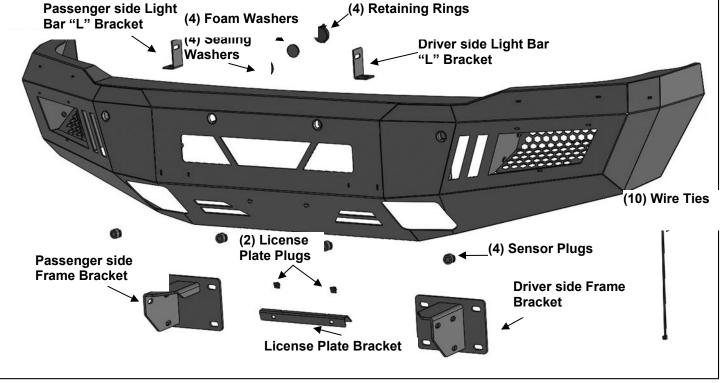


LDB-CSIL28-FB

PARTS LIST:

1	LD1 Front bumper	12	10mm x 27mm x 3mm Flat Washers
1	Driver/left side Frame Bracket	6	10mm Lock Washers
1	Passenger/right side Frame Bracket	6	10mm Hex Nuts
1	Driver/left side Light Bar Bracket	2	8-1.25mm x 25mm Hex Bolts
1	Passenger/right Light Bar Bracket	2	8-1.25mm x 16mm Hex Bolts
1	License Plate Bracket	6	8mm x 24mm x 2mm Flat Washers
2	License Plate Plastic Plugs	4	8mm Lock Washers
10	Nylon Wire Ties	2	8mm Hex Nuts
4	Sensor Plugs	2	6-1.0mm x 20mm Button Head Bolts
4	Sealing Washers	4	6mm x 18mm x 1.6mm Flat Washers
4	20mm x 2mm Foam Washers	2	6-1.0mm Nylon Lock Nuts
4	Retaining Rings	8	4mm Button Head Bolts
1	Sensor Cover Kit	1	4mm Allen Wrench
6	10-1.5mm x 35mm Hex Bolts	1	2.5mm Allen Wrench



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.

- Open the hood and remove the plastic cover from the top of the radiator and the grille, (Figure 1). Temporarily remove the plastic grille.
- 2. Remove the license plate and bracket. On models with factory fog lights, unplug both lights. On models with bumper mounted sensors, unplug all sensors. Release the wiring harnesses from the clips attached to the back of the bumper and move all wiring harnesses away from bumper.

- **3.** Release the rubber air deflector from the back of the bumper, if equipped, and remove it from vehicle. Next, remove the hardware at each end of the bumper attaching the bumper supports to each side of the frame, (**Figure 2**).
- 4. Place blocks or jack stands under the front bumper to support it during mounting bolt removal. Once the bumper has been supported, remove the lower bumper bolts attaching the inner bumper bracket to the frame bracket. Next, from above the bumper, remove the (2) bumper bolts from each side, (Figure 3). WARNING! Assistance is required to hold the bumper in place during bolt removal to prevent the bumper from falling. Remove the bumper assembly.
- Remove the driver side factory bumper bracket from the end of frame, (Figures 4 & 5). Select the Driver side Frame Bracket. Reuse (4) factory hex bolts to attach the Bracket to the end of the Frame, (Figure 6). Repeat Step for Passenger side Bracket installation. Do not tighten.
- 6. LED light installation at ends of bumper (sold separately). NOTE: Lights must be installed in Bumper before Bumper Assembly is attached to Brackets.
 - **a.** Insert light into opening and up to mounting slot. Check for clearance between front and back of light. If necessary, remove the screen from the back of the opening, **(Figure 7)**.
 - **b. NOTE:** The driver side light screen may interfere with the vehicle's horn assembly. To avoid interference between vehicle and Bumper Assembly loosen the factory hex nut and rotate the plug inward, **(Figure 8)**. Tighten factory hex nut.
 - c. Follow the light manufacturer's instructions to properly attach light to the light opening.
 - d. Repeat the above steps for passenger side light installation.
 - e. Follow light manufacturer's instructions to adjust and properly wire the lights to the vehicle's electrical system once Bumper has been fully installed.
- 7. Optional Center LED light installation, (sold separately). NOTE: Light must be installed in Bumper before Bumper Assembly is attached to Brackets.
 - a. Select the Driver side "L" Bracket. NOTE: "L" Brackets are offset for universal fitment for most LED bar style lights. Attach the Bracket to the top of the mounting tab on the back of the Bumper with the included (1) 8mm x 25mm Hex Bolt, (2) 8mm Flat Washers, (1) 8mm Lock Washer and (1) 8mm Hex Nut, (Figure 9). Do not tighten hardware at this time.
 - **b.** Repeat Previous Step for Passenger side "L" Bracket installation.
 - c. Attach the LED Light Bar to the Brackets with (2) 8mm x 16mm Hex Bolts, (2) 8mm Lock Washers and (2) 8mm Flat Washers, (Figure 9). Do not fully tighten hardware at this time.
 - d. Center and adjust light position and tighten hardware.
 - e. Follow light manufacturer's instructions to wire the light to the vehicle's electrical system once Bumper has been fully installed.
- 8. If front license plate is required, attach the License Plate Bracket to the holes in the bumper with the included (2) 6mm x 20mm Button Head Bolts, (4) 6mm Flat Washers and (2) 6mm Nylon Lock Nuts, (Figure 10). Insert (2) Plastic Plugs into the square holes in the Bracket. Reuse the factory screws to attach the license plate to the plastic plugs.

9. Sensors must be installed in Bumper, (if equipped), 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.

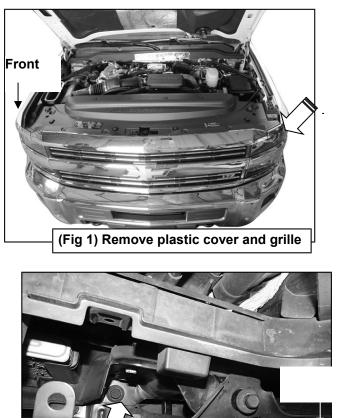
Models with bumper mounted sensors

- a. Trim off the plastic tabs on the sensor to make sure the sensor fits snug inside the sensor sleeve. Remove the small factory sealing washer from the sensor. Attach the provided larger (1) Sealing Washer onto the front of the sensor, (Figure 11).
- b. Push the sensor in from the back of the Bumper until it is flush with the sensor sleeve.
 Attach (1) 20mm x 2mm Adhesive Foam Washer to (1) Retaining Ring. Push the Retaining

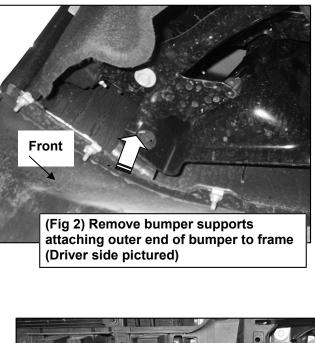
Ring into the sensor sleeve to secure sensor in place, **(Figures 11 & 12)**. **NOTE:** Make sure the tabs on the Retaining Ring fit into the holes on the sensor sleeve.

- c. Repeat the Previous Steps to install each sensor to the back of the Bumper.
- **d.** Plug all sensors and use the provided Wire Ties to secure the wiring harnesses to the back of the Bumper once Bumper has been fully installed.
- 10. With assistance, position the Bumper Assembly to the outsides of the Frame 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.
- Attach the Bumper to the Brackets with the included (6) 10mm Hex Bolts, (12) 10mm Flat Washers, (6) 10mm Lock Washers and (6) 10mm Hex Nuts, (Figures 13 & 14). Do not fully tighten hardware at this time.
- **12.** Plug the main sensor harness to the bumper harness.
- 13. Level and adjust the bumper and fully tighten all hardware.
- **14.** Do periodic inspections to the installation to make sure that all hardware is secure and tight.

To protect your investment, wax this product after installing. Regular waxing is recommended to add a protective layer over the finish. 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 LD1 Front Bumper assembly.



Driver Side Installation Pictured





(Fig 4) Remove Driver side factory

bumper bracket

Front

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(Fig 3) Remove bumper bolts (arrows) to remove bumper (driver side pictured from above)

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

Driver Side Installation Pictured

