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Document Information

Vehicles affected: All Series (except Ultimate)

Location: Electrical - Window Lift

Topic: Window Anti-Trap poor behaviour

Condition: When raising window or closing door the window's Anti-Trap feature is enabled

Diagnostic Trouble Codes: N/A

Measure

Background Information

The door modules (DML & DMR) feature an Anti-Trap protection circuit that will reverse the window motor if a threshold of resistance is encountered. The Anti-Trap protection strategy is triggered when the speed of the window raising is slow.

The window motor has an integral hall effect sensor to measure the speed of lift that is powered with 5V and grounded directly from the DML/DMR, the signal from the sensor is returning directly to the DML/DMR as a square wave. The window motor hall effect sensor is also used during the calibration of the window to enable the travel of the window to be stored inside the DML/DMR and recognise the end positions of travel.

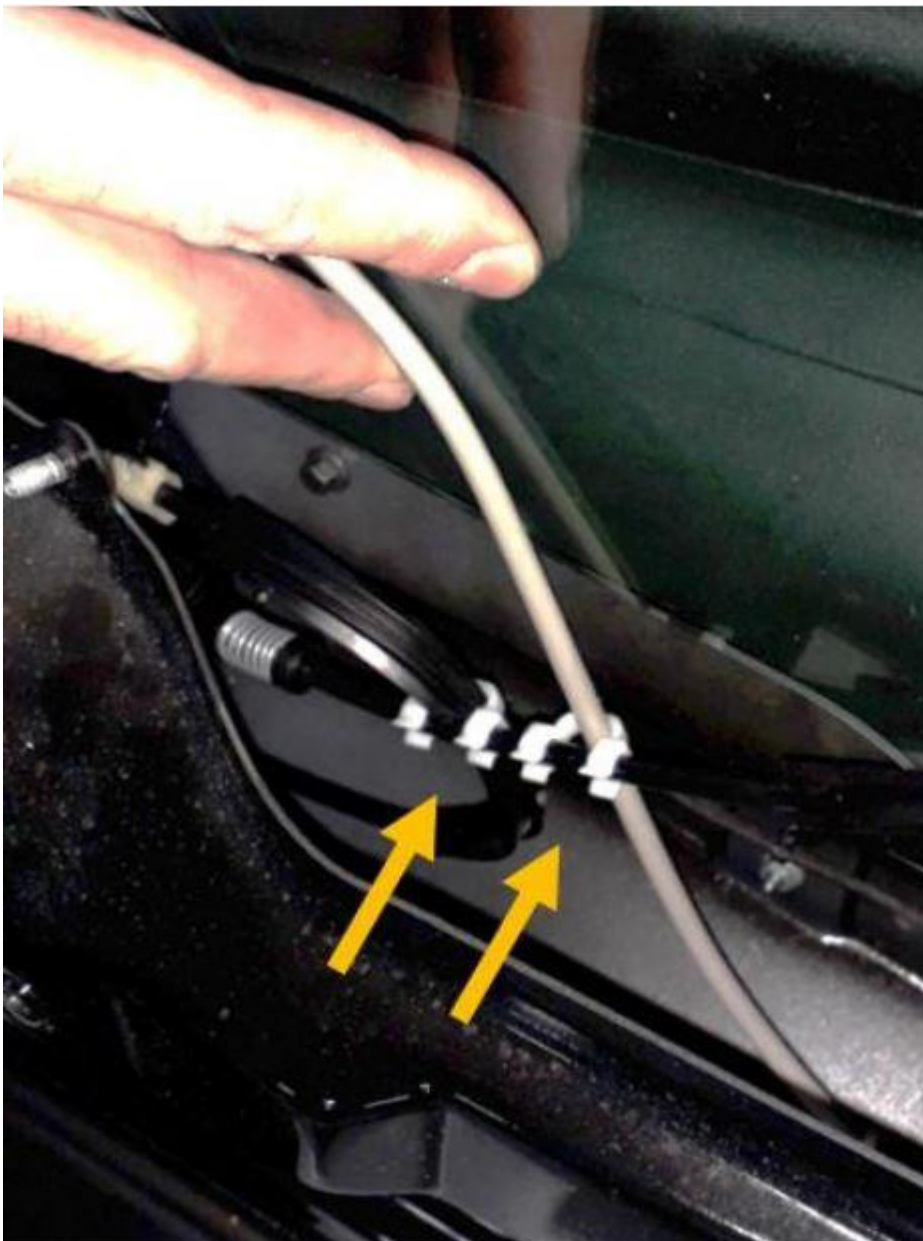
Check list:

The flush and gap document for the door and window fit is found upon SIS and should be consulted and the glass fitment verified to the document.

Check the anti-trap intervention does not occur with the door open by operating the latch upon the body, the window should raise to the closed condition. If the anti-trap

occurs check the window channel rubbers and scraper seal fitment upon the door is not restricting the raising motion.

If window anti-trap is still encountered, the securing of the drive cables should be checked. If they are not secured, or secured using a cable tie, the motion of the window regulator will not be uniform during raising and the speed will slow. This will encourage premature anti-trap intervention. Please use part 00RB250 X2 and install as illustrated in the picture below.



When closing the door or raising the window, if you find the window will not raise to the closed position and reverses direction, it can be necessary to make adjustment to the window regulator's position:

- the position of the window, forwards/ backwards on the fixing clamps.
- make analysis of the pressure of the glass against the door aperture seal.
- Tilt of the glass against the “B” post, to remain parallel with the “B” Post, it may be necessary to adjust the upper fixing of the regulator into the cabin, or to pivot the glass by making adjustment of the lower regulator fixing.

Pico Scope log to monitor the DML/DMR behaviour during raising

By using Pico Scope it is possible to make a trace of the signals from the DML/DMR internal relays that provide reverse polarity to drive the window motor. This will monitor the hall effect sensor to view the speed and deceleration of the window at the point of Anti-Trap intervention. This log is not necessary if the root cause has been identified by following the steps above.

Parts Information

N/A

Attachments

N/A

KA Updates Information

21/04/2021 - Template Updated

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