

# ROUGH COUNTRY

## SUSPENSION SYSTEMS®

### GM 2019-20 1500 Crew Cab Retractable Steps

Thank you for choosing Rough Country for all your vehicle needs.

Please read instructions before beginning installation. Check the kit hardware against the kit contents shown below. Be sure you have all needed parts and know where they go.

If question exist, please call us @1-800-222-7023. We will be happy to answer any questions concerning this product.

Check all fasteners for proper torque. Check to ensure for adequate clearance between all components.

Periodically check all hardware for tightness.

#### KIT CONTENTS:

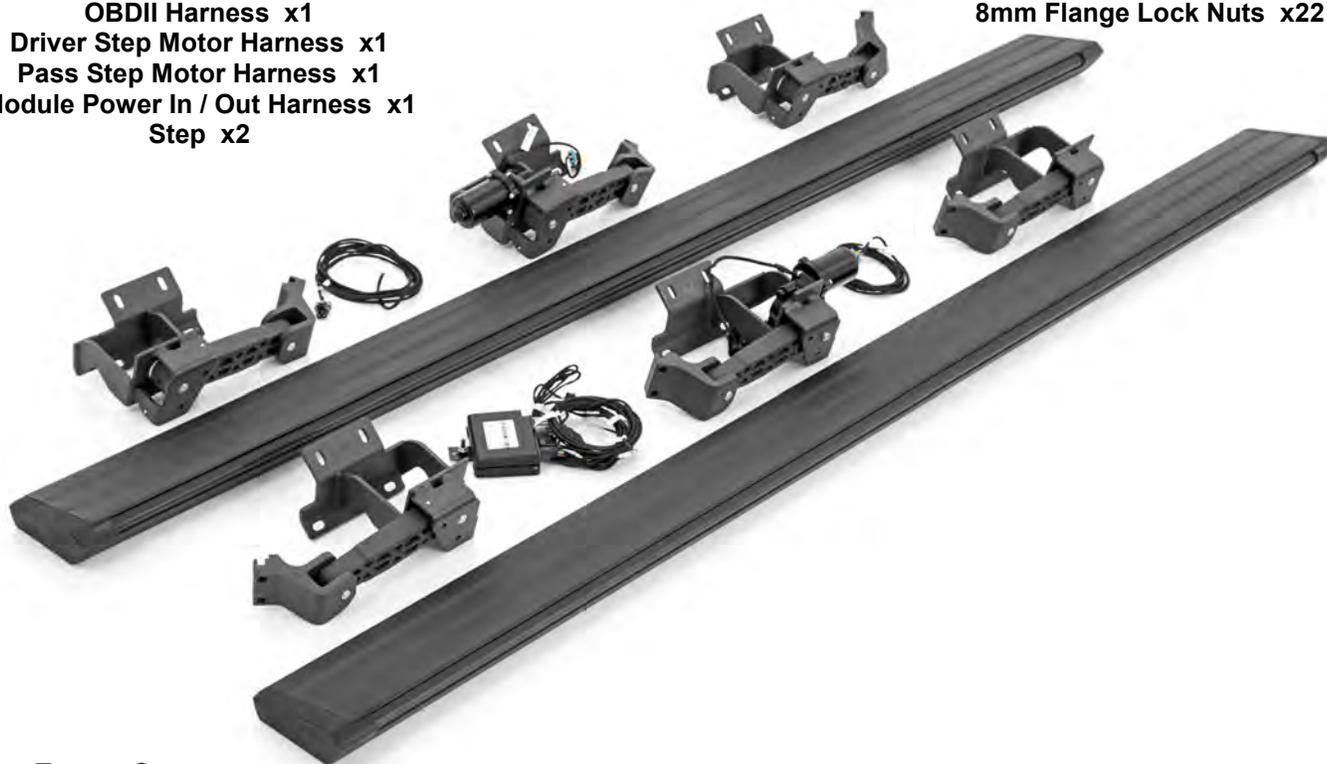
LF, LM, LR x1  
 RF, RM, RR x1  
 Idler Arm Bracket Right x2  
 Idler Arm Bracket Left x2  
 Step Motor Right x1  
 Step Motor Left x1  
 Control Module x1  
 Fused Power Sub Harness x1  
 OBDII Harness x1  
 Driver Step Motor Harness x1  
 Pass Step Motor Harness x1  
 Module Power In / Out Harness x1  
 Step x2

#### TOOLS NEEDED:

5mm Allen Wrench  
 10mm Wrench or Socket  
 13mm Wrench or Socket

#### HARDWARE INCLUDED:

Flag Bolts x8  
 Flag Lock Nuts x8  
 Plastic Retainers x16  
 6mm Lock Washers x12  
 6mm x 20mm Socket Head Bolts x12  
 8mm x 30mm Hex Head Bolts x10  
 8mm Flat Washers x10  
 8mm Carriage Head Bolts x22  
 8mm Flange Lock Nuts x22



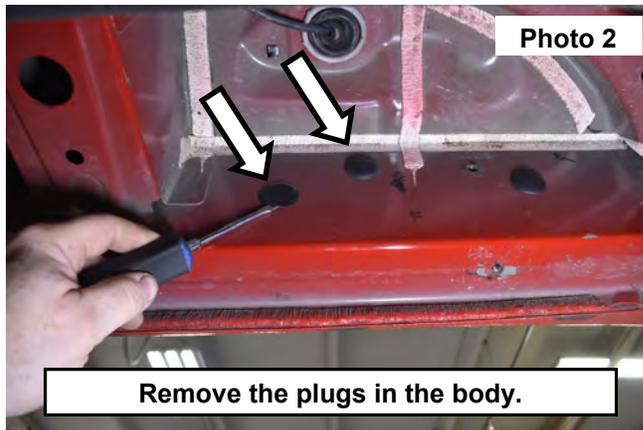
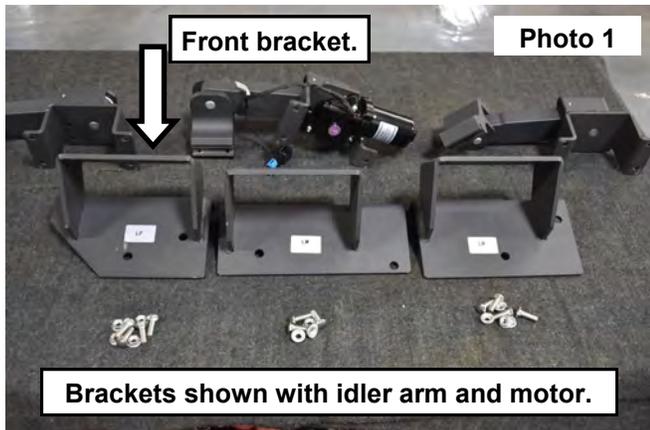
#### Torque Specs:

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

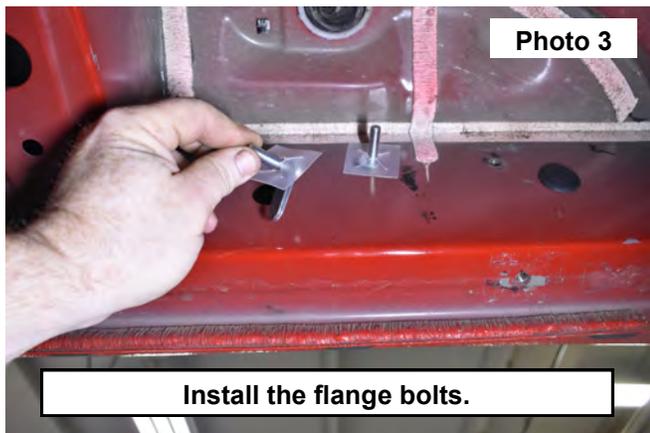


## INSTALLATION INSTRUCTIONS

1. Locate the Left side step brackets from front to back as labeled LF, LM, LR. Shown with idler arm and motor. **See Photo 1.** Left will be the Driver Side of the vehicle.
2. Remove the (2) rubber plugs from the left front of the body. **See Photo 2.**



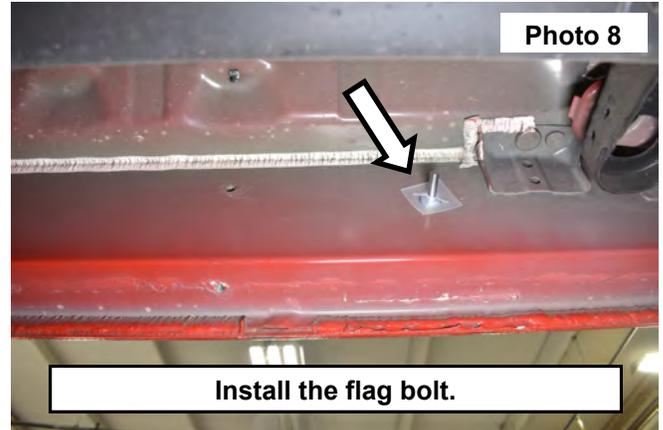
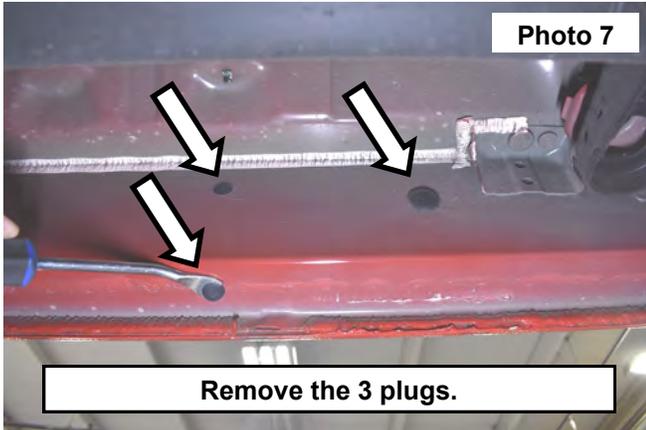
3. Install the (2) flag bolts into the holes using the clear plastic washer to hold the flag in place. **See Photo 3.**
4. Install the LF mount as shown onto the installed flag bolts and secure using (2) of the supplied 8mm flat washers and (2) flange nuts onto the flag bolts, install the (2) flat washers and (2) 8mm x 30mm bolts into the stock threaded body location. **See Photo 4.**



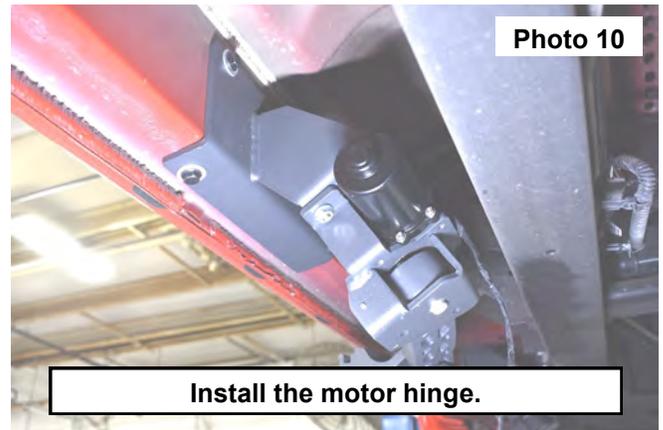
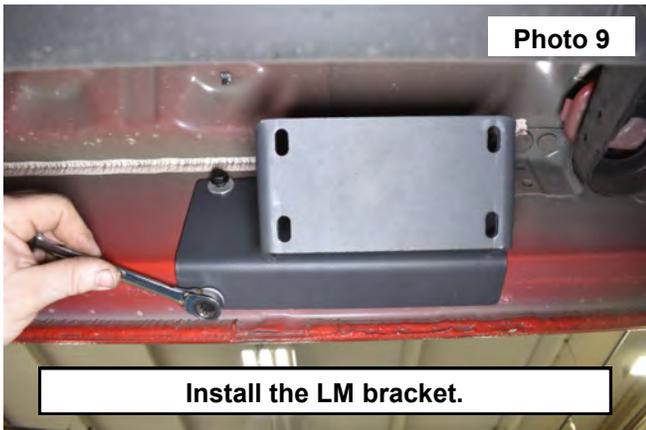
5. Tighten the (2) nuts and the (2) bolts using a 13mm wrench. **See Photo 5.**
6. Attach the idler arm to the LF bracket using (4) of the supplied 8mm carriage head bolts and (4) 8mm Flange lock nuts. **See Photo 6. Do not fully tighten at this time.**



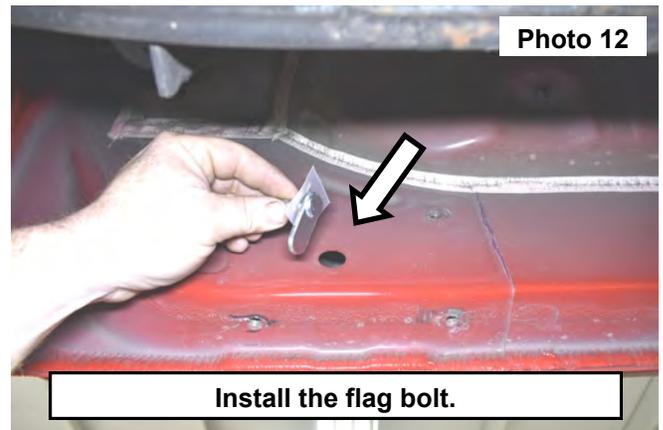
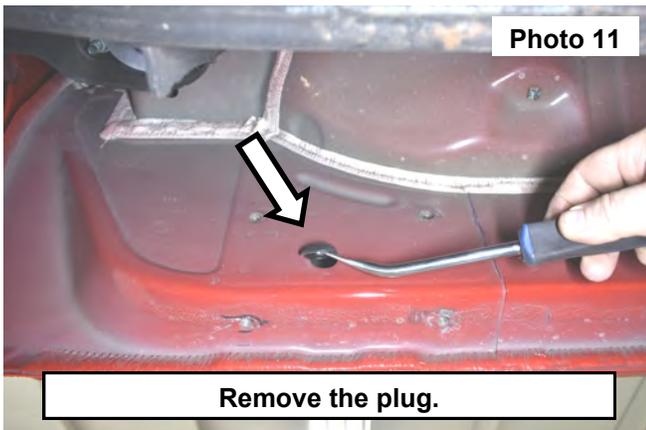
7. Remove the (3) Plugs from the center of the body. **See Photo 7.**
8. Install (1) of the flag bolts into the hole in the center of the body. Then use the clear plastic washer to hold the flag bolts in place. **See Photo 8.**



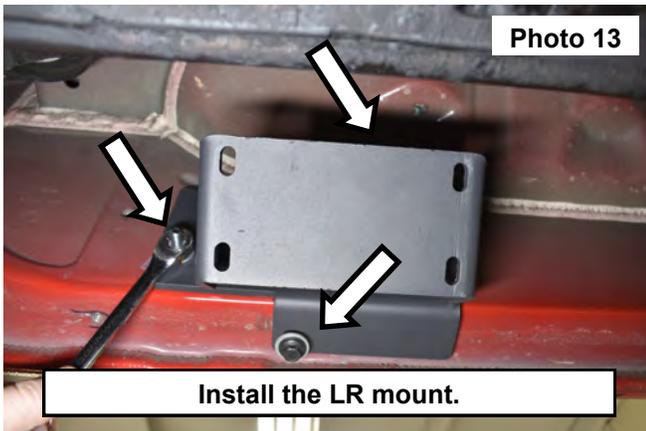
9. Install the center **LM** mount onto the installed studs in the body and secure using (3) of the supplied 8mm flat washers, (1) 8mm flange lock nut and (2) 8mm x 30mm hex head bolts. Tighten using a 13mm socket. **See Photo 9.**
10. Install the hinge with the motor onto middle bracket using (3) of the supplied 8mm carriage head bolts and (3) 8mm Flange lock nuts. Do not tighten at this time. **See Photo 10.**



11. Remove the plug from the rear of the body. **See Photo 11.**
12. Install (1) of the flag bolts into the hole in the rear of the body. Then use the clear plastic washer to hold the flag in place. **See Photo 12.**



13. Install the center **LR** mount onto the installed stud in the body and secure using (3) of the supplied 8mm flat washers, (1) 8mm flange lock nut and (2) 8mm x 30mm hex head bolts. Tighten using a 13mm socket. **See Photo 13.**
14. Attach the idler arm to the LR bracket using (4) of the supplied 8mm carriage head bolts and (4) 8mm Flange lock nuts. **See Photo 14. Do not fully tighten at this time.**

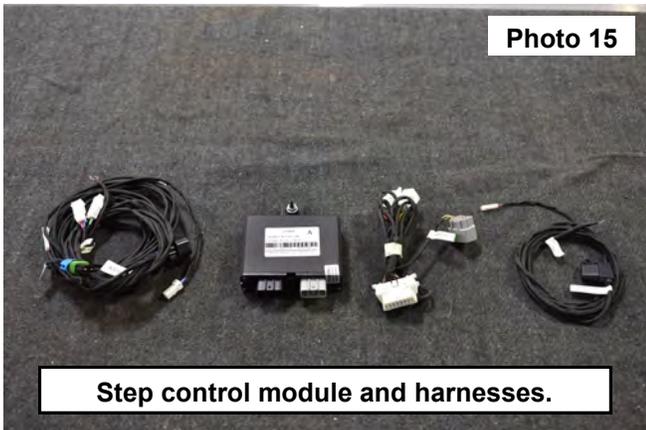


**Install the LR mount.**

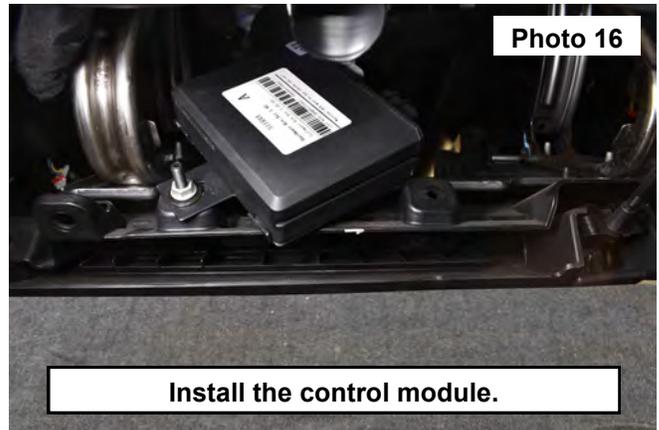


**Install the idler arm.**

15. Locate the right side step brackets front to back as labeled **RF, RM, RR** and install onto the right side of the vehicle using steps 2-14. The right side is the passenger side.
16. **NOTE:** Disconnect the battery of the vehicle at this time.
17. Locate the step control module and harnesses. **See Photo 15.**
18. Looking under dash on driver side find a area to mount the module without it being into the way of brake and gas pedal and out of harms way. The module shown has been installed onto the back side of kick panel with the module tilted up. Use a 10mm wrench to tighten bolt. **See Photo 16.**



**Step control module and harnesses.**

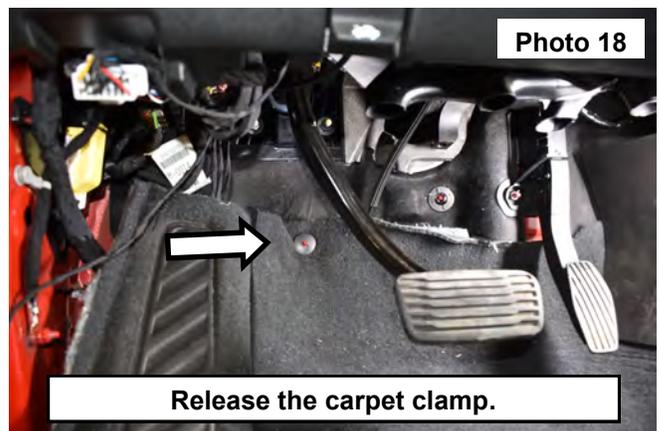


**Install the control module.**

19. Remove the scuff plate and kick panel. Take care not to damage these panels. **See Photo 17.**
20. Release the carpet clamp from the stud in the floor of the vehicle. **See Photo 18.**



**Remove the scuff plate.**



**Release the carpet clamp.**

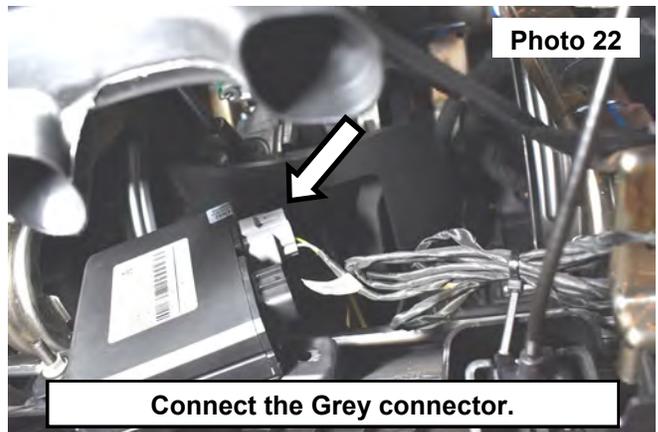
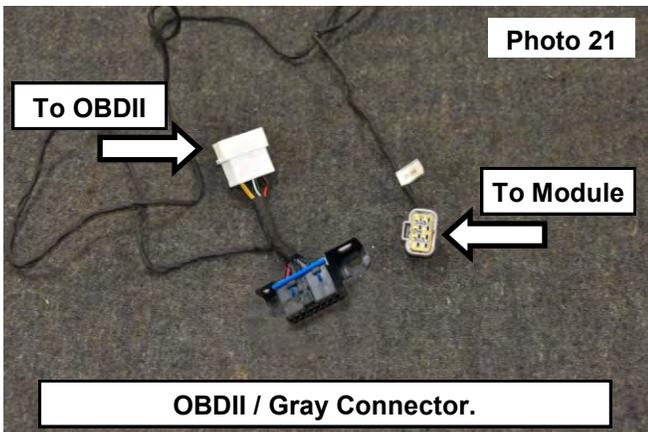
21. Remove the plug shown from the floor. **See Photo 19.**

22. Drill a 7/16 hole into the plug. **See Photo 20.**



23. Locate the wiring harness shown in **Photo 21.**

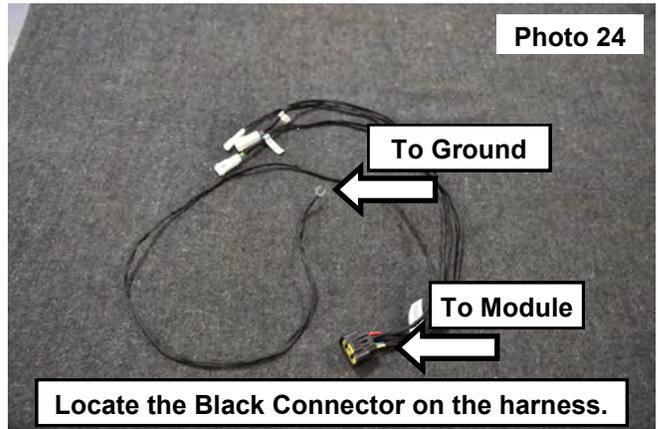
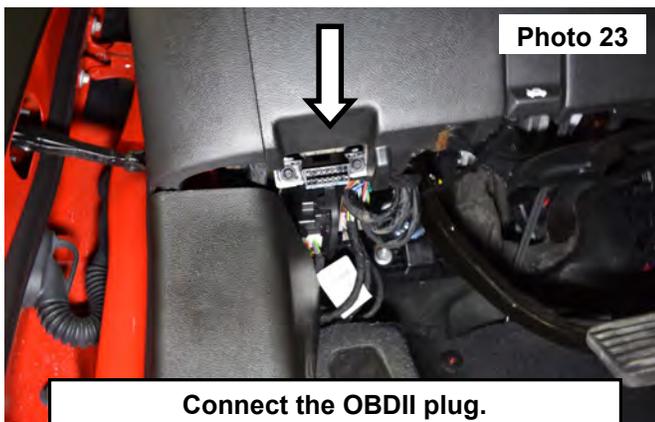
24. Connect the Grey connector on the wiring harness shown in photo 21 to the module installed under the dash. **See Photo 22.**



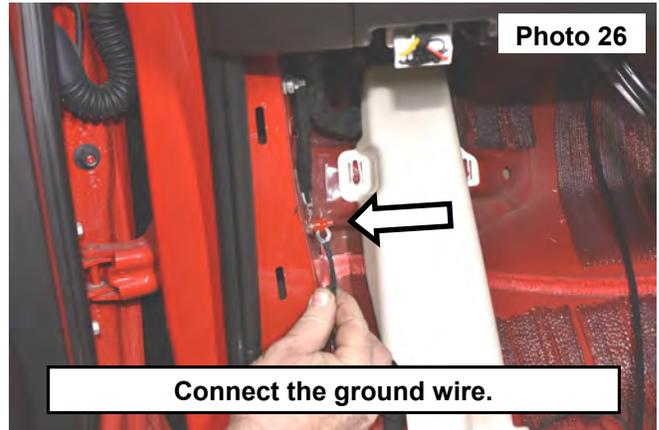
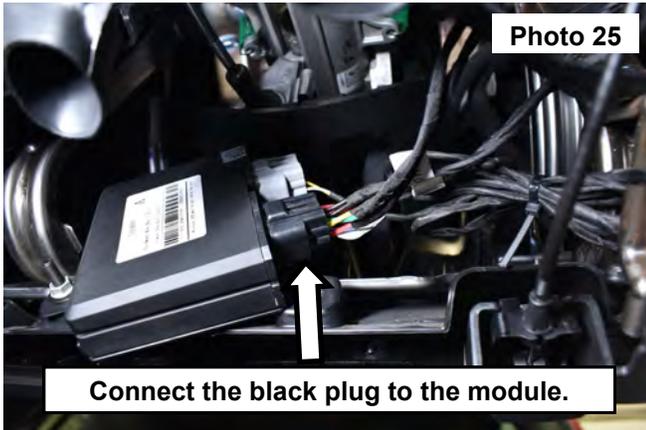
25. Remove the stock OBDII port from under the dash on the drivers side and connect the white plug to the stock port. A cable tie is recommended to ensure the connectors remain connected. **See Photo 23.**

26. Route the remaining OBDII plug and wiring harness so that the wires are hidden and all excess wire up and out of harms way. Install the new OBDII access plug in the stock location with the stock hardware.

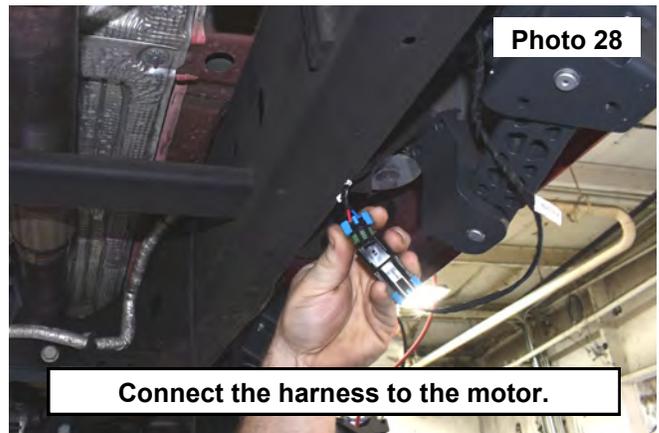
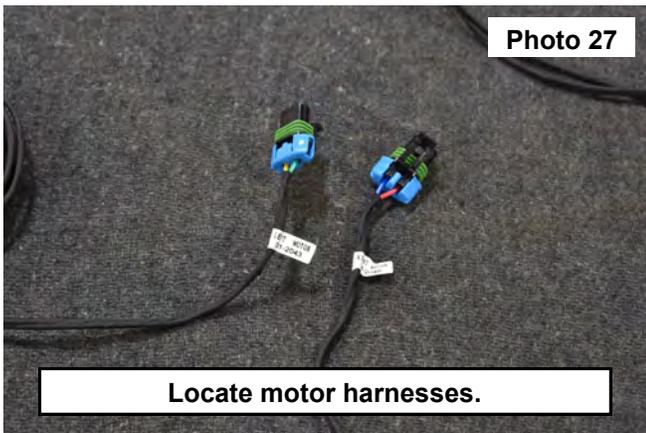
27. Locate the wiring harness shown in **Photo 24.**



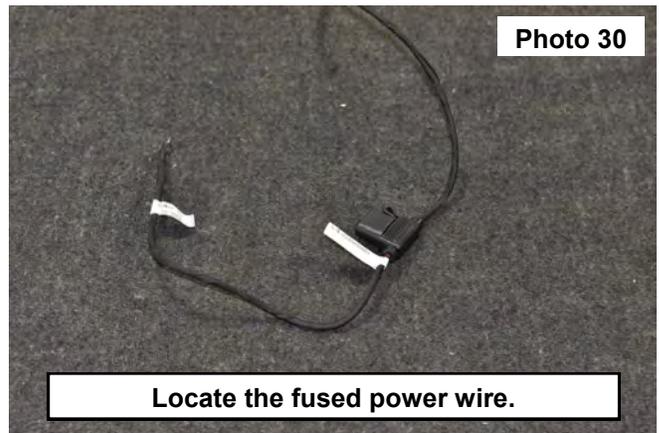
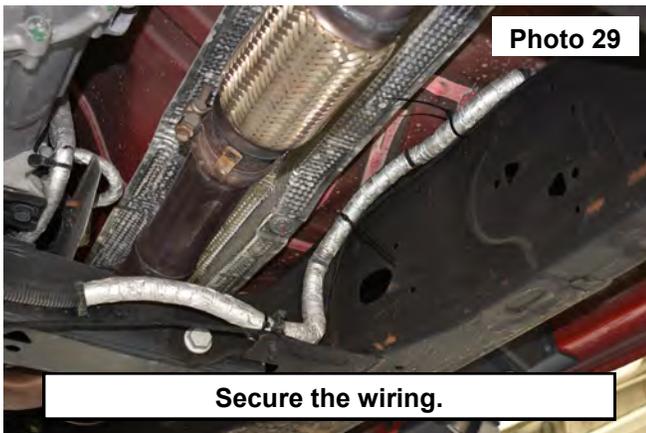
28. Connect the black connector from the harness shown in photo 24 to the module mounted under the dash. **See Photo 25.**
29. Connect the ground wire to the ground post located on the cab behind the removed kick panel making sure to get a good connection. Use a 10mm wrench to loosen, install ground wire and tighten. **See Photo 26.**



30. Locate the wiring harnesses for the step motors. **See Photo 27.**
31. Connect the harnesses to the motors on each side of the vehicle and route the wires away from the exhaust following the transmission crossmember wiring into the cab of the vehicle at the location of the plug removed. **See Photo 28.**



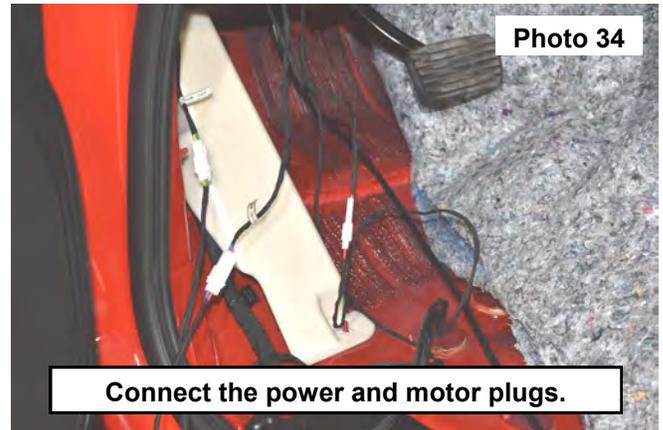
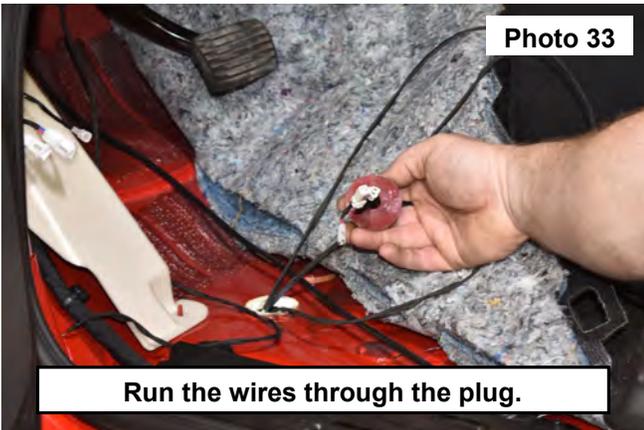
32. Secure the wires to under the vehicle using the supplied cable ties. **See Photo 29.**
33. Locate the fused power wire shown in **Photo 30.**



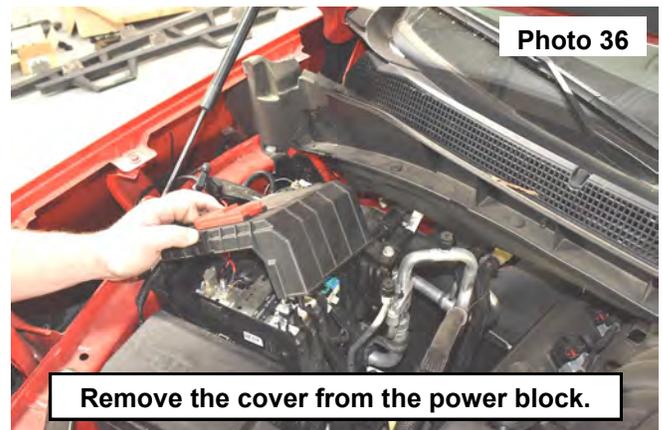
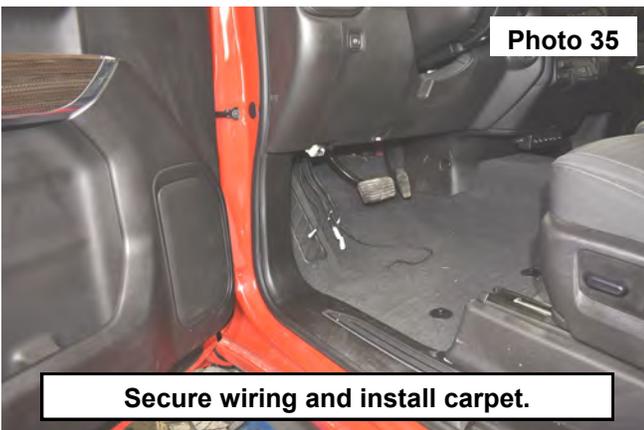
34. Do not attach the power wire to battery at this time. Install the wiring throughout the vehicle from the battery across the firewall, down to the access hole in the bottom of the cab. Secure the wire with cable ties. **See Photos 31 and 32.**



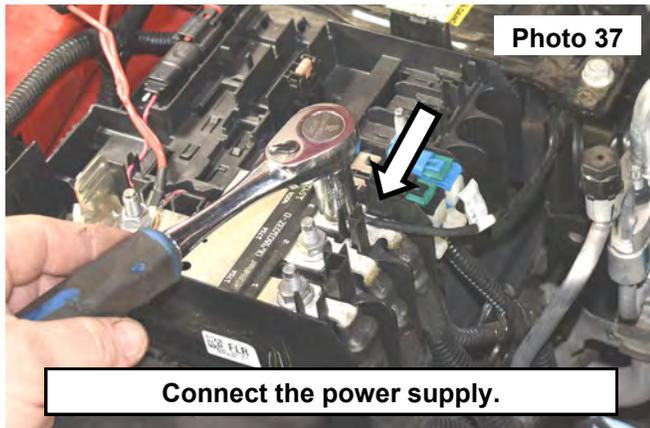
35. Insert the wiring from the power supply and the motors through the hole drilled into the plug. **See Photo 33.**  
36. Place the cab plug into the hole in the cab, then connect the power wire and the step motor connectors to the correct side of the vehicle together. **See Photo 34.**



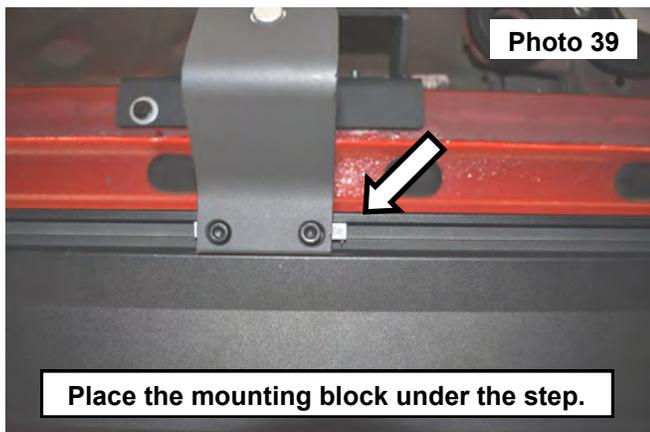
37. Secure any wiring using cable ties. Sealant can be used on the wiring and the plug in the cab. Then install the carpet and the kick panel into the vehicle. **See Photo 35.**  
38. Under the hood, remove the cover from the power block. **See Photo 36.**



39. Close all doors on the vehicle. Connect the fused power wire to the 3rd post on the power block of the vehicle using a 13mm socket. **See Photo 37.** Be sure to tighten the nut to ensure good connection.
40. Test the motors by opening and closing each door to confirm that each door operates the step motor correctly.
41. Open one door on each side. With the motor and idler arms extended outward, install one step board onto the mounts. Center the step on the vehicle when open. **See Photo 38.**



42. Slide the mounting block under each of the (3) mounts, then secure the step board using (2) of the supplied 6mm socket head bolts and (2) 6mm lock washers in each step mount. **See Photo 39.**
43. Check that the step is center on the vehicle and snug the hardware using a 5mm allen wrench. **See Photo 40.**



44. Test the step by closing the door. Make sure step does not hit frame and wires are not in harms way.
45. Make sure the step is not in any bind when opening or closing, use shims if needed. This would hinder the step from fully extending or closing. Adjust steps as necessary to get full cycle
46. Tighten the hinge mount to the step brackets using a 13mm socket. Add shims to get desire look if the step needs to be leveled from the front to the rear of the vehicle.
47. Repeat steps 41-46 on the opposite side of the vehicle. Tighten brackets on the body using a 13mm socket.
48. Check all hardware every 500 miles.
49. Double check that all wires are secured with a cable tie and away from exhaust heat.

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.

