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WATER DETECTION WINDOW REGULATOR

Axel Unger

Bertrandt Ingenieurbüro GmbH

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WATER DETECTION WINDOW REGULATOR

Technical task:

Detecting whether the vehicle is floating in the water, e.g. by means of a camera, ESP sensors, crash sensors, other sensors in the car (including a position detection, e.g. the car is lying on the roof in the water or e.g. diagonally in a ditch).

Initial Situation:

Many vehicles have electric windows. Vehicles have accidents, in the worst case they drive into deep water and eventually sink. The problem is that the window lifters only work for a certain time, and it is not certain that the occupants, due to panic, etc., will lower the windows as quickly as the electrical systems are still working.

Solution:

If it is recognized that the vehicle is floating "normally" in the water, the windows are all opened completely as quickly as possible to make it easier for the occupants to climb out.

If it is recognized that the car is lying on the roof/side, a decision must be made as to whether it is better to open the windows or to keep them closed, depending on what is best in this situation.

Automatic opening of the windows minimizes the risk of electrical systems failing until the occupant wants to open the window himself.

Appropriate acoustic and visual signals should also be used to inform the occupant (who may be panicking and not thinking clearly) about leaving the car through the opening window.