

TECHNICAL BULLETIN
JTB00241NAS2
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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 Jaguar 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:

XF (X250)

Model Year: 2010-2012
VIN: R47154-S61361

Engine: V8 5.0L Petrol
V8 S/C 5.0L Petrol

XJ Range (X351)

Model Year: 2010-2012
VIN: V00047-V39426

XK Range (X150)

Model Year: 2010 Onwards
VIN: B32753 Onwards

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 when the engine is either cold or hot. The engine Malfunction Indicator Lamp (MIL) may also be illuminated with misfire Diagnostic Trouble Codes (DTC) P0301 through P0308, depending on the affected cylinder(s), and P0316 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 appropriate Service Instruction (1, 2, and/or 3) outlined below:

- Service Instruction 1 - XK ONLY: vehicles exhibiting either a 'cold' or 'hot' engine misfire; replace fuel injectors
- Service Instruction 2 - XF, XJ ONLY: **only** for vehicles exhibiting a 'hot' engine misfire; replace fuel injectors
- Service Instruction 3 - XF, XJ ONLY: for **all** vehicles exhibiting either a 'cold' or 'hot' engine misfire; update Engine Control Module (ECM) software

PARTS:

C2D24386

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
Refer to Workshop Manual / Service Instruction for any required special tools

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 - XF, XJ	86.99.13	0.3	42	C2D24386
Fuel rail/injector(s) - Right bank - Renew - XF N/A	19.60.04	2.8	42	C2D24386
Fuel rail/injector(s) - Left bank - Renew - XF N/A	19.60.05	2.1	42	C2D24386
Fuel rail/injector(s) - Both banks - Renew - XF N/A	18.10.02	4.7	42	C2D24386
Fuel rail/injector(s) - Right bank - Renew - XF SC	19.60.04	2.9	42	C2D24386
Fuel rail/injector(s) - Left bank - Renew - XF SC	19.60.05	2.0	42	C2D24386
Fuel rail/injector(s) - Both banks - Renew - XF SC	18.10.02	4.6	42	C2D24386
Fuel rail/injector(s) - Right bank - Renew - XJ N/A	19.60.04	3.5	42	C2D24386
Fuel rail/injector(s) - Left bank - Renew - XJ N/A	19.60.05	1.9	42	C2D24386
Fuel rail/injector(s) - Both banks - Renew - XJ N/A	18.10.02	4.9	42	C2D24386
Fuel rail/injector(s) - Right bank - Renew - XJ SC	19.60.04	3.6	42	C2D24386
Fuel rail/injector(s) - Left bank - Renew - XJ SC	19.60.05	2.0	42	C2D24386

Fuel rail/injector(s) - Both banks - Renew - XJ SC	18.10.02	5.0	42	C2D24386
Fuel rail/injector(s) - Right/left bank - Renew - XK N/A	19.60.04	2.6	42	C2D24386
Fuel rail/injector(s) - Both banks - Renew - XK N/A	18.10.02	4.8	42	C2D24386
Fuel rail/injector(s) - Right/left bank - Renew - XK SC	19.60.04	2.8	42	C2D24386
Fuel rail/injector(s) - Both banks - Renew - XK SC	18.10.02	5.3	42	C2D24386



NOTE: Normal Warranty policies and procedures apply.

SERVICE INSTRUCTION 1 - XK ONLY



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. If Diagnostic Trouble Codes (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).
2. Read and clear all DTCs.
3. Start and run the engine until normal operating temperature is achieved.
4. Switch the engine 'OFF' and let stand for a minimum of six (6) hours.
5. Start and run the engine while monitoring for misfire symptoms.
 - If no misfire symptoms are evident, return the vehicle to the customer.
 - If misfire symptoms are evident, further diagnosis is required; to be performed as a separate claim.

SERVICE INSTRUCTION 2 - XF, XJ ONLY



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.



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

1. **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 Service Instruction 3 below; 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).

3. Continue to Service Instruction 3 below.

SERVICE INSTRUCTION 3 - XF, XJ ONLY



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

1.  **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 known as Powertrain Control Module (PCM).

2. Turn ignition 'ON' (engine not running).
3. Connect the Symptom Driven Diagnostics (SDD) system to the vehicle and begin a new session.
4. Follow the on-screen prompts, allowing SDD to read the VIN and identify the vehicle and initiating the data collect sequence.
5. Select 'Diagnosis' from the Session Type screen.
6. 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
7. Select 'continue'.



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

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

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