SECTION: LA501

## **Hood Adjustment and Alignment**

#### AFFECTED VEHICLE RANGE:

Land Rover LR3 (LA) VIN: ALL

#### **CONDITION SUMMARY:**

#### **HOOD VIBRATION OR CLOSING DIFFICULTIES**

A customer may report a concern relating to:

- Hood movement while driving, even though the hood is correctly latched.
- Hood difficult to latch correctly or difficult to close.
- Message Center displaying the message 'Hood Open', even though the hood is correctly latched.

For vehicles up to VIN 5A301030, the hood buffers do not provide sufficient contact between the hood and the slam panel. The lack of tension can lead to hood movement even if the hood adjustment gaps are acceptable.

After VIN 5A301030 hood adjustment problems can result in the following symptoms:

- Movement of the hood while driving
- Failure to latch properly or being difficult to close
- A 'Hood Open' warning message being displayed

**Action:** Should a customer express concern regarding the above, refer to the Repair Procedure detailed in this bulletin which provides specifications relating to adjustment gaps.

#### PARTS:

CJM500010 .....Hood buffer Qty 2

#### TOOLS:

#### **Locally Sourced**

Plastic vernier scale (metric measure is best) Available from www.rpelectronics.com

### **WARRANTY:**

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
Align hood on latches	76.16.89/33	0.10	B15	CJM100130

Normal warranty policy and procedures apply. Material allowance is included in labor operation.

NOTE: The information in Technical Information 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.

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#### REPAIR PROCEDURE

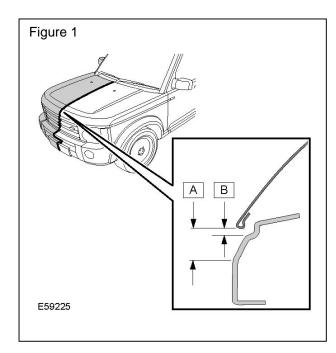
#### DETERMINE INITIAL HOOD ALIGNMENT AND ADJUST BUFFERS AS NEEDED

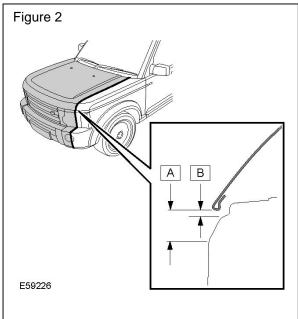
igtriangle NOTE: The following gap definitions are used:

- Gap A is the nominal setting for a closed hood condition, 22mm ± 1.4mm (0.315in ± 0.055in)
- Gap B (over-slam gap) is the minimum the gap should be reduced to when the hood is being closed,  $8mm \pm 1.4mm$  (0.315in  $\pm 0.055in$ ).
- Gaps are measured at the centerline of the hood and above each headlamp.

NOTE: During closure, the hood rubber buffers compress to aid latching. If the rubber buffers are incorrectly adjusted, the over-slam gap may be reduced and could result in the hood contacting the grill.

- 1. Check for correct gap conditions of  $22mm \pm 1.4mm$  at the center-line of the hood and at the headlamps.
- 2. If the correct gap measurement is not obtained adjustment of the hood latches, hood rubber buffers or hinges as outlined in the following procedural sections is required to obtain the correct gap conditions.







# TECHNICAL BULLETIN

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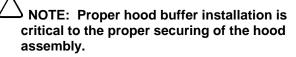
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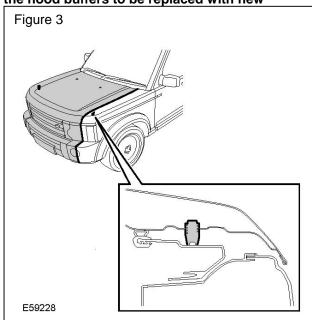
NOTE: Vehicles prior to VIN 5A301030 require the hood buffers to be replaced with new

buffers (CJM500010) and then check the hood adjustment. Vehicles after this VIN will only require the hood adjustment to be checked/reset.

- 3. If the vehicle is before VIN 5A301030, install the correct style buffers (CJM50001).
- 4. Verify that the hood Gaps A between the hood and grill/headlamps are 22mm ± 1.4mm.
- 5. If the correct gap condition is measured, verify that the rubber buffers are in contact with the slam panel. (Figure 3)



- If the rubber buffers have insufficient contact, hood movement could occur while driving.
- If the rubber buffers are protruding too far, difficulty in latching the hood may occur.

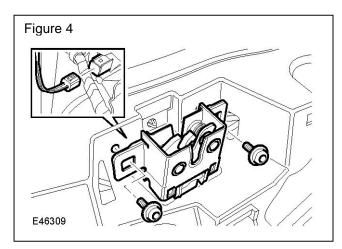


- 6. Determine if the hood rubber buffers are over-extended.
- 7. Adjust buffers as required to obtain the correct contact.

#### **ADJUST HOOD LATCHES**

NOTE: The hood switch is integrated into the right-hand hood latch. Minor adjustments to the right-hand hood latch can rectify 'Hood Open' warning messages displayed on the message center.

- 8. If necessary, adjust the hood latches as follows:
  - Loosen the two hood latch Torx bolts. (Figure 4)
  - Reposition the latch.
  - Lower the hood and check for alignment.
  - Open the hood and tighten the Torx bolts to 10Nm (7lb.ft).
  - Check for the correct operation of the hood safety catch.
- 9. Repeat step 8 as required to obtain the required hood close gap.



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10. Verify that the hood seal is intact and is contacting the hood slam-panel.

NOTE: Poor sealing at the hood seal to slam-panel will allow air to flow under the hood, causing hood movement. The design gap between the seal carrier and the hood inner edge is 14mm (0.551in).

- 11. Verify the correct closed gap to compress the hood seal to 14mm gap as follows:
  - Create a 20 mm ball of body caulk, putty or other suitably compliant material.
  - Position the 20 mm ball on the centerline of the hood in front of the hood seal as indicated by the "14mm" measurement arrows. (Figure 5)
  - Gently close and latch the hood, then re-open.
  - Verify that in the closed condition the body caulk has been compressed to the 14 mm specified height.
  - Adjust as required and retest.
  - Remove all measurement material.

