

## TECHNICAL BULLETIN

LTB00228NAS3

25 JAN 2012



ISSUE '3' CHANGES ARE HIGHLIGHTED IN GRAY

**SECTION: 205****'Transmission Fault' Displayed with DTC P186D Stored****AFFECTED VEHICLE RANGE:**

LR3 (LA)

VIN: 5A000360 - 9A513325

Model Year: 2005 - 2009

Range Rover Sport (LS)

VIN: 6A900129 - 7A999999

7A100001 - 9A215620

Model Year: 2006 - 2009

Range Rover (LM)

VIN: 7A239036 - AA307231

Model Year: 2007 - 2010

**CONDITION SUMMARY:**

**Situation:** The driver warning message 'Transmission Fault Stop Safely' may be displayed in the instrument cluster message center, Diagnostic Trouble Code (DTC) P186D, and possibly P080A / P0806, may be stored in the electronic rear differential control module, and the Dynamic Suspension may lower. These issues may be caused by the Electronic Torque Managed (ETM) rear differential motor being energized while the motor brake is still partially engaged, resulting in mechanical wear of the motor assembly which may lead to a stuck actuator and DTC P186D.



**NOTE:** After the new differential motor has been installed, it is imperative that the new software is downloaded to the Rear differential control module. Failure to carry out this instruction will result in a future repeat repair. Once the new software has been downloaded, the software stored in the Rear differential control module should show 7H42-4C045-A(D) or a higher alphabetical character for vehicles pre-2010MY and 9W83-4C045-A(D) or a higher alphabetical character for vehicles 2010MY-onwards.



**NOTE:** To complete the repair the new software must be downloaded and the on demand self test (ODST) concluded. SDD will run the ODST automatically as part of the software download to the Rear differential control module, follow all on screen instructions to ensure the ODST is successfully completed. The ODST configures the Rear differential control module to ensure that it knows where the clutch biting point is internal to the axle assembly. After the ODST has completed successfully, clear DTCs and perform an ignition cycle; read DTCs and confirm none are present. If DTCs remain, follow normal SDD diagnostic procedures.

**Action:** In the event of a customer concern of the above, refer to the Repair Procedure outlined below to replace the rear differential locking motor assembly and update the Rear differential control module software.

**PARTS:**

LR011036 .....Rear differential motor - LR3, Range Rover Sport

Qty: 1

LR030848 .....Rear differential motor - Range Rover

Qty: 1

**TOOLS:**

IDS with latest IDS DVD; software first available on IDS-DVD125\_V5.03 and Calibration File 66

Land Rover-approved Midtronics Vehicle Power Supply

Refer to Workshop Manual for any other required special tools

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.

## **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 DDW to obtain the latest repair time.

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

<i>DESCRIPTION</i>	<i>SRO</i>	<i>TIME (HOURS)</i>	<i>CONDITION CODE</i>	<i>CAUSAL PART</i>
Update Rear Differential Control Module Software	51.90.02	0.20	42	NNW508400
Motor Differential Locking Renew - <b>Range Rover</b>	51.15.03	0.30		
Motor Differential Locking Renew – <b>LR3, Range Rover Sport</b>	51.15.03	0.20		

*Normal warranty policy and procedures apply.*

## **REPAIR PROCEDURE**

### **REPLACE REAR DIFFERENTIAL LOCKING MOTOR**

1. Refer to Workshop Manual, section 205-02: *Rear Drive Axle / Differential*, and replace the differential locking motor.

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### **UPDATE THE REAR DIFFERENTIAL CONTROL MODULE SOFTWARE**



**CAUTION:** Ensure all ignition 'ON' / ignition 'OFF' requests are carried out; failure to perform these steps may cause damage to control modules in the vehicle.



**CAUTION:** A Land Rover-approved Midtronics Vehicle Power Supply must be connected to the vehicle battery during IDS diagnosis / module programming.

1. Connect the Land Rover-approved Midtronics Vehicle Power Supply to the vehicle battery.
2. Turn ignition 'ON' (engine not running).



**NOTE:** IDS must be loaded with IDS-DVD125\_V5.03 or later *and* Calibration File 66or later.

3. Connect the IDS to the vehicle and begin a new Symptom Driven Diagnostics (SDD) session.
4. Follow the on-screen prompts, allowing SDD to read the VIN and identify the vehicle.
5. From the Session Type selection screen, choose 'Diagnosis'.
6. Select the 'Selected Symptoms' tab, and then select:
  - Electrical > Instruments > Warning Lamps
7. Select 'continue'.
8. Select the 'Recommendations' tab.
9. From the Recommendations tab, select 'Run' to configure the 'Rear Differential control module'
  - Follow all on-screen instructions to complete this task.
10. Exit the current session.
11. Disconnect the IDS and the Midtronics Vehicle Power Supply from the vehicle.