



Service Bulletin

PRELIMINARY INFORMATION

Subject: Spark Knock (Detonation) Type Noise, Malfunction Indicator Lamp Illuminated (MIL), DTC P0324

Models: 2014 Chevrolet Spark
Equipped with 4 Cylinder, 1.2L Engine (RPO LLO)

Condition/Concern

Some customers may comment the Malfunction Indicator Lamp (MIL) is illuminated and that a rattle or spark knock type noise can be heard while driving. When diagnosing the condition, the technician may find DTC P0324 set current (fault active).

Recommendation/Instructions

Note: The engine may exhibit a mechanical knock, tick or rattle noise during the inspection. In addition, the Malfunction Indicator Lamp (MIL) may illuminate and a diagnostic trouble code (DTC) P0324 may set. Read and perform the diagnostic test in the inspection procedure below to determine if a vehicle repair is required.

Inspection Procedure

Perform the following steps to determine if the repair procedure is required:

1. Allow the vehicle to cold soak overnight.
2. With the ignition key in the on position and the engine off, install GDS2 and select Module Diagnosis >Engine Control Module >Diagnostic Trouble Code (DTC)>View Codes and Clear Codes.
3. Select Data Display>Ignition Data and monitor the Total Knock Retard Parameter.
4. On vehicles equipped with **Automatic Transmissions:**
 - 4.1. Set the parking brake.
 - 4.2. Start the vehicle and run at idle for 10 seconds.
 - 4.3. Firmly apply and hold the brake and place the vehicle into 'D' drive.
 - 4.4. Raise and hold the engine speed between 1800 and 2000 RPM for 10 seconds and then return to idle for 5 seconds. Repeat this cycle 7 times.
5. On vehicles equipped with **Manual Transmissions:**
 - 5.1. Start the vehicle and run at idle for 10 seconds.
 - 5.2. Drive vehicle in gear at 1800 to 2000 RPM for 10 seconds (light brake application will aid to maintain engine load in the 2000 RPM range) stop and idle for 5 seconds. Repeat this cycle 5 times.
6. Turn off the engine.
7. Review the GDS2 session log Total Knock Retard Parameter.
 - If the readings during the raised RPM testing were continuously above 6.0 degrees for more than 5 seconds, the vehicle requires repair. Refer to the repair procedure section below.
 - If the readings during the raised RPM testing were NOT continuously above 6.0 degrees for more than 5 seconds, no further action is required within the scope of this bulletin. Refer to SI to further diagnose the concern.

Repair Procedure

General Motors engineering is working on a repair for this condition. When the repair procedure has been developed and parts are available, this PI will be updated.

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
4080438*	Diagnose Spark Knock (Detonation) Type Noise, Malfunction Indicator Lamp Illuminated (MIL), DTC P0324	0.5 hr
*This is a unique Labor Operation for Bulletin use only. It will not be published in the Labor Time Guide.		

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.



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