

**ATTENTION:** Refer to the appropriate shop manual for your vehicle to obtain specific service procedures for this part. If you do not have a service manual or lack the skill to install this part, it is recommended that you seek the services of a qualified technician. Pay special attention to all cautions and warnings included in the shop manual. Read and follow all instructions carefully. Failure to do so will result in severe damage to the intake manifold and to the engine.

## REMOVAL/INSTALL OF INTAKE MANIFOLD -- GM LS2 V8

### GENERAL TECH TIPS:

Be sure to fully seat the injectors when installing the fuel rail. Failure to do so will result in a vacuum leak.

1. Carefully remove intake manifold per the service procedures outlined in the GM shop manual.
2. Carefully clean cylinder head mounting surfaces.
3. Important! Replace 11 valley cover bolts with the supplied button head cap screws in kit.  
Tightening torque: 23-25 Nm (17-18 ft/lbs)
4. Install MAP sensor and tighten included self tapping screw to hold/trap the sensor in position as shown. Tighten just until seated (<5 Nm). DO NOT OVERTIGHTEN.
5. Swap out lower O-rings on injectors to new ones included in kit
6. Place intake manifold carefully on engine.
7. Check to see if there are any clearance issues to the power steering fluid reservoir. For some applications, it may be necessary to use the provided longer M10 bolts and aluminum spacers to move the power steering reservoir further forward in the vehicle to eliminate a contact condition between the intake manifold and the power steering reservoir. Not all applications will require this.
8. Install supplied brackets (4) to fuel rail on top of fuel rail mounting tabs and in orientation shown below with provided M5 lock-nut, fastener and washer and tighten to 4 Nm minimum. **NOTE:** Due to limited access to lock-nut in the rear locations on Cadillac engines (circled locations) it is necessary to (a) identify proper orientation for the brackets on-engine by loosely assembling to engine and marking optimal location, (b) removing the fuel rail and brackets from the engine and tightening brackets to the fuel rail in the correct orientation to 4 Nm, and then (c) reinstalling on the engine. It may be necessary to repeat this process more than once to get the fitment correct.
9. Tighten all fasteners securing the intake manifold to engine, making sure to secure fuel rail to the engine, per shop manual. Tighten intake bolts in the sequence shown in 2 passes (Stage 1 – 2 Nm, Stage 2 – 10 Nm)
10. Included with this manifold is a small section of PCV hose. This is provided to extend the length of the PCV hose between the air induction system and the engine, if necessary.
11. Included with this manifold are 2 square nuts for securing the throttle cable bracket to the intake manifold if your car has a mechanical throttle body. You will not use these for electronic throttle body applications.

