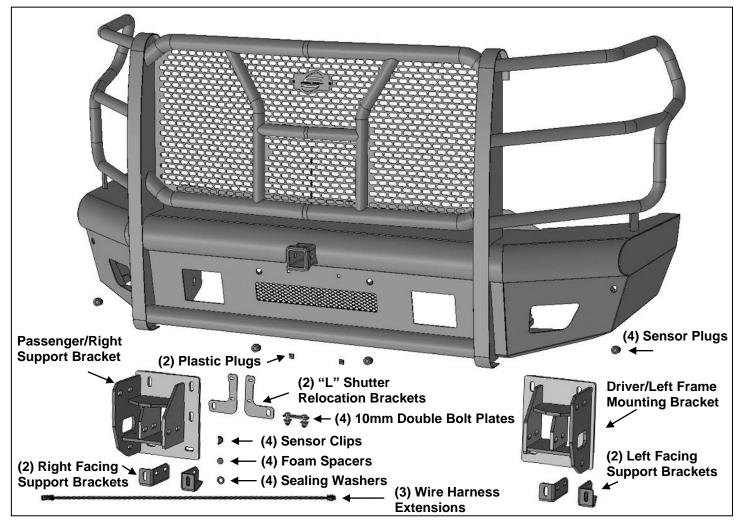


PARTS LIST:

1	HD Replacement Front Bumper	4	12-1.75mm x 130mm Hex Bolts
1	Driver/left Mounting Bracket	18	12-1.75mm x 50mm Hex Bolts
1	Passenger/right Mounting Bracket	44	12mm x 32mm x 3mm Flat Washers
2	Left Facing Support Bracket	22	12mm Nylon Lock Nuts
2	Right Facing Support Bracket	4	10mm x 35mm Double Bolt Plates
2	Shutter Relocation "L" Brackets	8	10mm x 27mm x 3mm Flat Washers
4	Rubber Sensor Hole Block Offs	8	10mm Nylon Lock Nut
4	Sealing Washers	10	6-1.0mm x 20mm Hex Bolts
4	20mm x 2mm Foam Spacers	20	6mm x 18mm x 1.6mm Flat Washers
4	Retaining Rings	10	6mm Nylon Lock Nuts
3	Sensor Wiring Harness Extensions	8	4mm x 10mm Button Head Screws
1	Sensor Covers Kit	1	Wrench
2	Plastic Plugs for License Plate		



PROCEDURE:

REMOVE CONTENTS FROM BOX. VERIFY ALL PARTS ARE PRESENT. READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. BUMPER IS HEAVY, ASSISTANCE IS HIGHLY RECOMMENDED TO AVOID POSSIBLE INJURY OR DAMAGE TO THE VEHICLE.

1. Start installation at the driver/left wheel opening. Remove the hardware attaching the fender liner to the front of the fender and the end of the plastic body panel, (Figure 1). Carefully pull the fender flare out to release the clips attaching it to the body panel, (fascia), and end of the fender, (Figure 2). Only release the forward end of the flare, it is not necessary to remove the flare. Remove the screws attaching the

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- end of the fascia panel to the front fender, **(Figure 3)**. Repeat this Step to release the passenger/right end of the fascia from the fender. Pull along the center of the fascia to release the remainder of the clips and move the plastic panel to a clean surface, **(Figure 4)**.
- 2. Open the hood and remove the plastic cover from the top of the radiator and the grille, (Figure 4). Remove the hardware attaching the grille and pull it straight out from the vehicle. On models with grille mounted camera, unplug harness leading to the camera and remove the grille, (Figures 5 & 7).
- **3.** Unplug any wiring harnesses leading to the front fender, **(Figure 6)**. Remove the license plate and bracket if equipped, **(Figure 7)**. Move all harnesses away from bumper.
- **4.** Remove the hardware at each end of the bumper attaching the bumper supports to each side of the frame, **(Figure 8)**.
- 5. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, from above the bumper, remove the (2) factory upper and lower bumper bolts from each side, (**Figure 9**). **WARNING!** Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling. Remove the bumper assembly.
- 6. Remove the factory bumper brackets and tow hooks, (if equipped), from the end of frame, (Figure 10 & 12). On models with lower radiator shutter assembly, unplug and remove the assembly, (Figure 11).
- 7. Select the driver/left Frame Mounting Bracket, (Figure 13). Attach the Bracket to the mounting plate on the end of the frame with the included (4) 12mm x 50mm Hex Bolts, (8) 12mm Flat Washers and (4) 12mm Nylon Lock Nuts, (Figures 13 & 14). Do not tighten hardware at this time.
- 8. Next, select (1) 10mm Double Bolt Plate and (1) Left Facing Lower Support Bracket, (Figure 15). Insert the Bolt Plate up into the open end of the frame and through the holes in the outside of the frame. Attach the Left Facing Support Bracket to the Double Bolt Plate with (2) 10mm Flat Washers and (2) 10mm Nylon Lock Nuts, (Figure 15 & 17). Attach the front of the Support Bracket to the back of the Mounting Bracket with (1) 12mm x 50mm Hex Bolt, (2) 12mm Flat Washers and (1) 12mm Nylon Lock Nut, (Figure 16). Do not fully tighten at this time. Repeat this Step to attach Right Facing Support Bracket to the inner side of the frame and back of the Mounting Bracket, (Figures 15 & 16).
- **9.** Repeat **Steps 7 & 8** to install the passenger/right Frame and Support Brackets.
- 10. On models equipped with lower radiator shutter system, remove shutter assembly from outer plastic housing, (Figure 18). Select (1) "L" Relocation Bracket. Use the previously installed (1) 12mm x 50mm Hex Bolt, (2) 12mm Flat Washers and (1) 12mm Nylon Lock Nut to attach the Bracket to the front of the Frame Bracket and Inner Support Bracket, (Figure 19). Repeat this Step to attach the remaining "L" Bracket. Attach the shutter assembly to the "L" Brackets with the included (4) 6mm x 20mm Hex Bolts, (8) 6mm Flat Washers and (4) 6mm Nylon Lock Nuts. Do not overtighten the 6mm hardware or damage to the shutter assembly may result. Plug wiring harness into shutter assembly
- 11. Sensors, (if equipped), must be installed in Bumper before installing Bumper Assembly.

Models without bumper sensors:

- a. Select the included (4) Rubber Plugs.
- **b.** From behind bumper, push plugs into sensor mounting holes, **(Figure 20)**. Screws have been provided to lock the plugs in the sleeve. Use is optional.

Models with bumper mounted sensors:

- **a.** Disassemble the front bumper to access the sensors and wiring harness, **(Figure 21)**. Unplug and remove sensors and wiring harness from factory bumper.
- **b.** Remove the silicone seal from the end of the sensor. Slide the included larger Sensor Seal over front of sensor, **(Figure 22)**.
- c. Insert sensor with Seal into sensor mount, (Figure 23).
- **d.** Place Foam Washer over end of sensor. Push Sensor Retaining Clip into sensor mount and lock into mounting holes, **(Figure 23)**.
- e. Repeat previous Steps to install remaining sensors.
- f. Optional: Secure each sensor to the socket with (2) 4mm x 10mm Button Head Screws, (Figure 20).
- **12.** With assistance, position the Bumper Assembly up to and over the Brackets. Temporarily support the weight of the 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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- 13. Line up the (3) holes in the driver/left side mounting plate on the inside of the Bumper with the (3) slots in the Frame Bracket. Attach the Bumper to the Bracket with the included (3) 12mm x 50mm Hex Bolts, (6) 12mm Flat Washers and (3) 12mm Nylon Lock Nuts, (Figures 24 & 25). Do not fully tighten hardware at this time. Repeat this Step to attach the passenger/right side of the Bumper.
- 14. Level and adjust the Bumper and fully tighten all 12mm hardware to 65-70ft-lbs.
- **15.** Select (1) tow hook if equipped. Flip the tow hook upside-down and insert it into the opening in the Bumper and into the Frame Bracket, **(Figure 26)**. Attach the tow hook to the Bracket with the included (2) 12mm x 130mm Hex Bolts, (4) 12mm Flat Washers and (2) 12mm Nylon Lock Nuts. Fully tighten the tow hook hardware. Repeat this Step to install the passenger/right tow hook.

16. Models with fog lights:

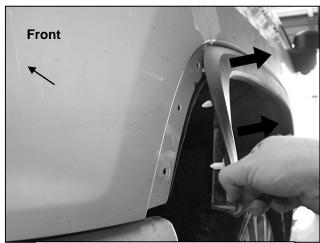
- **a.** Remove the fog lights from the factory bumper, **(Figure 21)**.
- **b.** Attach the <u>passenger/right</u> fog light to the mounting tabs on the back of the <u>driver/left</u> side of the Bumper with the included (3) 6mm x 20mm Hex Bolts, (6) 6mm Flat Washers and (3) 6mm Nylon Lock Nuts, **(Figure 27)**. Do not overtighten hardware or damage to the light may result.
- **c.** Repeat the previous Steps to attach the driver/left fog light to the passenger/right side of the Bumper.
- 17. Install the factory bumper wiring harness for sensors and fog lights as equipped. Run wiring harness over Brackets to reach sensors, (Figure 28). NOTE: (3) Wire Harness Extensions have been included to extend the factory harness to reach the sensors as needed. Plug harness into fog lights.
- **18.** Use the included (2) push-in Plastic Plugs to attach the front license plate, (if required), to the (2) holes in the front Bumper, **(Figure 29)**.
- 19. Models with grille mounted camera, remove screen from center of Bumper, (Figure 30).
- **20.** 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



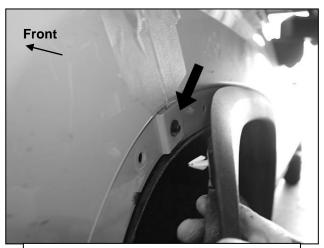
(Fig 1) Release hardware attaching fender liner from plastic panel (fascia-see arrows)



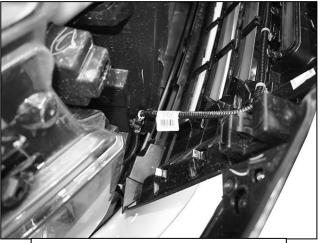
(Fig 2) Pull front end of fender flare out and away from fender. Do not remove flare, only release the front section

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Driver/left Side Installation Pictured



(Fig 3) Remove screws attaching plastic fascia panel to front end of fender (arrow)



(Fig 5) Disconnect harness to camera (if equipped) and remove grille

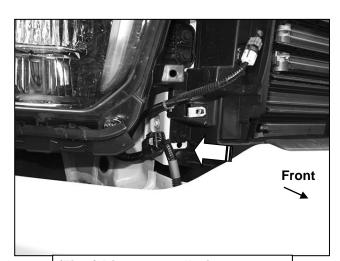


(Fig 7) Grille and fascia removed

Remove plastic cover from top of grille



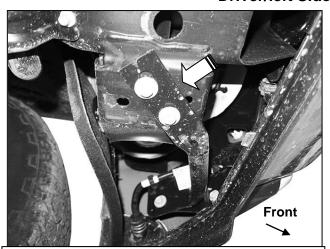
(Fig 4) Remove plastic fascia from top of bumper



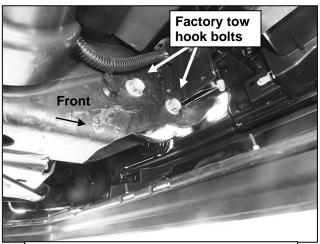
(Fig 6) Disconnect all wire harnesses leading to front bumper

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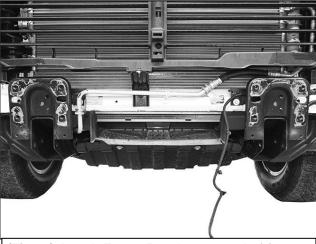
Driver/left Side Installation Pictured



(Fig 8) Remove driver/left and passenger/right outer bumper supports attach to bottom of frame



(Fig 10) Remove tow hooks, (if equipped) after bumper has been removed

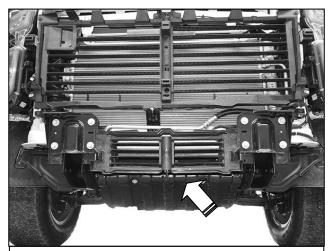


(Fig 12) Attach Frame Brackets to end of frame

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



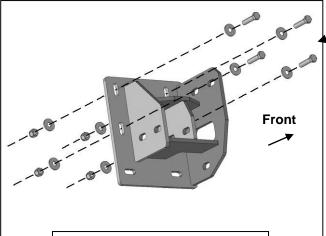
(Fig 9) From above, remove the hex bolts attaching the bumper assembly to the frame bumper brackets (top visible-arrow)



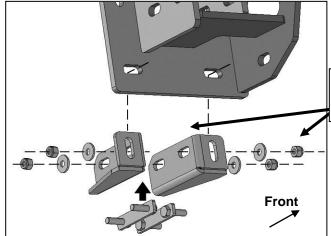
(Fig 11) Remove tow hooks, bumper brackets and shutter assembly (arrow) if equipped

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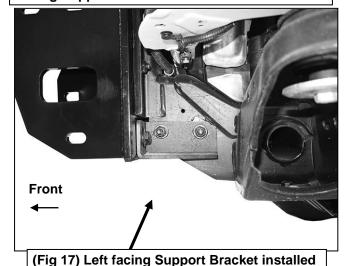
Driver/left Side Installation Pictured



(Fig 13) Attach Driver/left Frame Bracket to end of frame

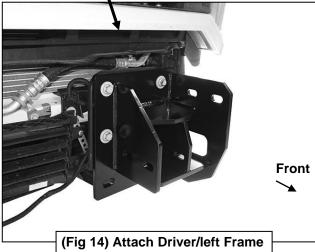


(Fig 15) Attach (1) Left Facing and (1) Right Facing Support Bracket to the sides of the frame



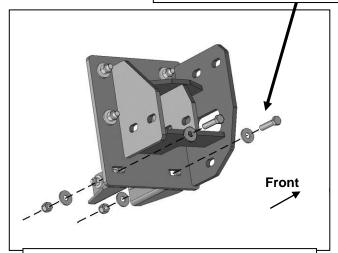
(4) 12mm x 50mm Hex Bolts

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



Bracket to end of frame

- 10mm Double Bolt Plate (2) 10mm Flat Washers
- (2) 10mm Nylon Lock Nuts
- (4) 12mm x 50mm Hex Bolts
- (8) 12mm Flat Washers
- (4) 12mm Nylon Lock Nuts



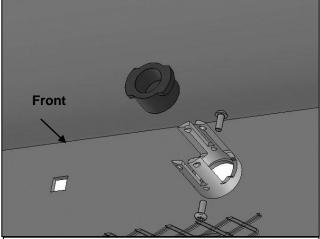
(Fig 16) Attach the Support Brackets to the bottom slots in the driver/left Frame Bracket

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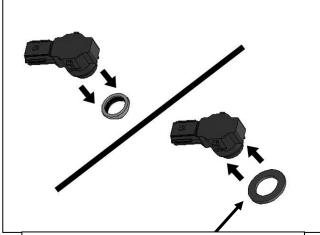
Driver/left Side Installation Pictured



(Fig 18) Remove inner shutter assembly from plastic outer housing (if equipped)

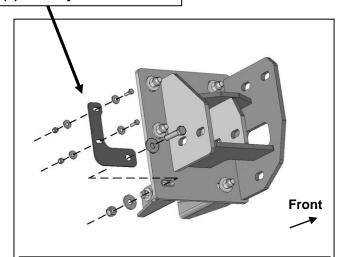


(Fig 20) Push sensor plug into mounting sleeve

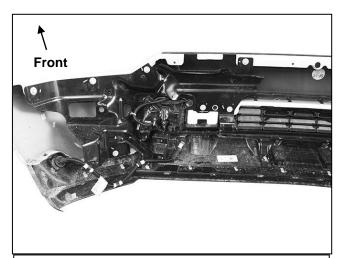


(Fig 22) Remove silicone seal from sensor. Slide large Seal over end of sensor (arrow)

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



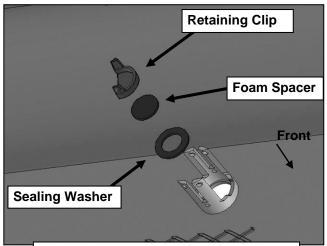
(Fig 19) Attach "L" Relocation Brackets to front of Frame Brackets. Attach shutter assembly, (if equipped), to <u>front</u> of Relocation Brackets



(Fig 21) Disassemble bumper and remove fog lights, sensors and wiring harness as equipped

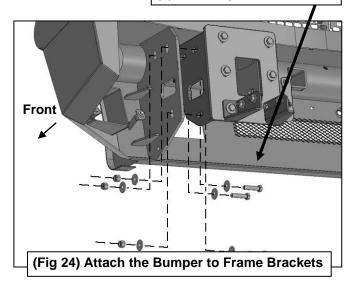
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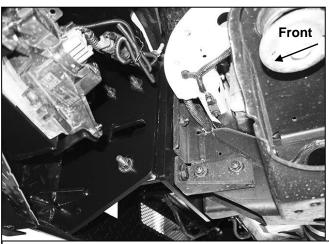
Driver/left Side Installation Pictured



(Fig 23) Insert sensor assembly through the sensor sleeve behind the Bumper

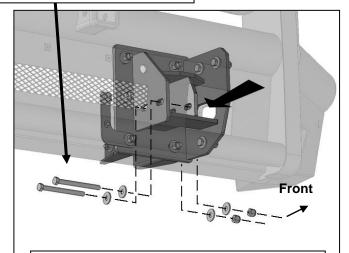
- (3) 12mm x 50mm Hex Bolts
- (6) 12mm Flat Washers
- (3) 12mm Nylon Lock Nuts





(Fig 25) Driver/left side of Bumper installed

- (2) 12mm x 130mm Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Nylon Lock Nuts



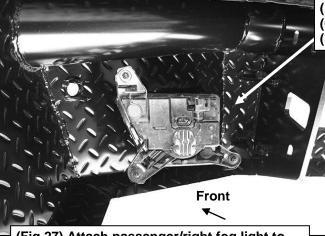
(Fig 26) Flip tow hook (if equipped), upsidedown and attach to inside of Frame Bracket,

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Driver/left Side Installation Pictured

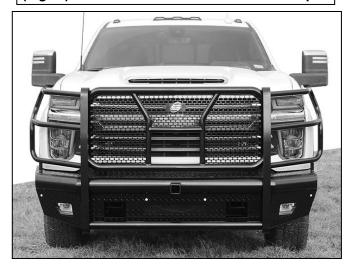


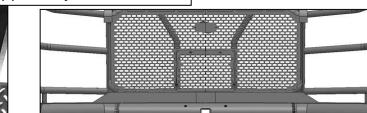
(Fig 27) Attach passenger/right fog light to mounting tabs on driver/left side of Bumper

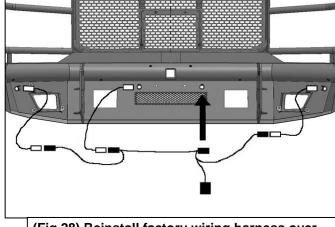


Front (2) Plastic Plugs

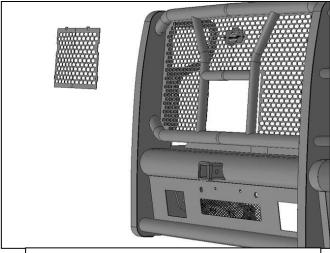
(Fig 29) Attach License Plate Bracket to Bumper







(Fig 28) Reinstall factory wiring harness over **Bumper Brackets on back of Bumper. NOTE:** Use the included (3) Wire Harness Extensions as necessary to reach the parking sensors



(Fig 30) Models with camera, remove screen

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