



99-06 GM VORTEC 4.8L/5.3L/6.0L THROTTLE BODY SPACER

Thank you for choosing Rough Country.

⚠ WARNING Rough Country recommends a certified technician install this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

⚠ WARNING Please read all the instructions before beginning the installation. Check the kit hardware against the parts list. Be sure you have all the needed parts and understand where they go. Also please review the tools needed list and make sure you have needed tools. Do not add, alter this Rough Country product. We will not be responsible for any product that is altered.

⚠ NOTICE DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough country product must have the **Warning to Driver** decal installed on the sun visor or dash. **INSTALLING DEALER** It is your responsibility to install the warning decal and to forward these installation instructions on to the vehicle owner for review and to be kept in the vehicle for its service life.

TOOLS NEEDED:

10mm Socket
4mm Allen Wrench
5mm Allen Wrench
Flat Head Screwdriver
Vise Grips

KIT CONTENTS:

1-Throttle Body Spacer
1-Gasket
3-Cable Brackets
1-1196Bag1



Install Instructions

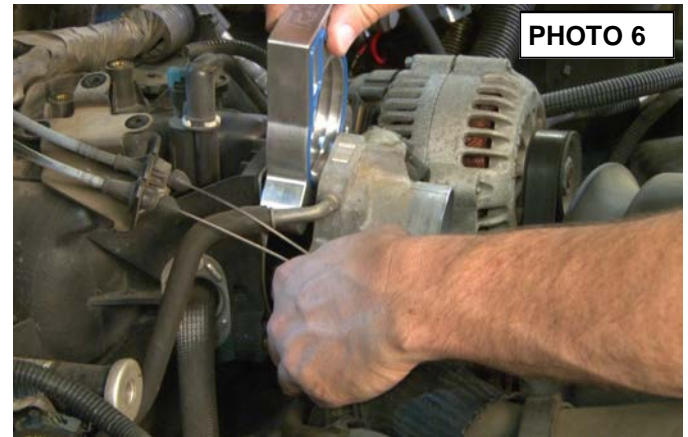
1. Remove the plastic vortec engine cover by loosening the bolts with a 10mm socket. **See Photo 1.**
2. Loosen the hose clamp with a screwdriver and remove from the throttle body. Also remove the rubber hose from the air cleaner assembly. **See Photo 2.**



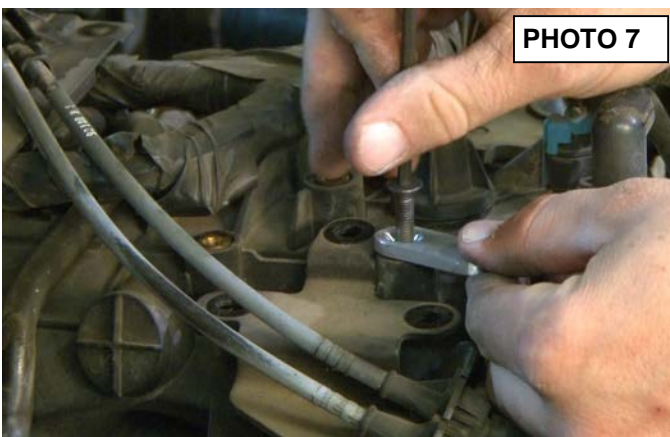
3. Remove the throttle cables assembly from the top of the intake with a 10mm. **See Photo 3.** Skip this step if your truck has the Fly By Wire instead of a throttle cable.
4. Remove the throttle body with a 10mm socket. Next remove the three mounting studs that are screwed in the intake. **See Photo 4.**



5. Insert the supplied gasket onto the throttle body spacer. **See Photo 5.**
6. Place the throttle body spacer between the throttle body and the intake. Make sure the gasket side is to the front. **See Photo 6.**



7. Install the supplied 6mm x 55mm bolts and tighten with a 5mm allen wrench.
8. Insert the three throttle cable brackets, if your truck is equipped with a throttle cable, using the supplied 6mm flat head screws and washers. Tighten with a 4mm allen wrench. **See Photo 7.**
9. Move the throttle cable assembly to the new holes on the brackets and attach with factory bolts. **See Photo 8.**



10. Reinstall the rubber hose to the air cleaner tube and place the air cleaner tube back onto the throttle body. Secure with the factory hose clamp. It is normal for the air cleaner tube to contact the fan should with the throttle body spacer in place. Finally install the vortec engine cover with the factory bolts.