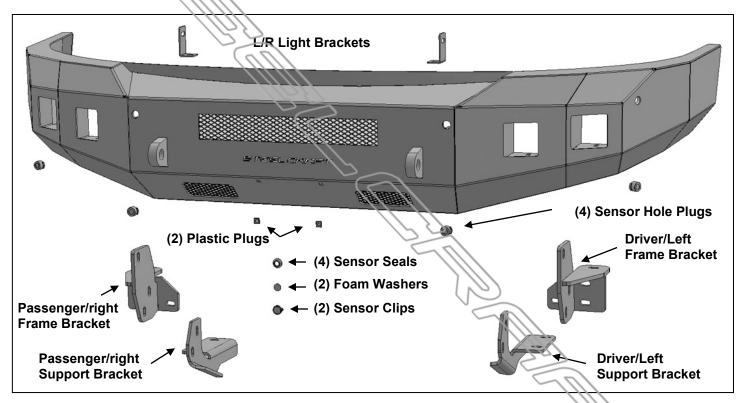


PARTS LIST:

1	Front Bumper Assembly	4	12-1.25mm x 55mm Special Fine Thread Hex Bolts
1	Driver/left Frame Mounting Bracket	6	12-1.75mm x 55mm STD Coarse Thread Hex Bolts
1	Passenger/right Frame Mounting Bracket	16	12mm x 32mm x 3mm Flat Washers
1	Driver/left Support Bracket	10	12mm Lock Washers
1	Passenger/right Support Bracket	6	12mm Hex Nuts
2	Plastic Plugs for license plate mount	2	8-1.25mm x 25mm Hex Bolts
1	Driver/left LED light bracket	2	8-1.25mm x 16mm Hex Bolts
1	Passenger/right LED light bracket	6	8mm x 24mm x 2mm Flat Washers
4	Sensor Sealing Washers	4	8mm Lock Washers
2	Sensor Retaining Rings	2	8mm Hex Nuts
2	Sensor 20mm x 2mm Foam Washers	8	4mm x 10mm Button Head Bolts
4	Sensor Hole Plugs	1	2.5mm Wrench
1	Sensor Cover Kit		



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. Remove the license plate. On models with factory fog lights and/or sensors, unplug the wiring harness leading to the bumper. Release the harness from clips attached to the back of the bumper and move harness out of the way.
- 2. Starting on the driver/left side, remove the plastic panel next to the opening in the bumper, (Figure 1). On models with sensors, remove the panel and unplug the sensor, (Figure 2). On models with tow hooks, remove the plastic fill panel directly above the tow hook, (Figure 3). Repeat this Step on passenger/right side of vehicle.
- 3. Remove the factory skid plate if equipped, (Figure 4). IMPORTANT: Skid plate cannot be reinstalled.

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- **4.** Next, remove the hardware attaching the inner bumper reinforcements to the outside of the frame and body mount bracket, **(Figure 5)**. Do not remove the large body mount bolt. Repeat on the passenger/right side of the vehicle.
- 5. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been safely supported, remove the hex bolts attaching each side of the bumper to the bracket on the end of the frame, (Figures 2 & 6). WARNING! Assistance is required to hold the bumper in place during hardware removal to prevent the bumper from falling. Slide the bumper assembly off of the end of the frame and past the tow hooks if equipped.
- **6.** Once the bumper assembly has been removed, remove both bumper brackets and tow hooks, (if equipped), from the end of the frame, **(Figures 6 & 7)**. **NOTE**: Tow hooks cannot be reinstalled.
- 7. Select the driver/left Frame Mounting Bracket, (Figure 8). Reuse the (4) factory hex bolts from the bumper bracket to attach the Frame Bracket to the end and top of the frame, (Figures 8 & 9). Snug but do not fully tighten all Bracket hardware at this time. Repeat to install the passenger/right side Frame Bracket, (Figure 9).
- **8. Optional Center LED light installation** (sold separately). **NOTE**: It may be easier to install the light before installing the Bumper.
 - a. Select the L/R "L" Brackets, (Figure 10). NOTE: "L" Brackets are offset for universal fitment for most LED bar style lights. Attach the LED light assembly to the "L" Brackets with the included (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers. Do not fully tighten hardware at this time. NOTE: "L" Brackets may require modification for hardware larger than 8mm or use brackets supplied with light if possible.
 - b. Attach the light and brackets to the top of the (2) tabs on the back of the Bumper with the included 8mm x 25mm Hex Bolts, (4) 8mm Flat Washers, (2) 8mm Lock Washers and (2) 8mm Hex Nuts, (Figure 10). Adjust light position and tighten hardware.
 - **c.** Follow light manufacturer's instructions to wire the light once Bumper has been fully installed.
- 9. Determine if the bumper is equipped with sensors.

Models without bumper sensors:

- a. Select the included (4) Rubber Plugs.
- **b.** From behind bumper, push plugs into sensor mounting holes, **(Figure 11)**.

Models with bumper mounted sensors:

- **a.** Remove the sensors and wiring harness from the factory bumper, **(Figure 12)**. Pay close attention to the original location of all sensors. Outer sensors are different from inner sensors.
- **b.** Select (1) outer sensor. Remove the seal from the end of the sensor, **(Figure 13)**. Slide the included larger Sensor Seal onto the end of the sensor.
- **c.** Push the sensor and Seal into the driver/left outer mounting socket in the back of the bumper until it is flush (or as close as possible) to the outer face of the Bumper, (Figure 14).
- d. Secure the sensor to the socket with (2) 4mm x 10mm Button Head Screws, (Figure 14). NOTE: It may be necessary to cut off the plastic tabs from the sides of the sensor to fit into the mounting socket. IMPORTANT: Sensors fit snug in sockets. The 4mm Screws are used to apply slight pressure to lock the sensors in place. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.
- **e.** Repeat to install the remaining **outer sensor** only.
- **f.** Move to the driver/left inner mounting socket. Select an inner sensor. Remove the seal from the end of the sensor, **(Figure 13)**. Slide the included larger Sensor Seal onto the end of the sensor.
- **g.** Push the sensor and Seal into the driver/left inner mounting socket in the back of the bumper until it is flush (or as close as possible) to the outer face of the Bumper, **(Figure 15)**.
- **h.** Place Foam Washer over the end of the sensor. Push Sensor Retaining Clip into sensor mount and lock into mounting holes, **(Figure 15)**.
- i. Repeat previous Steps to install remaining inner sensor.
- j. Attach factory wiring harness to sensors.
- **10.** With assistance, position the Bumper Assembly up to the Mounting 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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- **11. VERY IMPORTANT**: Remove all 12mm x 55mm Hex Bolts from the hardware bag. Identify and separate the **(6)** 12-1.75mm x 55mm Coarse Thread STD Hex Bolts from the **(4)** 12-1.25mm x 55mm Special Fine Thread Hex Bolts.
- **12.** Attach the driver/left side of the Bumper to the top hole in the Mounting Bracket with the included (1) 12-1.75mm x 55mm Coarse Thread STD Hex Bolt, (2) 12mm Flat Washers, (1) 12mm Lock Washer and (1) 12mm Hex Nut, **(Figure 16)**. Snug but do not fully tighten hardware at this time. Repeat this **Step** to attach the passenger/right side of the Bumper to the top hole in the Bracket.
- 13. Select the driver/left Support Bracket, (Figure 17A). Attach the Support Bracket to the inside of the mounting plate on the back of the Bumper and the Frame Bracket with (2) 12-1.75mm x 55mm Coarse Thread STD Hex Bolts, (4) 12mm Flat Washers, (2) 12mm Lock Washers and (2) 12mm Hex Nuts, (Figures 17A, 17B & 18).
- 14. Reuse the (2) factory tow hook hex bolts or the included (2) 12-1.25mm x 55mm Special Fine Thread Hex Bolts, (2) 12mm Lock Washers and (2) 12mm Flat Washers to attach the Support Bracket to the bottom of the frame, (Figures 19A & 19B). VERY IMPORTANT: Only use the factory hex bolts for the tow hooks or the included 12-1.25mm x 55mm Special Fine Thread Hex Bolts to attach the Support Brackets to the threaded noles in the bottom of the frame. Use of the incorrect hex bolt will damage the frame, Leave hardware loose at this time.
- **15.** Repeat **Steps 13 & 14** to attach the passenger/right Support Bracket to the frame and Bumper.
- **16.** Level and adjust the bumper and fully tighten all hardware.
- **17.** Plug the wiring harness in the bumper to the vehicle wiring harness.
- **18.** If front license plate is required, insert (2) Plastic Plugs into the square holes in the Bumper. Reuse the factory screws to attach the license plate to the plastic plugs, (**Figure 20**).
- **19.** Do periodic inspections to the installation to make sure that all hardware is secure and tight.

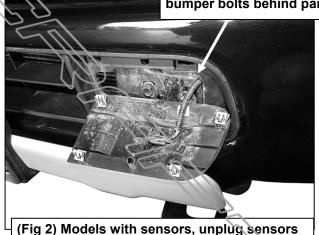
To protect your investment Do not use any type of polish or wax that may contain abrasives that could damage the finish. Mild soap may be used to clean the Bumper assembly.

Driver Side Installation Pictured

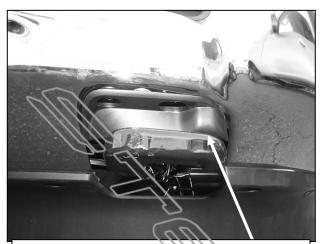
Note location of main bumper bolts behind panel



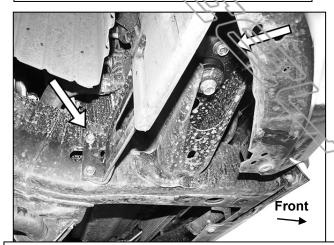
(Fig 1) Remove fill panel to access bumper bolts



Driver Side Installation Pictured



(Fig 3) Remove plastic panel above tow hook



(Fig 5) Remove hardware attaching bumper supports to side of frame and body mount bracket, (see arrows). Passenger/right side pictured

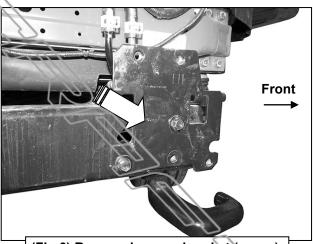


(Fig 7) Driver/left side of frame

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



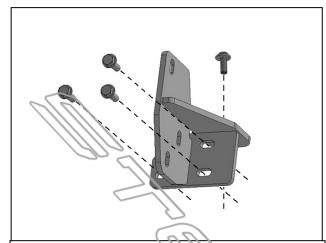
(Fig 4) Remove skid plate if equipped



(Fig 6) Remove bumper bracket (arrow) and tow hook (if equipped)

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Driver Side Installation Pictured



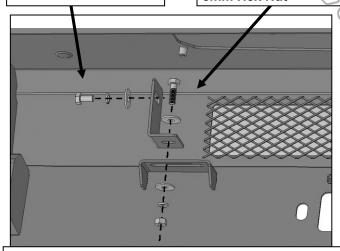
(Fig 8) Reuse factory bumper bracket hardware to attach driver/left Frame Bracket to threaded holes in end of frame for bumper bracket

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

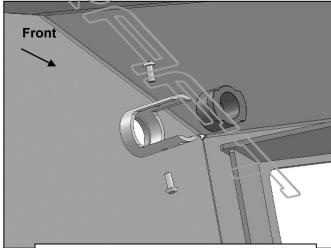


(Fig 9) Frame Brackets installed

8mm x 16mm Hex Bolt 8mm Lock Washer 8mm Flat Washer 8mm x 25mm Hex Bolt (2) 8mm Flat Washers 8mm Lock Washer 8mm Hex Nut



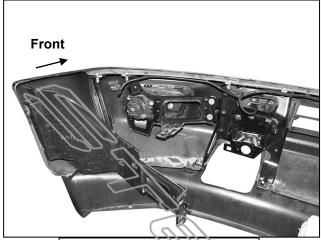
(Fig 10) Universal LED Brackets (light not included)



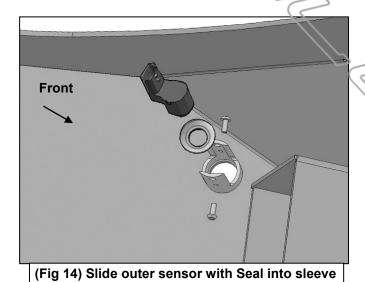
(Fig 11) On models without sensors, push sensor plug into mounting sleeve.

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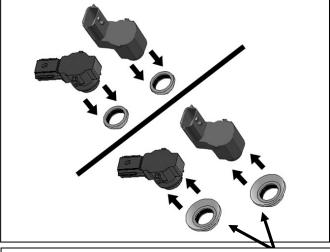
Driver Side Installation Pictured



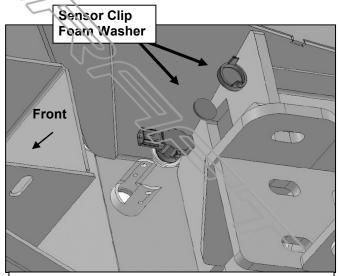
(Fig 12) Remove sensors and wiring harness from bumper



IMPORTANT: Sensors fit snug in sockets. The 4mm Screws are only used to apply slight pressure to lock the **outer sensors** in place. Tighten both screws evenly until they touch the sensor body only. Do not overtighten screws or damage to sensors will result.



(Fig 13) Remove silicone seal from sensor. Slide large Seal over end of sensor (arrow) sensor depicted for example only, actual sensor may differ



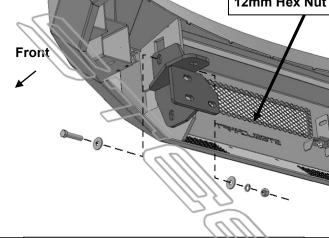
(Fig 15) Slide inner sensor with Seal into sleeve. Lock sensor in place with Foam Washer and Clip

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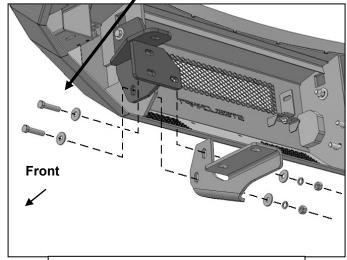
Driver Side Installation Pictured

12-1.75mm x 55mm
Coarse Thread Hex Bolt
(2) 12mm Flat Washers
12mm Lock Washer
12mm Hex Nut

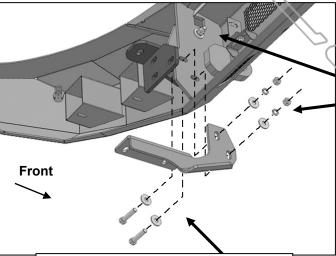
- (2) 12-1.75mm x 55mm Coarse Thread Hex Bolts
- (4) 12mm Flat Washers
- (2) 12mm Lock Washer
- (2) 12mm Hex Nuts



(Fig 16) First attach Mounting Brackets to top mounting holes on back of Bumper



(Fig 17A) Attach Bumper to center and bottom mounting holes on Mounting Bracket and Support Bracket



(Fig 17B) Attach Bumper to center and bottom mounting holes on Mounting Bracket and Support Bracket

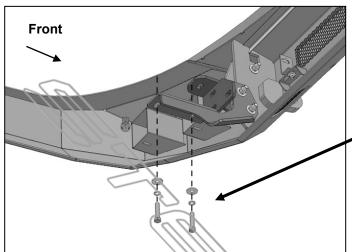
(3) 12-1.75mm x 55mm Coarse Thread Hex Bolts (6) 12mm Flat Washers (3) 12mm Lock Washer (3) 12mm Hex Nuts



(Fig 18) Driver/left Frame Bracket and Support Bracket pictured from below

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

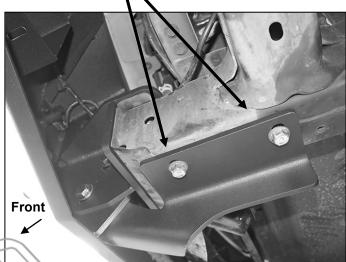
Driver Side Installation Pictured



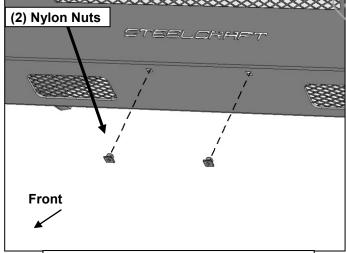
(Fig 19A) Attach Support Bracket to bottom of frame, (driver/left side illustrated from behind

Attach Support Bracket to bottom of frame. Reuse tow hook bolts or... Models without tow hooks use the included: (2) 12-1.25mm x 55mm

- **Special Fine Thread** Hex Bolts (2) 12mm Lock Washers
- (2) 12mm Flat Washers



(Fig 19B) Attach Support Bracket to bottom of frame, (driver/left side pictured from behind bumper)



(Fig 20) Attach License Plate to Bumper



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