

Auto Service Summary

Shop: Moroutfitters

Date: March 10, 2025

Reason For Visit

The car was brought in because the check engine light and the VSC light were illuminated, and the vehicle was running roughly. These issues are often indicative of engine or system malfunctions that need immediate attention.

Repair Summary

During the diagnostic process, it was discovered that there was a misfire in cylinder #4, which can cause the engine to run roughly. Upon further inspection, signs of rodent damage were found with the injector wiring. Specifically, the wire for cylinder #4 had been chewed through and cylinder #2's insulation was damaged. The technicians repaired these wires by replacing the injector pigtails, soldering, heat shrinking, and retaping the connections. To ensure optimal performance, they also replaced the ignition coils for cylinders #2 and #6, as well as all three spark plugs on the driver's side while the intake plenum was removed. After these repairs, the error codes were cleared, and the test drive confirmed that all systems were functioning correctly.

Major

Injector Wiring Repair:

Damaged wires can lead to misfiring, impacting engine performance and efficiency. Left unfixed, the engine could fail to start or run very erratically, potentially leading to more serious engine damage.

Ignition Coil Replacement:

Coils are crucial for starting the engine effectively. If they fail, it can cause misfires, lead to reduced power, or prevent the car from starting altogether.

Moderate

Spark Plug Replacement:

Spark plugs are responsible for igniting the fuel inside the engine. Worn or damaged plugs can cause misfires, poor fuel economy, or hard starts.

Minor

Intake Plenum Gasket Replacement:

Ensuring a proper seal in the intake plenum is vital for maintaining the engine's vacuum and preventing leaks. A faulty gasket can lead to performance issues and check engine lights if not addressed.

Cost Breakdown

1. Labor:	\$450.00
2. S2328 Fuel Injector Connector (2 units):	\$64.20
3. 17176-31140 Intake Plenum Gasket (1 unit):	\$30.32
4. 673-1309 Ignition Coil (2 units):	\$251.80
5. 2417 Spark Plug (3 units):	\$49.86
6. Subtotal:	\$846.18
7. Sales Tax:	\$38.63
Total Due:	\$884.81

What Does This Actually Mean?

Fuel Injector Connector:

These connectors deliver electrical signals to injectors, allowing precise fuel delivery to the engine. If damaged, they can cause misfiring or the engine to run roughly, leading to poor performance.

Intake Plenum Gasket:

This gasket seals the intake plenum, which distributes air to the engine's cylinders. A good seal is crucial to maintain engine efficiency and prevent air leaks that can cause performance issues.

Ignition Coil:

The ignition coil converts the battery's voltage into a spark, setting off the engine's combustion process. Faulty coils can cause misfires, rough idling, or engine failure.

Spark Plug:

Spark plugs ignite the air/fuel mixture in an engine's cylinders. If they wear out, they can lead to misfiring, increased emissions, and reduced fuel efficiency.

Other Notes

No additional notes.

Recommendations

1. Regularly inspect and maintain the vehicle to keep small electrical and mechanical parts in good condition.
2. Consider rodent deterrents if your vehicle is frequently parked in areas where rodents can cause damage.
3. Schedule routine engine inspections to catch any signs of wear and tear early.
4. Keep an eye on dashboard warning lights and address them promptly.