

TECHNICAL BULLETIN

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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.

SECTION: 303-00

Engine Instability, Misfire - 2012-2013MY (Information Only)

AFFECTED VEHICLE RANGE:

Range Rover Evoque (LV)

Model Year: 2012-2013

VIN: CH000447-DH856579

MARKETS:

NAS

CONDITION SUMMARY:

Situation: Engine instability may be experienced. The Malfunction Indicator Lamp (MIL) will be displayed and Diagnostic Trouble Codes (DTC) P0301, P0302, P0303, P0304, and/or P0315 may be stored in the Engine Control Module (ECM)



NOTE: the Owner's Handbook states: 'Premium unleaded gasoline with a Cost of Living Council (CLC) or Anti Knock Index (AKI) octane rating of 91 or higher must be used.'

Cause: This may be caused by variable fuel quality.

Action: Follow the information detailed below.

SERVICE INFORMATION:



NOTE: fuel system cleaner must not be used in conjunction with this service instruction.



NOTE: incorrect assembly of electrical connectors is known to cause misfire. The following connectors should be inspected when an intermittent or non-repeatable case is being investigated:

CONNECTOR NUMBER	CONNECTOR DESCRIPTION
C11C / C11D	Fuel injector harness to engine harness
C4E515	Fuel tank
C1E303C, C1E304C, C1E305C, C1E306C	Coil connector
C1E205H, C1E206H, C1E207H, C1E208H	Fuel injector connector



NOTE: coolant consumption is known to cause misfire. When an intermittent or non-repeatable case is being investigated, refer to TOPIx Workshop Manual, section 303-03B: Engine Cooling, Diagnosis and Testing.

1. Connect the approved battery support unit/power supply.

2. Connect SDD to the vehicle and begin a new session.
3. Input the symptoms to SDD in line with the customer complaint.

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

Read the Engine Control Module (ECM) Diagnostic Trouble Codes (DTC) and make a note of the cylinder(s) which have misfire codes.

- If misfires codes are set on three or more cylinders during the road test, refer to TOPIx Workshop Manual, section 303-01B: Engine - GTDi 2.0L Petrol, Diagnosis and Testing.
- If misfires codes are set on one or two cylinders, proceed to step 5.

5. Using SDD clear the DTCs

1. If a misfire code was set on one cylinder only:

- Swap the Coil-on-Plug and spark plug from the misfire cylinder with parts from a known good cylinder (see TOPIx Workshop Manual, section 303-07).

2. If a misfire code was set on two cylinders:

- Swap the Coil-on-Plug and spark plug from the misfire cylinders with parts from the two known good cylinders (see TOPIx Workshop Manual, section 303-07).

6. Remove the battery support unit/power supply.

7. Carry out two short road tests in line with the drive cycle described in the OBD II document on TOPIx. Extend each road test to follow the same drive cycle which the customer described when the fault occurred.

- If the misfire code has followed the Coil-on-Plug and spark plug to a given cylinder(s), replace those components and proceed to step 11.
- If misfire code has set on the original cylinder(s), swap the fuel injector(s) with one from a known good cylinder(s), proceed to step 8.
- If no misfire code is present, raise a Technical Assistance (TA) request to determine the next action.

8. Connect the approved battery support unit/power supply.

9. Using SDD clear the DTCs.

10. Carry out two short road tests in line with the drive cycle described in the OBD II document on TOPIx. Extend each road test to follow the same drive cycle which the customer described when the fault occurred.

- If the misfire code has followed the fuel injector(s), replace the component(s) and proceed to step 11.
- If the misfire code remains on the original cylinder(s), or no code is present, raise a Technical Assistance (TA) request to determine the next action.

11. Connect the approved battery support unit/power supply.

12. Using SDD clear the DTCs.

13. Remove the battery support unit/power supply.

- 14.** In order to validate the repair, carry out two short road tests in line with the drive cycle described in the OBD II document on TOPIx. Extend each road test to follow the same drive cycle which the customer described when the fault occurred.

- 15.** Connect the approved battery support unit/power supply.

- 16.** Input the symptoms to SDD in line with the original customer complaint to ensure no misfire DTCs are present.

- 17.** Remove the battery support unit/power supply.

- 18.** Record the results from the repair in an Electronic Product Quality Report (EPQR).