

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-425-13

Relating to Exemptions Under Section 27156  
of the Vehicle Code

Toyota Racing Development  
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-02-003;

IT IS ORDERED AND RESOLVED: That the installation of the Supercharger System, manufactured and marketed by the Toyota Racing Development, 1382 Valencia Avenue, Tustin, California 92780 has been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for the vehicle applications listed:

<u>Model-Year</u>	<u>Disp.</u>	<u>Max. Boost</u>	<u>Pulley Dia. Supercharger/Crank</u>	<u>Application</u>
2000-2003	4.7L	7.5 psi.	2.2"/5.51"	Toyota Tundra
2001-2003	4.7L	7.5 psi.	2.2"/5.51"	Toyota Sequoia
1998-2003	4.7L	7.5 psi.	2.2"/5.51"	Toyota Land Cruiser
1998-2003	4.7L	7.5 psi.	2.2"/5.51"	Lexus LX470
2003	4.7L	7.5 psi.	2.2"/5.51"	4Runner, Lexus GX470
1995-2003	3.4L	7.0 psi.	2.37"/stock	Trucks
2003	1.8L	7.5 psi.	2.4"/stock	Matrix, Corolla
2000-2003	1.8L	7.5 psi.	2.4"/stock	Celica

**The 4.7L Supercharger Kit** includes the following main components: Eaton supercharger with integrated intake manifold and one extra injector (model years 1998-2002), or two extra injectors (model year 2003), 160 degree thermostat to replace the 180 degree original thermostat, and a supercharger ECU. The stock air filter housing and intake air tubing is retained; however, the Land Cruiser and LX470 intake air tubing is cut in the middle and shortened by 10 mm. All other emission related components including the throttle-body are transferred to the new intake manifold in a stock functional location.

**The 3.4L Supercharger Kit** includes the following main components: For the Standard Kit, an Eaton supercharger with integrated intake manifold and all the necessary hardware needed for installation, and an EGR kit for applications with EGR. The stock air filter housing and intake air tubing are retained. All other emission related components including the throttle-body are transferred to the new intake manifold in a stock functional location. No changes are made to the stock ignition system. For the Upgrade Kit, same components as the Standard Kit with the addition of an extra injector, 160 degree thermostat to replace the 180 degree original thermostat, and a supercharger ECU.

**The 1.8L Supercharger Kit** includes the following main components: Eaton supercharger with integrated intake manifold and an extra injector, 160 degree thermostat to replace the 180 degree original thermostat, a supercharger ECU, and all the necessary hardware needed for installation. The stock air filter housing is retained, and all emission related components including the throttle-body are transferred to the new intake manifold. A new air inlet tube assembly is provided to connect the air filter housing to the throttle-body. No changes are made to the stock ignition system.

This Executive Order is valid provided that the installation instructions for the supercharger 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 using any identification other than that shown in this Executive Order or marketing of the supercharger for an application other than those listed in this Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of the supercharger shall not be construed as exemption to sell, offer for sale, or advertise any component of the kit as an individual device.

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

This Executive Order is granted based on the following emissions test data. Emission levels of the modified vehicles met the applicable emission standards. Results are in grams per mile with deterioration factors added to the CVS-75 test results.

	2002 4.7L Sequoia (ULEV)				2003 4.7L Tundra (ULEV)	
	CVS-75				US06/SCO3	
	NMOG	CO	NOx	HCHO	NMHC+NOx	CO
Standards	0.117	5.0	0.6	0.011	0.40/0.31	10.5/3.5
Device	0.100	2.0	0.2	0.001	0.22/0.12	3.7/0.6
	2003 1.8L Matrix (ULEV)				US06/SCO3	
	CVS-75				US06/SCO3	
	NMOG	CO	NOx	HCHO	NMHC+NOx	CO
Standards	0.040	1.7	0.2	0.008	0.14/0.20	8.0/2.7
Device	0.039	0.3	0.1	0.001	0.10/0.16	4.6/0.1

2003 3.4L Tacoma (LEV) w/ Upgrade Kit

	US06/SCO3	
	NMHC+NOx	CO
Standards	0.25/0.27	10.5/3.5
Device	0.06/0.01	1.1/0.1

This Executive Order is also based on an On-Board Diagnostic II (OBD II) test conducted on the same test vehicles. Test data showed that the supercharger when installed on the vehicles did not affect the vehicle's ability to perform its OBD II monitoring.

The ARB 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 TOYOTA RACING DEVELOPMENT'S 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 2<sup>nd</sup> day of July 2003



Allen Lyons, Chief  
Mobile Source Operations Division