



# Service Bulletin



## SERVICE UPDATE

**SUBJECT:** Service Update for Inventory Vehicles Only  
Engine Noise – DTC P0324  
Expires May 31, 2015

**MODELS:** 2014 Chevrolet Spark  
Equipped with 1.2L Engine (LL0)

This service update involves vehicles in dealer inventory only and will expire May 31, 2015.

### PURPOSE

This bulletin provides a service procedure to perform a test procedure on **certain** 2014 model year Chevrolet Spark vehicles, equipped with a 1.2L engine (LL0). If the vehicle does NOT pass the test procedure, dealers are to replace the four piston assemblies. Some customers have commented about engine knock/tick/rattle, sluggish performance, and poor shifts; however, the vehicle remains operable.

**This service procedure should be completed on involved vehicles currently in dealership inventory as soon as possible but no later than May 31, 2015, at which time this bulletin will expire.**

### VEHICLES INVOLVED

All involved vehicles are identified by VIN in the Global Warranty Management System – Investigate Vehicle History Application. Dealership technicians should always check this site to confirm vehicle involvement prior to beginning any required inspections and/or repairs. It is important to routinely use this tool to verify eligibility because not all similar vehicles may be involved regardless of description or option content.

Additionally, a list of involved vehicles currently in dealer inventory is available on the “Service Update Bulletin Information” link under the “Service” tab in GM GlobalConnect (US) or attached to the GlobalConnect message (Canada) used to release this bulletin.

**PART INFORMATION**

Parts required to complete this service update, except the piston set, are to be obtained from General Motors Customer Care and Aftersales (GMCC&A). Please refer to your “involved vehicles listing” before ordering parts. Normal orders should be placed on a DRO = Daily Replenishment Order. In an emergency situation, parts should be ordered on a CSO = Customer Special Order.

Piston sets, if required, are to be obtained from the Warranty Parts Center (WPC). Complete the Part Request Form found at the back of this bulletin and fax the form to 248-371-0192. DO NOT call the WPC to place an order. Kits will be shipped via UPS - Next Day Delivery at no charge.

**Important:** The parts listed below are only required if the inspection procedure determines piston replacement is required. These parts must be replaced during the piston replacement procedure, **do not reuse any of the listed components.**

| Part Number                    | Description                    | Quantity/Vehicle                          |
|--------------------------------|--------------------------------|-------------------------------------------|
| WPC 745*                       | Piston Set                     | 1 Set                                     |
| 96416362                       | Bolt/Screw – Cyl. Hd.          | 10                                        |
| 94525091                       | Washer – Cyl. Hd.              | 10                                        |
| 25187952                       | Gasket – Cyl. Hd.              | 1                                         |
| 25183348                       | Gasket – Cam Cover             | 1                                         |
| 25189002                       | Oil Pan                        | 1                                         |
| 25186670                       | Gasket – Exhaust Manifold      | 1                                         |
| 25182093                       | Bolt/Screw – Exhaust Manifold  | 10                                        |
| 15032594                       | Nut – Catalytic Converter Pipe | 3                                         |
| 96337657                       | Gasket – Exhaust Front Pipe    | 1                                         |
| 11588725                       | Bolt – Water Pump              | 4                                         |
| 13208672                       | Nut – Drive Shaft              | 2                                         |
| 11611963                       | Washer - Axle                  | 2                                         |
| 88864346 – US<br>88861418 - CN | Sealant                        | 2                                         |
| 12346290 – US<br>10953464 - CN | DEXCOOL Engine Coolant         | 5 Qt. (4.8 litre)<br>(submit as net item) |
| Obtain Locally - US            | DEXOS1 5W-30 Engine Oil        | 4 Qt.                                     |
| 19286321 - CN                  | DEXOS1 5W-30 Engine Oil        | 3.8 litre                                 |

\*The Piston Set, if required, will be supplied through the Warranty Parts Center. The set consists of (4) piston assemblies with rings, and (8) connecting rod bearing cap bolts. Use the form at the end of this bulletin to order the set, if required, from the WPC.

## SERVICE PROCEDURE

**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 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.

### **Engine Diagnostic Test and Inspection**

#### **Vehicles Equipped with an Automatic Transmission**

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 Codes (DTC)>View Codes and Clear Codes.
3. Select Data Display>Ignition Data and monitor the Total Knock Retard Parameter.
4. Set the parking brake.
5. Start the vehicle and run at idle for 10 seconds.
6. Firmly apply and hold the brake and place the vehicle into 'D' drive.
7. Raise the engine RPM to between 1800 and 2000 for 10 seconds and then return to idle for 5 seconds.
8. Repeat step 7 five times.
9. Turn off the engine.
10. 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

#### **Vehicles Equipped with a Manual Transmission**

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 Codes (DTC)> View Codes and Clear Codes.
3. Select Data Display>Ignition Data and monitor the Total Knock Retard Parameter.
4. Start the vehicle and run at idle for 10 seconds.
5. Drive vehicle in gear at 1800 to 2000 RPMs for 10 seconds. Light brake application will aid to maintain engine load in the 2000 RPM range. Stop and idle for 5 seconds.
6. Repeat step 5 five times.
7. Turn off the engine.

## 8. 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

Install four new piston assemblies. These piston assemblies (4) will be supplied, with rings, through the Warranty Parts Center (WPC) along with the (8) connecting rod bearing cap bolts. Use the form at the end of this bulletin to order the piston set from the WPC.

Replace all four piston assemblies, refer to *Piston, Connecting Rod, and Bearing Replacement* in SI.

### WARRANTY TRANSACTION INFORMATION

Submit a transaction using the table below. All transactions should be submitted as a ZFAT transaction type, unless noted otherwise.

| Labor Code | Description                                                          | Labor Time | Net Item |
|------------|----------------------------------------------------------------------|------------|----------|
| 9100411    | Perform Test Procedure – Vehicle Passed - No Further Action Req'd    | 0.5        | N/A      |
| 9100412    | Piston, Connecting Rod, and Bearing Replacement (inc test procedure) | 10.9       | *        |

\* **For US:** The amount identified in Net Item should represent, 1) the actual sum total of the current GMCC&A Dealer net price for the Dexcool and engine oil needed to perform the required repairs, not to exceed \$30.88 USD, plus applicable Mark-Up and, 2) \$75.00 handling allowance for the piston set provided at no-charge from the WPC.

**For CN:** The amount identified in Net Item should represent, 1) the actual sum total of the current GMCC&A Dealer net price for the Dexcool needed to perform the required repairs, not to exceed \$16.25 CAD, plus applicable Mark-Up and, 2) \$75.00 handling allowance for the piston set provided at no-charge from the WPC.

### DEALER PROGRAM RESPONSIBILITY

Dealers must take the steps necessary to ensure that the service update correction has been made to all involved vehicles in dealer inventory before selling or dealer-trading the vehicle, but no later than May 31, 2015.

**IMPORTANT NOTE WHEN PRINTING THIS FORM:** If the form prints out on two pages, make certain you fax both pages so the WPC receives the needed information. Missing information will delay or prevent the part from being shipped.

**Part Request Form — Warranty Parts Center**

Use this form **ONLY** for U.S. & Canada Dealers. Export markets & Mexico Dealers must contact their regional Technical Assistance Center for assistance.

**To:** Warranty Parts Center  
**Email:** [warrantypartscenterusa@gm.com](mailto:warrantypartscenterusa@gm.com)  
**or WPC Fax:** 248-371-0192  
**Attn:** Amina Winfrey

Part Being Requested: **WPC 745 Piston Set, 4 Pistons with Rings, 8 Connection Rod Cap Bolts**

Dealer BAC (U.S.) / Dealer Code (Canada):

Dealer Name:

Dealer Address:

Dealer Contact Person:

Dealer Phone Number:

Repair Order Number:

Vehicle VIN:

**IMPORTANT:** If you do not receive the part within 2 business days after emailing or faxing your part request to the Warranty Parts Center, please call Customer Assistance at 248-371-9901/9902.