INSTALL MANUAL

NOTICE

Only qualified and experienced individuals or experienced automobile mechanics should remove and install the electronic throttle body.

The installation of this component requires considerable knowledge and expertise of automobile repair and maintenance, including, in particular, the installation and operation of the electronic throttle body. Individuals without appropriate training or experience should not attempt to install this component themselves. To ensure safe and proper removal and installation of the electronic throttle body, even experienced mechanics should obtain and refer to the applicable vehicle Repair and Service Manual.

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Electronic Throttle Body Installation

Recommended Tools

Ratchet
Socket(s)
Flat blade and/or Phillips screwdriver(s)
Hose clamp-off tools (or equivalent)
Hex socket(s)
Drain pan
Torque wrench

Additional Items

Throttle body gasket



1. Remove the engine cover nuts and bolts.



2. Remove the engine cover.



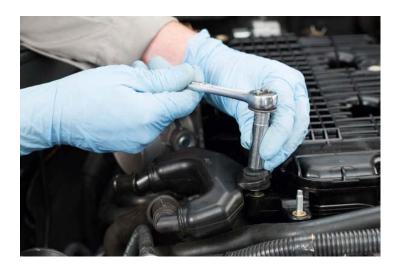
3. Loosen the air intake duct clamps.



4. Remove the air intake duct.



5. Place a drain pan under the vehicle to catch any coolant.



6. Remove the crankcase ventilation chamber bolt.



7. Move the crankcase ventilation chamber off to the side.



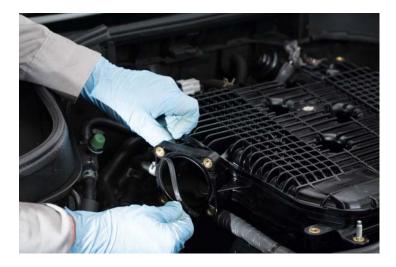
8. Clamp off the coolant hoses to the throttle body.



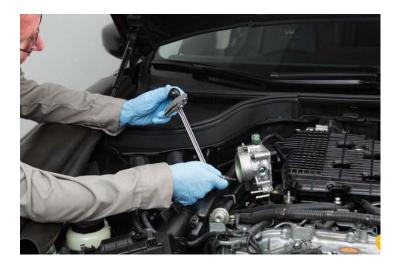
- 9. Squeeze each hose clamp, and move them past the coolant fittings.
- 10. Remove the coolant hoses from the throttle body.
- 11. Disconnect the throttle body harness connector.



- 12. Remove the throttle body bolts.
- 13. Remove the throttle body.



14. Replace the throttle body gasket.



- 15. Install the throttle body making sure to torque the bolts to factory specifications.
- 16. Connect the throttle body harness connector.



- 17. Reinstall in reverse order noting the following:
 - a. Torque the crankcase ventilation chamber bolt to factory specifications.
 - b. Torque the engine cover bolts and nuts to factory specifications.
 - c. Top off coolant if necessary.
 - d. Perform any "re-learning" procedures per the Repair Manual.