

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-213-36

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Vortech Engineering, LLC
Supercharger System, P/N 4FQ218-060*

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-12-014;

IT IS ORDERED AND RESOLVED: That the installation of the Supercharger System, manufactured and marketed by Vortech Engineering, LLC, 1650 Pacific Avenue, Oxnard, California 93033, 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 2015 to 2017 model year Ford 5.0L Mustangs.

The Supercharger System includes the following main parts: V-3 Si centrifugal supercharger with 3.6" diameter pulley, intercooler, supercharger by-pass valve, air intake tubing, new air filter cartridge in stock housing, ECU upgrade without user adjustments, mass air flow sensor housing, replacement high flow fuel pump, and fuel injectors. The stock crankshaft pulley, air filter housing, and radiator thermostat is retained. The PCV breather hose may be replaced or modified with an SAE30R9 rated hose or a Ford replacement equivalent. All supplied fuel hoses are either Avon's CADbar 9000 series or a stock factory replacement, and fuel and vapor line connectors supplied with the kit are OEM equivalent parts. **Maximum rated boost pressure is 10 psi.**

* Changing the last number of the part number from a '0' to an '8' denotes polished finish. Changing the last number of the part number from a '0' to an '4' denotes black finish. Adding "L" denotes optional self-lubricating transmission.

This Executive Order is valid provided that the installation instructions for the Supercharger System will not recommend tuning the vehicle to specifications different from those submitted by the device manufacturer.

Changes made to the design or operating conditions of the Supercharger System, 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 Supercharger System 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 Supercharger System using any identification other than that shown in this Executive Order or marketing of the Supercharger System 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 Supercharger System may have on any warranty either expressed or implied by the vehicle manufacturer.

This exemption is issued based on submitted emissions test data, from the SEMA Garage, Diamond Bar, California, on a 2017 model year Ford 5.0L Mustang certified to the LEV 3 ULEV 125 emission standards and tested using the Cold-Start CVS-75 Federal Test Procedure (FTP) test cycle, Highway Fuel Economy Test (HWFET), and the Supplemental Federal Test Procedure (SFTP US06/SC03 (AC2 test + 20%)) test cycle.

Useful Life FTP Emission Level (w/ df applied, 2 test avg)	NMOG+NOx	CO	HCHO
	0.091	0.7	0.002
Standards	0.125	2.1	0.004

Useful Life SFTP Emission Level (Composite w/ df 2 test avg)	NMOG+NOx	CO
	0.058	0.5
Standards	0.090	4.2

HWFET – NMOG+NOx	
Standard (UL)	0.125
Device w/df	0.051
2 test avg	

Boost measured at 10.92 psi.

Test results showed that the Supercharger System when installed on the vehicle did not cause exhaust emissions to exceed the applicable emission standards during the FTP and SFTP. This Executive Order is also based on the On-Board Diagnostic II (OBD II) testing conducted on the same test vehicle. The Supercharger System when installed on the test vehicle did not affect the vehicle's ability to perform its OBD II monitoring. Similar results would be expected from the other vehicle model years listed.


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 2323, 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 SUPERCHARGER SYSTEM.

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 31st day of May 2017.


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

