

TECHNICAL BULLETIN  
 LTB00693NAS2  
 15 JUL 2016



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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.**

Changes are highlighted in gray

**SECTION: 412-01 / -03**

Inadequate A/C Performance / Direct Pressure Sensing Valve Replacement

**AFFECTED VEHICLE RANGE:**

**LR2 (LF)**

**Model Year:** 2010-2012  
**VIN:** 165970-321214  
**Assembly Plant:** Halewood

**LR4 (LA)**

**Model Year:** 2010-2016  
**VIN:** 513326 Onwards  
**Assembly Plant:** Solihull

**Range Rover Sport (LW)**

**Model Year:** 2014 Onwards  
**VIN:** 001154 Onwards  
**Assembly Plant:** Solihull

**Range Rover Sport (LS)**

**Model Year:** 2010-2013  
**VIN:** 215623-814822  
**Assembly Plant:** Solihull

**Range Rover (LG)**

**Model Year:** 2013 Onwards  
**VIN:** 001204 Onwards  
**Assembly Plant:** Solihull

**Range Rover (LM)**

**Model Year:** 2010-2012  
**VIN:** 306627-393639  
**Assembly Plant:** Solihull

MARKETS:

NAS

**CONDITION SUMMARY:**

**Situation:** Inadequate A/C performance may be exhibited. Upon inspection, low pressure is recorded on the high pressure system, high pressure is recorded on the low pressure system, and the compressor clutch (where applicable) is working properly.

**Cause:** This may be caused by the A/C compressor Direct Pressure Sensing (DPS) valve being worn.

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

### **PARTS:**

LR061463	Compressor / Direct Pressure Sensing (DPS) Valve kit - LR2 (L359); LR4 (L319) 5.0L NA V8; Range Rover Sport (L320); Range Rover (L322)	1
LR086045	Compressor / Direct Pressure Sensing (DPS) Valve kit - LR4 (L319) 3.0L SC V6; Range Rover Sport (L494); Range Rover (L405)	1

### **TOOLS:**

Refer to Workshop Manual 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
Direct Pressure Sensing (DPS) Valve - Renew - LR2 (L359)	<b>82.10.12</b>	1.1	63	LR061463
Direct Pressure Sensing (DPS) Valve - Renew - LR4 (L319 - 3.0L SC V6)	<b>82.10.12</b>	2.7	63	LR061464
Direct Pressure Sensing (DPS) Valve - Renew - LR4 (L319 - 5.0L NA V8)	<b>82.10.12</b>	2.8	63	LR061463
Direct Pressure Sensing (DPS) Valve - Range Rover Sport (L494 - 3.0L Td6)	<b>82.10.12</b>	2.1	63	LR061464
Direct Pressure Sensing (DPS) Valve - Range Rover Sport (L494 - 3.0L SC V6)	<b>82.10.12</b>	1.1	63	LR061464
Direct Pressure Sensing (DPS) Valve - Range Rover Sport (L494 - 5.0L SC V8 )	<b>82.10.12</b>	1.1	63	LR061464
Direct Pressure Sensing (DPS) Valve - Range Rover Sport (L320)	<b>82.10.12</b>	3.0	63	LR061463
Direct Pressure Sensing (DPS) Valve - Range Rover (L405 - 3.0L Td6)	<b>82.10.12</b>	2.5	63	LR061464
Direct Pressure Sensing (DPS) Valve - Range Rover (L405 - 3.0L SC V6)	<b>82.10.12</b>	1.1	63	LR061464
Direct Pressure Sensing (DPS) Valve - Range Rover (L405 - 5.0L NA / SC V8)	<b>82.10.12</b>	1.1	63	LR061464
Direct Pressure Sensing (DPS) Valve - Range Rover (L322 - 5.0L NA V8)	<b>82.10.12</b>	3.8	63	LR061463
Direct Pressure Sensing (DPS) Valve - Range Rover (L322 - 5.0L SC V8)	<b>82.10.12</b>	3.7	63	LR061463

 **NOTE: Normal Warranty procedures apply.**

### **SERVICE INSTRUCTION:**

 **NOTE:** Prior to carrying out the service instruction, carry out the Climate Control System - General Information - Diagnosis and Testing (see TOPIx Workshop Manual section 412-00: Climate Control System).

 **NOTE:** The Direct Pressure Sensing (DPS) valve may also be referred to the Electronic Control Valve.

1. Remove the A/C compressor:

- **LR2 (L359)**, Range Rover Sport (L494), and Range Rover (L405): see TOPIx Workshop Manual section 412-01: Climate Control System
- **LR4 (L319)**, Range Rover Sport (L320), Range Rover (L322): see TOPIx Workshop Manual section 412-03: Air Conditioning

**Replace the A/C compressor Direct Pressure Sensing (DPS) valve replacement procedure.**

2.  **NOTE:** Make sure foreign materials do not enter the Direct Pressure Sensing (DPS) valve hole on the cylinder head when the DPS valve is removed.

Using compressed air or similar, remove all foreign materials from around the DPS valve/cylinder head.

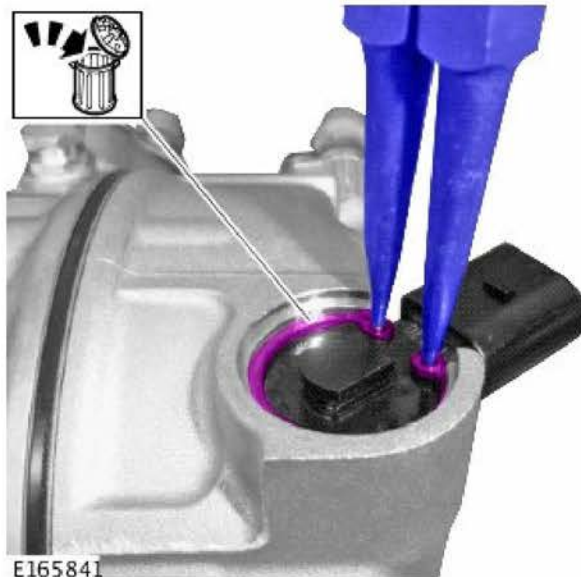


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3.  **CAUTION:** Make sure to not damage the circlip housing in the cylinder head.

Place the A/C compressor on a clean flat work surface.

- Using a suitable tool, remove and discard the circlip that retains the DPS valve in the compressor cylinder head.

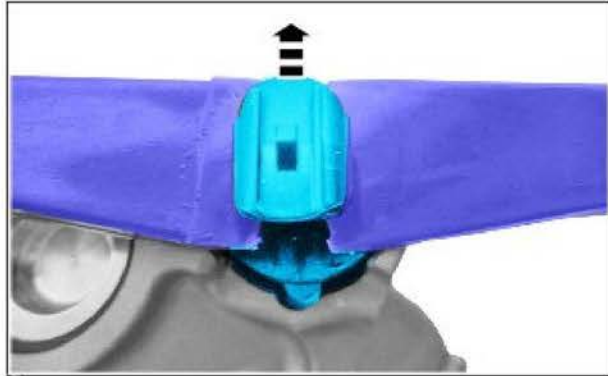


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4.  **CAUTION: Make sure to not damage the circlip housing in the cylinder head.**

Using suitable tools, release the DPS valve.



5.  **NOTE: Take care to remove the DPS valve in a vertical direction to avoid damage to the inside wall of the cylinder head.**

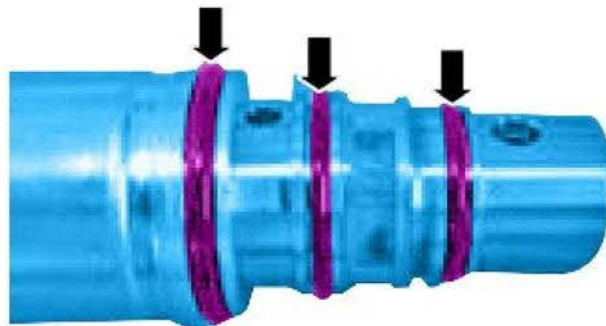
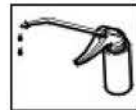
Remove by hand the DPS valve from the A/C compressor cylinder head; discard the DPS valve.



6. Inspect the inside wall of the cylinder head for scratches, scoring, or foreign material.



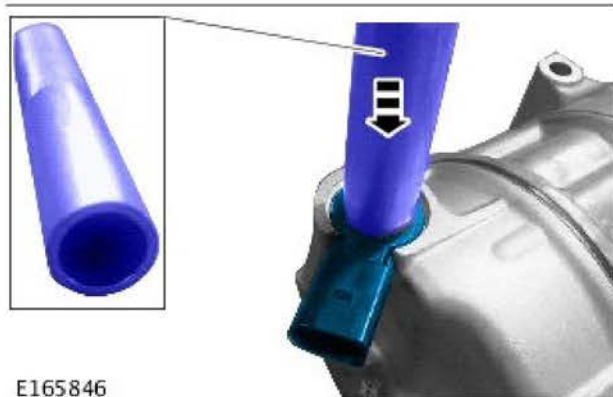
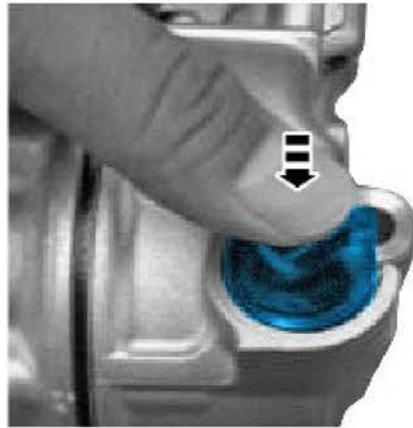
- 7.** Apply compressor oil (Polyalkylene Glycol [GPA] SPA2 Oil) to the O-rings of the new DPS valve.



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- 8.** Install the DPS valve:

- Apply a downward pressure by hand.
  - If required, use a suitable tool to press fully into position to allow installation of the new circlip.



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**9.** Install the new circlip (supplied in the kit).



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**10.** Install the A/C compressor:

- LR2 (L359), Range Rover Sport (L494), and Range Rover (L405): see TOPIx Workshop Manual section 412-01: Climate Control System
- LR4 (L319), Range Rover Sport (L320), Range Rover (L322): see TOPIx Workshop Manual section 412-03: Air Conditioning