



V8 XJ Series

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SERVICE

TECHNICAL BULLETIN

Difficulty Filling Fuel Tank – Fuel Gauge Not Indicating Full – Spit Back/Premature Shut Off – Diagnosis

MODEL
1999-2003 MY V8 XJ Series
2000-03 MY XJR
VIN 812256-F59525
F00103-F59525

Issue:

This Technical Bulletin provides information to aid in the diagnosis of customers complaints of difficulty in filling the fuel tank on vehicles within the above VIN ranges equipped with the AJ-27 engine management system.

A number of fuel tanks returned under warranty for fuel filling issues, have been found to have no faults.

Action:

Before replacing the fuel tank for fuel tank filling issues on vehicles in the above VIN ranges, please carry out the checks outlined below:

- Establish whether the customer issue is a spit back/premature shut off, or the fuel gauge is not showing full after filling the fuel tank.
- If possible, reproduce the customer issue to verify the concern.

FUEL GAUGE NOT INDICATING FULL

- If the fuel gauge is not indicating full, then measure the fuel sender unit resistance when the fuel tank has been filled. The resistance should be 80 ohms.
- If incorrect resistance is measured from the fuel sender unit, drain the fuel tank, remove the fuel sender unit and measure the resistance at full position. The resistance should read 80 ohms and empty 900 ohms. If incorrect resistance is measured, replace the fuel tank sender unit.

SPIT BACK/PREMATURE SHUT-OFF

- Inspect the fuel tank, canister close valve (CCV), and vapor line for damage/restriction or blockage. Check the fuel vapor pipe from the fuel tank (inside the luggage compartment) for any signs of damage. Check under the vehicle where the pipe enters the primary carbon canister, inspect the cross-over pipe from the primary carbon canister to the secondary carbon canister, and the secondary/canister vent to the CCV, the CCV and pipe to atmosphere for signs of damage.
- If no fault is found, substitute the carbon canisters and reassess. High-pressure drop across the carbon canister(s) can be caused by internal damage or saturation of the carbon with liquid fuel. Substitution will verify this fault.

- If all the above is OK, then determine whether the customer issue is apparent at the same filling station/pump each time. If so, recommend using an alternative filling station/pump and explain how a worn fuel dispenser nozzle can affect the fuel filling.

If the vacuum port on the fuel dispenser nozzle at the filling station pump is damaged or partially blocked, causing a restriction, the fuel dispenser nozzle will shut off prematurely. If the diaphragm inside the fuel dispenser nozzle is damaged/weak, this can also cause a premature shut-off.