

**23V-700**  
**Model Year 2023-2025**  
**BMW Group Vehicles**  
**Hands-On Detection (HOD) System**  
**Chronology**  
**18 Oct 2023**  
**Rev.1 – 14 Aug 2024**

On August 24, 2023, during a vehicle test drive to assess long-term quality, it was noticed that the Hands-On Detection (HOD) system appeared to continuously, and erroneously, recognize the presence of the driver's hands on the steering wheel. An engineering review was initiated.

Between the end of August and early October, reviews of technical information were conducted by both the supplier and BMW. Additional test drives were also conducted involving other development vehicles equipped with various configurations of steering wheels to examine possible effects on system functionality. The supplier also conducted reviews of their production and process information. The supplier was able to identify that, due to a misadjusted drilling process, the bore hole for the fastening of the ground connection to the steering wheel may not have been produced to specifications. As a result, this could cause a loose connection between the ground cable and the steering wheel.

Analyses indicated that if such a condition were to exist, the capacitance measurement could provide an erroneous reading. This could affect the functionality of the HOD system which, in turn, could also affect the functionality of the Emergency Stopping Assistant (ESA) system.

Vehicle assembly information and supplier production and process records were reviewed to determine the number, and production dates, of potentially affected vehicles.

On October 11, 2023, BMW decided to conduct a voluntary safety recall.

BMW has not received any reports, nor is BMW otherwise aware, of any accidents or injuries related to this issue.

Subsequent to the implementation of 23V-700, in July 2024, during a test drive of an X3, the HOD function appeared to be working intermittently. An engineering investigation was initiated.

On July 16<sup>th</sup>, BMW contacted the steering wheel supplier, and on July 19<sup>th</sup>, the steering wheel from the test drive was sent to the supplier in Europe for testing and analyses.

The supplier analyses indicated that the X3 steering wheel had a similar condition to that of steering wheels for vehicles that were involved in the existing recall. Further analyses were conducted to determine why the X3 steering wheel, and potentially other suspect parts, could have been produced outside of the existing recall production range, or were not identified for containment during analyses of the existing recall.

Further analyses indicated that supplier production process anomalies occurred, and that all potentially suspect parts may not have been removed from the supply chain at the time of the existing recall decision. As a result, it was suggested that potentially suspect parts could have entered the parts stream and been installed in additional vehicles.

Vehicle assembly information and supplier production and process records were reviewed to determine the number, and production dates, of potentially affected vehicles.

On August 7, 2024, BMW decided to expand the scope of the voluntary safety recall.

BMW has not received any reports, nor is BMW otherwise aware, of any accidents or injuries related to this issue.