



Service Bulletin

PRELIMINARY INFORMATION

Subject: Diagnostic Tip - Service Steering Message or Service Stability Message

Models: 2010 - 2013 Chevrolet Equinox

2010 - 2013 GMC Terrain

With one or more of the following DTC C056E Sym 42 C0569 Sym 3A C0710 Sym 71 or 00

This PI was superseded to update model years and associated text. Please discard PIT5063A.

The following diagnosis might be helpful if the vehicle exhibits the symptom(s) described in this PI.

Condition/Concern

Customer may comment on one or both of the following:

- Service Steering Message
- Service Stability Message

The Technician may find DTC C056E Sym 42 calibration data set not programmed. The DTC C0569 Sym 3A sets after a new steering gear assembly was installed.

Recommendation/Instructions

Important:

Before diagnosing DTC C056E Sym 42 or DTC C0569 Sym 3A: If a steering angle sensor DTC C0710 Sym 71 (invalid serial data) or 00 is set, the C0710 must be fixed first in order to learn steering angle in the EBCM and PSCM or the TIS2WEB steering gear "set-up" will fail. When a Steering Angle Sensor (SAS) on the chassis bus fails, a C0710 Sym 71 or 00 sets. The C0710 will be found in two modules: the EBCM and the PSCM (if equipped with electric steering).

The SAS sensor/module can store C056D Sym 00 (internal hardware fault), diagnose this code first. The Power Steering Gear assembly does not have an internal Steering Angle Sensor. Rather, it uses the steering angle sensor data from the EBCM. The Power steering control module learns the SAS that is on the Chassis Bus from the EBCM through high speed LAN.

DTC C056E Sym 42 or C0569 Sym 3A:

The Power Steering Control Module (PSCM) can set DTC C056E Sym 42 when a steering gear assembly was replaced without SPS programming.

DTC C0569 Sym 3A can set from a previous motor/module or steering gear replacement that was not previously programmed correctly or has internal module data missing. DTC C0569 Sym 3A can also set if an incorrect steering gear assembly part number was installed. Below are some examples related to the codes that set.

Example 1:

Previous repair from a body shop with a steering gear replacement without SPS programming or Set-up. The steering will work normal with no service steering message. This allows the technician time to set the wheel alignment. After some time the (PSCM) Power Steering Control Module will set a latched DTC of C056E symptom 42 (calibration data set not programmed) resulting in a Service Steering Message. The Service information will instruct to program the PSCM using TIS2WEB and then Set-up. During Set-up it fails because too much time has passed without software programming and set up. If using GDS performing the soft-stop learn function will appear to be completed but the DTC C056E 42 will not clear from the PSCM. At this point the complete steering gear assembly must be replaced and programmed.

Example 2:

If a "Prepare module for removal" was performed from a Power steering gear assembly that contained C056E 42 from a non-programmed module and a newly installed steering gear assembly was just installed and after SPS programming the DTC C0569 3A set. Confirm that the correct steering gear part number was

installed. At this point contact the TCSC (Techline) for special programming instructions.

Important: The only time a "Prepare Module For Removal" is performed is when a motor/module (Power Pack) is replaced for motor fault DTC C0475.

Note: When a new steering gear is replaced, perform the following steps:

1. Install the steering gear assembly
2. Set the alignment toe
3. SPS program the EPS module using TIS2WEB
4. Perform the EPS Set-up Procedure using TIS2WEB (this will learn SAS from the EBCM and learns end-stop).

Please follow this diagnostic or repair process thoroughly and complete each step. If the condition exhibited is resolved without completing every step, the remaining steps do not need to be performed.

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