

## SymTech PTFE Spacer Installation Instructions:

Thank you for purchasing the SymTech PTFE Intake Manifold Spacer. The following tools and materials are needed to complete this installation:

- Standard hand tools (3/8" drive socket wrench, metric sockets, extensions, etc.).
- Two intake manifold gaskets (part number M04667309) (*optional*)

With the car turned off and the engine cool, begin by disconnecting and removing the battery for better access to the area. Now, remove the intake duct by loosening the hose clamp around the throttle body. Remove all vacuum lines (PCV, brake booster, EVAP, EGR, FPR and cruise control [if equipped]).

From there, disconnect the throttle cable by manually opening the butterfly valve to WOT and sliding the end of the cable out from the cam on the throttle body. The rest of the cable is secured to the intake manifold with two bolts near the PCV valve. A grounding wire on one of those bolts should also be removed and set aside.

Disconnect all sensor pigtails from their respective sensors (MAP and IAT). Also, remove the EGR passage tube by removing the two bolts on either flange of the tube. There is an additional bolt securing the tube to the head below the valve cover and camshaft position sensor. Finally, remove the steel brace on the front side of the intake manifold, between the PCV valve and the throttle body.

From here, you can either remove the entire intake manifold, or just the upper portion. These instructions assume you are only removing the upper portion. Five bolts (size 10mm head) hold the upper intake manifold to the lower manifold. The bolts can be difficult, so it is recommended to use six-point sockets (rather than twelve-point sockets) for extra grip. Once all five bolts are removed, the upper portion of the manifold should be easily detached.

Clean the mating surfaces of the manifold with a chemical gasket remover, gasket scraper, razor blade, or otherwise. The goal is to create a clean, flat mating surface. When completed, insert the PTFE spacer in place of the old gasket and position it accordingly on the lower manifold. Using gaskets on either side of the spacer is usually unnecessary if the manifold flanges are true and not warped. If purchased, use the included, stainless steel bolts to re-install the upper portion of the manifold. Tighten each bolt, in an outwardly alternating pattern to approximately 17ft.-lbs.

The rest of the procedure is working in reverse from the start. Reconnect the sensor pigtails, the throttle cable, grounding wire, vacuum lines, intake duct, and battery. The use of this spacer precludes usage of the EGR system and front intake manifold brace. However, a 0.25" washer/shim can be used as a bracket spacer should you choose to re-install the brace. The EGR system may be able to be re-installed; the passage tube may need modification (bending, lengthening, or otherwise).

If you need installation assistance, or have any questions, don't hesitate to contact us at [sales@symtechlabs.com](mailto:sales@symtechlabs.com). Please visit <http://www.symtechlabs.com/> for other SymTech products.

## Typical Installation

