State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-213-35

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Vortech Engineering, Inc.
Supercharger System

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 Supercharger System, manufactured and marketed by Vortech Engineering, Inc., 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 2013 to 2016 model year Subaru BRZ and Scion FR-S.

The Supercharger System for the Subaru BRZ and Scion FR-S includes the following main parts: Centrifugal supercharger with a 3.47 inch diameter pulley, intercooler, supercharger by-pass valve, air intake tubing, mass air flow element housing, new air filter box with conical filter, and a ECU upgrade without user adjustments. The stock radiator thermostat, mass air flow sensor element, fuel injectors, 5.62 inch diameter crankshaft pulley, and fuel pump are retained. The PCV breather hose may be replaced or modified with an SAE30R9 rated hose or a Subaru or Scion 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 boost is 10 psi.**

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 Executive Order is granted based on emissions test data generated on one test vehicle modified with the Supercharger System. Test results showed that emission levels, with the supercharger kit installed, met the applicable emission standards when tested using the Cold-Start CVS-75 Federal Test Procedure (FTP) test cycle and the Supplemental Federal Test Procedure (SFTP) test cycle. Examination of the OBD II system showed that the supercharger kit did not affect OBD II system operation. Results from emission testing conducted at Quantum Technologies, located at Lake Forest, California, are shown below, in grams per mile, with deterioration factors (df) applied to Cold-Start CVS-75 Federal Test Procedure modified test results.

2013 model year Scion FR-S	CVS-75 FTP			
	NMOG	CO	NOx	HCHO
Standards, 50K*	0.075	3.4	0.05	0.015
Device Test w/df	0.023	0.6	0.03	0.001

	US06/SC03	
	NMHC+NOx	CO
Standards 4k	0.14/0.20	8.0/2.7
Device	0.05/0.08	7.2/0.2

* USEPA Tier 2 Bin 5, Counted as LEV II LEV, CVS-75 FTP 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 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 26 day of January 2016.

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