

File In Section: Service Bulletin

Bulletin No.: PIP4577A

Date: June, 2009

PRELIMINARY INFORMATION

Subject: SES Light with DTCs P0171 and P0174

Models: 2007-2008 Cadillac SRX, STS, XLR
with 4.6L Engine (RPO Code LH2)

This PI was superseded to update Recommendation/Instructions. Please discard PIP4577.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern:

Some customers may complaint of a SES light but it is unlikely that they will complain of any engine performance concerns if this PI applies. Upon inspection, DTCs P0171 and P0174 will be stored and freeze frame data will normally indicate that they set at approximately the same time.

This may be the result of a small air leak in the air induction system.

Recommendation/Instructions:

If SI diagnosis does not isolate the cause of this concern, perform the steps below as necessary:

1. Inspect the following areas for potential air/vacuum leaks and repair as necessary: PCV system, especially the PCV vacuum pipe connections Oil fill cap and dipstick seals Canister purge line Induction system leaks, such as air induction clamps that are loose or out of position Brake booster
2. Confirm that the Ethanol Content of the gasoline is less than 10%. If it exceeds this limit, re-evaluate the concern using gasoline that has an Ethanol Content less than 10%.
3. Perform the Fuel System Diagnosis in SI and note results. If the fuel system decays to 0 PSI after a 10 minute hot soak and the fuel injectors are not leaking, replace the in-tank fuel pump module and re-evaluate the concern.
4. With the engine cold, individually loosen and retorque all of the intake manifold bolts to the SI torque specification, and re-evaluate the concern.

5. After performing the steps above, use the following test procedure to determine if the vehicle is repaired:

- a. Warm up vehicle with the hood closed.
- b. Turn the engine off and let it hot soak with the hood closed for 10 minutes.
- c. Restart the engine and let it idle for 5 minutes. Monitor and record the MAF sensor grams and the ST and LT fuel trim values at the end of this idle period.
- d. Repeat Step 5 three times and record the MAF sensor grams and the ST and LT fuel trims each time.

It is not uncommon for the LT fuel trims to increase 2-3% each time step 5 is performed on a known good vehicle. This will eventually cause the LT fuel trims to go as high as 12% when performing step 5 three times in a row as recommended above. The vehicle should be considered repaired if the P0171 and P0174 DTCs do not reset after performing step 5 three times in a row.

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.