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Big G Diesel Module

DODGE 5.9 CUMMINS TURBO DIESEL

Installation Instructions (Read Carefully Before Starting Project)

Bill of Materials:	**Tools you need:**	**Available accessories:**
• Big G Power Module • Big G wiring harness • 4 position switch or digital display (standard or race model only) • 1 bypass plug • 1 Velcro patch • 4 plastic ties • 1 alcohol wipe	• Drill for mounting switch • Side cutters for trimming plastic ties • Razor blade or knife if cutting through firewall grommet (optional) • 5/64 Allen wrench for installing switch knob • 7/16 drill bit	Pyrometer & boost gauge

REMEMBER THIS IS A PERFORMANCE PRODUCT USE AT YOUR OWN RISK.
This product is not intended to be used to break the law.

It is necessary to remove the unit before taking your vehicle to the dealer for service, as it may interfere with the diagnostic equipment. Do not use this product until you have carefully read the following agreement. This product may affect the ability of your dealer to diagnose any problem on your vehicle so it must be removed before taking it to your dealer. This agreement sets forth the terms and conditions for the use of this product. The installation of this product indicates that the buyer has read and understands this agreement and accepts the terms and conditions.

DISCLAIMER OF LIABILITY

Granatelli Motor Sports, Inc. Its distributors, jobbers, and dealers (hereafter Seller) shall be in no way responsible for the product's proper use and service. THE BUYER HERBY WAIVES ALL LIABILITY CLAIMS.

The Buyer acknowledges that he is not relying on the Sellers skill or judgment to select or furnish goods suitable for any particular purpose and that there are no liabilities which extend beyond the description on the face hereof, and the Buyers hereby waivers all remedies or liabilities expressed or implied, arising by law or otherwise, (including without any obligation of the Seller with respect fitness, merchantability and consequential damages) or whether or not occasioned by the Seller's negligence.

The Seller disclaims any warranty and expressly disclaims any liability for personal injury or damages. The Buyer acknowledges and agrees that the disclaimer of any liability for personal injury is a material term for this agreement and the Buyer agrees to indemnify the Seller and to hold the seller harmless from any claim related to the item of the equipment purchased. Under not circumstances will the Seller be liable for any damages or expenses by reason of use or sale of any such equipment.

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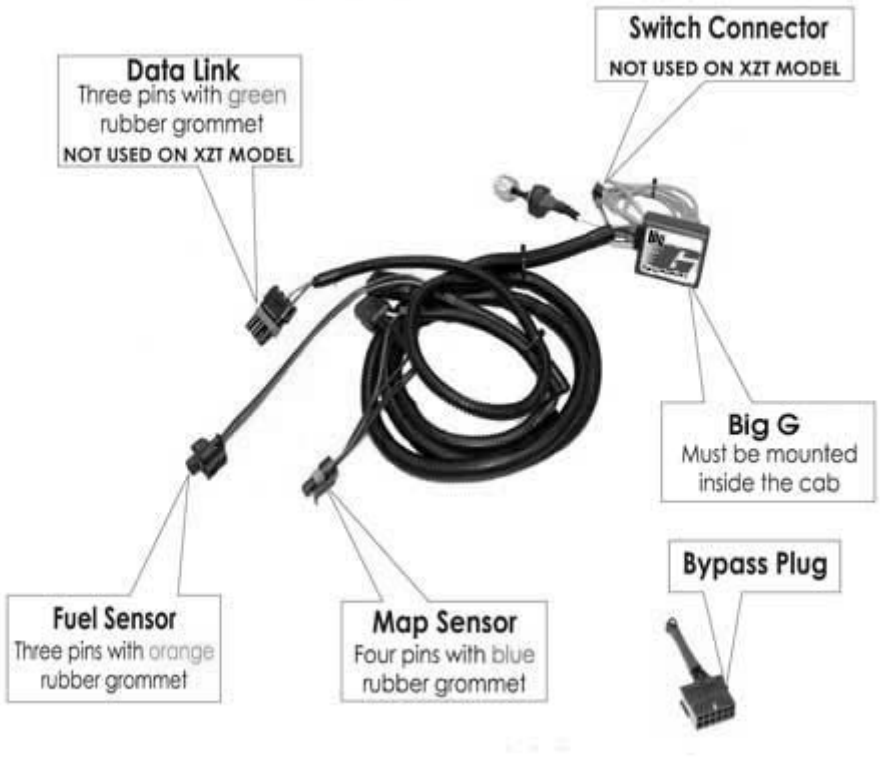
The Seller assumes no liability regarding the improper installation or misapplication of its products. It is the installer's responsibility to check for proper installation and if in doubt contact the manufacturer.

The Buyer is solely responsible for all warranty issues from the manufacturer.

IMPORTANT: Read the disclaimer completely before installing your Granatelli Big G product.

Below is a photo of the Granatelli Dodge Big G and some simple things to remember.



In all positions, the Granatelli Big G module should deliver power smoothly without ill effects. The truck should behave just like it did when it was stock, with the exception of the increase in power. As you run in higher levels some black smoke from the tailpipe is normal, but it should not be excessive and should clear up as turbo boost is achieved. As fuel is added to the vehicle exhaust gas temperatures will increase and you should use a pyrometer to monitor exhaust gas temperature. In the higher setting you will notice the pitch of the engine to be slightly different. This is due to the timing increase and it is normal as long as it is not excessive. The higher settings will have a lighter throttle feel to them and may not be as desirable if driving in inclement weather or around town when on a small amount of extra power is needed. If use in the higher level is needed you may consider a cold air intake or a 4" exhaust system as well.

LED Definitions:
The Big G module has built in diagnostics and a self-test that it runs every time you start your truck. Below will help you define what the module is telling you. There are 4 blinks upon start up. You only need to be concerned with the first 3 blinks. The 4th blink will be used for technical support only.

Blink Sequences (First 3 Blinks):
Green, Green, Green: 03-04 Standard Module
Green, Orange/Yellow, Green: 03-04 Race Module
Green, Red, Green: 04.5-05 Standard Module

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Green, Green, Orange/Yellow: 04.5-05 Race Module

NOTE: It is important to make sure you have the correct module that you ordered.

LED Color Definitions:
The Big G also displays which power level you have selected. Below are the settings and corresponding colors:

No LED: Off Setting
Green LED: Power Level 1
Orange/Yellow LED: Power Level 2
Red LED: Power Level 3

Big G Power Ratings:

Standard Module:
Power Level 1: 30HP/90 ft-lbs of torque gain
Power Level 2: 60HP/120 ft-lbs of torque gain
Power Level 3: 100HP/200 ft-lbs torque gain

Race Module:
Power Level 1: 60HP/120 ft-lbs of torque gain
Power Level 2: 100HP/200 ft-lbs of torque gain
Power Level 3: 140HP/250 ft-lbs of torque gain (03-04 Only)
Power Level 3: 130HP/230 ft-lbs of torque gain (04.5-05 Only)

All switch positions are counted from left to right. Stock is all the way counter clockwise and Power Level 3 is all the way clockwise.

Granatelli Motor Sports recommends using L1 or L2 on the standard module or L1 on the race module for towing. Towing in levels higher than this could cause excessive exhaust temperatures, transmission slippage or clutch slippage. **It is highly recommended that you monitor exhaust gas temperatures at all times.**

The Big G module adds power throughout the RPM range which makes the truck much more desirable to drive. The added power also helps reduce downshifting when passing or towing.

1. Make sure the ignition is in the off position and the keys are removed from the ignition.
2. Pop the hood and locate the fuel rail and map sensor connectors. The fuel rail sensor has 3 wires and an orange weather seal on the connector. The map sensor has sensor has 4 wires and a blue weather seal on the connector.

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Fig 1

3. Disconnect the map sensor by gently lifting on the locking tab on the connector and remove the connector from the sensor. Plug the corresponding Big G connector into the sensor and plug the factory connector into the Big G harness. Make sure the plugs are completely locked together and you can confirm that the locking tabs on both connectors have been properly locked down. **NOTE: Failure to connect this properly will cause a check engine light and the truck will run poorly.**

4. Disconnect the fuel rail sensor plug by depressing the release on the connector remove the connection from the sensor. Plug the corresponding Big G connector into the sensor and plug the factory connector into the Big G harness. Make sure the plugs are completely locked together (you will hear a light snap when fully connected). **NOTE: Failure to connect this properly will cause a check engine light and the truck will run poorly.**
5. Locate the data link connector. Standing at the driver's side fender of the truck, you will want to

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look between the raised intake manifold and the fuel filter, near the engine block to locate the data link. The plug should be just to the left of the fuel bowl drain (yellow lever).

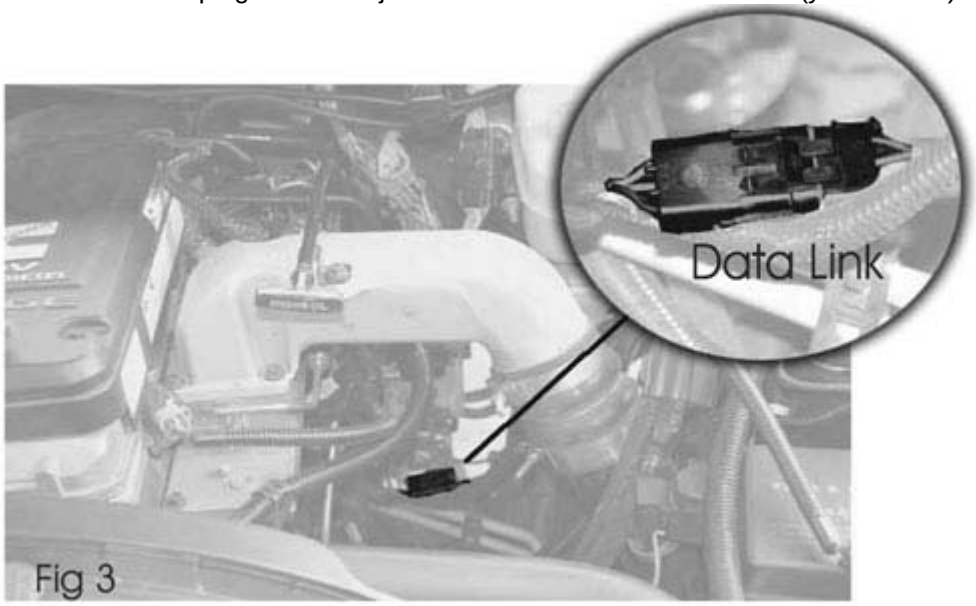

Fig 3

6. The data link will have a dummy plug snapped into it. Unsnap the plug by gently lifting on the locking tab on the connector and pulling the plug out of the data link. **DO NOT DISCARD THIS PLUG.** You may want to return the vehicle back to stock. We recommend storing the plug in the glove box. Take the Big G data link plug and plug it into the factory data link connector. Make sure that the locking tab is secured. **NOTE: Failure to connect this properly could cause erratic module behavior.**

7. Route the remaining wiring from the fuel rail, map and the data link connector to a desired location. It is important to keep the wiring away from any hot or sharp surface that could damage the harness.
8. Locate the rubber grommet on the firewall below the steering shaft.

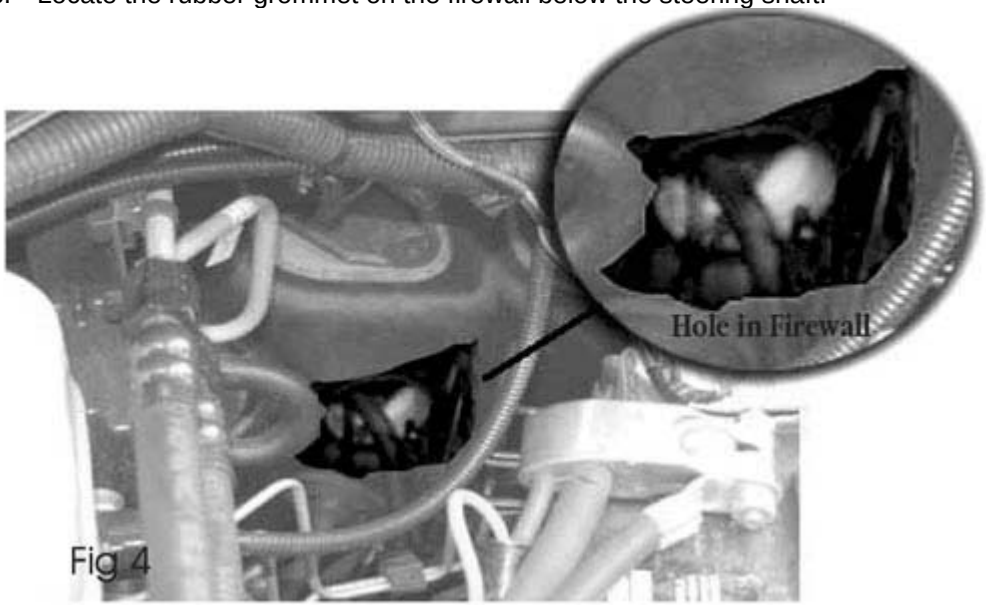

Fig 4

9. You now need to run the Big G 12 pin connector with the 4-pin switch connector through this grommet. There are 2 ways to accomplish this. You may cut a small slit in the rubber and feed the Big G wiring harness through it. You may also pop the plug out of the firewall and run the cable around the grommet. Remove the bypass plug from the 12 ping wiring harness.

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10. Check all of your under hood connections to make sure everything is properly connected. It is recommended to pull all excess slack inside the cab at this time. Using the supplied ties, secure the wiring harness to keep it from being damaged. **NOTE: It is recommended that everything is tied tight and kept away from any moving parts or any high temperature areas.**
11. With the wiring harness inside the cab plug the Big G module into the wiring harness. The plug is keyed so there is only one way to plug the wiring harness into the module. Make certain that the plug is completely connected to the module. **NOTE: If the plug is not fully seated it can cause the truck not to start or set a check engine light.**
12. Find a good spot to mount your switch. There are many locations that provide easy access to your switch. Once you have a spot located run the switch cable to the module. Be careful that the cable is run in a manner that prevents any damage to the switch wire. **Caution: The lower dash panel below the steering wheel is too thick to mount the switch in. This location has more than one layer of plastic and it is not a recommended location to mount your switch.**

Switch Install- Standard and Race Only

13. Connect the small switch connector to the wiring harness.

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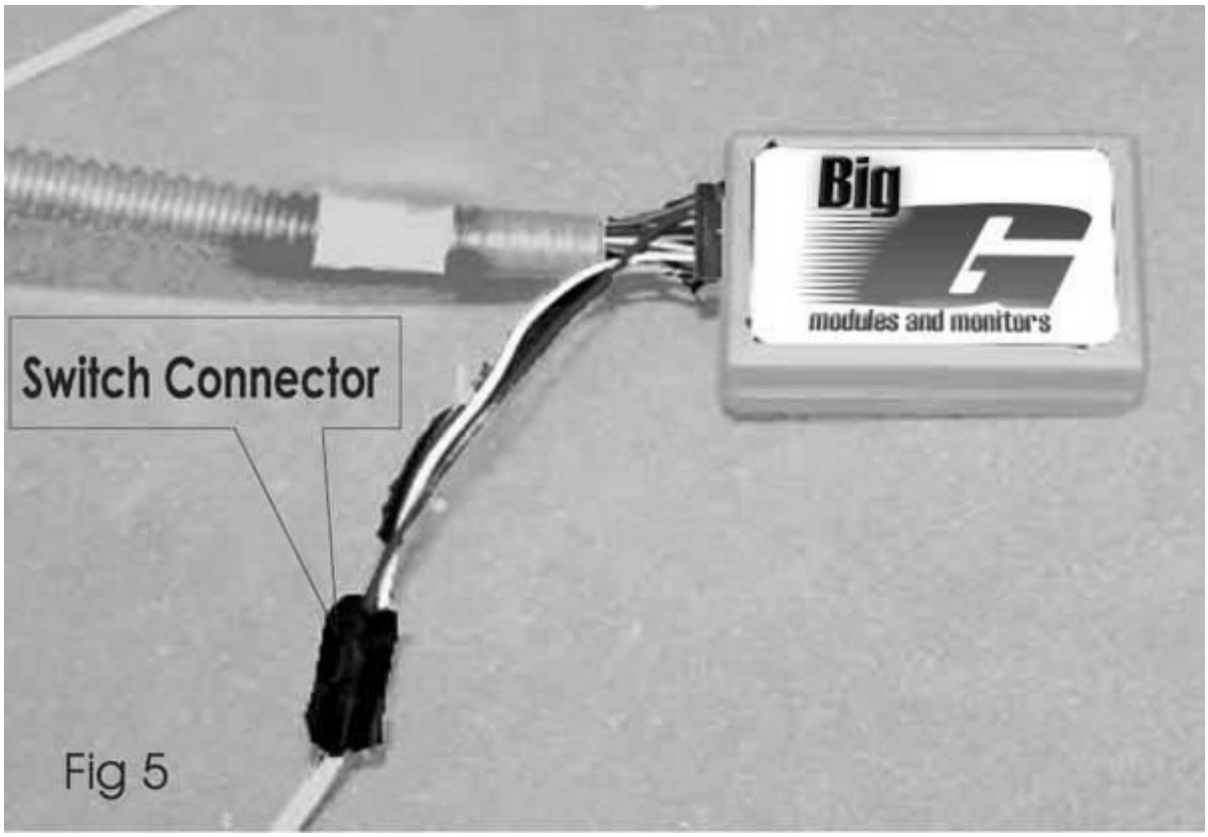

14. While the module is lying on the floorboard turn the ignition to the on position while watching the module. Inside the module there is a LED. This LED will flash a 4 blink self test. There is a chart located on page 5 so that you can reference the blink sequence to make sure that you received the proper module. This also ensures that the module is working properly. Once the 4 blink sequence is finished the LED will display the current switch position:

    A. Stock – Off
    B. Level 1 – Green
    C. Level 2 – Orange/Yellow
    D. Level 3 – Red

NOTE: Make sure to run the switch through all positions to make sure the module is working properly

15. Choose a location to mount the module. The module can be mounted under the dash panel or in any position that allows you to see the LED. **NOTE: The module must remain in the cab, as the case is not weatherproof.** Secure the module using either Velcro or a plastic tie. Make sure the module is secure in its location.

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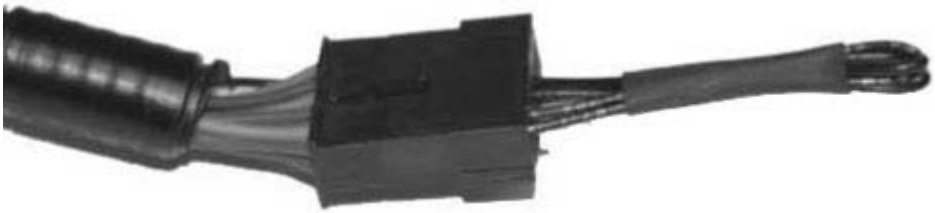
16. Re-check all connections to ensure proper installation.
17. Start the vehicle and rotate the switch through all locations. In certain instances a slight difference may be heard when switched, but the idle should remain smooth and quiet just like the vehicle did when it was in stock.
18. Enjoy your increased power and mileage.

Bypass Plug:
The Big G module comes with a bypass plug. The bypass plug will come installed on your wiring harness. You will have to remove this to install your Big G power module. This plug allows you to remove your Big G module and continue to operate your truck in stock form without having to un-install the wiring harness. This is especially handy if you choose to upgrade to a higher level or if you let someone else drive your truck. This swap can be done in seconds. Simply unplug the Big G module and plug in the bypass plug in the wiring harness' place



Big G Dodge Specifications:
Operating Voltage: +5V
Power Consumption: .065 Amps
Operating Temperature: -22F to +185F
Storing Temperature: -40F to +230F
Operating Altitude: Sea Level to 10,000 Ft.
Weight: 0.8 Ounces

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LIMITED WARRANTY:
Granatelli Motor Sports warrants that all products shall be free from defects in materials and/or workmanship for ninety days from the date of purchase (except in-tank and in-line fuel pumps purchased at dealer or wd prices as these items have no warranty and roller rocker arms which have a 12-month limited warranty). The following requirements and exclusions apply: (1) You must be the original purchaser and must complete the warranty registration form (located at www.GranatelliMotorSports.com/warranty.asp) and return the defective product within 10 days after the expiration of the product warranty. Failure to do so voids all warranty, either express or implied set forth herein. (2) You must reside in the United States or Canada and use the product as described in the warranty registration. (3) The product must not have been altered, disassembled, modified, or converted for any other use than intended by Granatelli Motor Sports. (4) The product, or any part thereof, is not used in accordance with the operating parameters specified by Granatelli Motor Sports (5) The product or any part thereof is damaged or rendered unserviceable due to negligence, vandalism, theft, fire, debris, flood, Act of God, or other peril, malfunction of equipment, or by any cause within the Customer's control. (6) The serial number (if applicable) must not have been altered or removed. The extent of Granatelli Motor Sports' liability under this warranty shall be limited to the prompt correction or replacement, at Granatelli Motor Sports' option and at no cost to the customer other than return shipment, of any defective part of the product determined to be necessary by Granatelli Motor Sports. This only applies if written Granatelli Motor Sports received notice of the claimed defect prior to expiration of the warranty period. All warranties of merchantability and fitness for a particular purpose are expressly excluded. The duration of any and all implied warranties is limited to the duration of this express warranty. All incidental and consequential damages including but not limited to loss profits even if it has been advised of the possibility of such damages are hereby excluded. Regardless of the form of the claim, Granatelli Motor Sports liability for any damages to the customer for such product is limited to the guidelines herein. This stated, expressed warranty is in lieu of all liabilities or obligations of Granatelli Motor Sports for damages arising out of or in connection with delivery, use or performance of the product. This warranty cannot be amended or changed by any Granatelli Motor Sports representative, employee, or agent and any promises inconsistent with this warranty are void and unenforceable against Granatelli Motor Sports. Some states do not allow limitations of incidental or consequential damages, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights and you may have other rights that vary from state to state. Your sole remedy for the above warranties is the repair or replacement of the defective product only, at Granatelli Motor Sports' sole discretion.

RETURN POLICY:
Before you return a product for a warranty claim, contact our service department M-F 8AM-5PM (PST) at 805-486-6644 or techsupport@GranatelliMotorSports.com for an RGA number. No returns are accepted without a pre-approved RGA (return goods authorization). No returns on special orders, electrical items or after 90 days from date of original shipment. All returns must be safety packaged in original packaging (if available) and clearly marked with your RGA number on the top and two sides of the box. Please insure your shipment for full replacement value as lost, stolen or items damaged in shipment are not covered by our limited warranty. We recommend using FedEx (www.FedEx.com) or UPS (www.UPS.com) for shipping. Lost, stolen or damaged items claims must be made by the customer and resolved by the freight company and not Granatelli Motor Sports. All returns may be subject to a restocking fee of up to 25%. The balance will be returned in the form of a company check or may be applied as credit towards another purchase.

PERFORMANCE CONSUMER'S BILL OF RIGHTS:
Legally, a vehicle manufacturer cannot void the warranty on a vehicle due to an aftermarket part unless they can prove that the aftermarket part caused or contributed to the failure in the vehicle (per the Magnuson Moss Warranty Act, www.GranatelliMotorSports.com/magnusonmoss.htm (15 U.S.C. 2302(C)). For best results, consider working with performance-oriented dealerships with a proven history of working with customers. If your vehicle manufacturer fails to honor emission/warranty claims, contact EPA at (202) 260-2080 or www.epa.gov. If federal warranty protection is denied, contact the FTC at (202) 326-3128 or www.ftc.gov. For additional information, check out www.GranatelliMotorSports.com/TechSupport.htm.

Disclaimer:
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