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Ford 1988-Current Cars and 1997-Current Trucks/SUVs Mass Airflow Sensor Installation Instructions (Read Carefully Before Starting Project)

Introduction:

This product is the first of its kind. It is an inexpensive replacement mass airflow sensor to improve the performance potential of 1988 through current Ford Motor Company vehicles without sacrificing drivability. With the gain in horsepower from performance camshafts, high flow cylinder heads and tuned exhaust systems, production mass airflow sensors become too restrictive. This led to the Granatelli Mass Airflow Sensor. This unit is sure to enhance the effectiveness of other performance equipment already installed or of future installations.

Overview:

The mass airflow system measures airflow directly with an electronic sensor. A sensing element in the air stream of the intake provides an output voltage reading that is proportional to the mass air flowing into the engine. The mass airflow system reduces the calculations required to control fuel flow and ignition spark advance. It reacts quickly and accurately to the changes in airflow, while improving overall vehicle performance. The smooth design of the inlet tube improves the airflow to the intake system in the most economical way.

System Features:

Improved Airflow

No electrical modifications

Less pressure drop than
production models

Expanded dynamic range with high
measurement accuracy

Real calibration of elements for
Proper emissions and performance

Simple bolt-in design

Installation Steps:

1. Disconnect Battery (negative side first).
2. Using a flat blade screwdriver or a 8mm (5/16) socket, loosen the hose clamps that attached the existing mass air sensor to the air inlet tube and throttle body. Remove the air inlet tube from the mass air sensor by grasping the sensor in one hand and the tube in the other. Using a twist pull motion, separate the two parts. **NOTE: DO NOT USE A SCREWDRIVER TO PRY THE HOSE OFF THE MASS AIR SENSOR. DAMAGE TO THE STOCK SENSOR OR PERSONAL INJURY MAY RESULT.**
3. Disconnect the wiring harness connector to the mass air sensor. This can be done easily by grasping the connector and pulling while holding the bottom tab away from the connector. **NOTE: THE CONNECTOR MAY STICK TO THE SENSOR CONNECTIONS. IF THIS OCCURS, CAREFULLY PRY AWAY THE CONNECTION WITH A SMALL FLAT BLADE SCREWDRIVER.**
4. Reverse steps 1 through 3 for installation of new Mass Airflow Sensor

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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