TRAIL FORTRESS

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Rough Country 51147 Installation Instructions

Headlight Sensor Lockout Kit for 2023–2025 F-250/F-350

Part number: 51147

trailfortress.com/headlight-sensor-lockout-kit-f250-f350-rough-country-51147

Scan for fitment, price and install help

ROUGH COUNTRY SUSPENSION SYSTEMS®

2023-2025 Ford SuperDuty Auto Adjust Headlight Lockout

Thank you for choosing Rough Country for your suspension needs.

Rough Country recommends a certified technician install this system. In addition to these instructions, professional knowledge of disassembly/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

Please read instructions before beginning installation. Check the kit hardware against the parts list on this page and the product layout on the last page. Be sure you have all needed parts and know where they go. Also please review tools needed list and make sure you have needed tools.

PRODUCT USE INFORMATION

⚠WARNING As a general rule, the taller a vehicle is, the easier it will roll. Seat belts and shoulder harnesses should be worn at all times. Avoid situations where a side rollover may occur.

Generally, braking performance and capability are decreased when larger/heavier tires and wheels are used. Take this into consideration while driving. Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands is not recommended.

Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

If questions exist we will be happy to answer any questions concerning the design, function, and correct use of our products.

⚠NOTICE NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough Country product should have a “Warning to Driver” decal installed on the inside of the windshield or on the vehicle’s dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.

INSTALLING DEALER - it is your responsibility to install the warning decal and forward these installation instructions on to the vehicle owner for review. These instructions should be kept in the vehicle for its service life.

Torque Specs:

Size	Grade 5	Grade 8	Size	Class 8.8	Class 10.9
5/16”	15 ft/lbs	20ft/lbs	6MM	5ft/lbs	9ft/lbs
3/8”	30 ft/lbs	35ft/lbs	8MM	18ft/lbs	23ft/lbs
7/16”	45 ft/lbs	60ft/lbs	10MM	32ft/lbs	45ft/lbs
1/2”	65 ft/lbs	90ft/lbs	12MM	55ft/lbs	75ft/lbs
9/16”	95 ft/lbs	130ft/lbs	14MM	85ft/lbs	120ft/lbs
5/8”	135ft/lbs	175ft/lbs	16MM	130ft/lbs	165ft/lbs
3/4”	185ft/lbs	280ft/lbs	18MM	170ft/lbs	240ft/lbs

KIT CONTENTS:

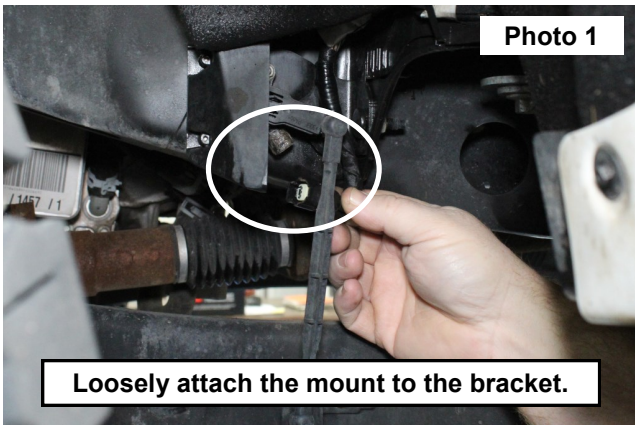
1 - Headlight Sensor Lockout - Dr.
1 - Headlight Sensor Lockout - Pass.
51147BAG1

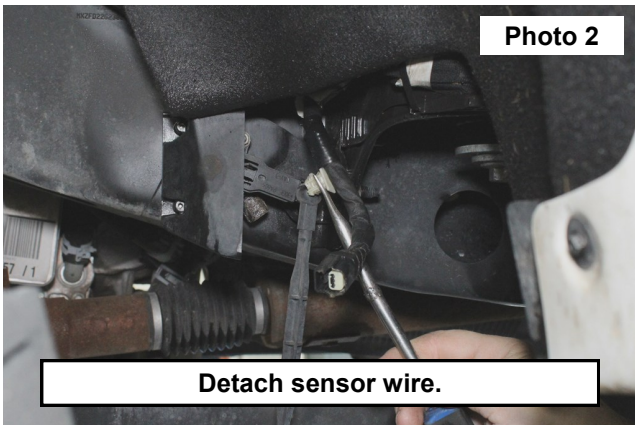
51147BAG1
4 - 5mm x 30mm Bolt



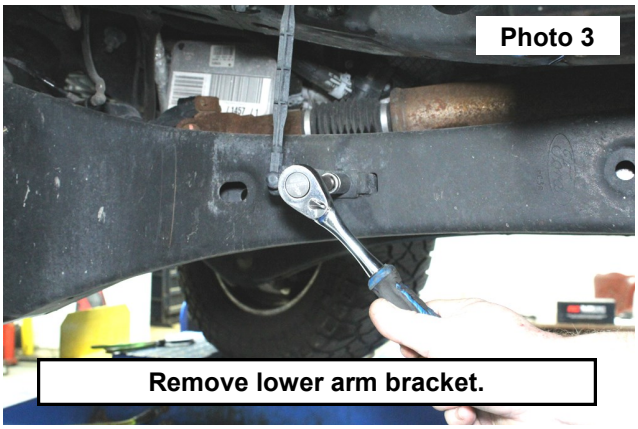
TOOLS REQUIRED:
Snap Ring Tool
Small Pry Tool
8mm Socket and Wrench
13mm Socket
T20 Torx

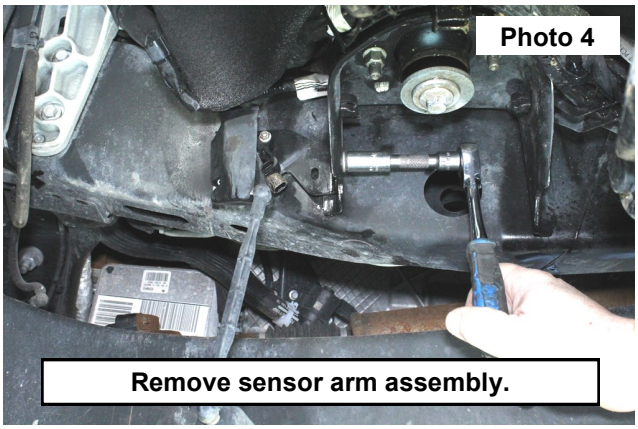
1. Locate the ride height sensor arm connected to the radius arm of the truck. Unplug the sensor. **See Photo 1.**
2. Use a small pry tool to remove the plastic sensor wire retainer from the truck frame. **See Photo 2.**



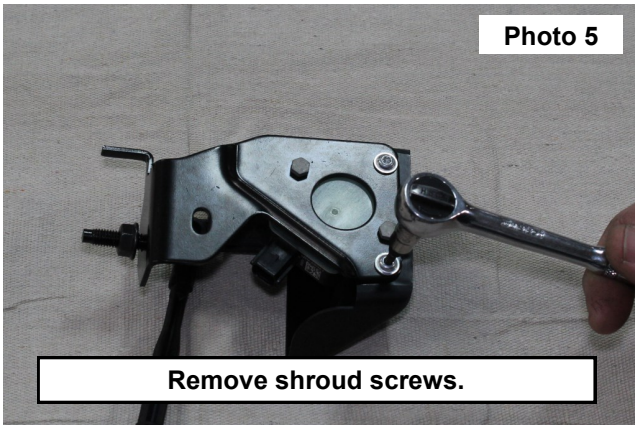


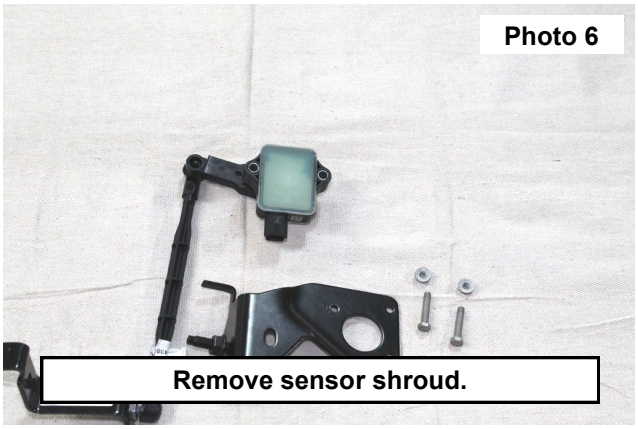
3. Use a 13mm socket to remove the lower sensor arm bracket. **See Photo 3.**
4. Use a 13mm socket to remove the upper sensor arm bracket. Remove ride height sensor assembly. Retain hardware for reuse. **See Photo 4.**





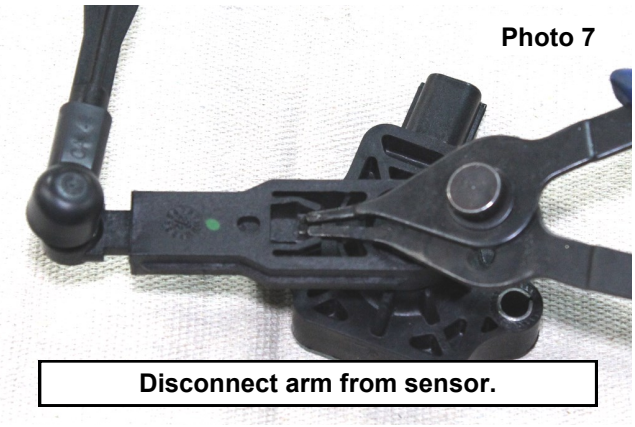
5. Remove the two screws from the sensor shroud using a T20 Torx. **See Photo 5.**
6. Use an 8mm socket to remove the bolts and nuts from the sensor shroud. Remove sensor shroud. Retain the shroud and nuts for later. **See Photo 6.**





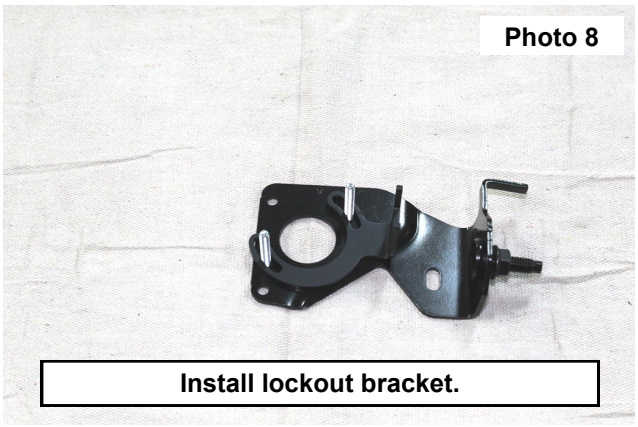
7. Use a snap ring plier set to remove the sensor arm from the sensor. **See Photo 7.**
8. Install the supplied 5mm bolts and lockout bracket onto the factory shroud. **See Photo 8.**

Photo 7



Disconnect arm from sensor.

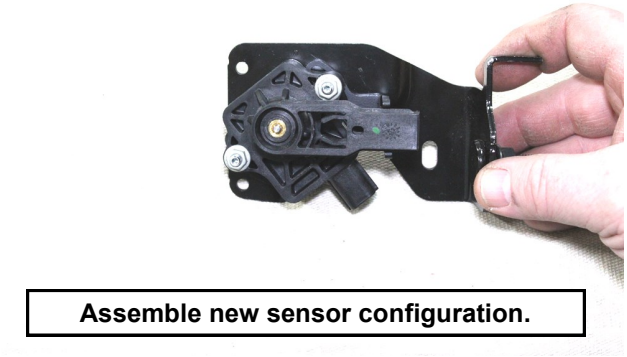
Photo 8



Install lockout bracket.

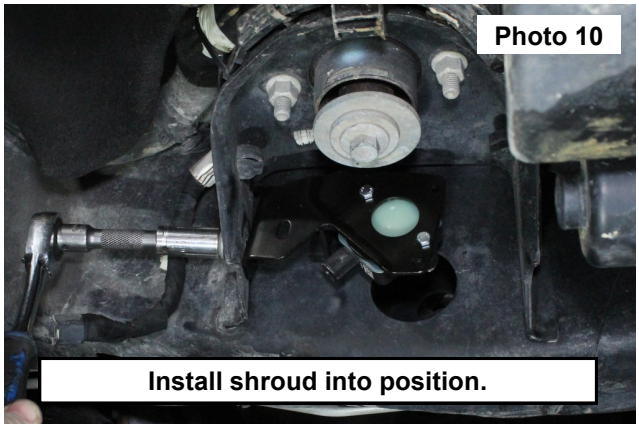
9. Place sensor onto the lockout bracket and factory shroud. Use the factory nuts to secure the sensor to the shroud and lockout bracket. Secure with an 8mm socket and wrench. Do not fully tighten **See Photo 9.**
10. Install the factory shroud back into the factory location. Use the factory hardware to tighten the shroud using a 13mm socket. **See Photo 10.**
11. Plug sensor wire into sensor.
12. Repeat for other side of vehicle.
13. Rotate the DRIVER SIDE SENSOR until the headlights are at factory level. Tighten the bracket down using an 8mm socket and wrench.

Photo 9



Assemble new sensor configuration.

Photo 10



Install shroud into position.

POST INSTALLATION INSTRUCTIONS

1. Check all fasteners for proper torque. Check to ensure for adequate clearance between all rotating, mobile, fixed, and heated members. Verify clearance between exhaust and brake lines, fuel lines, fuel tank, floorboards, and wiring harness.
2. All kit components must be retightened at 500 miles and then every 300 miles after installation. Periodically check all hardware for tightness.
3. Install “Warning to Driver” decal on sun visor.

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable , State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.