

# VOLKSWAGEN

GROUP OF AMERICA

James C. Owens, Acting Administrator  
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Subject: Chronology for Audi Recall 90S9  
Gateway Control Module

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Dear Mr. Owens:

Volkswagen hereby submits the following chronology associated with the subject recall.

## Chronology of Defect

August 2020: Audi receives an inquiry from the Chinese authority regarding gateway control module failures due to liquid ingress. At that point the issue was unknown to Audi so far. Investigation regarding root cause and special circumstances commenced. It was found that all cases in China occurred due to a liquid spill on the rear seat bench.

August 2020 - February 2021: The analysis revealed that in case of a liquid ingress, the gateway control module goes into a failsafe mode as part of the safety concept in order to avoid unwanted vehicle reactions. Audi performed a safety assessment to evaluate the potential conditions and consequences that could result from a power shutdown of the gateway control module due to liquid ingress. As part of the investigation, a potential solution for the field and in production was tasked, developed and tested. Audi also conducted a risk assessment which indicated that the risk of a liquid spill leading to a failure of the gateway control module is very low and rare over the lifetime of the vehicle. This was confirmed by the field situation at the time. At the time there were only isolated cases in the North American region and all of them happened after an outside influence, mostly after a beverage spill. Audi continued to monitor the field worldwide regarding this topic.

March 2021: The North American region reported an increase in customer reports related to a gateway control module failure on Q5 vehicles after a liquid spill.

March 2021 - September 2021: Audi conducted additional testing regarding the impacts of a liquid ingress and continued to investigate a potential solution to be implemented in production and in the field. Due to single field cases alleging the failure without a liquid spill an additional investigation was initiated to rule out potential additional root causes for liquid ingress. In August 2021 Audi identified a potential manufacturing issue in the factory in Mexico. Due to a programming error of a glue bead robot, an underbody seam may not have been sealed sufficiently and therefore allow water ingress from underneath in very rare cases when driving through heavy rain or deep puddles. The adjustment to the robot was implemented immediately and analysis continued regarding impact of this additional potential

cause for liquid ingress. Audi also noticed an increased number of VOQ's and decided to discuss the topic with NHTSA ODI during the company's Quarterly Meeting in September 2021.

October 2021: The Audi Product Safety Committee decided a service campaign in order to install a protective cover for the gateway control module and to seal the underbody in the area of the insufficient glue bead. Audi started to prepare the necessary steps for the launch of the service campaign.

November 2021: Audi meets with Transport Canada and the Defective Product Administrative Center in China to discuss the topic based on customer complaints in those markets. Both agencies voiced concerns that a shutdown of the gateway control module due to liquid ingress may happen suddenly and the behavior may be perceived as a loss of mobility.

December 01, 2021: The position of the Canadian and Chinese authority was presented to the Audi Product Safety Committee and the existing decision was re-evaluated. Based on the foregoing, Audi decided to conduct a voluntary recall to remedy affected vehicles.

Date of determination: December 1, 2021.

Audi is not aware of any crashes or injuries due to this issue.

Please contact me if you require any additional information or have any questions related to this information.

Sincerely,



Christopher T. Sandvig  
Director, Group Customer Protection  
Group Quality