

Rear Lid Strut Diagnosis

Vehicles Affected

Model	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
Cayenne	2011-Present	92A, 9YA	N/A	N/A
Macan	2015-Present	95B	N/A	N/A
Panamera	2010-Present	970, 971	N/A	N/A

Revision History

Revision	Release Date	Changes
0	February 25, 2019	Original document

Customer Concern

The rear lid does not close normally. The lift struts are suspected to be the cause.

Technical Background

It is possible to watch the voltage and current of the lid struts during their travel using the data logger in the tester. This is helpful to identify problematic struts.

With a consistent voltage supply, the current will change due to electrical and mechanical resistance changes. A faulty strut is easier to see with this view.

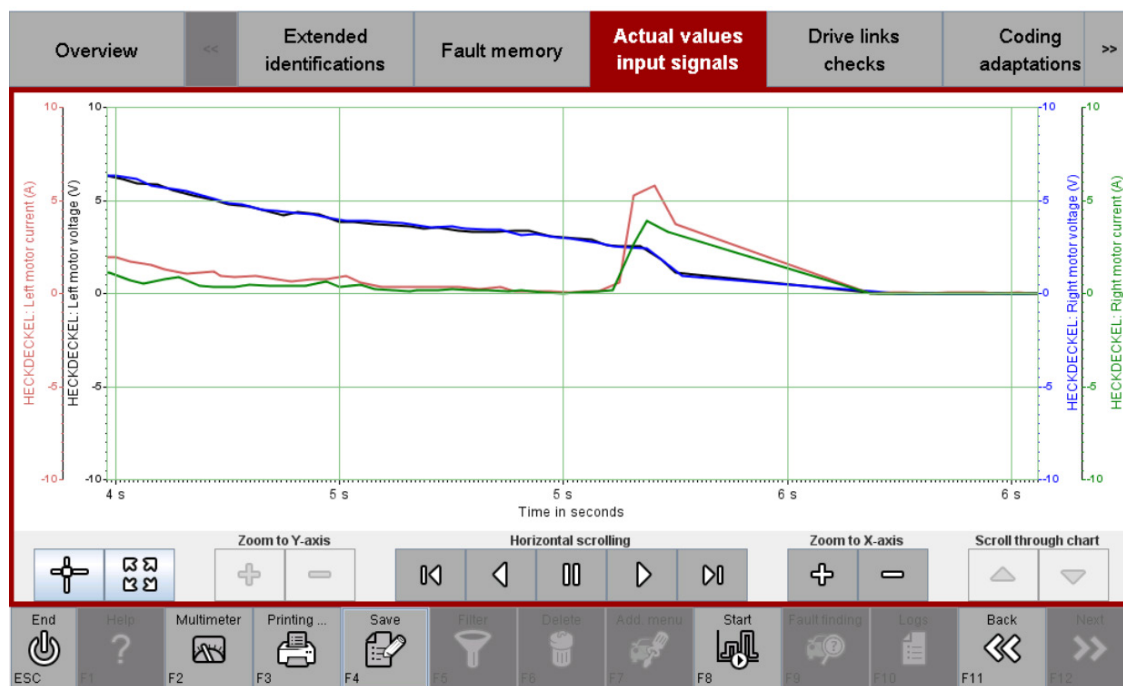
Remember that current flow is the result of voltage supply and the resistance. Resistance is key here. It comes in two forms: electrical and mechanical.

- As electrical resistance increases, current flow decreases.
- As mechanical resistance increases, current flow increases (more energy needed).
- As electrical resistance decreases, current flow increases.
- As mechanical resistance decreases, current flow decreases (less energy needed).
- Therefore, mechanical resistance has the opposite effect on current flow that electrical resistance has.

Technical Background (continued)

Data logger actual values/input signals

Start and stop data logging for the selected values by pressing [F8].



The graph above shows the voltage in the blue and black lines. It is very consistent for both struts.

The current is shown in the green and red lines. The red line has a larger current spike than the green line does. This could be due to some mechanical resistance that is causing that strut to work a bit harder (it needs more energy). The lid adjustment or a binding strut would be good places to check for that.

Note that the green current line could be from an electrical resistance accumulating in a strut. Higher electrical resistance would cause the current flow to decrease (the red line could be the normal one in that case).

Your observations as the lid operates are critical to determine what is actually happening.

Service Information

The lid adjustment will have an effect on the current required to close or open the lid. Ensure the adjustment is correct in relation to the body opening as a first diagnostic step. Reference WM559015 Adjusting Rear Lid.

Advanced Technical Information

Bulletin #: 1902

Part ID: 55730

5

Warranty

For cases where the lid adjustment is the problem, use:

Cause Location: 55900 Rear Lid

Cause Symptom: 1111 Adjustment fault

For cases where there is an electrical fault with the strut, use:

Cause Location: 55730 Actuating Cylinder for Rear Lid

Cause Symptom: 4000 Electrical fault

For cases with mechanical issues with the strut, use:

Cause Location: 55730 Actuating Cylinder for Rear Lid

Cause Symptom: Select the closest option available to the failure cause.

Though diagnostic time is included in all main labor operations, additional diagnostics for this unique business case set forth in the instructions of this ATI will be considered provided it is fair, realistic and justified by the technicians separate identifiable punch time.

Please use 55900199 for this.

Search Items

Rear lid; diagnosis; strut; lid strut; current graph; voltage graph; logging; data logging; lid; lid adjustment

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