



# Service Bulletin

## PRELIMINARY INFORMATION

**Subject:** 1.5L (RPO L3A) Engine Exchange Program

**Models:** 2016 Chevrolet Volt  
Equipped with a 1.5L (VIN code 5 RPO Code L3A).

This PI will cover the engine exchange program only for the 2016 models listed above.

Additional PIs will be published for each engine or component as they are introduced.

During the launch of the 2016 model year, the following engine(s) will be under an exchange program:

- 1.5L Engine Assembly (RPO L3A)

Product teams continually seek valuable information for engineering improvements.

To assist in this effort, an engine exchange program will be used for the listed engine and vehicles.

The 2016 model year engine exchange program will be administered by the GM Product Quality Center (PQC).

Dealerships are required to call the PQC, not GM Technical Assistance (TAC), to request an exchange.

Prior to calling the PQC, please make sure to complete the "OEM Engine Exchange" template in this PI.

Use of the templates will minimize the time spent on the telephone and avoid the need of a second call to the PQC.

Guidelines for honoring exchange requests under this program are being strictly enforced.

The PQC may refer the dealer technician to TAC if additional diagnosis is required.

TAC will be available for product inquiries that do not require assembly replacement.

Division	PQC Telephone Number
US Cars and Trucks	1-866-654-7654
Canada -- English and French	

Components that may be removed and serviced without exchange are identified by an "X" in the appropriate column of the table below.

Any repairs involving engine components not identified in the table below, engine noise concerns, oil consumption, or related symptoms may require an engine exchange.

**Important:** Engine block and internal components along with any component in which a cylinder head has to be removed to perform the repair will require an engine exchange.

Please note that this list is subject to change as the program progresses.

You will be notified by the PQC consultant if additional items are considered serviceable on a particular engine.

Serviceable Components	2016 1.5L (RPO L3A) VIN Code 5
Accessory Drive	X
A/C Compressor	X

All Engine Sensors	X
All Cooling System Hoses	X
Brackets	X
Camshaft Cover and Seals	X
Coolant Pump	X
Coolant System Bypass Pipe	X
Coolant System Radiator Inlet/Outlet Pipes	X
Coolant Outlet Assembly	X
Crankshaft Damper	X
EGR Valve	X
EGR Temperature Sensor	X
EGR Cooler Assembly	X
EGR Cooler Pipes	x
Engine Control Module (ECM)	X
Engine Mounts/Transaxle Mounts	X
Engine Wiring Harness	X
Exhaust Manifold / Gasket	X
Engine Cover/Beauty Cover	X
Flywheel / Flex Plate	X
Fuel Injectors	X
Fuel Injector Wiring Harness	X
Fuel Rail	X
Fuel Pipes & HP Fuel Pump Assembly	X
Generator	X
Hi/Lo Pressure Fuel Lines	X
Heater Outlet / Inlet Fittings	X
Ignition System(Coil, Spark Plug)	X

Intake Air Ducts and related components	X
Intake Air Temperature Sensor	X
Intake Manifold	X
Knock Sensors	X
MAP or Baro Sensor	X
Mass Air Flow Sensor	X
Oil Fill Cap	X
Oil Filter	X
Oil Level Indicator and Tube	X
Oil Pressure Switch	X
Oil Pressure Control Solenoid Valve	X
Oxygen Sensors	X
PCV Hose(s)	X
PCV System	X
Purge Solenoid	X
Starter Motor and Solenoid	X
Thermostat Housing/Gasket	X
Throttle Body/Related Components	X
Vapor Vent Lines/Seals	X

**Important:** Engine repairs or failures that are caused by components external to the engine do NOT fall under the exchange program. For example, if an engine failure is caused by incorrectly installed engine coolant lines, the engine assembly (or parts required to complete a repair) must be obtained from General Motors Customer Care and Aftersales (GMCC&A) through the normal parts ordering process. The exchange program is created as a way to correct internal concerns and to take what is learned and find a way to eliminate these concerns. External components causing a failure do not provide any useful information in improving an engine. The engine received from GMCC&A through the normal parts ordering process will be a new service engine.

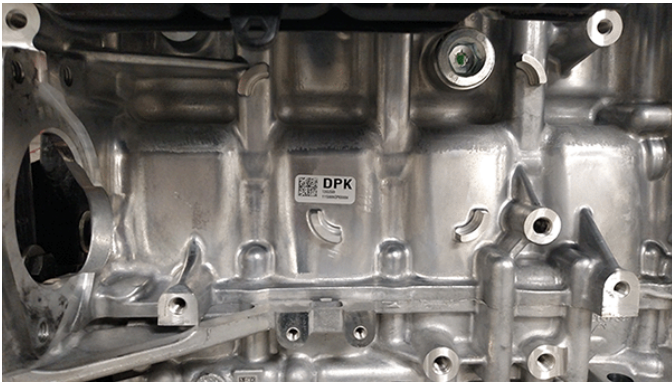
## Engine Broadcast Code Location

### 1.5L Engine Assembly (RPO L3A)

Engine Front Cover



Engine Block Below Intake Manifold



As shown in the above photos, the engine broadcast code can be found on the engine front cover or engine block below intake manifold

## Procedures

A thorough diagnosis must be performed on the condition in order to prevent unnecessary component replacements.

Contact the Product Quality Center (PQC) to verify the proper diagnosis has been performed.

Upon review of the diagnosis, the PQC will establish a case reference number and make arrangements for shipping an exchange unit to your dealership.

The replaced engine must be returned to the Warranty Parts Center (WPC)

**DO NOT SHIP AN ENGINE TO THE (WPC) WITHOUT AN OFFICIAL WPC REQUEST**

**Important:** Failure to return the replaced engine by the due date will result in the dealership being debited the entire warranty claim (parts and labor). The removed unit must be returned complete in the original exchange shipping container. For effective engineering analysis, please do not remove any components. Dress items on the removed unit must remain the same as the replacement engine (e.g., exhaust manifolds, throttle body, etc.). Dealerships returning engines/components that have been even partially disassembled will be judged as violating this procedure and, as such, will be billed for all materials furnished.

**Notice:** The exchange unit will be shipped with a quantity of oil; check oil level before starting the engine. Low oil level could result in internal engine damage.

## WPC Request

The Warranty Parts Center (WPC) will fax a Special Part Request to your dealership requesting the return of the removed engine.

DO NOT wait for the warranty claim to be paid before returning the removed engine.

The Special Part Request will provide a request number

This request number must be written on the outside of the return container using a permanent marker.

Failure to write the request number on the return container may delay the processing of your return.

If you do not receive the WPC Special Part Request, contact Julie Cumo at 248-371-9939 (for French call PQC 1-866-654-7654) to obtain the proper paperwork in order to return the removed engine. Failure to return the engine may result in a debit.

### Shipping Preparation

1. Remove the engine assembly/component as outlined in the applicable Service Manual.
2. Drain all fluids from the removed engine.
3. Retorque any fasteners that were loosened or removed to the original torque specification.
4. Remove any plastic shipping plugs and covers from the exchange unit and install them on the removed unit.
5. If the concerned engine leaks, mark the area directly on the engine with a permanent marker.
6. Write the PQC case reference number on the repair order form.
7. Write the PQC case reference number directly on the component in a visible location.
8. Insert a copy of the WPC Special Part Request, repair order with technician comments, and the completed OEM Engine Exchange Worksheet (template in this bulletin) into a plastic bag and securely fasten to the engine.
9. Place the removed engine into the original shipping container.

### Shipping Instructions

1. Write the WPC request number and the PQC case reference number on the outside of the container with a permanent marker.
2. U.S. Dealers – Please go to [www.gmwpc.com](http://www.gmwpc.com), click on the UPS emblem, enter your BAC and select “dealer inquires.” Select “available forms” located on the left side of the screen in blue, then select “Central Transport BOL.” A partially complete BOL will appear. Please print this Central Transport BOL and fill out “from” section with your dealer information and complete the description fields.  
Canadian Dealers – Refer to the latest version of Corporate Bulletin Number 99-00-89-019 for detailed shipping information.
3. Contact the specified carrier to arrange for pick-up of the removed engine. If lift gate service is necessary, please request it at the time of arranging pick-up service.
4. Have the driver sign the bill of lading. Retain a copy of the signed bill of lading. Attach your copy to the original repair order. This will be your proof of returning the removed engine.
5. Ship all return exchanges/components Third Party Freight Collect with appropriate paperwork to:  
GM Warranty Parts Center  
45 Northpointe Drive  
Orion, MI 48359

### Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time	Parts Allowance
4067490*	Engine Replacement	Use Published Labor Operation Time	\$400.00
Add	Administrative Allowance	0.2 hr	

\*Use published labor operation time plus the administrative allowance indicated above.

**Important:** Applicable miscellaneous items such as engine oil and coolant should be added to the part allowance amount and claimed in the Parts Cost column and not included in the Net Amount (DMN) column of the warranty claim.

Your cooperation is greatly appreciated. Prompt return of the original engine will increase the effectiveness of this program. If you have any questions regarding the exchange program administrative procedures, please contact the Product Quality Center.

## OEM Engine Exchange Worksheet

Caller's Name/Position:

Parts Manager name:

Technician Direct Phone:

Dealership's Fax Number:

Parts Dept fax number:

Customer Concern:

Has dealer completed the "OEM Engine Exchange" template in bulletin and reviewed Serviceable Components?

(If no, dealer MUST complete Bulletin and call back)

Has the vehicle been modified with non-production accessories?

What type of service is the vehicle being used in (police, taxi, towing, personal, etc.)?

Describe the failure of the engine:

Broadcast Code:

Engine Serial Number:

Replacement Cost = \$

Requested Labor Time:

Are there any leaks (Yes/No)

If no, continue to next question

If yes,

What type of leak?

Leak location

Are there any Noises (Yes/No)

If no, continue to next question

If yes, complete the following

What kind of noise?

Location and frequency of the noise?

When does it occur:

How long does it last:

Any Lubrication Concerns (Yes/No)

If no, continue to next question

If yes, complete the following

Oil pressure readings:

Results of oil consumption test:

Was the oil contaminated?

If yes, what type of contamination?

Any Performance Concerns (Yes/No)

If no, continue to next question

If yes, list

Low power?

Misfire?

Detonation?

Blue smoke?

White smoke?

Will engine crank?

Vibration?

Did the engine show evidence of:

Overheating?

Coolant consumption?

Coolant contamination?

Low compression?

If yes, list compression test readings:



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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