



## STAR ONLINE PUBLICATION



**Case Number: S2308000036 Rev. E**

**Release Date:** September 2023

**Symptom/Vehicle Issue:** Cluster Displays an Electric Power Steering (EPS) Fault Warning Lamp or Service Power Steering Message

**Technician Observation:** After an EPS replacement and or EPS control module service the EPS cluster warning lamp remains on. The cluster may display “**Have Power Steering Checked**” message with a steering wheel icon displayed on the instrument cluster.



**Discussion:** Perform the **Lock-to-Lock** steering angle calibration. This procedure is for steering rack center position learning.

**Perform Calibration:** – Start the vehicle and adjust the tires so they are in the straightforward position. Calibration is performed by turning the steering wheel lock to lock with a slight applied steering torque while in the full steering wheel locked positions and holding the full locked position for a minimum of 5 seconds.

Start the vehicle, with the steering wheel centered tires in the straight-ahead position, turn the steering wheel to a full lock position to the right or left. Hold the steering wheel for a minimum of 5 seconds with slight torque applied (min torque 6Nm) while at the stop position. Then rotate the steering wheel to the full lock position in the opposite direction, again holding the steering wheel against the stop for a minimum of 5 seconds (min torque of 6Nm). Return the steering wheel/tires to the centered straight-ahead position, turn the vehicle off and wait for all the lights to turn off, then turn the key back on to complete, see Pg 2 for some of the potential fault codes setting for this concern.

### Pg 1

This document does not authorize warranty repairs. This communication documents a record of past experiences. STAR Online does not provide any conclusions about what is wrong with the vehicle. Rather, it captures all previous cases known that appear to be similar or related to the vehicle symptom / condition. You are the expert, and you are responsible for deciding on the appropriate course of action.

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### DTC SUMMARY

ECU	DTC CODE	DTC DESCRIPTION	STATUS
PCM	U1504	Implausible Message Data Length Received from Steering Angle Sensor	Active
PCM	U0429	Implausible Data Received from Steering Control Module	Active
PCM	U0418	Implausible Data Received From Brake System Control Module 1	Active
ABS	C0051-54	Steering angle sensor - Missing Calibration	Stored
ABS	C0051-86	Steering angle sensor from (EPS) - Signal Invalid	Active
ABS	U1702-54	Electrical Power Steering (EPS) - Missing calibration	Active
BCM	B1A00-68	Battery disconnection_voltage drop - Event information	Stored
BCM	U0402-86	Invalid Data Received From EPS (Electric Power Steering) - Signal invalid	Active
EPS	C0529-00	Steering Angle Sensor Module Missing Calibration -	Active
EPS	C2129-1F	Battery voltage - Circuit intermittent	Stored
EPS	C2210-4B	Electric Power Steering (EPS) Over Temperature - Over temperature	Stored
PAM	B1000-96	Electronic Control Unit - Component internal failure	Stored
PAM	U1702-29	EPS Electric Power Steering - Signal signal invalid	Active
PAM	U1706-29	BSM Brake System control Module - Signal signal invalid	Active
ETM	U1202-00	Lost Communication with Electric Vehicle Control Module-	Active
HALF	C0061-64	Lateral acceleration sensor - Signal plausibility failure	Active
HALF	C0063-29	Yaw Rate Sensor - Signal Signal Invalid	Active
HALF	C0063-64	Yaw rate sensor - Signal plausibility failure	Active
HALF	C1260-00	ABS/ESC Dynamic Controls Disabled - No Subtype information	Active
HALF	U0420-64	Implausible Data Received from Electric Power Steering (EPS) - Signal plausibility failure	Active
ACC	C1403-86	Electrical power steering failure - Signal invalid	Active
ACC	C1408-86	ESC fail status present - Signal invalid	Active
ACC	C1431-86	Yaw rate acceleration sensors from BSM failure - Signal invalid	Active
DTCM	C2206-64	Steering Wheel Angle - Signal Plausibility Failure	Active
DTCM	C221B-64	Implausible ELD Fail Status Signal	Active
DTCM	U2003-64	Yaw rate sensor - Signal plausibility failure	Active
TBM2	B210D-16	Battery Voltage Low - Circuit voltage below threshold	Stored
CVPM	U0140-00	Lost communication with Body Control Module (BCM) - No Subtype information	Stored
CVPM	U0422-00	Invalid Data Received From Body Control Module - No Subtype information	Active

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