

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-126-47

Relating to Exemptions Under Section 27156
of the California Vehicle Code

General Motors LLC
LT4 E-ROD Engine Kit, Part # 19356048

Pursuant to the authority vested in the Air Resources Board by Section 27156 of the Vehicle Code; and

Pursuant to the authority vested in the undersigned by Section 39515 and Section 39516 of the Health and Safety Code and Executive Order G-14-012;

IT IS ORDERED AND RESOLVED: That the installation of the LT4 E-ROD Engine Kit, manufactured and marketed by General Motors, LLC, 30003 Van Dyke Avenue, Warren, Michigan 48090, has been found not to reduce the effectiveness of the applicable vehicle pollution control systems and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for all 1995 and older passenger cars and trucks, with up to 4500 lbs. test weight (5725 lbs. GVWR).

The LT4 E-ROD Engine Kit is a complete supercharged engine with intercooler and emission control package designed to change engines from 1995 and older passenger cars and light duty trucks within the maximum weight limit (5725 lbs. GVWR). The kit is derived from a certified 2017 Camaro LT1 engine (test group HGMXV06.2090) but with modifications to the original emission control module (ECM) calibration, exhaust system, evaporative system, and air intake system. The main components of the kit with their corresponding part numbers are listed in Attachment A. Installation of the LT1 E-ROD Engine Kit requires complete removal of the stock pre-1996 model year engine, including its exhaust and evaporative emission control system. The stock fuel tank, hoses and fuel pump are retained but need to be reconfigured to meet the installation requirements of the LT1 E-ROD Engine Kit. The kit is equipped with a fully functioning on-board diagnostic II (OBD II) system except for the evaporative system checks. The stock vehicle check engine light is retained or needs to be added for older vehicles that were not originally equipped with a check engine light in the dashboard. Exhaust system, catalytic converters and oxygen sensors must be installed in the location/orientation as prescribed in the installation instructions provided with the kit. **No component of this kit has any user adjustable parameters; fuel pressure regulator, if used, must be non-adjustable. No exhaust piping can be added between supplied exhaust manifold and output of rear supplied converter. Each converter contains pre-installed, welded on, upstream connecting pipes with factory flanges.**

Installation of any modified or add-on parts to this engine package shall be prohibited unless prior approval is obtained from the Air Resources Board.

This Executive Order is valid provided that the installation instructions for the LT4 E-ROD Engine Kit will not recommend tuning the vehicle to specifications different from those of the kit manufacturer.

Changes made to the design or operating conditions of the LT4 E-ROD Engine Kit, as exempt by the Air Resources Board, which adversely affect the performance of the vehicle's pollution control system shall invalidate this Executive Order.

Marketing of the LT4 E-ROD Engine Kit using any identification other than that shown in this Executive Order or marketing of the LT4 E-ROD Engine Kit for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of the LT4 E-ROD Engine Kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of the LT4 E-ROD Engine Kit as an individual device.

This Executive Order is granted based on emission results submitted by General Motors LLC in certifying its naturally aspirated and supercharged 2017 model year Chevrolet Camaro and Corvette as a new vehicle (test group HGMXV06.2090, LEV 3 LEV 160). The final installed engine configuration, in an applicable vehicle, is the same as the 2017 model year Camaro or Corvette, with allowed modifications as listed in kit description. General Motors LLC's new vehicle certification emissions data for the above mentioned test group are shown below in grams per mile:

	NMOG+NOx	CO	HCHO
Certification	0.083	0.9	0.000
Standards	0.160	4.2	0.004
Useful Life SFTP Emission Level (Composite w/ df)	NMOG+NOx 0.087	CO 0.8	
Standards	0.120 (BIN)	4.2	

The certification emissions and OBD II test results submitted for new vehicle certification have been accepted as representative of emissions in the modified configuration. Therefore, based on the test results, the staff concludes that the General Motors LLC's LT4 E-ROD Engine Kit meets the criteria for exempting general criteria parts.

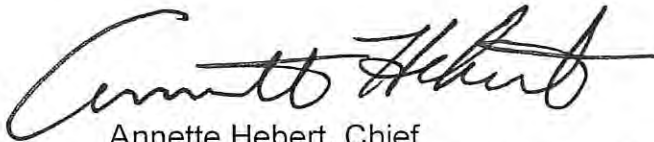
The Air Resources Board reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE LT4 E-ROD ENGINE KIT.

No claim of any kind, such as "Approved by the Air Resources Board", may be made with respect to the action taken herein in any advertising or other oral or written communication.

Violation of any of the above conditions shall be grounds for revocation of this order. The order may be revoked only after a ten-day written notice of intention to revoke the order, in which period the holder of the order may request in writing a hearing to contest the proposed revocation. If a hearing is requested, it shall be held within ten days of receipt of the request and the order may not be revoked until a determination is made after the hearing that grounds for revocation exist.

Executed at El Monte, California, this 5 day of May 2017.

A handwritten signature in black ink, appearing to read "Annette Hebert", with a stylized, flowing script.

Annette Hebert, Chief
Emissions Compliance, Automotive Regulations and Science Division

Attachment A

LT4 E-ROD ENGINE KIT CONTENTS

Kit P/N 19356048 Part Description	Part #
INSTRUCTION MANUAL	
EMISSION CERTIFICATION LABEL	
<u>Engine</u>	
ENGINE	12676219
EXHAUST MANIFOLD (LH) - included with kit	12629728
EXHAUST MANIFOLD (RH) - included with kit	12629729
ENGINE ELECTRICAL HARNESS	19367448
OXYGEN SENSORS (FRONT)	12655677
OXYGEN SENSORS (REAR)	12665162
MASS AIRFLOW SENSOR	23144941
AIR FILTER (supplied by end user)	
<u>Controls</u>	
MODULE ASM-ENG CONT	19356279
<u>Exhaust</u>	
FRONT CONVERTER ASM-3WAY CTLTC (LH) (Includes connecting pipe to exhaust manifold)	22956559
FRONT CONVERTER ASM-3WAY CTLTC (RH) (Includes connecting pipe to exhaust manifold)	22956560
REAR CONVERTER (LH) (Includes connecting pipe to front converter)	12678012
REAR CONVERTER (RH) (Includes connecting pipe to front converter)	12678011
ACCELERATOR PEDAL	10379038
<u>Evaporative</u>	
CANISTER ASM-EVAP EMIS	17113332
No component of this kit has any user adjustable parameters; fuel pressure regulator, if used, must be non-adjustable. No exhaust piping can be added between supplied exhaust manifold and output of rear supplied converter. Each converter contains pre-installed, welded on, upstream connecting pipes with factory flanges.	