

# **INSTALLATION INSTRUCTIONS**

## **Atomic LS Throttle Body 103mm, PN 2945**

**ONLINE PRODUCT REGISTRATION:** Register your MSD product online. Registering your product will help if there is ever a warranty issue with your product and helps the MSD R&D team create new products that you ask for! Go to [www.msperformance.com/registration](http://www.msperformance.com/registration).

Thank you for purchasing an MSD Atomic 103mm Throttle Body. The Atomic 103mm Throttle Body is designed for aftermarket intake manifolds designed with a larger air intake. This model is designed for intakes utilizing an OEM style 4-bolt mount for the throttle body and must be used with a cable-driven throttle. Also, note that this throttle body requires an Idle Air Control (IAC) motor and Throttle Position Sensor (TPS). These are available in a separate kit, PN 2942.

**WARNING:** When installing the Atomic LS Throttle Body, disconnect the battery cables. When disconnecting, always remove the negative cable first and install it last.

### **Parts Included:**

1 - Throttle Body  
2 - M4 x 10mm Torx Screws (IAC)  
2 - M4 x 14mm Torx Screws (TPS)  
4 - M6 x 25mm Bolts  
4 - #12 SAE Washers

### **Parts needed but not included:**

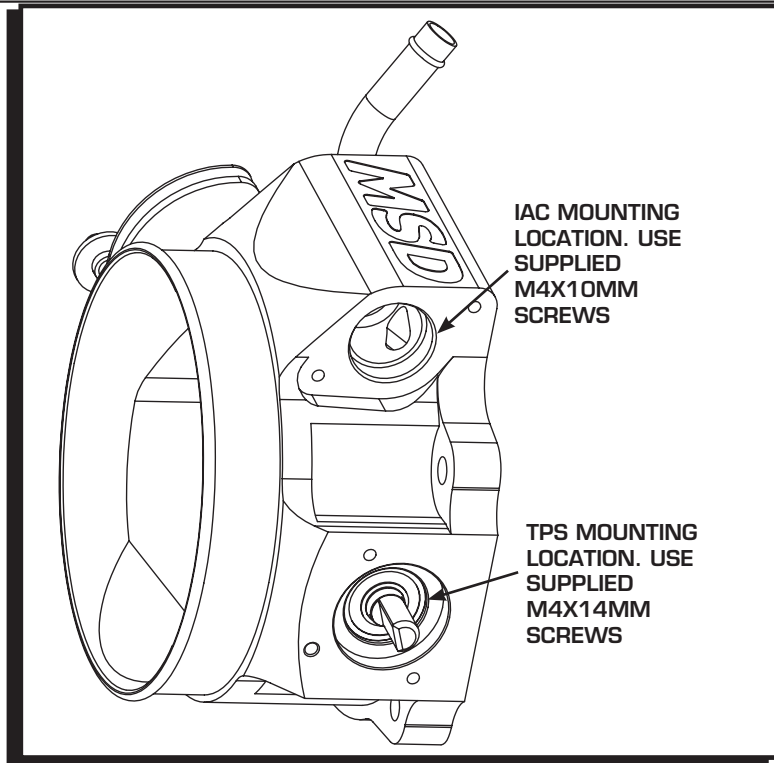
TPS/IAC Kit, PN 2942  
Throttle Body to Intake Seal  
Blue Loctite

## **INSTALLATION OF THE THROTTLE BODY**

The Atomic LS 103mm Throttle Body requires installation of an IAC motor and TPS. These are available as PN 2942. Locate the supplied mounting hardware for each unit as well as Blue Loctite. It is recommended to install the IAC motor after mounting the throttle body for better access to the mounting holes.

1. Install the TPS by inserting the D-shaped throttle shaft into the sensor assembly. Gently align the centering dowel and mounting holes. Use a drop of Blue Loctite on the M4x14mm screws and tighten the screws to 16-18 lb-in (Figure 1).
2. Ensure the mating surfaces of the intake and throttle body are clean. Locate the four M6x 25mm bolts and #12 washers.
3. Install the throttle body and seal (required) to the intake manifold using the M6x25mm bolts and washers. Torque the bolts in a criss-cross pattern to 89 lb-in.
4. Locate the two M4x10mm screws to secure the IAC motor. Ensure the O-ring seal is installed on the IAC and put it in place on the throttle body. Use a drop of Blue Loctite on the screws and torque them to the bolts to 25-27 lb-in (Figure 1).
5. Plug in the TPS and IAC motor connectors. Install the air inlet duct and any other sensors that may have been disconnected during the installation.
6. Install the throttle cable in the throttle cam groove. Ensure that the throttle blade moves smoothly and returns to its closed position.

**WARNING:** Before starting the engine and/or driving the vehicle, ensure that the throttle blade moves through its full range of travel without binding or sticking.



**Figure 1 IAC and TPS Mounting Locations.**

### **Service**

In case of malfunction, this MSD component will be repaired free of charge according to the terms of the warranty. When returning MSD components for warranty service, **Proof of Purchase** must be supplied for verification. After the warranty period has expired, repair service is based on a minimum and maximum fee.

**All returns must have a Return Material Authorization (RMA) number** issued to them before being returned. To obtain an RMA number please contact MSD Customer Service at 1 (888) MSD-7859 or visit our website at [www.msperformance.com/rma](http://www.msperformance.com/rma) to automatically obtain a number and shipping information.

When returning the unit for repair, leave all wires at the length in which you have them installed. Be sure to include a detailed account of any problems experienced, and what components and accessories are installed on the vehicle. The repaired unit will be returned as soon as possible using Ground shipping methods (ground shipping is covered by warranty). For more information, call MSD at (915) 855-7123. MSD technicians are available from 7:00 a.m. to 5:00 p.m. Monday - Friday (mountain time).

### **Limited Warranty**

MSD warrants this product to be free from defects in material and workmanship under its intended normal use\*, when properly installed and purchased from an authorized MSD dealer, for a period of one year from the date of the original purchase. This warranty is void for any products purchased through auction websites. If found to be defective as mentioned above, it will be repaired or replaced at the option of MSD. Any item that is covered under this warranty will be returned free of charge using Ground shipping methods.

This shall constitute the sole remedy of the purchaser and the sole liability of MSD. To the extent permitted by law, the foregoing is exclusive and in lieu of all other warranties or representation whether expressed or implied, including any implied warranty of merchantability or fitness. In no event shall MSD or its suppliers be liable for special or consequential damages.

\*Intended normal use means that this item is being used as was originally intended and for the original application as sold by MSD. Any modifications to this item or if it is used on an application other than what MSD markets the product, the warranty will be void. It is the sole responsibility of the customer to determine that this item will work for the application they are intending. MSD will accept no liability for custom applications.