

TECHNICAL BULLETIN**TB13****ASTRA J**

10720001

INSIGNIA

10720002, 10720003, 10720004, 10720005,

TECHNICAL BULLETIN**TB13**

This is a technical bulletin for the following Electric Steering Racks;

Vauxhall Astra J - 10720001
Vauxhall Insignia - 10720002, 10720003, 10720004, 10720005

Prerequisites

You **MUST** have access to **GM MDI Tech3 Diagnostic software**.
Failure to follow this procedure will void your warranty!

ATTENTION

The above products have a very specific recalibration process when fitting a reconditioned steering rack to the vehicle. If you do not have access to the following diagnostic equipment outlined in this bulletin, you must source a suitable auto-electrician who has the correct diagnostic equipment before attempting to replace the steering rack.

Also, you **MUST** begin the recalibration process **BEFORE** you remove the old steering rack from the vehicle. The recalibration process must read the old data from the steering rack, and then copy that across to the new unit. If you have removed the steering rack already, you must refit the unit, and begin at step one below.

ATTENTION**Procedure**

The following steps are all from the OEM and must be followed.
Power Steering Control Module Replacement.

Note:

During the procedures listed below, critical data is retrieved from vehicle components and stored in the scan tool computer's hard drive. This data is needed during the programming and setup sequences.

Ensure the same scan tool is used and capable of reading, storing, and writing the vehicle's system data.

1. Connect a scan tool to the vehicle and access SPS.

Refer to Service Programming System (SPS).

Note: Step 2 copies the worm gear wear counter data from the power steering control module.
PRIOR to the module's removal and stores it on the scan tool computer's hard drive.
AFTER completing step 2, the power steering control module can now be removed and replaced.

2. Perform the SPS function Electronic Power Steering - Prepare Control Module for Removal and follow the on-screen instructions.

3. Replace the Power Steering Assist Motor containing the Power Steering Control Module. Refer to Power Steering Assist Motor Replacement.

Note: The next two steps will transfer the vehicle's critical data, including the worm gear wear counter data saved in step 2, back to the vehicle components.

4. With the Power Steering Assist Motor replaced and reconnected, using the same scan tool, perform the SPS function Electronic Power Steering - Programming and follow the on-screen instructions.

5. Perform the SPS function Electronic Power Steering - Setup and follow the on-screen instructions.

6. Perform the Steering Angle Sensor Centring and Software Endstop Learning procedure. Refer to Power Steering Control Module Calibration.

7. Clear DTCs after completing the programming and setup procedures.

Power Steering Control Module Reprogramming

Note: This procedure applies to reprogramming of the existing steering gear or the initial programming if the complete steering gear assembly including the assist motor was replaced. If only the power steering control module is replaced, follow the Power Steering Control Module Replacement instructions above.

1. Connect a scan tool to the vehicle and access SPS. Refer to Service Programming System (SPS).

2. Perform the SPS function Electronic Power Steering - Programming and follow the on-screen instructions.

3. Perform the SPS function Electronic Power Steering - Setup and follow the on-screen instructions.

4. Perform the Steering Angle Sensor Centring and Software Endstop Learning procedure. Refer to Power Steering Control Module Calibration.

5. Clear DTCs after completing the programming and setup procedures.

Steering Angle Sensor Centring

For electronic power steering equipped vehicles **WITH** electronic stability control program and **EXTERNAL** Steering Angle Sensor, refer to Steering Angle Sensor Centring.

The centring procedure of the internal steering angle sensor (w/o electronic stability program) can be completed with the following steps:

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

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

Software Endstop Learning

The software endstop learning procedure can be completed with the following steps:

Conditions: Front axle measured and set, vehicle speed 0 km/h (0 MPH), internal steering angle sensor is calibrated or external steering angle sensor sends a valid CAN signal.

1. Using a scan tool, perform the Configuration/Reset Functions, Power Steering Softstops Reset procedure and follow the on-screen instructions.
2. Using a scan tool, perform the Configuration/Reset Functions, Power Steering Softstops Learn procedure and follow the on-screen instructions.
3. Software endstop learning procedure is completed.

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