



# TECHNICAL BULLETIN

No: Q057  
Issue: 2  
Date: 10 JUNE 2009

<b>CIRCULATE TO:</b>	<b>Service Mgr</b>	<b>Warranty</b>	<b>Workshop</b>	<b>Body Shop</b>	<b>Parts</b>
	X	X	X		X

**ISSUE '2' CHANGES ARE HIGHLIGHTED IN GRAY.  
THIS SERVICE ACTION IS VALID FOR TWO YEARS ONLY AND  
WILL EXPIRE 31 JANUARY 2011.**

**SECTION: 310**

## **SERVICE ACTION: Fuel Pump Module Operation**

**AFFECTED VEHICLE RANGE:**

Freelander (LN) USA vehicles *only*

**VIN:** 2A353298 - 2A399997  
 2A200003 - 2A222663  
 3A220225 - 4A299998  
 4A400001 - 5A490726

**Model Year:** 2002 - 2005

**CONDITION SUMMARY:**

**Situation:** The in-line fuel filters fitted to fuel delivery modules in Freelander 2.5-liter KV6 gasoline vehicles may be manufactured away from specification. The fuel filters may contain an uncontrolled amount of the adhesive used to bond the filter paper to the filter casing; the adhesive may not have been adequately cured; or the fuel pump inlet stub pipe hole on the fuel filter may have inadequate dimensional controls. In any of these cases, it is possible for these conditions to prevent adequate fuel flow through either restrictions in the filter or cracking of the pump stub pipe. This leads to increased pump motor use to maintain the required engine-demanded fuel and premature wear of the fuel pump motor brushes.

In the event of restricted fuel flow, the vehicle may suffer one or more of the following symptoms: rough running and malfunction indicator lamp (MIL) illumination; poor / no start; engine stumble or hesitation; or engine cut-out / stall with the possibility of Diagnostic Trouble Codes (DTC) P0301, P0302, P0303, P0304, P0305, P0306, P0171, P0174, or P0316 stored.

**Action:** Refer to the Repair Procedure outlined below to replace the fuel pump module.

**PARTS:**

LR015305 .....	Fuel pump kit (2A209859 - 2A222663; 3A220225 - 4A299998; 4A400001 - 5A490726)	Qty: 1
LR017422 .....	Fuel pump kit (2A353298 - 2A399997; 2A200003 - 2A209858)	Qty: 1

**TOOLS:**

- IDS with T4 software DRG TL 36 installed
- Midtronics PSC-550 Vehicle Power Supply

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: Always check DDW to verify that the vehicle is affected by this Action prior to undertaking any repairs. 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.**

Warranty claims should be submitted quoting Program Code **Q057** together with the relevant Option Code. As Option Codes are used, there is no requirement to enter parts or labor; these are provided for information only. The option including drive in / drive out allowance may only be claimed if the vehicle is brought back into the workshop for this action alone to be undertaken.

This Service Action is valid for two years only. Repairs and Warranty claims must be completed and accepted for payment prior to **31 January 2011**.

**\*VIN 2A209859 - 2A222663; 3A220225 - 4A299998; 4A400001 - 5A490726**

***\*(SEE NOTE BELOW)***

<b>Program Code</b>	<b>Option Code</b>	<b>Description</b>	<b>SRO</b>	<b>Time (hours)</b>	<b>Part Number</b>	<b>Part Description</b>	<b>Qty</b>
Q057	B	Replace fuel pump Clear DTC's	19.45.08 12.90.16	0.30 0.20	LR015305	Fuel pump kit	1
Q057	C	Replace fuel pump Clear DTC's Drive in / drive out	19.45.08 12.90.16 02.02.02	0.30 0.20 0.20			
Q057	D	Replace fuel pump	19.45.08	0.20			
Q057	E	Replace fuel pump Drive in / drive out	19.45.08 02.02.02	0.30 0.20			

**\*VIN 2A353298 - 2A399997; 2A200003 - 2A209858**

***\*(SEE NOTE BELOW)***

<b>Program Code</b>	<b>Option Code</b>	<b>Description</b>	<b>SRO</b>	<b>Time (hours)</b>	<b>Part Number</b>	<b>Part Description</b>	<b>Qty</b>
Q057	F	Replace fuel pump Clear DTC's	19.45.08 12.90.16	0.30 0.20	LR017422	Fuel pump kit	1
Q057	G	Replace fuel pump Clear DTC's Drive in / drive out	19.45.08 12.90.16 02.02.02	0.30 0.20 0.20			
Q057	H	Replace fuel pump	19.45.08	0.20			
Q057	J	Replace fuel pump Drive in / drive out	19.45.08 02.02.02	0.30 0.20			



**NOTE: The VIN ranges listed correspond to the as-built specification with the fuel pump kit listed; however, vehicles may have been fitted with an incorrect fuel pump as part of a previous service repair. Should a vehicle require kit LR015305 instead of LR017422, please submit the Warranty claim with the kit / part number actually used to repair the vehicle.**

*Normal warranty policy and procedures apply.*



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## CUSTOMER REIMBURSEMENT PROCESS:

If a customer indicates that they have previously paid for a replacement of the fuel pump module for this defect (vehicle out of warranty), a copy of the repair invoice must be produced as proof of the repair. The Retailer must directly reimburse the customer and a claim for recovery of this cost should be made using the related damage procedure.

Claims should be submitted quoting Program Code '**Q057**' and by clicking the 'Related Damage' radio button on the claim submission screen. The claim should be submitted using Option Code '**X**' as detailed below and entering the cost to be reimbursed against the Sundry Code '**other**'. All costs should be entered in local currency.

<i>Program Code</i>	<i>Option Code</i>	<i>Description</i>	<i>SRO</i>	<i>Time (hours)</i>	<i>Sundry Item Code</i>	<i>Miscellaneous Expense (\$)</i>
<b>Q057</b>	<b>X</b>	Re-imburement to owner	N/A	N/A	Other	Retailer Entered Value

A copy of the invoice must be appended to the repair order for Warranty audit purposes and Warranty Specialist review.

A brief comment should be entered in the 'Technician Comments' field on the claim to itemize and explain the charges.

Only vehicles eligible for Service Action Q057 are included in this process. Only one claim per vehicle for related damages will be accepted.



## REPAIR PROCEDURE

### REPLACE FUEL PUMP MODULE - 2003 - 2005MY



**WARNING:** Place the vehicle in a well ventilated, quarantined area and arrange 'No Smoking / Petrol Fumes' signs about the vehicle.



**WARNING:** Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel related components. Highly flammable vapors are always present and may ignite. Failure to follow these instructions may result in personal injury.



**NOTE:** Global Technical Reference (GTR) lookup sequence is as follows:  
GTR Home > NAS > LN - Freelander > Service Information > Model Year > Workshop Manuals > 19-2 - Fuel Delivery System - Petrol > 19.45.08 Pump - fuel

1. Refer to Workshop Manual (GTR) section 19-2 - FUEL DELIVERY SYSTEM - PETROL (19.45.08) to replace the fuel pump.
2. If the engine MIL is not illuminated, return vehicle to customer.
3. If the engine MIL has been illuminated as a consequence of one or more of the following DTC's, continue to step 6:
  - o P0301, P0302, P0303, P0304, P0305, P0306, P0171, P0174 or P0316



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

4. Connect the Midtronics PSC-550 Vehicle Power Supply to the vehicle battery.



**CAUTION:** IDS with T4 software DRG TL 36

5. Connect T4 to the vehicle and begin a new diagnostic session.
6. Select 'System Diagnostics'.
7. Enter 'Make and MY' and correct VIN for the current vehicle.



**NOTE:** Any DTCs not listed in step 3 are to be investigated / repaired as a separate repair.

8. Select 'Fault Code Diagnostics'.
9. Read and clear stored fault codes.
10. Exit the current session when the task is completed.
11. Disconnect T4 and the Midtronics PSC-550 Vehicle Battery Supply from the vehicle.

## REPLACE FUEL PUMP MODULE - 2002MY



**WARNING:** Place the vehicle in a well ventilated, quarantined area and arrange 'No Smoking / Petrol Fumes' signs about the vehicle.



**WARNING:** Do not smoke or carry lighted tobacco or open flame of any type when working on or near any fuel related components. Highly flammable vapors are always present and may ignite. Failure to follow these instructions may result in personal injury.



**NOTE:** Global Technical Reference (GTR) lookup sequence is as follows:  
GTR Home > NAS > LN - Freelander > Service Information > Model Year > Workshop Manuals > 19-2 - Fuel Delivery System - Petrol > 19.45.08 Pump - fuel

1. Refer to Workshop Manual (GTR) section 19-2 - FUEL DELIVERY SYSTEM - PETROL (19.45.08) to remove the fuel pump.



**CAUTION:** Due to the possibility of past repairs to the fuel pump module / sender unit being performed incorrectly, it is necessary to physically compare the existing fuel pump module to the recommended replacement. Ensure the new fuel pump module matches the existing *prior* to installation. Failure to do so will lead to incorrect fuel gauge operation.

2. Compare existing fuel pump module sender unit to new fuel pump module sender unit, ensuring correct fuel pump module is installed:

### As-built Spec:

- VIN 2A353298 - 2A399997; 2A200003 - 2A209858 (LR017422) (Figure 1)
- VIN 2A209859 - 2A222663 (LR015305) (Figure 2)

Figure 1 - LR017422



Figure 2 - LR015305



3. Refer to Workshop Manual (GTR) section 19-2 - FUEL DELIVERY SYSTEM - PETROL (19.45.08) to install the new fuel pump.
4. If the engine MIL is not illuminated, return vehicle to customer.



5. If the engine MIL has been illuminated as a consequence of one or more of the following DTC's, continue to step 6:

- o P0301, P0302, P0303, P0304, P0305, P0306, P0171, P0174 or P0316



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

6. Connect the Midtronics PSC-550 Vehicle Power Supply to the vehicle battery.



**CAUTION: IDS with T4 software DRG TL 36**

7. Connect T4 to the vehicle and begin a new diagnostic session.

8. Select 'System Diagnostics'.

9. Enter 'Make and MY' and correct VIN for the current vehicle.



**NOTE: Any DTCs not listed in step 5 are to be investigated / repaired as a separate repair.**

10. Select 'Fault Code Diagnostics'.

11. Read and clear stored fault codes.

12. Exit the current session when the task is completed.

13. Disconnect T4 and the Midtronics PSC-550 Vehicle Battery Supply from the vehicle.