

### Throttle Body Spacer Installation Guide

\*Install demonstrated on a Kia Optima 2.0T

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## Throttle Body Spacer Installation Guide

\*Note: Engine shown in the guide is the 2.0 L turbo with lots of modification\*



### Tools Needed:

1. Socket wrench
2. Socket set
3. Allen wrench set

### What's Included:

1. A billet aluminum spacer
2. (4) replacement bolts and washers
3. (2) threaded plugs



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**Installation is shown step-by-step below**

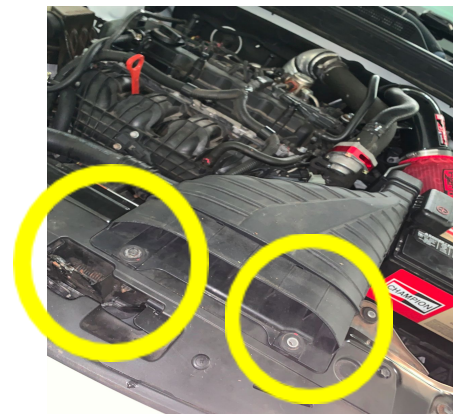
#### Step #1

Remove the negative connector from the battery.



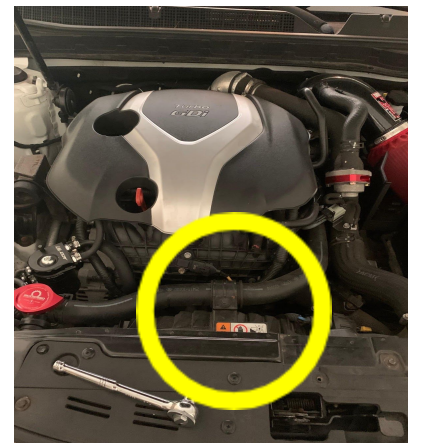
#### Step #2

Remove the 10 mm bolts that hold in the intake snorkel and then pull the snorkel out.



#### Step #3

Remove the 10mm bolt holding the radiator hose in place. This will allow you to move the hose out of the way and to gain access to the throttle body.



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#### Step #4

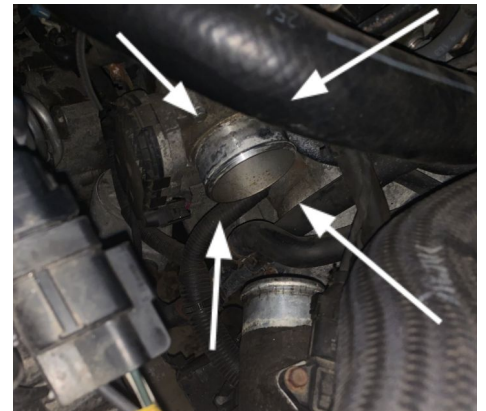
Locate the engines throttle body. ( It is attached to the cold air hose coming from the intercooler ) We have marked it with a white arrow in the photo



#### Step #5

Loosen the 2 clamps that hold the rubber hose in place and remove the (4) 10mm bolts that hold the throttle body onto the intake manifold.

*\*Note: The ones on the side facing the rear of the engine are a bit hard to get to. We recommend using an extender for your socket wrench in order to make the process easier.*



#### Step #6

Take your new Billet Aluminum Throttle Body Spacer and tighten the threaded plugs with an allen wrench. In this step you want to close the holes on both sides of the spacer.



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#### Step #7

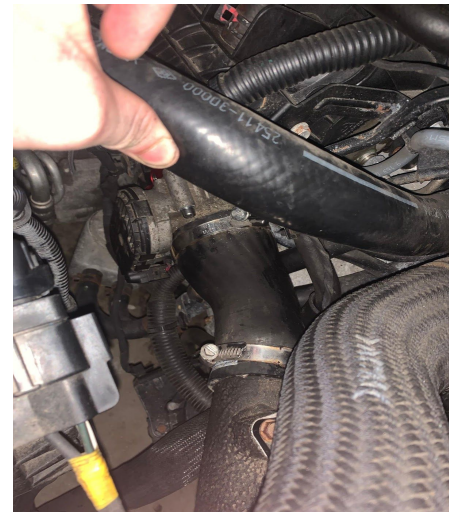
Insert the spacer between the throttle body and manifold. Make sure that the O-Ring faces TOWARDS the throttle body. Also, make sure that the ridge in the spacer faces Upwards to the hood. Tighten down all of the bolts with an allen key.

*Note: We recommend starting with the bolt that is most difficult to reach.*



#### Step #8

Put the hose that was removed back as well as the two clamps that helped it attach. After reattaching the hose put the intake snorkel and radiator hose back in place and tighten the bolts down. If you removed the engine cover during the install be sure to put that back on and lastly, reconnect your battery. Turn your car on and then follow our post-installation checklist on the next page.



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### **Final Check List & First Drive Notes:**

1. Foremost, make sure that no check engine lights appear. Also pay close attention to any possible abnormal starting rpm levels.
2. You should notice that your throttle response is notably more crisp and responsive overall
3. You may also notice that your aftermarket Blow off Valve is notably louder
4. An increase in horsepower and throttle response should be apparent when test driving with your newly installed throttle body spacer.