

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-213-31

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Vortech Engineering, LLC
Supercharger 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 Supercharger Kit, 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 the following 2005 to 2012 model year Chrysler vehicles:

| <u>Part Number</u> | <u>Model years</u> | <u>Application</u> | <u>Engine size (liters)</u> | <u>Driven pulley dia. (in.)</u> | <u>Maximum manifold boost pressure (psig)</u> |
|--------------------|--------------------|-----------------------------------|-----------------------------|---------------------------------|---|
| 4CL218-010 | 2005-2008 | 300C/Magnum/Charger | 5.7 | 3.6 | 8 |
| 4CL218-030 | 2005-2010 | 300C/Magnum/Charger/Challenger | 6.1 | 3.6 | 7-9 |
| 4CL218-040 | 2009-2010 | 300C/Magnum/Charger/Challenger | 5.7 | 3.6 | 7-9 |
| 4CL218-050 | 2009-2010 | 300C/Magnum/Charger/Challenger | 5.7 | 3.6 | 7-9 |
| 4CL218-060 | 2011-2012 | 300C/Magnum/Charger/Challenger | 5.7 | 3.6 | 8 |
| 4CL218-070 | 2011-2012 | 300C/Magnum/Charger/Challenger | 6.4 | 3.6 | 7-9 |
| 4CH218-010 | 2003-2008 | Dodge Ram/Durango Hemi truck | 5.7 | 4 | 8 |
| 4CH218-020 | 2009-2010 | Dodge Ram/Durango Hemi truck | 5.7 | 4 | 8 |
| 4CK218-020 | 2006-2010 | Jeep Grand Cherokee | 6.1 | 3.33 | 8 |
| 8C101-338 | 2005-2010 | Hemi pass. car, Hurst edition | 6.1 | 3.6 | 7-9 |
| 8C101-348 | 2009-2010 | Hemi pass. car, Hurst edition, M6 | 5.7 | 3.6 | 7-9 |
| 8C101-368 | 2009-2010 | Hemi pass. car, Hurst edition, A5 | 5.7 | 3.6 | 7-9 |

All of the above supercharger kit part numbers may have an 'E', 'S', 'SI', 'SL', 'T', 'TI', 'R', 'SQ', 'YS', 'Ysi', 'JT', 'SCi' or 'SC' suffix at the end of the standard part number to specify supercharger type. Adding "L" denotes optional self lubricating transmission. Changing the last number of the part number from a '0' to an '8' denotes polished finish

The Supercharger System includes the following main parts: Centrifugal supercharger (V1, V2, or V3 models), intercooler (optional), supercharger by-pass valve, replacement high flow fuel injectors, air intake tubing with open element air filter, electronic booster for stock fuel pump, map sensor, and reprogramming of the vehicle's computer. The stock crankshaft pulley, throttlebody, and thermostat are retained. The tuner used to reflash the ECM is designed to download OEM calibration updates, non emission related upgrades, and patches or fixes in the firmware. Emission-related data files cannot be modified by the end user. 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. Breather hoses may be replaced with an SAE30R9 rated hose.

This Executive Order is valid provided that the installation instructions for the Supercharger 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 Supercharger 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 Supercharger 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 Supercharger Kit using any identification other than that shown in this Executive Order or marketing of the Supercharger 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 Supercharger Kit may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on emission test results in the modified configuration using the Cold-Start CVS-75 Federal Test Procedure, Supplemental Federal Test Procedure (US06/SC03), and an examination of the On-Board Diagnostic II (OBD II) system. A 2009 Dodge Challenger with a 5.7 liter engine (9CRXV05.7UPO) was used for the evaluation of the Supercharger Kit. Results from emissions testing conducted at Quantum Technologies, Lake Forest, California, are shown below (in grams per mile with deterioration factors applied):

| | CVS-75 | | | | US06/SC03 | |
|---------------|--------|-----|------|-------|-----------|---------|
| | NMOG | CO | NOx | HCHO | NMHC+NOx | CO |
| Standards* UL | 0.070 | 2.1 | 0.04 | 0.011 | 0.14/0.20 | 8.0/2.7 |
| Device | 0.054 | 1.1 | 0.02 | 0.002 | 0.06/0.03 | 0.7/0.9 |

*LEV II ULEV CVS-75 FTP emissions standards.

The emission test results in the modified configuration were below the applicable certification standards. Examination of the OBD II system showed the Supercharger Kit does not affect OBD II system operation.

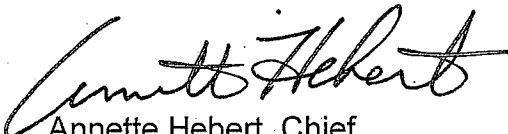
The Air Resources Board reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

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 SUPERCHARGER 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 20 day of October 2011.


Annette Hebert, Chief
Mobile Source Operations Division