



# TECHNICAL BULLETIN

No: LTB00041  
Issue: 2  
Date: 24 May 2007

<b>CIRCULATE: TO</b>	<b>Service Mgr</b> X	<b>Warranty</b> X	<b>Workshop</b> X	<b>Body Shop</b> X	<b>Parts</b> X
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**ISSUE '2' CHANGES ARE HIGHLIGHTED WITH GREY BACKGROUND**

**SECTION: 303-03D**

## Reduced Power Under Load Possible DTC P0096 and/or P2601 Stored

**AFFECTED VEHICLE RANGE:**

Range Rover (LM) Supercharged	6A198058 to 7A261419
Range Rover Sport (LS) Supercharged	6A901924 to 7A109767

**CONDITION SUMMARY:**

**REDUCED POWER OR MISFIRE AT HIGH ENGINE LOADS**

**Situation:** The customer may complain of reduced power and or a misfire at high engine loads and road speeds, with the possibility of Diagnostic Trouble Codes (DTC) P0096 and/or P2601 stored. The electrical harness power supply and ground for the auxiliary coolant pump may be cross connected in connector C3006. The pump will run backwards causing the Engine Control Module (ECM) to reduce power to prevent damage because the pump flow is low. The auxiliary coolant pump will be degraded under these conditions.

**Action:** Should a customer express concern, modify the wiring at connector C3006 to the correct positions:

	<b>RR Sport</b>	<b>Range Rover</b>
• Cavity 1 connected to "-" pump connection	Black (B)	Brown (N)
• Cavity 2 connected to "+" pump connection	Brown / Purple (NP)	Red / White (RW)

Install a new supercharger coolant pump as part of the repair if either the fault codes or the incorrect wiring is discovered following the Repair Procedure outlined below.

**PARTS:**

PEB500010.....Supercharger coolant pump Qty 1

**TOOLS:**

YRW9000010.....Terminal extractor tool

**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 the 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.

Description	SRO	Time (Hours)	Condition Code	Causal Part
Replace Supercharger coolant pump and modify the wiring connector	26.50.89/28	1.00	42	PEB500010
Replace Supercharger coolant pump	26.50.26	0.80	42	PEB500010

*Normal warranty policy and procedures apply.*

## REPAIR PROCEDURE

### INSPECT WIRING, CHECK P-CODES AND IF INDICATED REPLACE PUMP



**NOTE:** Check the Warranty claims history in DDW to determine if the repair covered in this Technical Bulletin has been previously completed.

1. Release the connector locking tab and disconnect connector C3006 from the coolant pump (Figure 1)



**CAUTION:** Connector information in both the Range Rover and Range Rover Sport Electrical Library contain potentially confusing information. Wiring should be as outlined below.

2. Inspect the wires to determine if they are crossed.

#### Correct orientation Range Rover Sport (LS) is:

- Black (B) wire in Cavity 1 connected to "-" pump connection
- Brown and Purple (NP) wire in Cavity 2 connected to "+" pump connection

#### Correct orientation for Range Rover (LM) is:

- Brown (N) wire in Cavity 1 connected to "-" pump connection
- Red and White (RW) wire in Cavity 2 connected to "+" pump connection

3. If the wires are crossed, use terminal extractor tool YRW9000010 from the Harness Repair Kit and swap cavity 1 and cavity 2 wires to the positions indicated above.

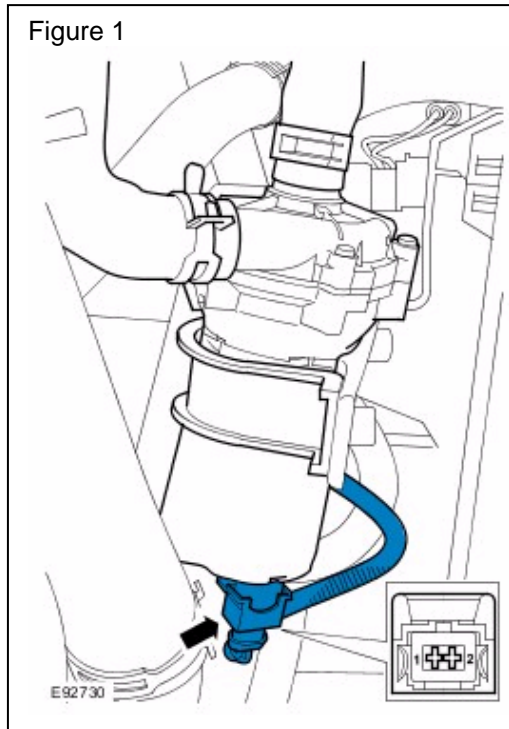


Figure 1



**CAUTION: A Midtronics PSC-550 Vehicle Power Supply must be connected to the vehicle battery during diagnosis.**

4. If the wires were *not* crossed in connector C3006, perform the following IDS check:
  - Connect the Midtronics PSC-550 power supply to the vehicle battery.
  - Connect IDS to the vehicle and begin a new diagnostic session, by entering the correct VIN for the current vehicle.
  - Follow the IDS prompts to read the vehicle configuration.
  - Using IDS determine if trouble codes P0096 and/or P2601 are stored.
5. If the P-codes are present, or the wires were crossed, remain in the IDS session, but temporarily disconnect the VCM from the vehicle and disconnect the battery charger/power supply.



**NOTE: Global Technical Reference (GTR) lookup sequence is as follows:  
GTR Home > NAS > Service Information/ LS – Range Rover Sport >2007 > Workshop Manuals  
Range Rover Sport Workshop Manual 2007> Bookmark "Powertrain > Engine> 303-03D  
Supercharger Cooling" Link "Coolant Pump (26.50.26)"**

6. If the wires were crossed in connector C3006 or the fault codes P0096 or P2601 are stored, refer to GTR section: 303-03D (26.50.26) and install a new supercharger coolant pump.
7. If the coolant pump is replaced, perform a final IDS check as follows:
  - Connect the battery charger and re-connect the VCM to continue the session.
  - Use IDS, following the on-screen instructions, to clear DTCs.
  - When the task is completed, exit the current session.
8. Disconnect IDS and the battery charger/power supply.