

Alpha Series Throttle Body B,D,F,H Series

309-05-1030 66mm Silver
309-05-1050 70mm Silver

Applications

1990-2001 Honda/Acura B-Series Engines

1990-2002 Honda F-Series (SOHC) Engines

1992-2000 Honda D-Series Engines

1992-2001 Honda H-Series Engines

PLEASE READ CAREFULLY BEFORE PROCEEDING WITH INSTALL

Product Disclaimer

- There is no warranty stated or implied due to the unusual stress placed on competition product(s) and/or the inability to monitor their modification, installation, and use. The entire risk of quality, performance, and defect is with the purchaser and not the manufacturer, distributor, or retailer. Should any product(s) prove to be defective for any reason under any circumstance, the purchaser and not the manufacturer, distributor, or retailer will assume financial responsibility for any consequential damages, repairs/service, and any other liability.
- A vehicle modified by the use of competition product(s) for use on public roadways may not meet local, state, or federal regulations. Installation and use of this competition product(s) may also affect vehicle insurance coverage. It is the purchaser's responsibility to meet and comply with regulations and policies before operating vehicle on public roadways.
- Return of product(s) will be accepted ONLY if product(s) is in resalable condition. All accepted returns will be subjected to a 20% restocking fee. ABSOLUTELY NO RETURNS ON USED PRODUCTS. For more information on return policy, please call 951-808-9888.

Warranty Policy

Group A Autosports Inc. warrants all products to be free of defects in materials and workmanship for normal use and service for a period of 1 Year from the date of retail purchase. Products returned must be inspected and determined to be defective by Group A Autosports Inc. before any warranty credit and/or replacement is issued. Group A Autosports Inc.'s obligation under warranty shall be limited to repairing or replacing, at its discretion, any product found to be defective. The consumer will be responsible for transportation charges. Final determination of the suitability of the product(s) for the intended use is the sole responsibility of the consumer. Group A Autosports Inc. shall not be liable for any special, direct, indirect, incidental or consequential damages that may be claimed as a result of the failure of any product, including claims for delay, loss of profits or labor. Group A Autosports Inc. shall not be liable for any damage and/or injury to person(s) and/or property resulting from improper installation and/or misuse of any product subject to this warranty. There are no other warranties expressed and/or implied extending beyond those set forth above.

Parts list (Please make sure all parts are included in the kit before proceeding with installation.)

(1) Alpha Series Throttle Body
(4) M8 x 1.25 Bolts

(1) Gasket
(2) M5 x 0.8 x 10 Screws

Notes:

- It is recommended that this throttle body be installed by a trained technician/professional.
- For factory throttle body removal instructions and diagrams, please refer to the factory service manual, or equivalent.
- This product is for race use only.
- In order to optimize performance gains, it is recommended to also install Skunk2 Intake Manifolds, Headers, and Exhaust.

If you need further assistance or have additional questions, please call Skunk2 Racing at (951) 808-9888 or email us at helpdesk@skunk2.com.

INSTALLATION - Please refer to factory service manual if available.
It is recommended that this product be installed by an experienced automotive mechanic / technician.

Throttle Body Removal

1. Disconnect the negative battery cable.
2. Check that the engine is cool, then relieve the coolant pressure from the radiator.
3. Remove the intake tube and throttle cable.
4. Disconnect the throttle position sensor (TPS) and the manifold absolute pressure sensor (MAP) and mark them for easier connection during installation.
 - a. Do not discard the o-rings. They will be used on the Skunk2 Pro Series throttle body.
5. Disconnect the lower bypass hoses.
6. Remove the 12mm nuts and bolts from the throttle body and remove the housing from the manifold.
7. Measure the throttle position sensor (TPS) voltage with a volt meter and record the measurement.
 - a. See instructions below for correct voltage measurement procedures.
8. Remove the throttle position sensor (TPS) by carefully grinding off the heads of the screws.

TPS Voltage Measurement Procedures

1. Using a digital multi-meter (DMM), take a measurement of the electrical resistance between pins 1 and 2 shown in Figure 1. Record the value.
 - a. Set the DMM to measure resistance by turning it to the Ohm (Ω) position.
 - b. The recorded value will be used to calibrate the TPS on the Skunk2 Pro Series throttle body.
2. After recording the measure value, remove the TPS from the factory throttle body and install it with a gasket onto the Skunk2 Pro Series throttle body. Mount the TPS with the provided screws loosely so the TPS can be adjusted.
3. After adjusting the throttle stop screw, connect the DMM to pins 1 and 2 and rotate the TPS until the recorded value is shown on the DMM.
4. Tighten the screws securing the TPS and check once again that the DMM measures the same value as initially recorded.

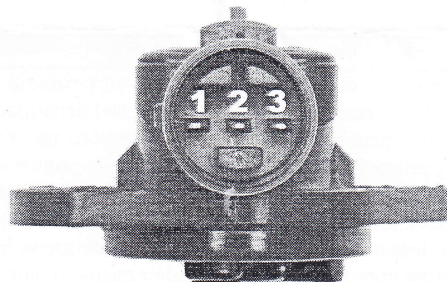


Figure 1

Throttle Body Installation

1. Install the throttle position sensor (TPS) onto the throttle body as outlined in the steps above.
2. Install the factory manifold absolute pressure (MAP) sensors using the factory o-ring.
3. Adjust the throttle stop screw located at the bottom of the throttle body. Tighten the screw until the butterfly blade does not stick. Tighten the lock nut.
4. Install the gasket onto the throttle body.
5. Install the throttle body onto the manifold using the supplied bolts and torque them to 16 lb-ft.
6. Reinstall the two lower bypass hoses.
7. Connect the TPS and MAP sensor.
8. Attach the throttle cable and make the adjustments needed for full range of motion operation. Please refer to the factory service manual.
9. Install the intake tube and connect the negative battery cable.
10. Check the coolant level. Add coolant if necessary and bleed the coolant system using the factory procedures.

Troubleshooting

1. Problem: Engine Surges
 Solution: Check for vacuum leaks. Make sure all hoses are properly connected and hose clamps attached.

2. Problem: Engine Idle low
 Solution: Adjust the idle screw to increase idle.

3. Problem: Engine Idle high
 Solution: Adjust the idle screw to decrease idle.

4. Problem: Throttle plate sticks in the closed position
 Solution: Adjust the throttle stop screw until the throttle plate no longer sticks. Once this is done, check the throttle position sensor (TPS) voltage and adjust to the previously recorded measurement.

5. Problem: Throttle plate sticks in the open position
 Solution: Check the return spring. Contact Skunk2 if the return spring is broken

6. Problem: Throttle plate does not have its full range of motion
 Solution: Check that the throttle cable is properly connected. Once this is done, make adjustments to the throttle cable using the adjusting nut.

7. Problem: Difficulty mounting throttle position sensor (TPS)
 Solution: Carefully make adjustments to the mounting holes.

8. Problem: Throttle pedal feels sticky
 Solution: Check that all throttle body connections are secure and that the throttle plate is operating correctly.
 Check that the throttle cable is properly secure and adjusted correctly.