

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-126-31

Relating to Exemptions Under Section 27156
of the California Vehicle Code

General Motors LLC
LC9-5.3L V8 E-ROD Kit, Part #s 19258004 and 19258008

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-02-003;

IT IS ORDERED AND RESOLVED: That the installation of the LC9-5.3L V8 E-ROD Kit, manufactured and marketed by General Motors LLC, 3300 GM Road, Milford, Michigan 48380, 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 6500 lbs. test weight (7200 lbs. GVWR).

The LC9-5.3L V8 E-ROD Kit is a complete engine and emission control package designed to change engines from all 1995 and older passenger cars and trucks with up to 6500 lbs. test weight (7200 lbs. GVWR). The kit is derived from a federally certified 2012 model year General Motors truck engine (test group CGMXT05.3373) 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 LC9-5.3L V8 E-ROD 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 LC9-5.3L V8 E-ROD Kit. The kit is equipped with a fully functioning on-board diagnostic II (OBD II) system except for the diagnostics related to the evaporative system and transmission. 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. The exhaust system, catalytic converters and oxygen sensors must be installed in the location/orientation as prescribed in the installation instructions provided with the kit.

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 LC9-5.3L V8 E-ROD 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 LC9-5.3L V8 E-ROD 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 LC9-5.3L V8 E-ROD Kit using any identification other than that shown in this Executive Order or marketing of the LC9-5.3L V8 E-ROD 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 LC9-5.3L V8 E-ROD Kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of the LC9-5.3L V8 E-ROD Kit as an individual device.

This Executive Order is granted based on submitted technical information and emission test data generated on a 1999 Chevrolet Silverado with an automatic transmission, modified with the LC9-5.3L V8 E-ROD Kit with aged components. Test results showed that emission levels, with the LC9-5.3L V8 E-ROD Kit installed, met light-duty truck 2 Low Emission Vehicle II Low Emission Vehicle (LEV II LEV) emission standards when tested using the Cold-Start CVS-75 Federal Test Procedure (FTP) and the Supplemental Federal Test Procedure (SFTP) test cycles. Results from emissions testing conducted by General Motors are shown below (in grams per mile).

	CVS-75 FTP				SFTP US06	
	NMOG	CO	NOx	HCHO	NMHC+NOx	CO
Standards*	0.090	4.2	0.07	0.011	0.40	10.5
Device Test 1	0.058	1.1	0.03	0.000	0.05	0.5
Device Test 2	0.068	1.3	0.04	0.000	0.32	1.8
Device Test 3	0.075	1.3	0.02	0.000	0.27	1.3

*LEV II LEV CVS-75 FTP 120K emissions standards.

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.

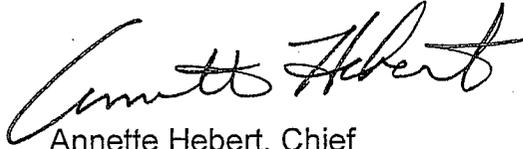
THIS EXECUTIVE ORDER DOES NOT CONSTITUTE A CERTIFICATION, ACCREDITATION, APPROVAL, OR ANY OTHER TYPE OF ENDORSEMENT BY THE AIR RESOURCES BOARD OF ANY CLAIMS OF THE APPLICANT CONCERNING ANTI-POLLUTION BENEFITS OR ANY ALLEGED BENEFITS OF THE LC9-5.3L V8 E-ROD KIT.

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 7 day of July 2011.

A handwritten signature in cursive script, appearing to read "Annette Hebert".

Annette Hebert, Chief
Mobile Source Operations Division

LC9 - 5.3L V8 E-ROD KIT CONTENT

Attachment 2

Kit P/N: 19258004 For 40 Tooth Trans Speed Signal Part Description	Part #
INSTRUCTION MANUAL	19257246
EMISSIONS CERTICATION LABEL	19258207
Engine	
ENGINE ASM-5.3L	12618482
EXHAUST MANIFOLD (LH) - included with kit	12611638
EXHAUST MANIFOLD (RH) - included with kit	12611639
ENGINE ELECTRICAL HARNESS	19244808
MAP SENSOR JUMPER HARNESS	19202598
Harness	19244447
AIR FILTER ELEMENT	19202661
Controls	
MODULE ASM-ENG CONT	19258006
DATA FILE-ECM ENG CALN	19258007
MODULE	19210737
SENSOR ASM-HTD OXY (POSN 2) (2)	12581966
SENSOR ASM-HTD OXY (POSN 3) (2)	12611165
MASS AIRFLOW SENSOR	15865791
MASS AIRFLOW SENSOR BRKT	19166574
ACCELERATOR PEDAL	10379038
Exhaust	
CONVERTER ASM-3WAY CTLTC (LH)	92225676
CONVERTER ASM-3WAY CTLTC (RH)	92225677
OXYGEN SENSOR MOUNTING BOSS (4)	15156588
CLAMP - EXHAUST	92202996
NUT- EXH MANIFOLD OUTLET PIPE (4)	15032594
Evaporative	
CANISTER ASM-EVAP EMIS	17113332

Kit P/N: 19258008 For 17 Tooth Trans Speed Signal Part Description	Part #
INSTRUCTION MANUAL	19257246
EMISSIONS CERTICATION LABEL	19258207
Engine	
ENGINE ASM-5.3L	12618482
EXHAUST MANIFOLD (LH) - included with kit	12611638
EXHAUST MANIFOLD (RH) - included with kit	12611639
ENGINE ELECTRICAL HARNESS	19244808
MAP SENSOR JUMPER HARNESS	19202598
Harness	19244447
AIR FILTER ELEMENT	19202661
Controls	
MODULE ASM-ENG CONT	19258010
DATA FILE-ECM ENG CALN	19258011
MODULE	19210737
SENSOR ASM-HTD OXY (POSN 2) (2)	12581966
SENSOR ASM-HTD OXY (POSN 3) (2)	12611165
MASS AIRFLOW SENSOR	15865791
MASS AIRFLOW SENSOR BRKT	19166574
ACCELERATOR PEDAL	10379038
Exhaust	
CONVERTER ASM-3WAY CTLTC (LH)	92225676
CONVERTER ASM-3WAY CTLTC (RH)	92225677
OXYGEN SENSOR MOUNTING BOSS (4)	15156588
CLAMP - EXHAUST	92202996
NUT- EXH MANIFOLD OUTLET PIPE (4)	15032594
Evaporative	
CANISTER ASM-EVAP EMIS	17113332

