

# TECHNICAL BULLETIN



MODEL/DERIVATIVE:  
New Range Rover (LM)

Bulletin N°: 0039  
CDS. ref: L8910bu  
Issue: 2  
Date: 17.03.04

## AFFECTED RANGE:

All **V8** derivatives in the following VIN ranges:

North American Specification (NAS) - 2A 100042 to 4A 140330  
Japan - 2A 100042 to 4A 152518  
All other Markets - 2A 100042 to 4A 148607

## RE - ISSUE INFORMATION:

AFFECTED RANGE amended.

**Please destroy your existing copy and replace with this Issue 2.**

## PROBLEM:

### IDLE SPEED VIBRATION

Idle speed vibration is evident through the steering / suspension components.

## CAUSE:

Resonance of the steering column and the suspension components is caused by engine vibration. The vibration is evident at idle speed due to natural frequency of steering / suspension components. The problem is emphasised on vehicles with larger diameter road wheels.

## ACTION:

Should a customer express concern regarding the above, follow the rectification procedure to download new software using T4.

**Note: The customer MUST be informed that when the idle speed is increased the vehicle's characteristics will change i.e. the vehicle will creep forward faster at idle and increase transmission shock when moving from neutral to drive will occur. The vehicle will also accelerate at a greater rate than the customer is used to.**

### Rectification procedure

1. Start the vehicle and note the vibration level at idle speed.
2. Turn off the vehicle.
3. Connect T4 to the vehicle and load disc Range Rover 09 or a later version (Range Rover 10 for NAS and Japan).
4. Follow the on-screen instructions and select 'System Diagnostics'.

5. Follow the on-screen instructions and select 'Engine Management'.
6. Follow the on-screen instructions and select 'Vehicle Maintenance'.
7. Follow the on-screen instructions and select 'ECU Checks and Renewal'.
8. Follow the on-screen instructions and select 'Select Fix' to update the engine ECM software and wait for the software to be fully downloaded before proceeding.
9. Start the vehicle and check the vibration level at idle speed has improved against the previously noted level:
  - If the vibration level has not improved follow the steps below to adjust the idle speed until the vibration level improves.
  - If the vibration level has improved refer to step 17.

The idle speed adjustment function only works on certain tune derivatives and where the target idle speed is less than 750rpm.

There are four separate idle speed offsets. The idle speed offsets are added to the base idle speed under the following conditions:

- Air conditioning ON with vehicle NOT in Drive or Reverse
- Air conditioning OFF with vehicle NOT in Drive or Reverse
- Air conditioning ON with vehicle in Drive or Reverse
- Air conditioning OFF with vehicle in Drive or Reverse

The idle speed can be adjusted separately for each condition in steps of 10 rpm. The ECU will limit the total offset within a predefined range.

The revised idle speed offsets are reset when a tune download is performed or the adaptations are reset.

**CAUTION:** *During the idle adjustment routine, ensure the parking brake is engaged and footbrake is depressed whenever the transmission is shifted into drive or reverse.*

10. To check the target idle speed, select 'Real Time Display', 'Idle Speed Control'.

**NOTE:** *Ensure that the battery is charged and the 'Fast Idle' flag is not set before trying to adjust idle speed.*

11. Follow the on-screen instructions and select 'Vehicle Maintenance'.
12. Follow the on-screen instructions and select 'Idle Speed Adjustment'.
13. Follow the on-screen instructions and select 'A/C OFF NOT in D/R'.
14. Follow the on-screen instructions and adjust the idle speed to improve the vibration level.
15. Follow the on-screen instructions and select 'Yes' to set the new idle speed values.
16. Repeat steps 14 and 15 for 'A/C ON NOT in D/R', 'A/C OFF in D/R' and 'A/C ON in D/R'.
17. Return to the 'System Diagnostics' screen and disconnect TestBook/T4 from the vehicle.

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**PARTS INFORMATION:**

**Not applicable**

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**WARRANTY CLAIMS:**

**Use Complaint Code: 1B5A**

**Use S.R.O.: 12.90.13 - Engine management - software download**

**Time allowance: 0.50 hrs**

**Use S.R.O.: 18.90.89/35 - Adjust engine idle speed**

**Time allowance: 0.10 hrs**

**Direct Dealer Warranty (DDW) 2**

**All DDW 2 users must enter a causal part number. Labour only claims must show a causal part number with a quantity of zero.**

<b>Description</b>	<b>SRO</b>	<b>Time allowance</b>	<b>CC</b>	<b>Causal part</b>
<b>Engine management - software download</b>	<b>12.90.13</b>	<b>0.50 hrs</b>	<b>08</b>	<b>NNN000390</b>
<b>Adjust engine idle speed</b>	<b>18.90.89/35</b>	<b>0.10 hrs</b>	<b>08</b>	<b>NNN000390</b>