Rough Country 90051 Installation Instructions

90051

Part number: 90051

trailfortress.com/rough-country-speedometer-calibrator-90051

Scan for fitment, price and install help

ROUGH COUNTRY
SUSPENSION SYSTEMS®

GM 2024-25 New Body Silverado / Sierra 6.6 Duramax / Gas 2500/3500 Speed Calibrator

(All Engines With 10-Speed Transmission)



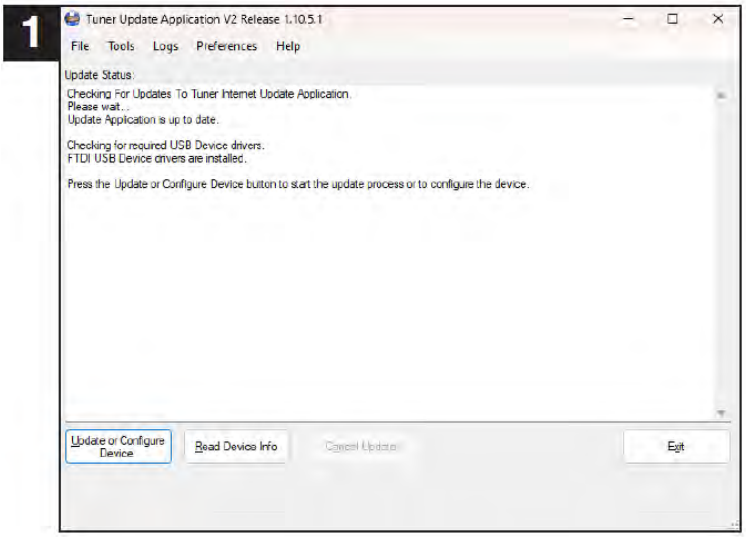
These installation instructions show an installation on a 2024 GM Silverado 2500. The installation may vary for your vehicle, so it may be necessary to consult a GM service manual for specific instructions for your year model.

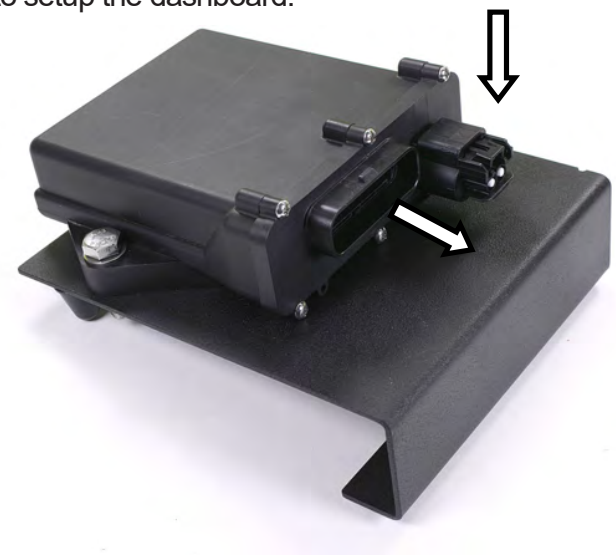
Tools needed: Flat head screwdriver or push-pin removal tool, T-15 Torq bit (socket version), 10 mm deep well socket, 8 mm socket, socket wrench, drill bit (any size from 3/32” - 1/8”), and drill

In-Line Speedometer Calibrator Module Software Setup Instructions

1. **UPDATE**

Before installing and using your In-Line Speedometer Calibrator Module, you will have to configure it to your vehicle. To configure your In-Line Speedometer Calibrator Module, go to www.roughcountry.com and go to the product page for the calibrator purchased and click the “Download the latest Software” link under features. Click to “Download Software” and follow the prompts to setup the dashboard.



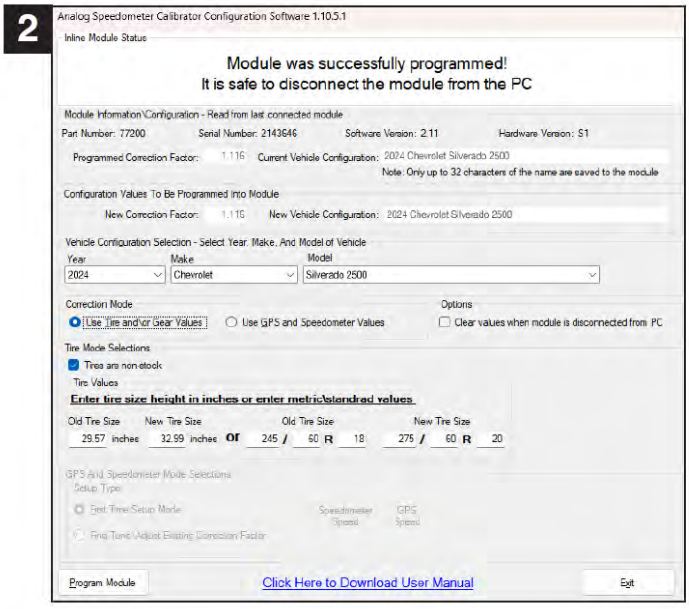


USB PORT ACCESS

To access the USB port on the module for configuring, remove the USB port cover by firmly pressing on the release notch as shown and pulling.

2. **CONFIGURE**

For accurate readings, measure the stock and new tire height from the ground to the top of the tire. Enter these measurements (in inches) into the configuration software, and click program to commit these settings. Once configuration is complete, re-install the USB port cover and take the In-Line Speedometer Calibrator Module and harness to the vehicle.



In-Line Speedometer Calibrator Module Vehicle Installation Instructions

ATTENTION!

READ BEFORE INSTALLING THE IN-LINE SPEEDOMETER CALIBRATOR MODULE

When installed correctly this product meets the IP67 standard for being water resistant and waterproof under normal under-hood environments, such as rain, sleet, and snow.

For the product to be waterproof, ALL connectors MUST be connected and the USB port cover MUST be installed on the module. The USB port cover should ALWAYS be installed and ONLY removed when configuring the module.

DO NOT power wash the module or its harnesses or submerge the module in water.

ALWAYS disconnect the negative (-) battery terminal(s) and wait at least fifteen (15) minutes before connecting or disconnecting the module and/or harness connections. Otherwise, DTC(s) will be set, and the vehicle may have to be taken to a GM service center or automotive repair shop to have the codes cleared.

IMPORTANT NOTE

For additional room for installing the In-Line Speedometer Calibrator Module harness, you may choose to remove the driver's side wheel & tire. For our installation, we removed the wheel & tire to better show the installation process. If you choose to remove the wheel & tire, make sure you secure the vehicle with jackstands after jacking up the vehicle.

1. LOOSEN DRIVER'S SIDE MUD FLAP

Turn the steering wheel left to the full lock position. Using the T-15 Torq bit, remove the three (3) T-15 screws (Step 1). Then using the T-15 Torq bit, remove the two (2) screws under the mudflap (Step 1A). The mudflap does not need to be completely removed. It should hang loosely in place.

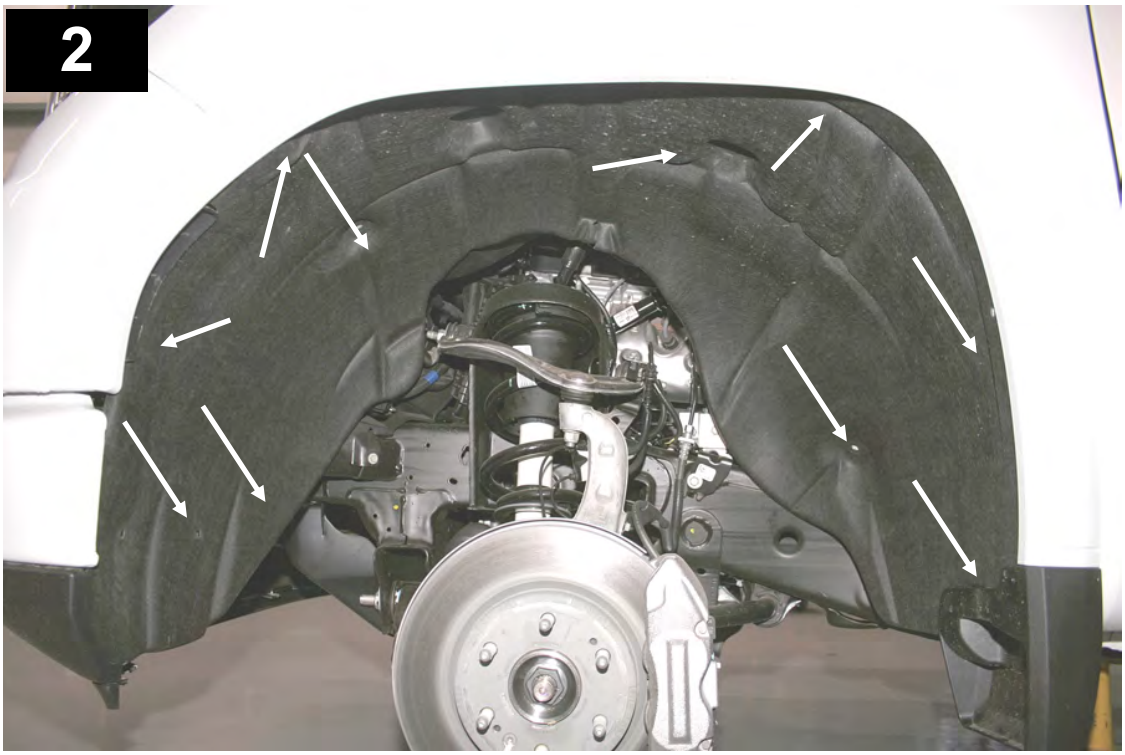




2. REMOVE DRIVER'S SIDE WHEEL LINER

Using the T-15 Torq bit, remove the ten (10) T-15 screws shown below. (Step 2) After removing the T-15 screws, remove the one (1) pushpin at the top of the wheel liner. Use the flathead or push-pin removal tool, lift the middle of the push-pin up, then pull the push-pin out of the wheel liner. Then pull down firmly to remove the wheel liner from the vehicle. (Step 2A).

NOTE: You will have to pull down the driver's side mud flap slightly to access one (1) of the T-15 screws holding the wheel liner in place.





In-Line Speedometer Calibrator Module Vehicle Installation Instructions

3. REMOVE PASSENGER SIDE BATTERY HOLD-DOWN

To access one of the 13mm bolts, pull up on the battery cable clip (Step 3). Using the 13mm deepwell socket, loosen both bolts. Remove the two (2) bolts for the passenger battery hold-down bracket/brace and place the battery hold-down bracket/brace out of the way (Step 3A).





4. DISCONNECT NEGATIVE (-) BATTERY TERMINALS (PASSENGER SIDE AND DRIVER SIDE)

WARNING: Failing to disconnect the negative (-) battery terminal(s) may result in Diagnostic Trouble Codes (DTCs) to be set. DO NOT reconnect the negative (-) battery terminal(s) until all harness connections have been made or until all stock connectors have been connected to their respective modules if returning to stock.

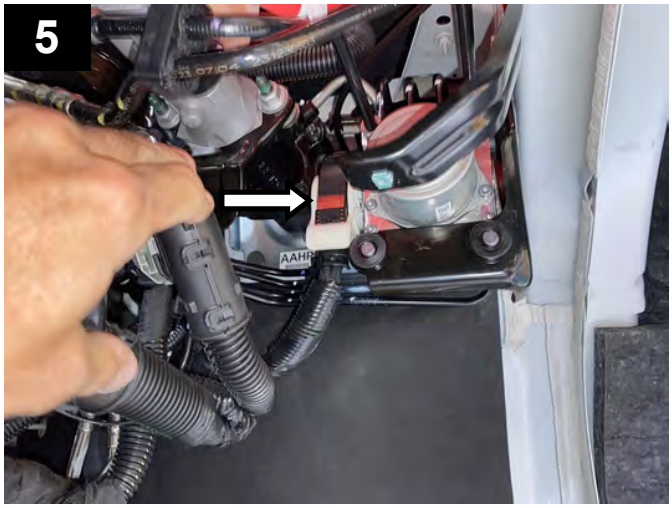
Using the 10mm socket w/extension, disconnect the negative (-) battery terminal on the passenger side (Step 4). Move it safely out of the way and cover it with a rag to prevent any electrical arcing. NOTE: If your vehicle is equipped with a secondary battery on the driver's side, disconnect the secondary battery's negative (-) battery terminal as well (Step 4A) and move it safely out of the way and cover it with a rag to prevent any electrical arcing.



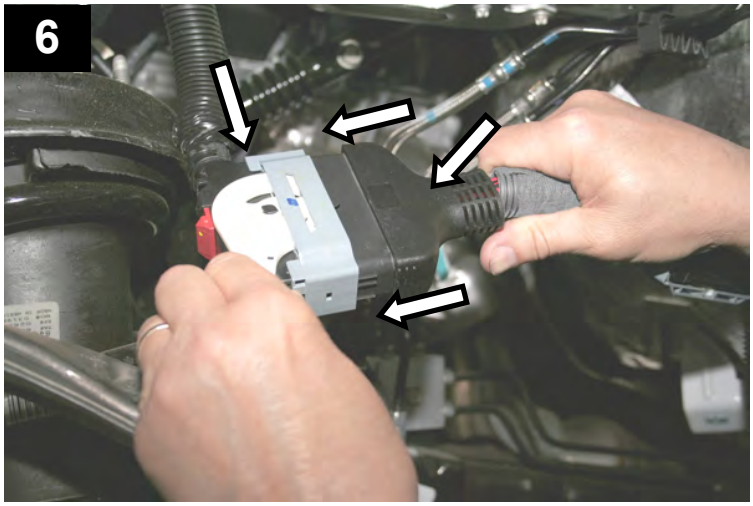


5. **UNPLUG ELECTRONIC BRAKE CONTROL MODULE CONNECTOR**
The Electronic control brake module is located in the upper area of the wheel well. To unplug the connector, first slide the red locking tab up. Next, firmly push the black notch near the red locking tab while at the same time pulling up on the release lever. This will release the connector from the electronic brake control module.

Note: Use caution when removing the connector from the electronic brake control module to prevent damage to any connectors or other components.



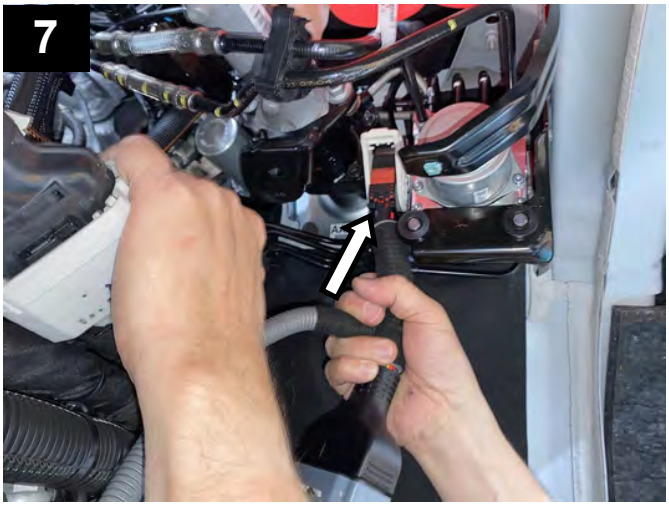
6. **Plug the calibrator harness connector into the electronic brake control module connector.**
Plug the calibrator harness connector shown into the electronic brake control module connector. The connector is keyed and only will install one way. Press the connectors together firmly until the release lever moves in slightly, then push the release lever closed. Lastly slide the red locking tab to fully secure the connectors together.
Note: If the release lever doesn't move slightly when connecting, you may need to press the black notch next to the red locking tab, then with your other hand fully secure the release lever. Then slide the red locking tab to fully secure.



7. PLUG THE HARNESS CONNECTOR INTO THE ELECTRONIC BRAKE CONTROL MODULE

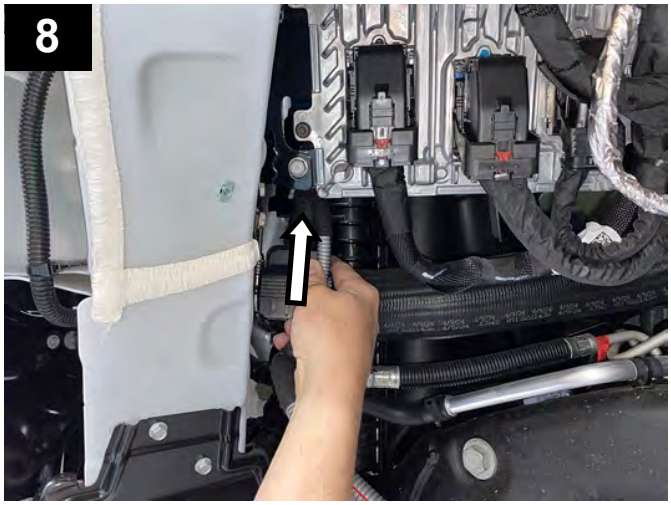
Plug the calibrator harness connector into the electronic brake control module. The connector is keyed and only will install one way. Press the connectors together firmly until the release lever moves slightly, then fully push the release lever closed. Lastly slide the red locking tab to the fully secure the connectors together.

Note: If the release lever doesn't move slightly when connecting, you may need to press the black notch next to the red locking tab., then with your other hand fully secure the release lever. Then slide the red locking tab to fully secure.



8. ROUTE HARNESS TO ACCESS TCM ASSEMBLY

Route the harness behind the PCM and up into the engine compartment as shown below. The PCM is located in the front of the drivers wheel well.



9. UNPLUG TCM ASSEMBLY CONNECTOR

Unplug the TCM Assembly connector. The TCM assembly is located on the driver's side right in front of the secondary vehicle battery. To unplug the connector, first slide the red locking tab toward you to unlock. Next, firmly push the black notch near the red locking tab while at the same time pulling up on the release lever. This will release the connector.

Note: Use caution when removing the connector from the TCM assembly to prevent damage to any connectors or other components.



10. PLUG HARNESS CONNECTOR INTO TCM ASSEMBLY CONNECTOR

Plug the calibrator harness connector shown into the TCM assembly connector. The connector is keyed and will only install one way. Using the ridge in the connectors shown in the photo below for orientation, press the connectors together firmly until the release lever moves slightly, then fully push the release lever closed. Lastly, slide the red locking tab to fully secure the connectors together.

Note: If the release lever doesn't move slightly when connecting, you may need to press the black notch next to the red locking tab, then with your other hand fully secure the release lever. Then slide the red locking tab to fully secure.



11. **PLUG THE HARNESS CONNECTOR INTO THE TCM ASSEMBLY**

Plug the calibrator harness into the TCM assembly. The connector is keyed and will only install one way. Press the connectors together firmly until the release lever moves slightly, then fully push the release lever closed. Lastly slide the red locking tab to fully secure the connectors together.

Note: If the release lever doesn't move slightly when connecting, you may need to press the black notch next to the red locking tab, then with your other hand fully secure the release lever. Then slide the red locking tab to fully secure.



ATTENTION!!

READ AND EXAMINE PHOTOS CAREFULLY BEFORE ROUTING REMAINING HARNESS/CONNECTOR

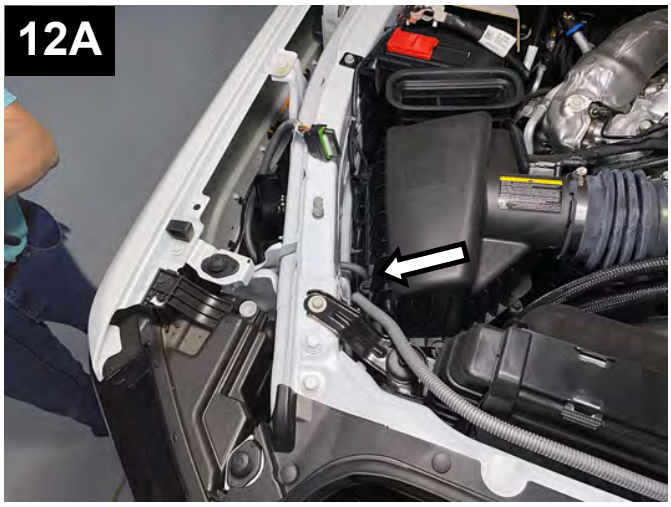
12. ROUTE THE CALIBRATOR HARNESS/CONNECTOR TO THE PASSENGER SIDE

Read and examine all copy and photos in this step for the correct routing of the calibrator harness to the passenger side of the vehicle.

Route the calibrator harness in the channel across the front of the vehicle radiator.



Feed the calibrator harness/connector down between the air filter box and the vehicle inner structure as shown. Then feed the harness/connector through the large open cavity as shown and back up the interior of the fender.

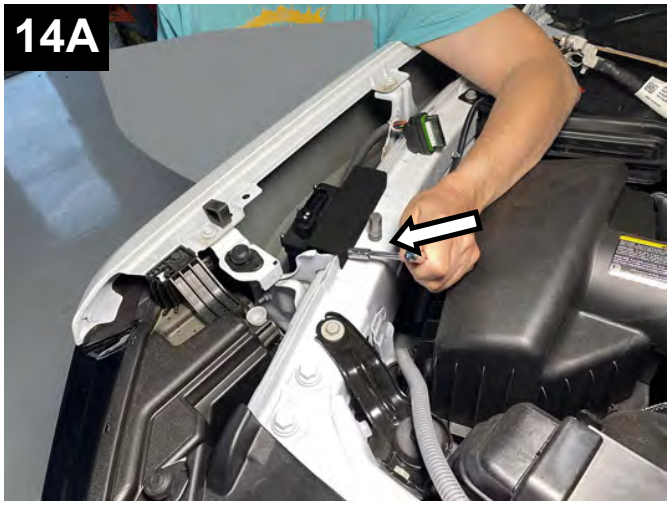


13. MOUNT THE CALIBRATOR MODULE AND BRACKET TO THE PASSENGER SIDE OF THE VEHICLE
Mount the module and bracket to the passenger side of the vehicle. Position the module and bracket as far as possible forward in the area nearest the air filter box.



14. MOUNT THE CALIBRATOR AND MODULE TO THE PASSENGER SIDE OF THE VEHICLE
Using the bracket as a template, mark the pilot hole. Use a 1/8” drill bit and drill pilot holes. Then using the suppled self-tapping screws, mount the calibrator module and bracket to the vehicle using a 8 mm socket.





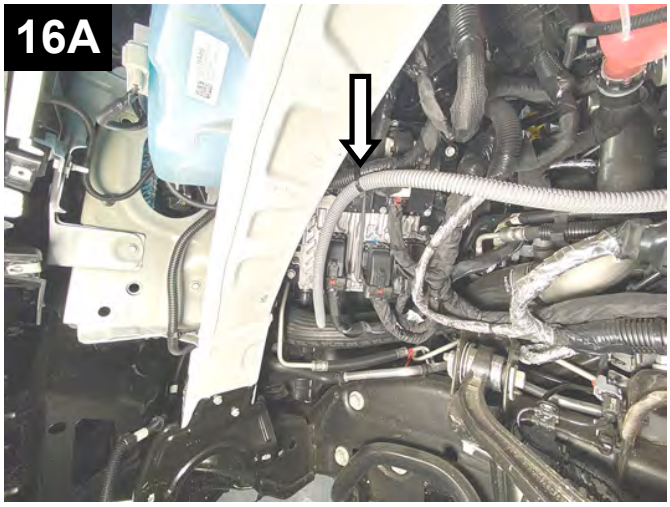
15. PLUG THE HARNESS CONNECTOR INTO THE MODULE
Plug the harness into the module. Press firmly to secure the connector. You should hear a click when the connector is secure.

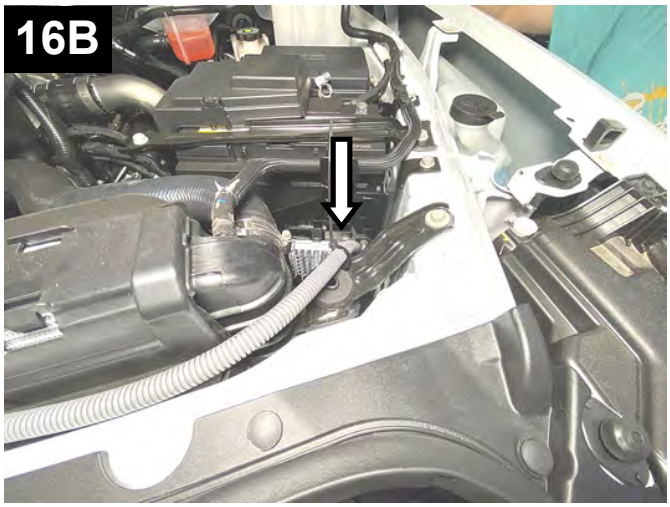


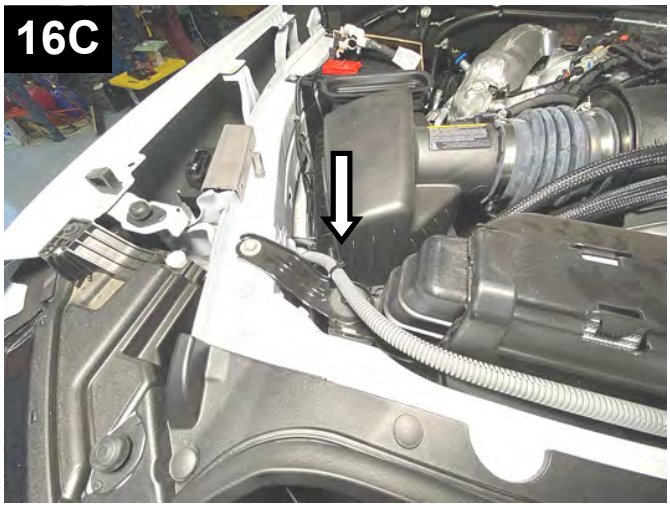
16. ZIP TIE HARNESS

Using the supplied zip ties, secure the harness in the four areas shown in the images below.









17. VERIFY SPEED READING AND ACCURACY
Re-install the wheel and tire if removed, reconnect the negative battery terminal (s) and drive the vehicle to verify the accuracy of the vehicles speed reading. Use a GPS to similar method to compare your vehicle's speed to the speedometer cluster reading.

If the speed reading is accurate, you can now re-install the wheel well liner and drivers side mud flap. At this point your installation is complete.

If for some reason your speed reading is inaccurate, you will need to re-configure (as done in the beginning of these instructions) your module and re-verify the vehicle's speed reading accuracy.

ATTENTION!!

DO NOT DRIVE THE VEHICLE WITH THE CALIBRATOR MODULE UNPLUGGED AT ANY TIME. DOING SO CAN POTENTIALLY DAMAGE COMPONENTS AND/OR SET A CHECK ENGINE LIGHT CODE

IF YOU RE-CONFIGURE THE CALIBRATOR MODULE, YOU MUST DISCONNECT THE VEHICLE'S NEGATIVE BATTERY TERMINAL (S) AND WAIT AT LEAST 15 MINUTE BEFORE UNPLUGGING THE CALIBRATOR MODULE. FAILING TO DO THIS MAY RESULT IN DIAGNOSTIC TROUBLE CODES BEING SET.

PC (NOT A LAPTOP)
1. Unplug the calibrator module and remove it with the bracket from the vehicle and re-configure (i.e. inside your home on your PC)

PORTABLE PC (LAPTOP)
2. If you download the configuring software to a laptop, you can re-configure the calibrator module while it's mounted to the vehicle. To do this, disconnect the negative battery terminal (s), then unplug the USB port cover on the calibrator module. (DO NOT unplug the harness from the module.) and plug the provided USB cable into the calibrator module USB port and your laptop's USB port. Re-configure the module.

Re-connect the negative battery terminal (s) (if disconnected) and verify the speed reading for the accuracy. After confirming the speed reading is accurate, you can now re-install the wheel liner and driver's side mud flap. At this point your installation is complete.

Rough Country products are warranted against defects in materials or workmanship for one (1) year from the date of purchase. Rough Country's liability under this warranty shall be limited to the prompt correction or replacement of any defective part of the product which Rough Country determines to be necessary. This limited one (1) year warranty is to the original purchaser providing all the information requested is furnished. You must retain a copy of your original sales invoice or receipt. Without proper documentation, a service fee will be applied. Third party resellers and resold units are NOT covered under this warranty.