

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-213-26

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 vehicle applications as listed in Exhibit A.

**The Supercharger System for Ford Vehicles** includes the following main parts: Centrifugal supercharger, intercooler (optional), supercharger by-pass valve, air intake tubing, open element air cleaner, ECU upgrade, mass air flow sensor housing, and replacement high flow fuel pump and fuel injectors. The stock radiator thermostat is retained. The breather hose may be replaced with an SAE30R9 rated hose. Installation on 2005 model year V8 Mustangs built on or before April 30, 2005 must retain the stock hydrocarbon adsorber in the air intake system.

**The Supercharger System for Honda Vehicles** includes the following main parts: Centrifugal supercharger, intercooler (optional), supercharger by-pass valve, replacement fuel pump, fuel management unit, one supplementary fuel injector, timing control box, modified air intake tubing, and a conical air filter with a plastic enclosure.

**The Supercharger System for General Motors Vehicles** includes the following main parts: Centrifugal supercharger, intercooler (optional), supercharger by-pass valve, replacement high flow fuel injectors, air intake tubing, and reprogramming of the vehicle's computer. The stock air filter housing and radiator thermostat are retained. The breather hose may be replaced with an SAE30R9 rated hose. On 2000 through 2003 model year vehicles, fuel or vacuum lines may be modified and an SAE30R9 rated hose will be supplied for these modifications.

**The Supercharger System for Nissan/Infiniti Vehicles** includes the following main parts: Centrifugal supercharger, supercharger by-pass valve, intercooler (optional), open element air cleaner, air intake tubing, timing control box, and a supplemental inline fuel pump. The stock mass airflow sensor and radiator thermostat are retained.

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 submitted by the device 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 previously submitted emissions tests (Executive Order D-213-24) and emissions test data generated on a 2007 model year Chevrolet Silverado with a 5.3 liter engine (7GMXTO5.3380, LEV II ULEV), modified with the Supercharger Kit. Testing consisted of a Cold-Start Federal Test Procedure (FTP), a Supplemental Federal Test Procedure (SFTP US06), and an examination of the On-Board Diagnostic II (OBD II) system. Results from emissions testing conducted at Quantum Technologies, Lake Forest, California, are shown below (in grams per mile with deterioration factors applied):

	FTP				SFTP US06	
	NMOG	CO	NOx	HCHO	NMHC+NOx	CO
Standards, 50k	0.070	2.1	0.04	0.011	0.40	10.5
Device Test	0.063	1.2	0.03	0.000	0.13	5.1

The emission test results in the modified configuration were all below the applicable certification standards. Examination of the OBD II system showed the Supercharger Kit does not affect OBD II system operation. A similar effect on vehicle emissions and OBD II system operation is expected with the installation of the Supercharger Kit on vehicles listed in this Executive Order.

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.

Executive Order D-213-25 issued November 14, 2006, is superseded and of no further force and effect.

Executed at El Monte, California, this 12 day of June 2008



Annette Hebert, Chief  
Mobile Source Operations Division

Ford Motor Company						
Part Number	Model years	Vehicle type/model	Engine size (liters)	Crank pulley dia. (in.)	Driven pulley dia. (in.)	Maximum manifold boost pressure (psig)
4FL218-130	2000-2004	Mustang 2V	4.6	6.60 (Stock)	3.6	8
4FL218-140	2000-2004	Mustang 2V w/charge cooler	4.6	6.60 (Stock)	3.33	10
4FF218-020	1999-2004	Mustang V-6	3.8	7.38 (Stock)	3.33	10
4FR218-080	2003-2004	Mustang Mach 1 4V	4.6	6.60 (Stock)	3.6	8
4FR218-090	2003-2004	Mustang Mach 1 4V w/charge cooler	4.6	6.60 (Stock)	3.33	10
4FU218-010	2005-2006**	Mustang GT 3V	4.6	6.60 (Stock)	3.8	9
4FU218-020	2005-2006**	Mustang GT 3V w/charge cooler	4.6	6.60 (Stock)	3.6	10
4FU218-060	2005-2006**	Mustang GT 3V w/charge cooler	4.6	6.60 (Stock)	3.6	10
4FN218-020	2004-2008	F-series truck/Expedition 3V w/charge cooler	5.4	6.7	3.125	8
4FM218-030	1999-2004	F-series truck/Expedition/Navigator 2V	5.4	6.7	3.33	8
4FM218-040	1999-2004	F-series truck/Expedition	4.6	6.7	3.6	8
4FM218-050	1999-2004	F-series truck/Expedition/Navigator 2V w/cooler	5.4	6.7	2.95	8
4FT218-010	1999-2008	Super duty truck/SUV 2V & 3V	5.4	6.7	3.33	8
4FT218-020	1999-2008	Super duty truck/SUV 2V & 3V	6.8	6.7	3.47	7
4FT218-030	1999-2008	Super duty truck/SUV 2V & 3V w/charge cooler	6.8	6.7	3.12	9
4FT218-040	2005-2008	Super duty truck/SUV 3V	6.8	6.7	3.47	6
4FT218-050	2005-2008	Super duty truck/SUV 3V w/charge cooler	6.8	6.7	3.12	8
4FL218-110	2001-2006	Crown Victoria / Grand Marquis / Marauder	4.6	6.60 (Stock)	3.6	8
4FJ218-010	2002-2004	Ford Focus SVT	2	5.19 (Stock)	2.62	9
4FJ218-020	2002-2004	Ford Focus SVT w/charge cooler	2	5.19 (Stock)	2.62	10
4FU218-610	2005-2006	Mustang V6	4	Stock	3.6	8
4FU218-620	2005-2006	Mustang V6 w/charge cooler	4	Stock	3.25	10
4FU218-630	2007-2008	Mustang V6	4	Stock	3.6	8
4FU218-640	2007-2008	Mustang V6 w/charge cooler	4	Stock	3.25	10
General Motors						
4GL218-010	2000-2002	Mid-size truck/SUV LS1	4.8/5.3/6.0	7.54 (Stock)	3.33	8
4GL218-020	2003	Mid-size truck/SUV LS1	6	7.54 (Stock)	3.33	8
4GL218-030	1999	Mid-size truck/SUV LS1	4.8/5.3/6.0	7.54 (Stock)	3.33	8
4GL218-040	2001-2002	Mid-size truck/SUV LS1	6	7.54 (Stock)	3.33	8
4GL218-050	2003	Mid-size truck/SUV LS1	4.8/5.3	7.54 (Stock)	3.33	8
4GL218-060	2001-2002	Mid-size truck/SUV LS1 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-070	2003	Hummer H2 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-080	2003	Mid-size truck/SUV LS1 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-090	2004	Hummer H2 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-120	2004-2006	Mid-size truck/SUV LS1	4.8/5.3	7.54 (Stock)	3.33	8
4GL218-130	2004	Mid-size truck/SUV LS1 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-140	2004-2006	Mid-size truck/SUV LS1 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-150	2005-2007	Hummer H2 w/cooler	6	7.54 (Stock)	3.33	9
4GL218-160	2004-2006	Mid-size truck/SUV LS1	6	7.54 (Stock)	3.33	8
4GR218-010	2001-2004	C5 Corvette LS6 w/charge cooler	5.7	7.36 (Stock)	3.6	6
4GR218-020	2001-2004	C5 Corvette LS1 w/charge cooler	5.7	7.36 (Stock)	3.6	7
4GR218-030	1997-1998	C5 Corvette LS1 w/charge cooler	5.7	7.36 (Stock)	3.6	7
4GR218-040	1999-2000	C5 Corvette LS1 w/charge cooler	5.7	7.36 (Stock)	3.6	7
4GJ218-010	2004	GTO w/charge cooler, std	5.7	Stock	6.00, 50T/30T	8
4GJ218-020	2004	GTO w/charge cooler, high output	5.7	8	3.125	9
4GJ218-030	2005-2006	GTO w/charge cooler, std	6	Stock	3.33	8
4GE218-010	2004-2006	Cadillac CTS-V w/charge cooler	5.7	7.36 (Stock)	3.6	8
4GS218-010	2005	C6 Corvette LS2 w/charge cooler	6	7.36 (Stock)	3.6	7
4GS218-020	2006-2007	C6 Corvette LS2 w/charge cooler	6	7.36 (Stock)	3.6	7
4GS218-030	2006-2008	C6 Corvette LS7 w/charge cooler	7	7.36 (Stock)	4.5	6
4GS218-040	2008	C6 Corvette LS3 w/charge cooler	6.2	7.36 (Stock)	3.6	7
4GL218-330	2008	Hummer H2 w/cooler	6.2	7.54 (Stock)	3.33	9
4GL218-340	2008	Hummer H2 w/cooler, Tanjin	6.2	7.54 (Stock)	3.33	9
4GL218-350	2007-2008	Mid-size truck/SUV LS w/cooler	6.2	7.54 (Stock)	3.33	9
4GL218-360	2007-2008	Mid-size truck/SUV LS1/LS2	5.3/6.0	7.54 (Stock)	3.33	9
4GN218-030	2007-2008	Hummer H3 I5	3.7	7.88 (Stock)	3.33	9
4GN218-040	2008	Hummer H3 Alpha / Trailblazer	5.3	7.54 (Stock)	3.33	9
4GN218-050	2006-2008	Trailblazer SS SUV LS2	6	7.54 (Stock)	3.33	9
Honda/Acura						
4HS218-020	2004	S2000 w/charge cooler	2.2	6	4.5	8
4HS218-040	2005	S2000 w/charge cooler	2.2	6	4.5	8
Nissan/Infiniti						
4NZ218-040	2003-2007	FX35/Murano w/charge cooler, all	3.5	5.73 (stock)	3.33, 32T/28T	8
4NZ218-050	2005-2007*	350Z/G35 w/charge cooler	3.5	5.73 (stock)	3.33, 32T/28T	8
4NZ218-060	2005-2007*	350Z/G35 (300 hp base eng.) w/charge cooler	3.5	5.73 (stock)	3.33, 32T/28T	8
4NT218-010	2004-2007*	Titan truck/SUV w/cooler	5.6	Stock	3	8
		* Excluding 2007 engine test group 7NSXV03.5GAE				
** 2005 model year V8 Mustangs built on or before April 30, 2005 must retain the stock hydrocarbon adsorber in the air intake system.						
Note: Changing the last number of the part number from a '0' to an '8' denotes polished finish. Also included: all of the above supercharger kits with an 'E', 'S', 'SI', 'SL', 'T', 'TI', 'R', 'SQ', 'YS', 'Ysi', 'JT', 'SC' or 'SC' suffix at the end of the standard part number will specify supercharger type. Adding 'L' denotes optional self lubricating transmission.						