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***GRANATELLI MOTOR SPORTS 103MM LS SERIES
ELECTRONIC DRIVE-BY-WIRE BILLET THROTTLE BODY
ALL NATURALLY ASPIRATED AND BOOSTED APPLICATIONS***
**Part # GMTBLS3 / GMTBLS3B / GMTBLS3BL / GMTBLS3R / GMTBLS3P
GMTBLS108B / GMTBLS103M**

Congratulations on the purchase of your Granatelli Motor Sports, Inc.® 103mm LS Series Electronic Drive-By-Wire Billet Throttle Body.

Bill Of Materials:

- (1) 103mm LS Series Electronic Drive-By-Wire Billet Throttle Body
- (4) 6M-1.0 x 40 Bolts

Important Information:

Carefully read these instructions before installing your Granatelli Motor Sports, Inc.® 103mm LS Series Electronic Drive-By-Wire Billet Throttle Body. If you are not qualified or experienced at performing this type of installation, it is highly recommended that you this product installed by a qualified automotive mechanic. These instructions contain warnings that must be observed otherwise your vehicle could be rendered unsafe and not street legal. State and Federal regulations concerning Emissions, should be checked in your area.

About:

This product is designed and intended to be a performance upgrade and increase airflow to your LS powered engine. It uses a factory 6 pin style connector. Before attempting this installation, please confirm you are using the correct wiring harness.

**Installation Instructions for 103mm LS Series Electronic Drive-By-Wire
Billet Throttle Body**



1. Disconnect the negative terminal from the battery
2. Disconnect and remove your factory or aftermarket intake system connected to your existing throttle body. **Please note:** Your new Granatelli Motor Sports, Inc.® 103mm LS Series Electronic Drive-By-Wire Billet Throttle Body requires a 4" intake tube or larger diameter in order to achieve maximum airflow to the inlet.
3. Disconnect the wiring harness from the existing throttle body. Confirm it is a 6-pin design before moving forward.
4. Take out the throttle body by removing the (4) bolts fastening your existing throttle body to the manifold. **Please note:** Store your original throttle body and bolts removed as they are no longer used.
5. Install your new Granatelli Motor Sports, Inc.® 103mm LS Series Electronic Drive-By-Wire Billet Throttle Body using the newly supplied 6M-1.0 x 40 **Please note:** A gasket is supplied with this kit but is not required if you are running the factory O-ring in the manifold.
6. Re-install the components removed in Step 2 taking into consideration the note on proper sizing of the inlet.
7. Re-connect the negative terminal to the battery.
8. Perform the engine idle re-learn procedure list below.

Engine Idle Re-Learn Procedure

After installing Your new Granatelli Motor Sports, Inc.® 103mm LS Series Electronic Drive-By-Wire Billet Throttle Body you will need to complete the idle re-learn procedure for your vehicle's computer to maximize drivability and performance. Failure to perform this procedure may result in poor drivability and a decrease in performance. **Please note:** This procedure is intended for factory ECU operation. If you are running any aftermarket ECU systems, simple idle tuning may be required.

1. Key ON - Engine OFF: Depress throttle to wide open (full throttle) and then release. Slowly perform this procedure 3 times. This spans the throttle blade from 0 to 5 volts.
2. Start your vehicle's engine while stationary (It may take several attempts and some throttle input.
3. Allow your vehicle to run for 5 minutes or until reaching operating temperature. (Your engine RPM will gradually decrease to normal idle)
4. In some instances, custom tuning may be required to perfect the idle. If so please consult your local GM tuning expert.

LIMITED WARRANTY:

Granatelli Motor Sports warrants that all products shall be free from defects in materials and/or workmanship for (90) 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:

Actual products may vary from photographs shown. For latest information, please call 805-486-6644 first. You can also check out our web site at www.GranatelliMotorSports.com. However, it may have not been updated at the time you actually view it. Therefore, we cannot guarantee the accuracy of the information on our web site. Granatelli Motor Sports is not responsible for any unintentional omissions or typographical errors and reserves the right to make changes to packages, services, operating procedures, colors, materials, features, specifications, part numbers, pricing and to discontinue any products and/or components at any time without prior notice. Some items shown are sold for off-road use only and/or racing use (not street legal) and not intended for use on public highways, customer assumes costs and liability for installation and use. Performance figures shown can vary considerably due to a variety of factors including but not limited to altitude, humidity, barometric pressure, outside temperature, vehicle age, state of vehicle tune, vehicle manufacturer engine tolerances, vehicle modifications, chassis and engine dyno calibration, chassis and engine dyno brand, etc.