. Attach the assembly to the (3) mounting tabs on the back of the Bumper with the included (3) 6mm Bolts, (6) 6mm Flat Washers and (3) 6mm Nylon Lock Nuts, **(Figure 15)**. Repeat this Step to attach the passenger/right fog light assembly.
- **b.** Plug in the fog light harness to the lights and secure it to the Bumper.

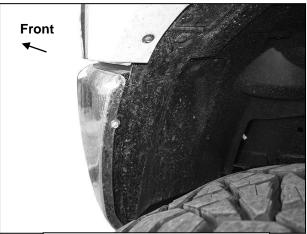
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Models equipped with round fog lights.

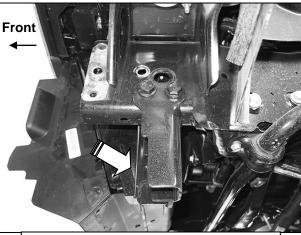
- a. Remove driver/left fog light mounting bracket from back of Bumper, (Figure 15).
- **b.** Remove fog light from outer housing. Attach fog light to Adapter Bracket with (4) 4mm Screws, (8) 4mm Flat Washers, (4) 4mm Lock Washers and (4) 4mm Hex Nuts, (Figure 16).
- **c.** Reuse hardware to attach the driver/left Round Fog Light Adapter Bracket to the back of the Bumper, **(Figure 17)**.
- d. Repeat previous Steps to attach the passenger/right fog light.
- e. Plug in the fog light harness to the lights and secure it to the Bumper.
- **13.** Install (2) Plastic License Plate Plugs into the holes in the Bumper, **(Figure 18)**. Reuse factory screws to attach license plate to Plugs.
- **14.** On models with forward facing camera, remove the center screen from the Bumper, **(Figure 18)**.
- **15.** 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 Assembly.

Driver Side Installation Pictured

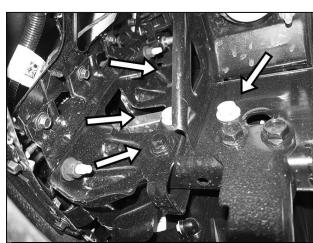


(Fig 1) Remove screws attaching ends of bumper to fender liners



(Fig 3) Remove lower frame extensions (arrow) from bottom of the frame

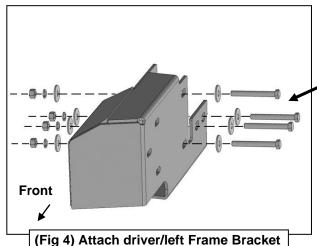
WARNING! To avoid possible injury or damage to vehicle, do not remove bumper bolts unless the bumper is properly supported on blocks or stands or the bumper may fall.



(Fig 2) Remove driver/left side tow hook and bumper bracket to frame hardware (arrows)

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Driver Side Installation Pictured

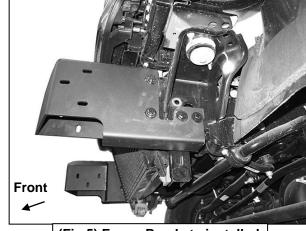


(4) 12mm x 100mm Hex Bolts

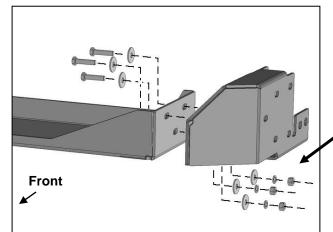
(3) 12mm x 50mm Hex Bolts (6) 12mm Flat Washers

Front

- (8) 12mm Flat Washers
- (4) 12mm Lock Washers
- (4) 12mm Hex Nuts



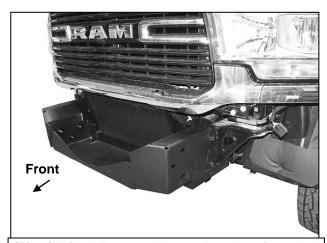
(Fig 5) Frame Brackets installed



(Fig 6) Attach Winch Tray to Frame Brackets

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

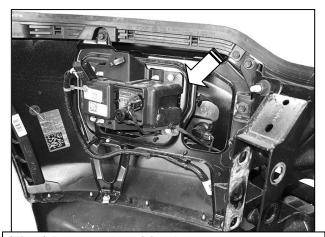
(Fig 7) Driver/left side of Winch Tray and Frame Bracket pictured from below



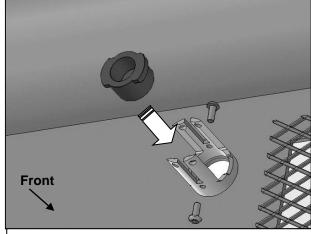
(Fig 8) Winch Tray and Frame Brackets installed

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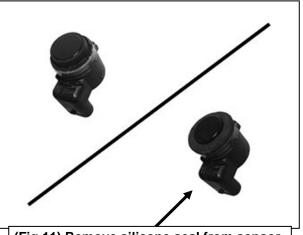
Driver Side Installation Pictured



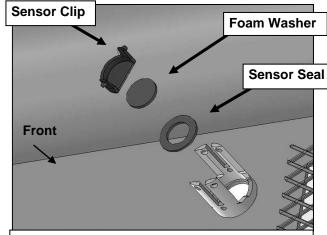
(Fig 9) Remove the wiring harness, sensors and fog light assemblies from bumper (if equipped)



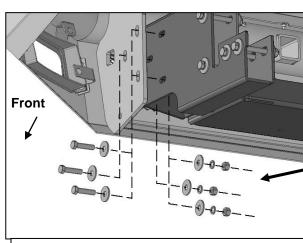
(Fig 10) Push Sensor Hole Plug into mounting sleeve. Use 4mm Screws to lock plug in place.



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



(Fig 12) Slide sensor into sleeve, insert Foam Washer and Clip to lock sensor in sleeve



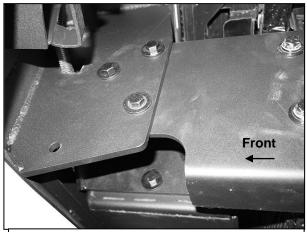
(Fig 13) Attach Bumper to driver/left Bracket

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

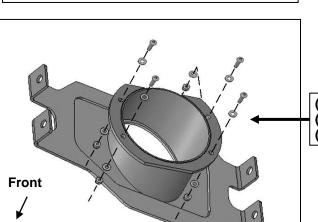
WARNING! Do not crawl under bumper unless the bumper is properly supported on blocks or stands or the bumper may fall.

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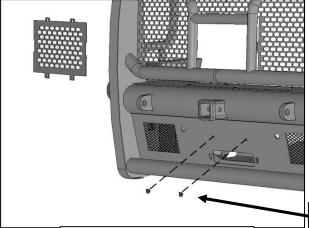
Driver Side Installation Pictured



(Fig 14) Driver/left side of Bumper installed

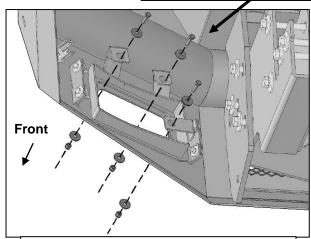


(Fig 16) Attach round fog light to driver/left Adapter Bracket



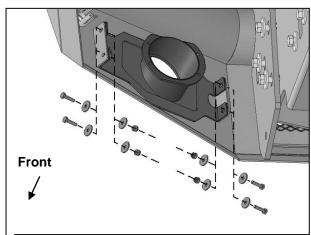
(Fig 18) Attach License Plate to Plastic Plugs in Bumper

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



(Fig 15) Attach rectangular fog light assembly to mounts on back of Bumper

- (4) 4mm Button Head Screws
- (8) 4mm Flat Washers
- (4) 4mm Nylon Lock Nuts



(Fig 17) Reuse hardware to attach round fog light adapter bracket assembly to Bumper

(2) Plastic Plugs

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