

TECHNICAL BULLETIN

LTB00409NAS4

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NOTE: The information in Technical Bulletins is intended for use by trained, professional Technicians with the knowledge, tools, and equipment required to do the job properly and safely. It informs these Technicians of conditions that may occur on some vehicles, or provides information that could assist in proper vehicle service. The procedures should not be performed by 'do-it-yourselfers'. If you are not a Retailer, do not assume that a condition described affects your vehicle. Contact an authorized Land Rover service facility to determine whether this bulletin applies to a specific vehicle.

This reissue replaces all previous versions. Please destroy all previous versions. Only refer to the electronic version of this Technical Bulletin in TOPIx.

SECTION: 303-04

Engine Misfires / Engine MIL Illuminated

AFFECTED VEHICLE RANGE:

LR4 (LA)

Model Year: 2010-2013

VIN: AA510742-DA699999

Range Rover Sport (LS)

Model Year: 2010-2013

VIN: AA212147-DA814882

Range Rover (LM)

Model Year: 2010-2012

VIN: AA304426-CA363639

MARKETS:

NAS

CONDITION SUMMARY:

Situation:



NOTE: This bulletin supersedes all previous versions; the Service Instructions have changed significantly and are therefore not highlighted.

The engine may exhibit a misfire, poor fuel economy, hard starting, and / or a rough idle condition. The engine Malfunction Indicator Lamp (MIL) may also be illuminated with misfire Diagnostic Trouble Codes (DTC) P0301 through P0308 and P0316, depending on the affected cylinder(s), stored in the Engine Control Module (ECM).

Cause: This may be caused by incomplete combustion caused by poor fueling.



NOTE: The Service Instruction may only be completed if no other causes for the misfire are identified after following SDD and TOPIx advice.



NOTE: The Service Instruction may only be completed if Diagnostic Trouble Code (DTC) P0316 and one or more misfire DTCs (P0301-P0308) is stored. If any other DTC is stored, investigate the cause and carry out the appropriate repair as a separate claim.

Action: Should a customer express this concern, follow the Service Instruction outlined below.

PARTS:

LR037088

Fuel injector

Quantity: Up to 8 (as required)

TOOLS:

NOTE: This document is an 'Active Bulletin' that will display a functional programming shortcut if accessed within a diagnostic session using SDD.

SDD with latest DVD and Calibration File; first available on DVD135.03 v.147
Jaguar Land Rover-approved Midtronics battery power supply

WARRANTY:

NOTE: Repair procedures are under constant review, and therefore times are subject to change; those quoted here must be taken as guidance only. Always refer to TOPIx to obtain the latest repair time.



NOTE: DDW requires the use of causal part numbers. Labor only claims must show the causal part number with a quantity of zero.

DESCRIPTION	SRO	TIME (HOURS)	CONDITION CODE	CAUSAL PART
Update Engine Control Module software	12.90.13	0.2	42	LR037088
Fuel rail/injector(s) - Right bank - Renew - LR4	19.60.11	3.2	42	LR037088
Fuel rail/injector(s) - Left bank - Renew - LR4	19.60.09	2.9	42	LR037088
Fuel rail/injector(s) - Both banks - Renew - LR4	19.60.12	5.7	42	LR037088
Fuel rail/injector(s) - Right bank - Renew - Range Rover Sport	19.60.11	3.2	42	LR037088
Fuel rail/injector(s) - Left bank - Renew - Range Rover Sport	19.60.09	2.9	42	LR037088
Fuel rail/injector(s) - Both banks - Renew - Range Rover Sport SC	19.60.12	5.7	42	LR037088
Fuel rail/injector(s) - Both banks - Renew - Range Rover Sport N/A	19.60.12	5.6	42	LR037088
Fuel rail/injector(s) - Right bank - Renew - Range Rover SC	19.60.11	2.1	42	LR037088
Fuel rail/injector(s) - Right bank - Renew - Range Rover N/A	19.60.11	1.7	42	LR037088
Fuel rail/injector(s) - Left bank - Renew - Range Rover SC	19.60.09	1.4	42	LR037088
Fuel rail/injector(s) - Left bank - Renew - Range Rover N/A	19.60.09	1.2	42	LR037088
Fuel rail/injector(s) - Both banks - Renew - Range Rover SC	19.60.12	3.2	42	LR037088
Fuel rail/injector(s) - Both banks - Renew - Range Rover N/A	19.60.12	2.7	42	LR037088



NOTE: Normal Warranty policies and procedures apply.

SERVICE INSTRUCTION:

NOTE: The Service Instruction may only be completed if Diagnostic Trouble Code (DTC) P0316 and one or more misfire DTCs (P0301-P0308) is stored. If any other DTC is stored, investigate the cause and carry out the appropriate repair; to be performed as a separate claim.

1.  **NOTE: If the Freeze frame data indicates a 'cold' engine misfire only, do not replace fuel injectors; continue to step 3.**

 **NOTE: A printed copy of the Freeze frame data, indicating engine coolant temperature at the time of the engine misfire, must be kept in the vehicle record file.**

View the Freeze frame data for Diagnostic Trouble Code (DTC) P0316 or one misfire DTC (P0301-P0308) and read the engine coolant temperature.

- If the engine coolant temperature is 76°C or higher ('hot' engine), continue to step 2.
 - If the engine coolant temperature is 75°C or lower ('cold' engine), continue to step 3; do **not** replace fuel injectors.
2. If Diagnostic Trouble Code (DTC) P0316 **and** one or more misfire DTCs (P0301-P0308) is stored **and** no other misfire cause is found, replace the affected fuel injector(s) as indicated by the DTC (see TOPIx Workshop Manual, Section 303-04).
 - Once completed, continue to step 3 below.

3.  **CAUTION: A Jaguar Land Rover-approved Midtronics battery power supply must be connected to the vehicle battery during SDD diagnosis / module programming.**

 **NOTE: SDD must be loaded with DVD135.03 v.147 or later.**

Connect the Jaguar Land Rover-approved Midtronics battery power supply to the vehicle battery.

 **NOTE: The Engine Control Module (ECM) may also be referred to as Powertrain Control Module (PCM).**

4. Turn ignition 'ON' (engine not running).
5. Connect the Symptom Driven Diagnostics (SDD) system to the vehicle and begin a new session.
6. Follow the on-screen prompts, allowing SDD to read the VIN and identify the vehicle and initiating the data collect sequence.
7. Select 'Diagnosis' from the Session Type screen.
8. Select the 'Selected Symptoms' tab, and then select one of the following:
 - Powertrain - Engine system - Engine performance - Engine misfire **or**
 - Electrical - Instruments - Warning lamps - Engine malfunction lamp - Lamp illuminated **or**
 - Electrical - Instruments - Information and Message Centre - Message Display Area - Powertrain
9. Select 'continue'.

10.  **NOTE: The Engine Control Module (ECM) may also be referred to as Powertrain Control Module (PCM).**

Select the 'Recommendations' tab, and then select 'Run' to perform the 'Configure existing module – Powertrain control module' option.

11. Follow all on-screen instructions to complete this task.
12. Exit the current session.
13. Disconnect the SDD and the battery power supply from the vehicle.