

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-418-12  
Relating to Exemptions Under Section 27156  
of the California Vehicle Code

Roush Industries  
ROUSHcharger Kit

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 ROUSHcharger Kit, produced and marketed by Roush Industries of 777 Republic Drive, Allen Park, Michigan 48101, 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 the Ford vehicles listed below.

Model-Year	Model	Engine
2004-2008	F-150	5.4L 3V
2005-2006	Expedition 2WD	5.4L 3V
2005-2006	Lincoln Navigator 2WD excluding Limo	5.4L 3V
2006-2008	Lincoln Mark LT 2WD, 4WD	5.4L 3V

The ROUSHcharger Kit for the Ford trucks (p/n R07000012) includes a roots type axial flow supercharger assembly, intercooler, intake manifold, high flow fuel injectors, recalibrated stock mass air flow sensor, new closed element air box with intake air tubing, and a new fuel calibration modified to operate with the supercharger. The Roush Industries ROUSHcharger Kit utilizes a 82 mm diameter supercharger pulley, and the crankshaft pulley diameter is 189 mm. Maximum boost produced by the supercharger is 7.6 pounds per square inch.

This Executive Order is valid provided that the installation instructions for the ROUSHcharger Kit will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

Changes made to the design or operating conditions of the ROUSHcharger 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.

This Executive Order shall not apply to any ROUSHcharger Kit advertised, offered for sale, sold with, or installed on a new motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

Marketing of the ROUSHcharger Kit using any identification other than that shown in this Executive Order or marketing of the ROUSHcharger 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.

This Executive Order does not constitute any opinion as to the effect the use of the ROUSHcharger Kit units may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on emission test results submitted by Roush Industries in certifying their Stage 3 supercharged F-150 (E.O. A-344-0010, engine family 8RIIT05.4R17, LEV II ULEV, MDV) as a small volume new vehicle. The final configuration of the 5.4L Ford F-150 or Lincoln Mark LT truck equipped with ROUSHcharger is the same as the Roush Industries Stage 3 supercharged F-150. The certification emission results are shown below in grams per mile:

**F-150**

Emission Levels	NMOG	CO	NOx	HCHO
Useful Life w/ df	0.040	0.8	0.03	n/a

Emission Standards	NMOG	CO	NOx	HCHO
Useful Life	0.070	2.1	0.04	0.011

US06	NMHC+NOx (Composite)
Emission Level	0.08
Standards Useful Life	2.09

US06	CO
Emission Level	1.4
Standards Useful Life	19.3

SC03	CO
Emission Level	1.2
Standards Useful Life	6.4

The certification emission test results submitted for new vehicle certification have been accepted as representative of emissions in the modified configuration. The certification emission test results were below the applicable certification standards. Examination of the OBD II system was not performed since Roush Industries has demonstrated OBD II compliance during certification of the Stage 3 supercharged F-150.

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 ROUSH INDUSTRIES' ROUSHCHARGER 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 9<sup>th</sup> day of October 2007.



Annette Hebert, Chief  
Mobile Source Operations Division