

UNIVERSAL SENSOR RELOCATION KIT:

#10447SRP

2019-23 SILVERADO 1500 / 20-23 SILVERADO 2500-3500

2019-23 SIERRA 1500 / 20-23 SIERRA 2500-3500

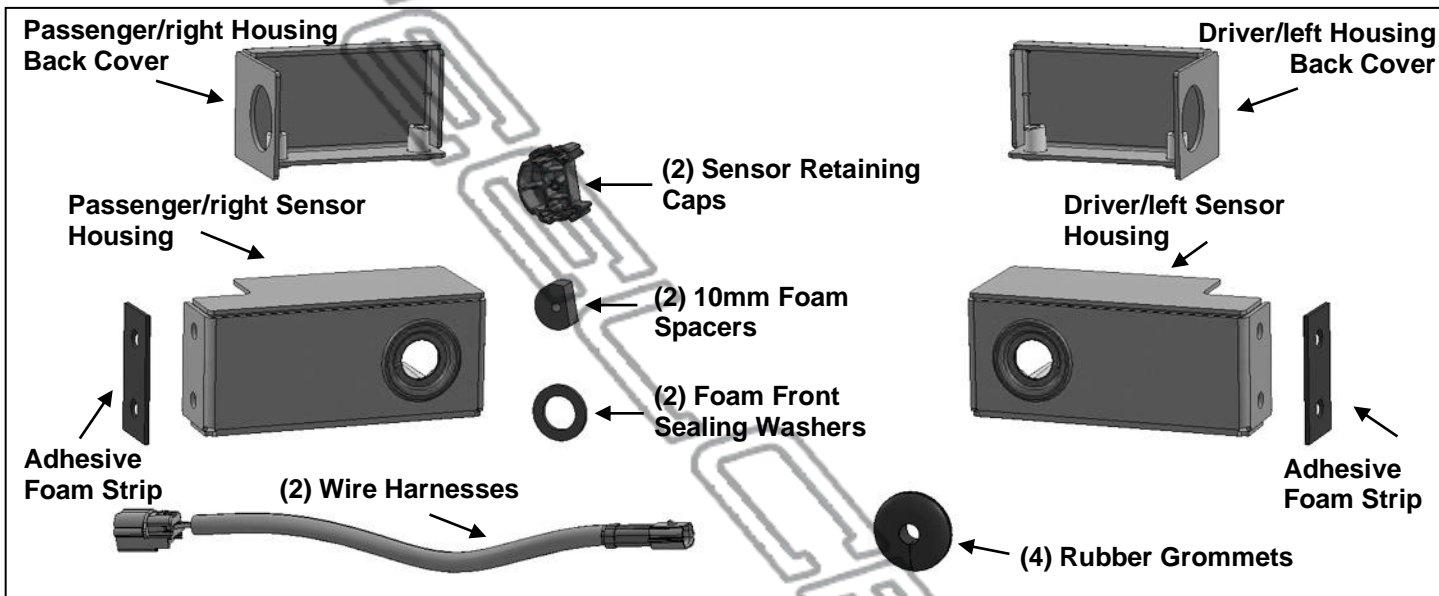
2019-23 Ram 1500-3500

2022-23 Expedition

2021-23 F-150

Part List:

1	Driver/left Sensor Housing	2	Sensor Retaining Caps
1	Passenger/right Sensor Housing	4	Rubber Grommets
1	Driver/left Housing Back Cover	2	55mm x 30mm x 2mm Adhesive Foam Strips
1	Passenger/right Housing Back Cover	8	6-1.00mm x 20mm Button Head Combo Bolts
2	Wire Harness Extensions	4	4mm x 15mm Self Tapping Screws
2	15.5mm x 25mm x 2mm Sealing Washers	1	4mm Wrench
2	20mm x 10mm Foam Spacers		

**PROCEDURE:**

1. **READ INSTRUCTIONS CAREFULLY BEFORE STARTING INSTALLATION. DRILLING MAY BE REQUIRED. TAKE CARE NOT TO BLOCK OTHER SENSORS SUCH AS CRUISE CONTROL.**

2. Determine if the Grille Guard Uprights are equipped with (2) pre-drilled holes per side. If the Uprights are equipped with factory holes then skip to **Step 3**.

Grille Guard Uprights without factory holes:

- a. Starting from the bottom of the center tube/panel, use a tape measure to measure a downward distance of
 - i. **all models, (Figure 1 & 2): 4-3/4" (120mm) 4-1/2" (115mm).**
 - ii. Mark a line on the upright to indicate the measured distance, **(Figures 1, 2 & 3)**.
 - b. Place the driver/left Sensor Housing up against the corner of the marked line on the Grille Guard Upright. With the front face on the housing vertical, push the Bracket forward to the front of the upright. Mark through the (2) holes on the Housing and onto the Upright, **(Figures 1 & 2)**.
 - c. Use a 5/16" drill bit to drill through the (2) marked holes on the Upright.
 - d. Repeat the previous **Steps** to drill (2) holes on the passenger/right upright.
3. Starting from under the front bumper, locate and unplug the two center parking sensors, **(Figure 3)**. Remove the two sensors from the bumper. Also remove the outer sensor retainers from the bumper, **(Figure 4)**. **IMPORTANT:** Depending on model/year, the bumper may need to be removed to remove the sensors. Reinstall bumper after removing center sensors.

UNIVERSAL SENSOR RELOCATION KIT:

#10447SRP

2019-23 SILVERADO 1500 / 20-23 SILVERADO 2500-3500

2019-23 SIERRA 1500 / 20-23 SIERRA 2500-3500

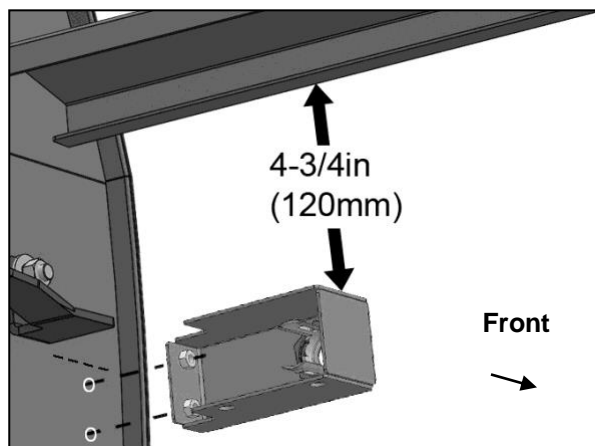
2019-23 Ram 1500-3500

2022-23 Expedition

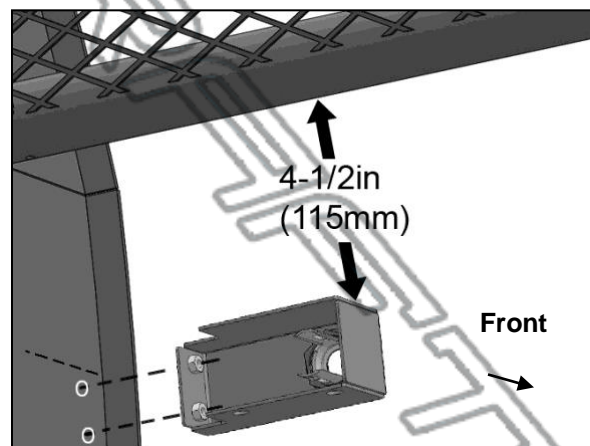
2021-23 F-150

4. Select (1) sensor. Remove the silicone seal from the sensor, (**Figure 5**). Slide the provided (1) Foam Sealing Washer over the front of the sensor. Select the Driver/left Sensor Housing. Push the sensor into the sensor mount on the back of the Housing, (**Figure 6**). **NOTE:** Sensor tabs may need to be trimmed to fit sensor into the sensor mount. Attach the Foam Spacer to the end of the Sensor then snap the Retaining Cap over the Spacer and onto the sensor mount, (**Figure 6**).
5. Select (1) Wire Harness Extension and (2) Rubber Grommets, (**Figure 7**). Slide the Grommets onto each end of the Wire Harness.
6. Select the driver/left Sensor Housing Back Cover, (**Figure 8**). Push the larger “female” end of the harness through the hole in the Cover. Plug the end of the Harness into the sensor, (**Figure 9**). Push the Rubber Grommet into the hole in the Cover. Attach the Cover to the Sensor Housing with the included (2) 6mm x 20mm Button Head Combo Bolts, (**Figure 10**). Fully tighten this hardware only at this time. **Note for RAM's Only:** Back cover will not be installed for Z-shaped sensors.
7. Locate the (2) holes on the driver/left Grille Guard Upright. Select (1) Adhesive Foam Strip. Attach the adhesive side of the Foam Strip to the Sensor Housing, (**Figure 11**).
8. Attach the driver/left Sensor Housing assembly to the inside of the Grille Guard Upright with (2) 6mm Button Head Combo Bolts, (**Figure 11**).
9. Repeat **Steps 4—8** to assemble and install the passenger/right Sensor Housing assembly.
10. Insert the end of the driver/left side Harness Extension through the hole in the bumper and connect to sensor harness. Use (1) Rubber Grommet to seal the Wire Harness to the bumper, (**Figure 12**). Repeat this **Step** to connect the passenger/right side Sensor harness.
11. Properly level and adjust the Sensor Housing assembly and tighten all hardware.
12. Do periodic inspections to the installation to make sure that all hardware is secure and tight.

Driver/Left Side Installation Pictured



(Fig 1) Measure a downward distance of 4-3/4" (120mm) from the center tube/panel. Mark upright with location of mounting holes for drilling

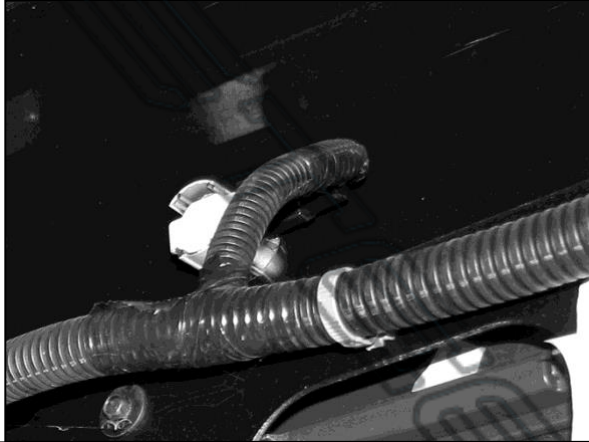


(Fig 2) Measure a downward distance of 4-1/2" (115mm) from the center tube/panel. Mark upright with location of mounting holes for drilling

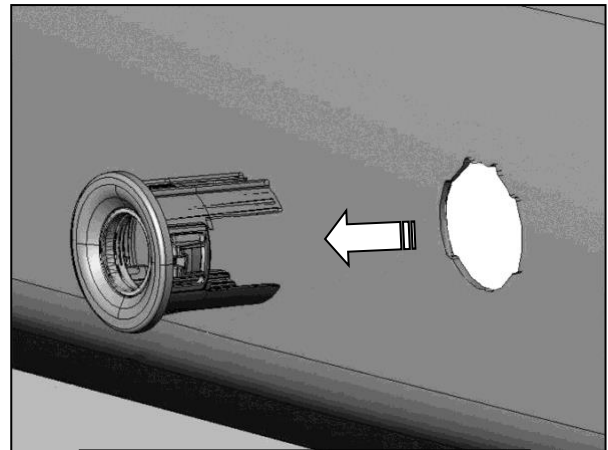
UNIVERSAL SENSOR RELOCATION KIT:

#10447SRP
2019-23 SILVERADO 1500 / 20-23 SILVERADO 2500-3500
2019-23 SIERRA 1500 / 20-23 SIERRA 2500-3500
2019-23 Ram 1500-3500
2022-23 Expedition
2021-23 F-150

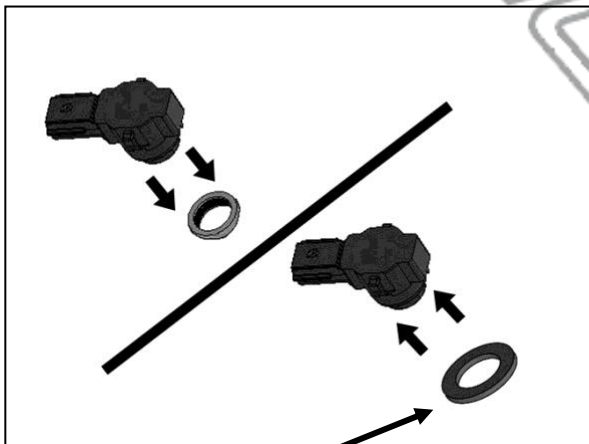
Driver/Left Side Installation Pictured



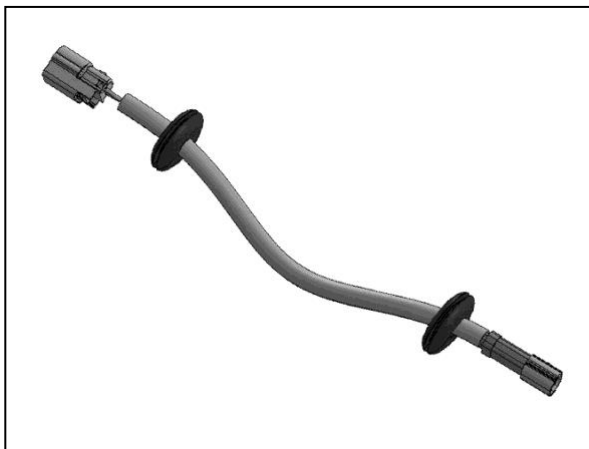
(Fig 3) Unplug and remove OE center sensors from the back of the bumper (example only)



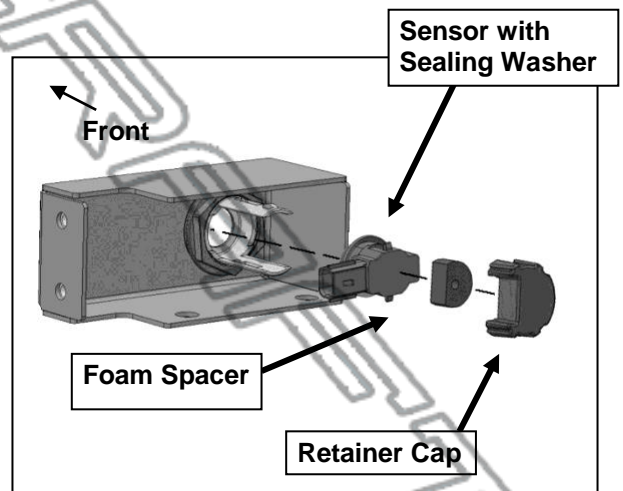
(Fig 4) Remove OE sensor retainer from bumper sensor hole



(Fig 5) Remove seal from sensor. Slide large Foam Seal over end of sensor



(Fig 7) Slide (2) Rubber Grommets onto Wire Harness Extension

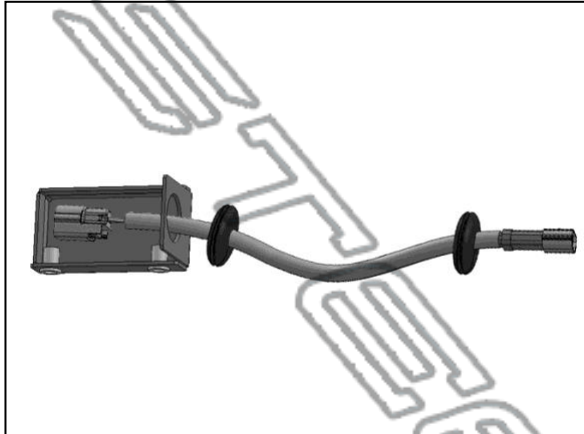


(Fig 6) Insert sensor with Seal into sensor mount on driver/left Housing. Place Foam Spacer onto end of sensor. Lock sensor in place with Retainer Cap

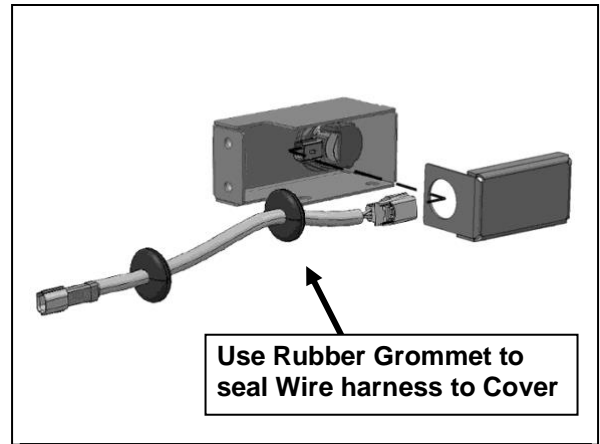
UNIVERSAL SENSOR RELOCATION KIT:

#10447SRP
2019-23 SILVERADO 1500 / 20-23 SILVERADO 2500-3500
2019-23 SIERRA 1500 / 20-23 SIERRA 2500-3500
2019-23 Ram 1500-3500
2022-23 Expedition
2021-23 F-150

Driver/Left Side Installation Pictured

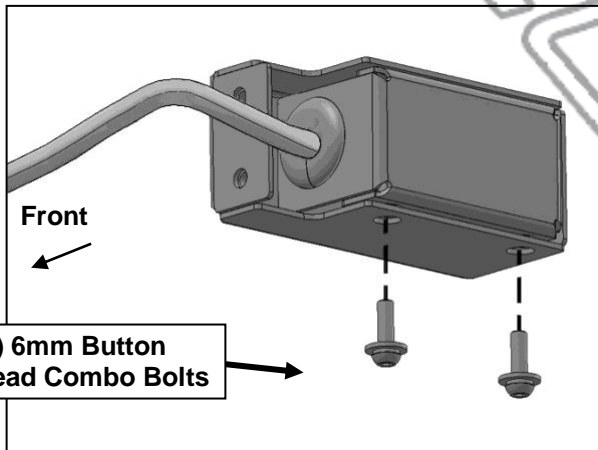


(Fig 8) Insert Harness Extension into driver/left Back Cover and plug into sensor in Housing



Use Rubber Grommet to seal Wire harness to Cover

(Fig 9) Plug Harness Extension into sensor

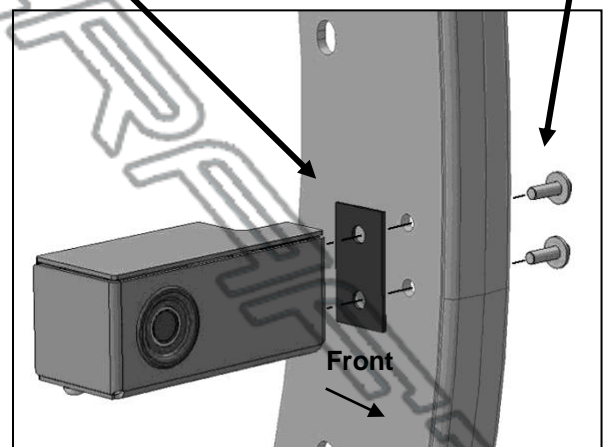


(2) 6mm Button Head Combo Bolts

(Fig 10) Attach Back Cover to Housing

NOTE: Attach adhesive side of Foam Strip to the inside of the Grille Guard Upright.

(2) 6mm Button Head Combo Bolts



(Fig 11) Attach Bracket Assembly to the inside of the Grille Guard Upright



(Fig 12) Push Rubber Grommet on Harness into sensor hole (Bumper used for Example)