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Document Information

Location: Chassis - Suspension Fluids Systems

Topic: Unable to operate the nose lift system

Condition: Permanent

Diagnostic Trouble Codes

CCU:

C11D192 Roll stiffness degraded

C121820 Pressure too high in nose lift circuit

C11A304 Nose Lift Failed to lower vehicle

Measure

When a vehicle is moved from cold to warm ambient temperature with the nose lift raised, the temperature increase causes a thermal expansion of the fluid. A 30°C temperature increase can cause the pressure to increase by approximately 100Bar. This will result inoperative nose lift and a warning message in the driver's display "Nose lift fault" and "Nose lift unavailable".

1. Connect the MDS and update the vehicle to the latest software. Ensure the CCU is on the latest software. Always follow the instructions as per the relevant MTI.
2. Once the software is updated, check the operation of the noise lift. If the issue is still present, proceed to the next step. If the issue is not present, no further action is required.
3. Connect the MDS to the vehicle and look at the following actual values in CCU control unit

PCS_Sensor_Inputs_Read	
pEPHSLine	8.30 Bar
pNoselift	128.15 Bar
pCircuit1	26.87 Bar
pCircuit2	29.55 Bar

4. De-pressurise the nose lift system by running CCU Sequence 'APMU Maintenance Mode' and select "Discharge".

Ensure the Engine is OFF, both doors are closed with door windows open during the sequence.

This sequence will depressurise the system up-to 3 times until the circuit pressure is below 2 bar. Once this pressure is achieved the sequence will then continue to calibrate the APMU pressure sensors.

- If the sequence fails to complete proceed to step 5
- If the sequence is completed successfully, proceed to step 6

5. Run the 'Suspension Pressure Sensor Calibration' sequence in CCU. Then proceed to step 4.

6. Return to 'APMU Maintenance Mode' sequence and select 'Charge' .

7. Cycle the ignition.

8. Proceed to ignition State 3 and wait for 10 seconds.

9. Proceed to ignition state 5 and wait for 10 seconds.

10. Start the engine.

11. Return to CCU actual values and check the circuit pressures. The pressures should now be reading correctly.

Example Pressures:

pEPHSLine: variable pressure depending on Pump demand/state

pNoselift: approximately 50 Bar (nose lift raised)

pCircuit1: approximately 25 Bar (normal mode - active mode off)

pCircuit2: approximately 25 Bar (normal mode - active mode off)

Warranty Information

The total time that can be claimed for the above repair is 0.3 hours (software update). The time to perform steps 4 to 11 is 0.75 hours. For any additional time, ensure the breakdown of the time and explanation is recorded in the Job Card.

Cause: Software Release

Rectification: Software Update

Attachments

N/A

KA Update Information

23/04/2021 KA Review

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