



## Technical Service Bulletin 25 January 2007

No.LTB00029

Reissue

**Please replace the previous edition of this bulletin.**

This bulletin supersedes TSB LS204-013/2006 dated 19 September, which should either be destroyed or clearly marked to show it is no longer valid (e.g. with a line across the page).

<b>Subject/Concern:</b> Ride and Handling Optimization System Shudder
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<b>Models:</b>
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Range Rover Sport (LS)	With Active Cornering Enhancement Only	With Active Cornering Enhancement Only VIN-range: 5A900109-6A996253
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**Markets:** All **Section:** 204-06

### Summary:

A customer may report a concern of an under-car 'shudder' from the front or rear suspension, or an under-car rapid 'pulsing' noise heard from the dynamic response valve block or pipe work. The shudder may continue for as long as the driving conditions that created the shudder remain constant, or may decay after (typically) less than five seconds.

**This Version of the bulletin has been issued due to the addition of a VIN Range.**

The driving conditions most likely to cause the concern are:

- Single wheel inputs:
  - Speed bumps traversed at an angle.
  - Small step changes in road surface; e.g. driveway entrances or broken road surfaces.
  - Cable guards (e.g. road-work traffic signals).
- Specific road and vehicle driving style:
  - Vehicle is cornering at a speed between 6mph (10Km/h) to 19mph (30Km/h),
  - The road has a significant camber,
  - The steering wheel angle is greater than +/-10 degrees,
  - The steering wheel angle is held constant for approximately 2 seconds during the bend and the surface is not perfectly smooth.

**Cause:** The Dynamic Response System control software makes an inaccurate estimation of the road surface conditions, resulting in overcompensation for what it perceives as very small changes in vehicle direction. This causes fluctuations in the control pressure to the stabilizer bar actuators producing the shudder.

**Action:** On a customer concern basis only regarding the above, refer to the Service Procedure detailed in this bulletin to update the dynamic response system control software.

## Special Service Tools

Integrated Diagnostic System (IDS) with DVD 103 or later and patch file 1 installed (available on GTR). IDS

Labour Time:		
Operation Description	Operation No.	Time
Tune download - Dynamic Response module	60.90.19	0.20 hours

Repair/Claim Coding:	
Causal Part:	NNW506280
ACES Condition Code:	42
Defect Code:	

## Service Procedure

1. If IDS with DVD 103 is being used and has previously had patch file 1 installed, continue from step 4. For information on how to confirm that the patch file has been installed onto IDS, refer to the patch process help file detailed in step 2.
2. **NOTE:** The software patch installation help file provides instructions for the patch file installation process and could take up to six minutes to download dependent on connection speed.

Download the IDS software patch installation help file from GTR:

1 Logon to GTR.

2 Select 'Home' from the menu at the top of the main page.

3 From the menus on the left of the page, select 'Diagnostics' as the 'Information Type' and select the relevant model and model year.

4 From the 'All Information' results, select 'Patch Files'.

5 Click the file link 'Patch Process Help File'.

3. **NOTE:** This could take up to twenty minutes to download dependent on connection speed.

Using the above help file, follow the instructions to download and install the software patch file into IDS and ensure IDS successfully restarts.

4 .



**CAUTION:** Ensure a suitable battery charger is connected to the vehicle battery during diagnosis/module configuration and that the battery is sufficiently charged.



**CAUTION:** Ensure that the diagnostic lead is correctly secured and cannot be accidentally disconnected during software update.

Connect the diagnostic equipment to the vehicle and begin a IDS session by entering the correct VIN for the current vehicle.

- 5 . Note the current software levels of the dynamic response system control module:

1 Follow the prompts to read the vehicle configuration.

2 When prompted "Do you wish to read diagnostic trouble codes?", select "NO" and then .

press 'tick' to continue.

3 When the "Content Model" is displayed, select the 'Vehicle Configuration' tab.

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4 Select 'Module Information'

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5 Select 'Network integrity test'

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6 Note the software part numbers displayed on the screen.

6. NOTE: During module configuration, check the on-screen software part number information that IDS will display during this step and compare to the software part number noted in step 5 above. If the same tune level is displayed, the vehicle already has the desired software level and the tune download process can be aborted.

Configure the control module:

1 . Return to the 'Vehicle Configuration' screen and select 'Module Configuration'

2. Follow the on-screen prompts.

3. Select 'Configure Existing Modules'. From the sub-menu, select 'Dynamic Response System Control Module'

4. Check the tick-box to continue and follow the on-screen instructions.

7. Repeat step 5 to confirm the software level change.

8 .Exit the IDS session and disconnect the diagnostic equipment from the vehicle.