

Vehicle Dynamics Testing- Tahoe PPV Retest

The Chevrolet Tahoe experienced transmission overheating during the vehicle dynamics testing. During the dynamics testing each vehicle is driven a total of 32 timed laps, using four separate drivers, each driving an eight-lap series. The temperature on September 17, 2018, ranged from 70° Fahrenheit at 9 a.m. to 88° Fahrenheit at 3:30 p.m. Both the rear wheel drive and four-wheel drive Tahoes experienced partial power/protect mode issues in laps seven or eight on each run for each driver. This partial power mode limited the vehicles speed and caused the final lap times to increase substantially. General Motors (GM) engineers trouble shot the vehicles, and believed the reason was malfunctioning of the thermal bypass valves. These valves determine the flow of transmission fluid through the transmission oil cooler. Both the rear wheel drive and four-wheel drive Tahoes were retested on October 11, 2018, after having the thermal bypass valves replaced. The four-wheel drive Tahoe did not experience partial power during the retest. The rear wheel drive Tahoe experienced partial power on the last lap of the third and fourth runs. The temperature on October 11, 2018, remained 46° Fahrenheit throughout the testing.

The Los Angeles County Sheriff's Department (LASD) performed dynamics testing on both Tahoes on Thursday, October 25, 2018, in 84° Fahrenheit temperatures. The four-wheel drive Tahoe experienced the overheating and partial power mode conditions in the later laps of runs three and four. GM engineers have elected not to retest the vehicles at this time until they have isolated and corrected the root cause of the overheating condition.

After the evaluation on October 25, 2018, the Tahoe four-wheel drive went through redevelopment with product improvements. On January 24, 2019, the Tahoe four-wheel drive was retested and successfully completed all 32 laps of the LASD dynamic course and the city pursuit course. Winter conditions at the Grattan Raceway preclude MSP from any confirmatory testing of the success of the engineering changes. The MSP will accept LASD's testing results as meeting our purchasing requirements.

The GM Engineering team has done extensive developments to resolve this issue. GM has no known incidents of the transmission over temperature issue as a result of insufficient transmission cooling capacity. Recognizing the importance of the testing, GM is continuously working to improve performance in its vehicles to better serve law enforcement needs.

If your vehicle experiences this condition, please contact your GM Fleet Service Representative.

