



# Delta Series Front Bumper Installation Manual

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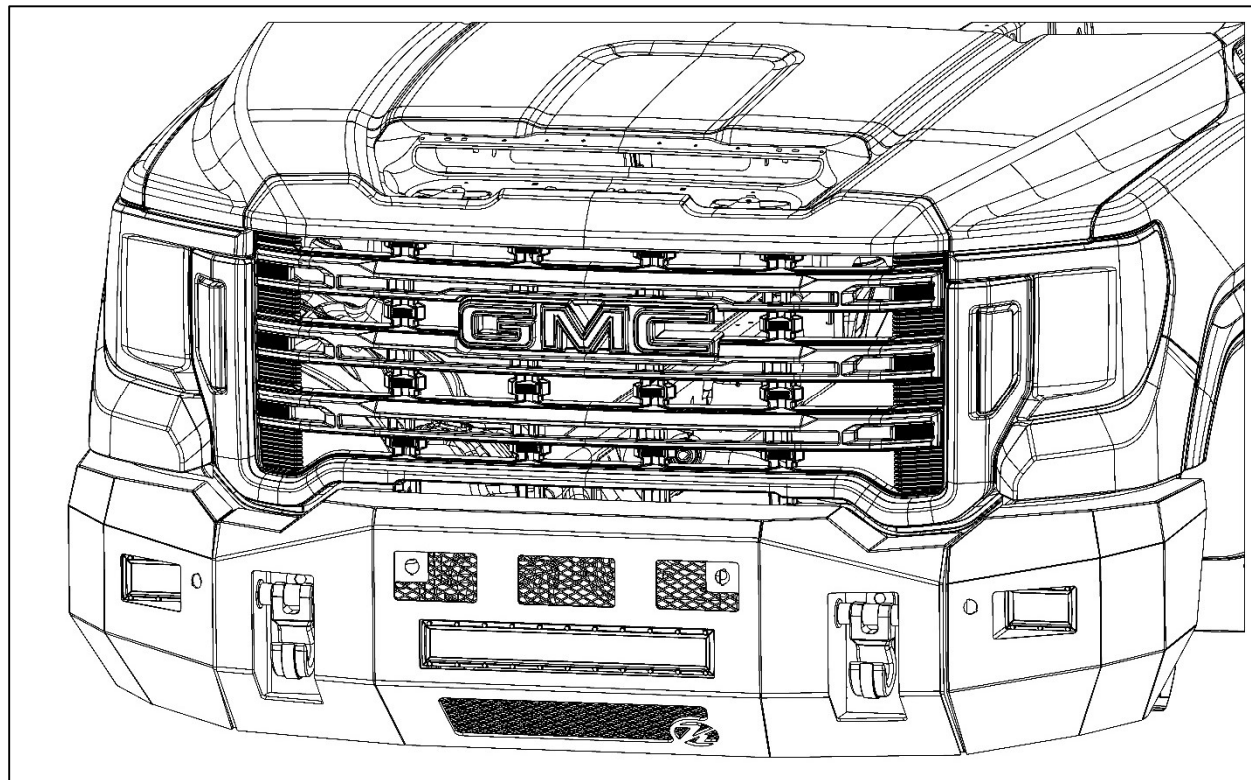
- 2020 GMC Sierra 2500-3500 HD

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# Kelderman Delta Series Front Bumper

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## - Contents

- Kit Numbers ..... (3)
- Introduction..... (4)
- Safety ..... (5)
- Bumper Removal ..... (6)
- Bumper Preparation ..... (8)
- Bumper Assembly..... (9)
- Bumper Installation..... (13)
- Parts Key..... (15)
- Contact Information..... (17)

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# Kit Numbers

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- This installation manual covers the following front bumpers.

Kit Number	Description
KLM- 404011020-001040000	Sierra 2500 HD – Delta – Sensors
KLM- 404012020-001040000	Sierra 3500 HD – Delta – Sensors

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# Introduction

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- **Important**

It is important that the entire installation instructions be read thoroughly before proceeding with bumper installation.

- **Product Installer Responsibilities**

Installer is responsible for installing this product in accordance with Kelderman Mfg. Inc. specifications and installation instructions.

Installer is responsible for providing proper installation of vehicle components and attachments as well as required or necessary clearance for suspension components, axles, wheels, tires, and other vehicle components to ensure a safe and sound installation and operation of this product.

- **NOTE:** It is recommended that the bumper, and its components, be test fit to the vehicle prior to finish painting

- **Product Owner Responsibilities**

Owner is solely responsible for pre-operation inspection, periodic inspections, maintenance, and use of the product as specified by Kelderman Mfg. Inc. Of particular importance is the re-torque of fasteners. This re-torque must be performed within 90 days or 1000 miles of this product being put into service.

- **Definition of Terms**

- **Warning:** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- **Caution:** A potential hazardous situation may result in property damage.
- **Note:** Provide information or suggestions that help correctly perform a task.
- **Torque:** When italicized "*torque*" alerts the installer to tighten fasteners to a specified value.

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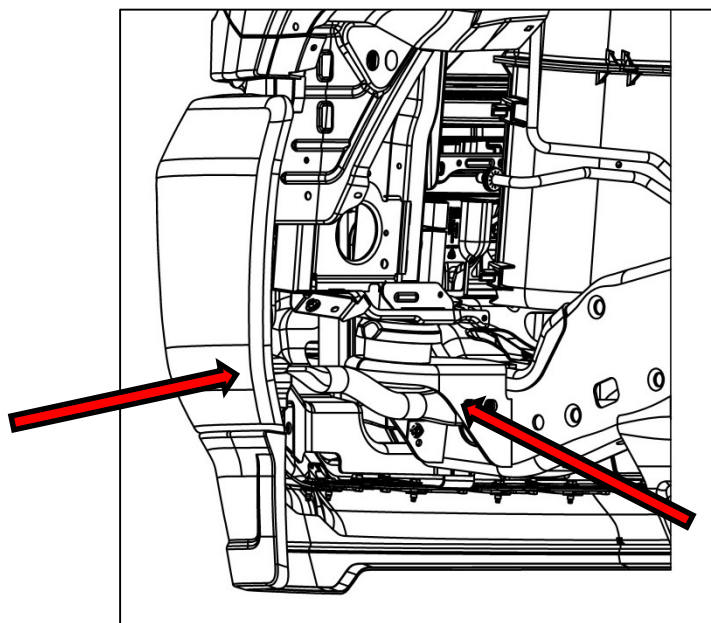
# Safety

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- **Your Safety and the Safety of Others is Very Important.**  
Read and understand all safety precautions and instructions before installing this product.
  
- **CAUTION: Trucks Equipped with Parking Sensors or Other Like Devices.**  
Relocation of these devices will alter the field of view. It is the responsibility of the owner to understand how these changes affect the operation of these systems.
  
- **This Product is Intended for Off-Road Use**  
All liability for installation and use rests with the owner.
  
- **WARNING: Careless Installation Can Result in Serious Injury or Property Damage**
  - Wear eye protection.
  - Disconnect the battery before doing any work on the vehicle.
  - Work on flat level ground.
  - Ensure truck is properly supported by jack stands. Never work under a vehicle supported only by hydraulic jacks.
  - Take precautions when lifting product. Due to the size and weight of this product three people are recommended for installation.
  - Never work directly under the product until it has been securely fastened to the vehicle.
  - Avoid sharp, hot, and moving components when routing electrical cables.
  - If drilling inspect both sides of the surface and remove/relocate any objects located in the way.
  - Ensure all bolts are properly tightened before driving.

# Bumper Removal

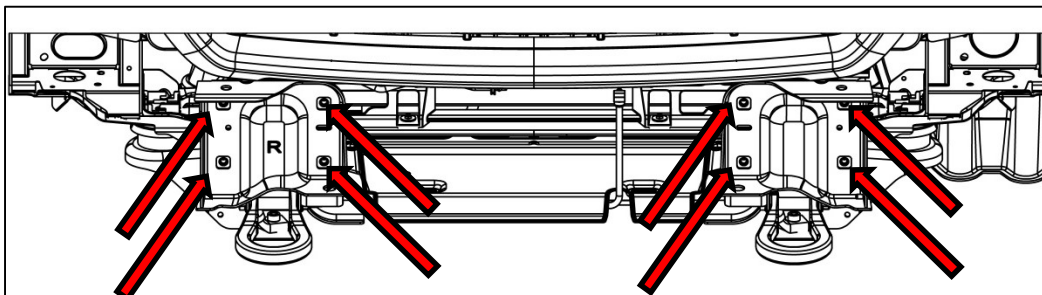
- 1:** Disconnect the battery prior to performing any work on the vehicle
- 2:** Remove the fender flares and fender extensions from both the passenger and driver side.
- 3:** Remove the plastic cover panel in the front of the engine compartment.
- 4:** Remove the screws that run across the top of the grille. The bottom of the grille is held in with clips. Pull outward at each clip location until it releases. The grille can now be removed.
- 5:** Locate the front parking sensor wiring harness connection near the passenger-side headlight and disconnect. **NOTE:** If the vehicle does not have front parking sensors, proceed to step 7.
- 6:** Locate the block heater wiring harness connection near the passenger-side headlight and disconnect. **NOTE:** If the vehicle does not have a block heater connection, proceed to step 7.
- 7:** Unbolt the corner braces from the bumper and remove.



*Figure 1: Bumper corner brace removal*

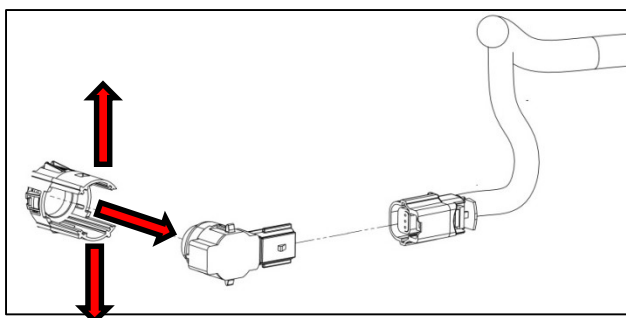
- 8:** With the bumper supported, remove the bolt located just under the grille. The bumper can now be removed.
- 9:** Remove the 4 screws that hold the radiator cooling baffle and set aside. **NOTE:** Baffle will be reinstalled later.

- 10:** Remove the eight bolts in the bumper brackets on the frame horns. **NOTE:** These bolts will be reused later.



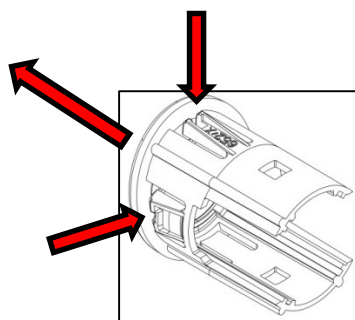
*Figure 2: Stock bumper bracket removal*

- 11:** Remove the four bolts that hold the tow hooks (2 per tow hook). **NOTE:** These will be reused later.
- 12:** If equipped remove the parking sensors from the stock bumper. Slightly spread the ears on the sensor bezel and push the sensor through the back of the bumper. Remove the wiring harness from the stock bumper. **NOTE:** Make a note of each sensor's location within the stock bumper.



*Figure 3: Removal of sensor from bezel*

- 13:** Depress the tabs on the sensor bezel and push it through the front of bumper.



*Figure 4: Removal of sensor bezel from bumper*

- 14:** If equipped, remove the block heater plug and wiring harness from the stock bumper.

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# Bumper Preparation

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- Before painting open every box and locate all parts. There are several smaller bushing pieces, screens, and bolt tabs that are packaged separately inside the main box.
- **CAUTION:** Kelderman Mfg. Inc. cannot guarantee correct out of the box fitment across all light brands and sizes. The installer is responsible for test fitting all lights into the bumper and making any required modifications before the bumper is sent to paint. This bumper has been designed to utilize the following Rigid Industries lights.
  - Rigid Industries E-Series 20 Inch Light (Center)
  - Rigid Industries E-Series 4 Inch Light (End Cap)
- **Tow Hook Pocket Painting**
  - If a heavily textured thick coating is being applied, take note that buildup does not hinder the installation of the tow hooks. Each bumper is supplied with four rubber washers to let tow hooks rotate without damaging the paint. If thick coatings are applied, installation of hooks may only allow for the use of one or no rubber washers.



# Bumper Assembly

- On a clean, flat non-scratching surface, place the bumper center section (1) face down.
- Insert bumper mount bolting tabs (2) thru each pocket in the center section (use tape or zip ties to temporarily hold in place).

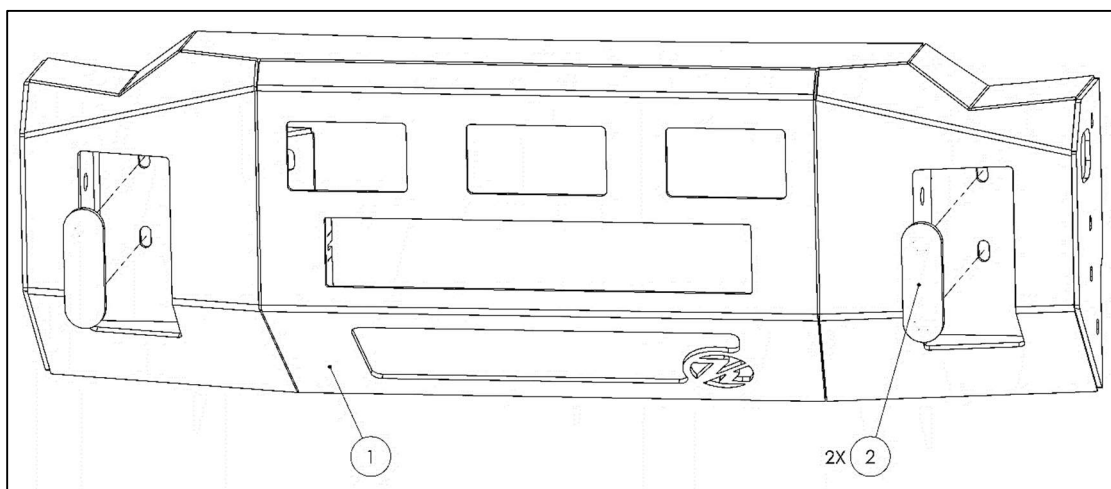


Figure 5: Bolt Tab assembly

- If purchased, install the tow hooks (18) into the pockets using the provided 7/8" hardware. Tow hook spacers (19 & 20) and rubber washers (3) go inside the pocket, with the rubber washer between the outer spacer and pocket wall. Tighten the 7/8" nut (2) to the point where the tow hook can move, but not freely.

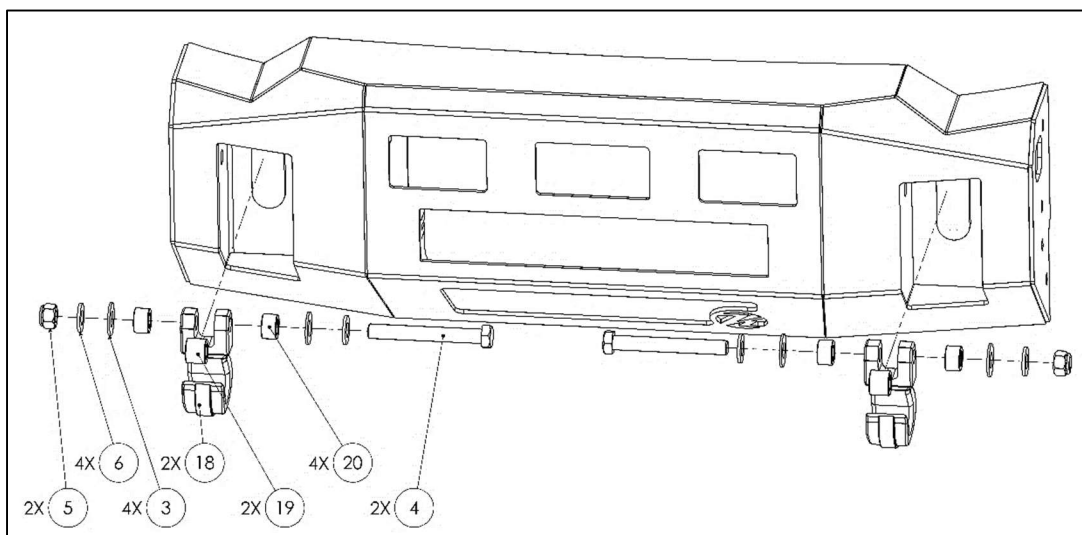


Figure 6: Tow Hook assembly

- Using the provided hardware (24, 25 & 26), bolt the three upper screens (8, 9, & 10) and lower screen (7) into the center section as shown in Figure 7.

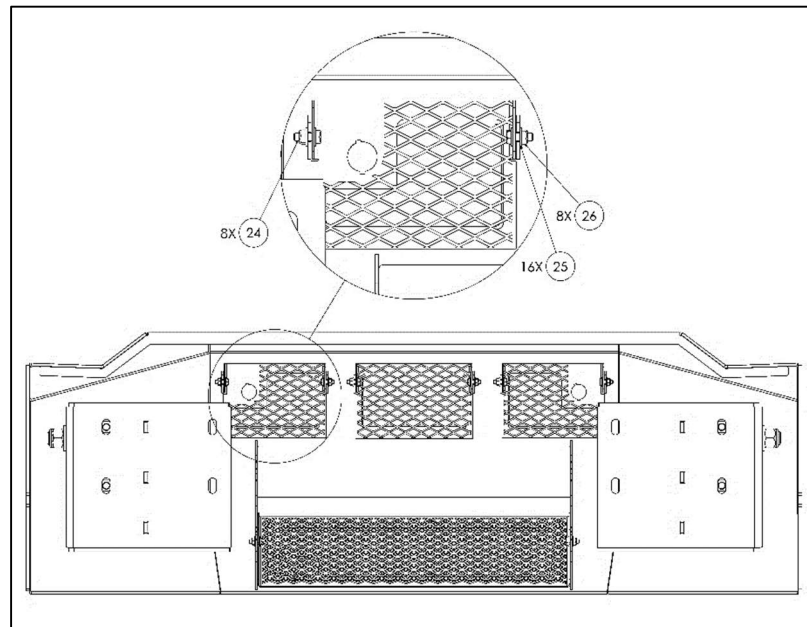


Figure 7: Mesh assembly

- Install the Rigid Industries E-Series 20-inch light bar (or similar light) into the center cut out using the hardware supplied. Similarly, install the Rigid Industries E-Series 4-inch light (or similar light) into each end cap. **NOTE: The light mounting ears will deform and pull up to the light as they are tightened**

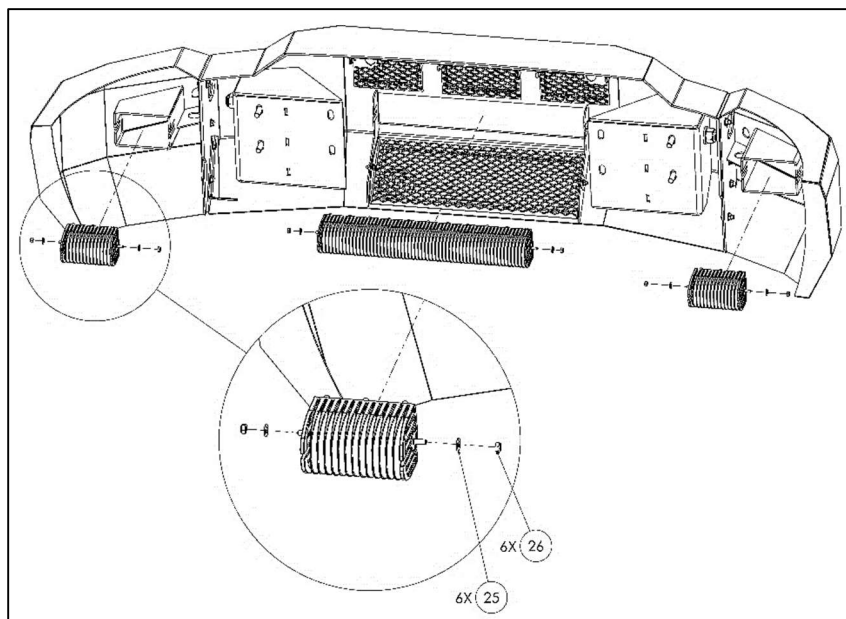


Figure 8: Light assembly

- Bolt the end caps (11 & 12) onto the center section using the supplied hardware. Re-positioning may be required after bumper is installed onto truck. **NOTE: While positioning, use masking tape to protect painted surfaces that come into contact.**

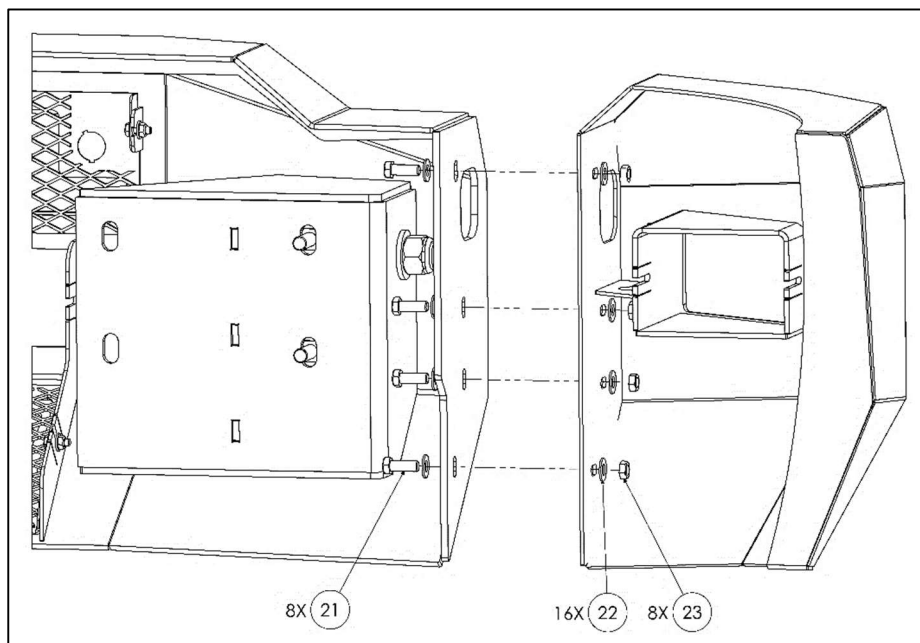


Figure 9: End Cap assembly

- If equipped with parking sensors, reinstall the sensor bezels and sensors into the end caps and center screens by reversing the process from steps 12-14 in the bumper removal section. **The driver side sensor lead will need to be extended by ~4", wire and connectors are provided.** Be sure to install them back in the correct location noted in step 12. **NOTE: If bezels will not snap into place file the tabs down a little at a time until they will catch.**

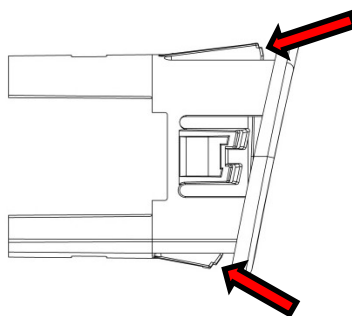
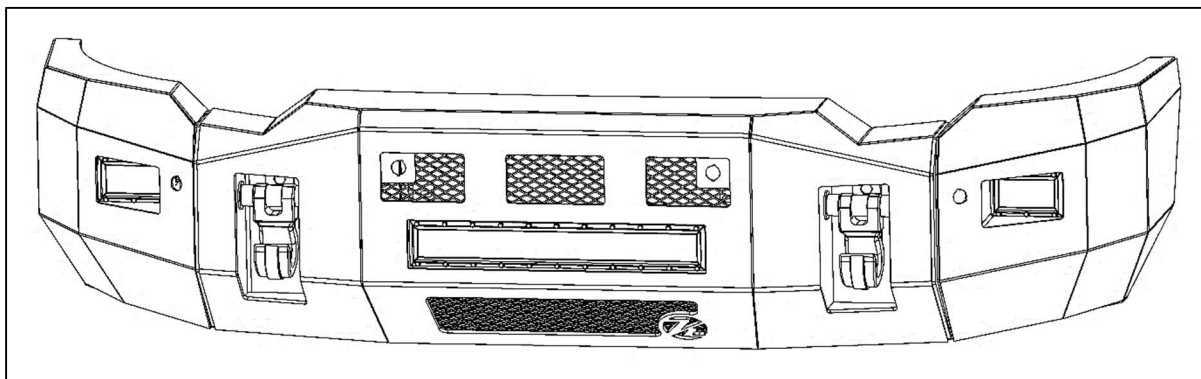


Figure 10: Sensor bezel tabs

- Zip tie wiring to the anchor points inside the bumper.

- The bumper is now ready for installation.



*Figure 11: Completed bumper assembly*

# Bumper Installation

- 1:** Install the bumper frame brackets (16 & 17) using the OEM hardware from steps 7 & 8 in the bumper removal section to bolt the brackets to the frame horns and torque bolts evenly (see Figure 14 for torque values).

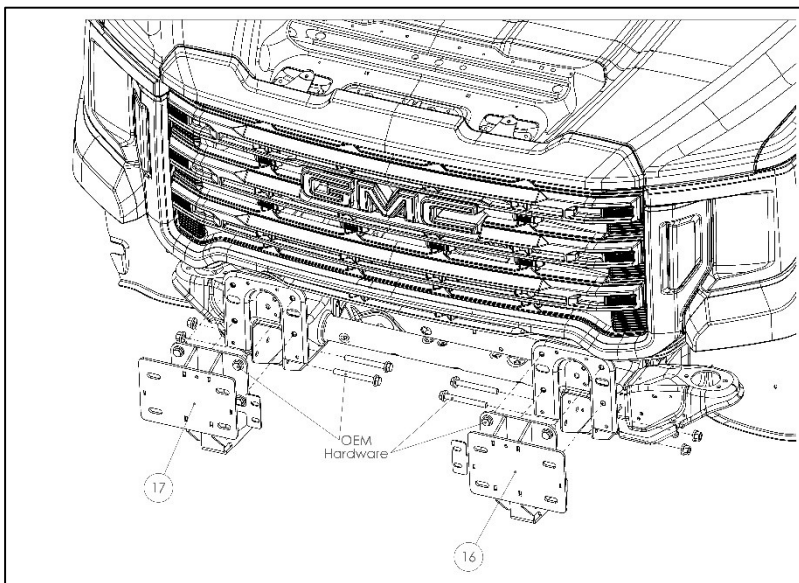


Figure 12: Bumper bracket installation

- 2:** Use the studs of the bumper mount bolting tabs (2) to position the bumper on the frame brackets (16 & 17) and use a nut and washer (28 & 29) on two (2) bolt studs to temporarily hold the bumper in place. **CAUTION:** Bumper may need two people to lift.

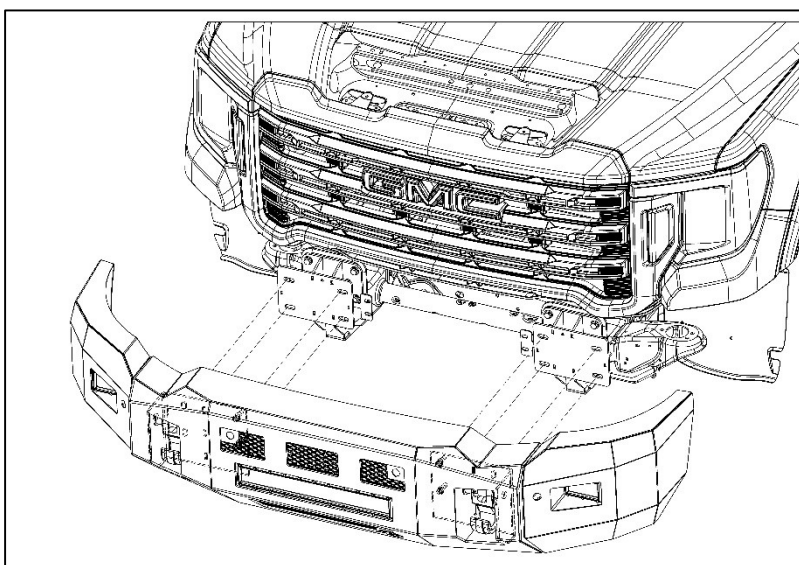


Figure 13: Bumper installation

- 3:** Install the remaining bumper mounting hardware (27, 28 & 29), and snug bolts (they will be torqued later).
- 4:** Reinstall the grille.
- 5:** Align the bumper on the truck and evenly torque all bolts. **NOTE:** The end caps can be re-adjusted at this point if required.
- 6:** Torque all fasteners according to the chart below.

Bolt Size	Torque
1/4"-20	70 in-lb
3/8"-16	20 ft-lb
1/2"-20	50 ft-lb
9/16"-18	70 ft-lb
7/8"-9	250 ft-lb

Figure 14: Bolt torque table

- 7:** Finish wiring accessories and sensors.

# Parts Key

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	10006540	Weldment - Center Section w/Sensors	1
2	31760	Weldment - Bolting Block	2
3	80043	EPDM Sealing Washer - 1" ID 2" OD	4
4	12644	HEX BOLT - 7/8"-9 X 7.00" - GR5 - Z	2
5	13110	LOCK NUT - 7/8"-9 - GR5 - Z	2
6	13010	7/8" Flat Washer	4
7	32059	Weldment - Bravo Lower Screen	1
8	10006534	Weldment - GMC Mesh w/ Sensor (DS)	1
9	10006537	Weldment - GMC Mesh w/ Sensor (PS)	1
10	31764	Weldment - Screen, Center, No Sensor	1
11	10006509	Weldment - End Cap Stock Flare (DS) - W/ Sensors	1
12	10006520	Weldment - End Cap Stock Flare (PS) - W/ Sensors	1
13	10006558	Plate 11ga - Block Heater Bracket - 2020 GMC	1
14	80037	Purchased - E-Series 4" - Flood - White	2
15	80040	Purchased - LED Light - E-Series 20" - Flood - White	1
16	10006561	Weldment - Front Bumper Bracket (DS)	1
17	10006567	Weldment - Front Bumper Bracket (PS)	1
18	80041	Monster Hook - Swivel - Raw Aluminum	2
19	31562	Tube - 7/8" ID - 1-1/2" OD - Monster Hook Spacer (1.197")	2
20	31561	Tube - 7/8" ID - 1-1/2" OD - Monster Hook Spacer (0.9")	4
21	12210	Bolt - 3/8"-16 X 1.00 - Gr.5 - Z	8
22	13002	Washer - 3/8" Flat STRL Washer	16
23	13102	LOCK NUT - 3/8"-16 - GR5 - Z	8
24	12108	Bolt - 1/4"-20 X 3/4" - Gr.5	8
25	13000	1/4" Flat Washer	22
26	13100	Nut - Locking - 1/4" - 20 - GR5	14
27	12007	Bolt - 1/2"-20 x 1.50" Gr.8	4
28	13004	Washer - 1/2" Flat STRL Washer	12
29	13124	Lock Nut - 1/2"-20 Gr. 8	8

*Figure 15: Bumper Material List*

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# Notes

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## Contact Information

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- Kelderman Manufacturing appreciates your business. We strive to meet the needs of our customers by providing the highest quality products. If you have any questions concerning our products please call or email us at the following:

**2686 Highway 92  
Oskaloosa, Iowa 52577**

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