Date: January 27, 2021

Bulletin Number: PV051

Subject: 2021 XT5 - Power Steering Control Module Calibration

Steering Angle Sensor Centering and Software End Stop Learning

Warning: An inaccurate or not centered steering angle sensor could limit the operation of the electric power steering and may resulting personal injury.

Centering of the steering angle sensor and software end stop learning might be required after certain service procedures are performed. Some of these procedures are as follows:

- Steering angle sensor replacement
- Steering gear replacement
- Power steering assist motor replacement
- Steering column replacement
- Steering linkage inner tie rod replacement
- Steering linkage outer tie rod replacement

Note: It is necessary to perform the steering angle sensor centering BEFORE the software end stop learning.

Internal Steering Angle Sensor Centering

Note: Ensure the front wheels are facing straight ahead before turning the engine off.

The centering procedure of the internal steering angle sensor can be completed with the following steps:

Conditions: Front axle measured and set, engine off, vehicle speed 0 km/h (0 MPH), internal steering angle sensor is activated.

1. Using the steering wheel, align the front wheels in the center forward position.
2. Using a scan tool, perform the Configuration/Reset Functions, Steering Wheel Angle Sensor Centering procedure.
3. Steer from the center position slowly 90° to the left.
4. Steer slowly back to the center position and then slowly 90° to the right.
5. Steer slowly back to the center position.
6. Perform the steering movements again.
7. Centering procedure is completed.

Software End stop Learning

The software end stops are learned automatically and do not require any additional procedures.

BSCM – in SPS

1. Access the Service Programming System (SPS) and follow the on-screen instructions.
2. SPS programming is done after a Successful Hydraulic Brake Bleed (see Hydraulic Brake System Bleeding Document ID: 5064705).
3. On the SPS Supported Controllers screen, select K160 Brake System Control Module - Programming and follow the on-screen instructions.
4. Clear DTCs.

Note: If DTC sets after programming, contact up-fitter integration.

For programming issues, contact Techline Customer Support Center (TCSC) (1-800-828-6860) or 1-800-503-3222 French) with the length of the vehicle to be programmed.

For all other concerns contact GM Upfitter Integration www.gmupfitter.com/contacts/contact_us