

Overview

There are changes to the engine management system (EMS) for 2006 my, the most obvious of which will be the change to 7-digit diagnostic trouble codes (DTCs) from the familiar 5-digit, and the change from two fuel pumps for vehicles with supercharger to a single pump.

For additional information on the description and operation of the fuel system.

REFER to: [Fuel Tank and Lines - VIN Range: N52048->N99999](#) (310-01 Fuel Tank and Lines, Description and Operation).

Inspection and Verification

1. **1.** Verify the customer concern.
2. **2.** Visually inspect for obvious signs of mechanical or electrical damage.

Visual Inspection Chart

Mechanical	Electrical
<ul style="list-style-type: none"> ● Fuel leaks ● Damaged fuel lines ● Damaged push connect fittings ● Fuel level ● Fuel contamination/grade/quality ● Damaged fuel tank filler pipe cap ● Damaged fuel tank filler pipe 	<ul style="list-style-type: none"> ● Fuses ● Inertia switch ● Loose or corroded electrical connectors ● Harnesses ● Fuel pump driver module (FPDM) ● Rear electronic module (REM) ● Fuel pump relay ● Engine control module (ECM)

3. **3.** If an obvious cause for an observed or reported symptom is found, correct the cause (if possible) before proceeding to the next step.
4. **4.** If the cause is not visually evident use the Jaguar approved diagnostic system or a scan tool to retrieve the fault codes before proceeding to the diagnostic trouble code (DTC) Index.

Symptom Chart

Symptom	Possible source	Action
Engine cranks, but does not fire	<ul style="list-style-type: none"> ● Engine breather system disconnected/restricted ● Ignition system ● Fuel system ● Harness ● Crankshaft position (CKP) sensor ● ECM fault 	Check the engine breather system, REFER to: Engine Emission Control - VIN Range: N80181->R99999 (303-08A Engine Emission Control - V8 4.2L Petrol/V8 S/C 4.2L Petrol/2.5L NA V6 - AJV6/3.0L NA V6 - AJ27, Diagnosis and Testing). For ignition system, REFER to: Engine Ignition - VIN Range: N52048->N99999 (303-07A Engine Ignition - 2.5L NA V6 - AJV6/3.0L NA V6 - AJ27, Diagnosis and Testing). or REFER to: Engine Ignition - VIN Range: N52048->N99999 (303-07B Engine Ignition - V8 4.2L Petrol/V8 S/C 4.2L Petrol, Diagnosis and Testing). For fuel pressure test, GO to Pinpoint Test E . For CKP tests, REFER to: Electronic Engine Controls - VIN Range: N80181->R99999 (303-14A Electronic Engine Controls - 2.5L NA V6 - AJV6/3.0L NA V6 - AJ27, Diagnosis and Testing). or REFER to: Electronic Engine Controls - VIN Range: N80181->R99999 (303-14B Electronic Engine Controls - V8 4.2L Petrol/V8 S/C 4.2L Petrol, Diagnosis and Testing). Refer to the warranty policy and procedures manual if an ECM is suspect.
Engine cranks and fires, but will not start	<ul style="list-style-type: none"> ● Evaporative emissions purge valve ● Fuel pump ● Spark plugs ● HT short to ground (tracking) check rubber boots for cracks/damage ● Ignition coil failure(s) ● Harness 	REFER to: Evaporative Emissions - VIN Range: N52048->N99999 (303-13 Evaporative Emissions, Diagnosis and Testing). For purge valve tests, For fuel pressure test, GO to Pinpoint Test E . For ignition system, REFER to: Engine Ignition - VIN Range: N52048->N99999 (303-07A Engine Ignition - 2.5L NA V6 - AJV6/3.0L NA V6 - AJ27, Diagnosis and Testing). or REFER to: Engine Ignition - VIN Range: N52048->N99999 (303-07B Engine Ignition - V8 4.2L Petrol/V8 S/C 4.2L Petrol, Diagnosis and Testing).
Difficult to start cold	<ul style="list-style-type: none"> ● Check coolant anti-freeze content ● Battery ● CKP sensor ● Exhaust gas recirculation (EGR) valve stuck open ● Fuel pump ● Evaporative emissions purge valve 	Check engine coolant level and condition. For battery information, REFER to: Battery (414-01 Battery, Mounting and Cables, Diagnosis and Testing). For CKP sensor tests, REFER to: Electronic Engine Controls - VIN Range: N80181->R99999 (303-14A Electronic Engine Controls - 2.5L NA V6 - AJV6/3.0L NA V6 - AJ27, Diagnosis and Testing). or REFER to: Electronic Engine Controls - VIN Range: N80181->R99999 (303-14B Electronic Engine Controls - V8 4.2L Petrol/V8 S/C 4.2L Petrol, Diagnosis and Testing). For EGR system information,