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AEROFLOW PERFORMANCE

FLY BY WIRE

THROTTLE BODY

WARNING!

BEFORE PROCEEDING WITH INSTRUCTIONS PLEASE READ CAREFULLY AND UNDERSTAND BEFORE ATTEMPTING TO USE THIS PRODUCT.

BEFORE PROCEEDING WITH INSTALLATION PLEASE READ INSTRUCTIONS CAREFULLY. THIS PRODUCT REQUIRES DETAILED KNOWLEDGE OF AUTOMOTIVE SYSTEMS. WE RECOMMEND THAT THIS INSTALLATION BE CARRIED OUT BY A QUALIFIED AUTOMOTIVE TECHNICIAN.

THIS THROTTLE BODY IS NOT A DIRECT BOLT ON. MODIFICATIONS ARE REQUIRED.

TUNING IS REQUIRED.

INTRODUCTION

Congratulations on your purchase of the Aeroflow Performance fly-by-wire throttle body. Aeroflow Performance products cannot and will not be responsible for any damage, or other conditions resulting from misapplication of the parts described herein. However, it is our intention to provide the best possible products for our customer, products that perform properly and satisfy your expectations. Should you have any questions? Please call technical support at +61 2 8825 1900 and have the product part number on hand when calling.

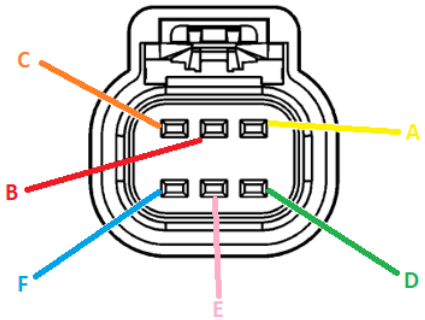
This Aeroflow Performance fly-by-wire throttle body is designed to suit GM LS engines and LSA supercharged engines with electric throttle body.

The Aeroflow Performance CNC machined 102mm fly-by-wire GM LS billet throttle is a must have for any high-level boost applications and also N/A applications. Featuring a heavy-duty motor that won't buckle, shutter or deflect under load. The standard 4 bolt flange pattern and 6 pin plug means this throttle body will plug and play.

Standard manifolds will require modifications on the intake side to clear the larger 102mm throttle plate to ensure 100% throttle opening. Please check clearance when using any aftermarket manifold as well.

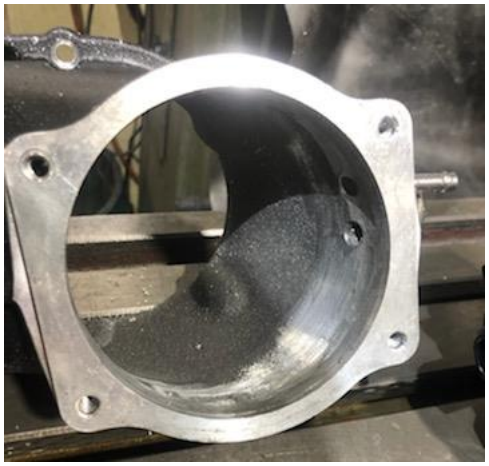
When wiring this throttle body up to universal applications we have the plug and pins which are sold separately (AF49-2134). The Pin out is listed below:

A - TAC Motor Control 2
B - TAC Motor Control 1
C - Low Reference
D - TP Sensor 1 Signal
E - 5 Volt Reference
F - TP Sensor 2 Signal



INSTRUCTIONS GUIDELINES

- This fly-by-wire throttle body is not a simple bolt-on and drive away. Modifications will be required to ensure this unit works to its full potential. Please consult a professional if unsure.
- This throttle body plate is 102mm compared to a standard GM LS which is 87mm. This means the factory manifolds and some aftermarket manifolds will only suit the standard 87mm throttle body. It is recommended to remove the intake manifold from the vehicle and clearance out the intake path where the throttle body bolts onto. This will allow the larger 102mm throttle plate to reach 100% throttle when being used. Below are some sample photos of the blower intake snout that has been clearance to suit the larger throttle body.



- On some standard and aftermarket manifolds when modification is done to allow the larger 102 throttle plate, the O-ring may not be able to be reused. In this case it is recommended to use silicone (RTV) to seal the throttle body to the intake manifold to prevent any air leaks.
- Tuning is required when installing this fly-by-wire throttle body due to being a different throttle body heavy duty motor with different parameters compared to the standard unit. Dyno tuning is recommended to ensure no damage is done to engine.
- With the 102mm DBW the following steps need to be adjusted on the GM ECU E38 computer:
    - **I.** ETC Area scaler – Multiple by the size of the throttle body (Normally 12% when std T/Body is 90mm)
    - **II.** Engine diagnostic – Air flow table – Throttle position sensor positive and negatives adjust up to 95% and the same table Air flow correlation – Max out all settings.
- With the 102mm DBW the following steps need to be adjusted on the Holley EFI computer:
    - **I.** In throttle body setup screen via Holley EFI software. Input into white box next to throttle body type " **GM PN 12570790** "
- Ensure to follow the factory manual when removing the standard throttle body and intake manifold.

For more information or technical enquires

Contact: Aeroflow Performance on

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