

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-425-10

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>
2000-2002	4.7L	7.5 psi.	2.2"/5.51"	Toyota Tundra
2001-2002	4.7L	7.5 psi.	2.2"/5.51"	Toyota Sequoia
1998-2002	4.7L	7.5 psi.	2.2"/5.51"	Toyota Land Cruiser
1998-2002	4.7L	7.5 psi.	2.2"/5.51"	Lexus LX470

The Supercharger Kit includes the following main components: Eaton supercharger with integrated intake manifold and ninth injector, 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. Maximum boost is 7.5 psi.

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 emissions test data generated on a 2002 Toyota Sequoia certified to the Ultra Low-Emission Vehicle (ULEV) emission standards. Emission levels of the modified vehicle met the applicable emission standards over the Cold-Start CVS-75 Federal Test Procedure (FTP). Results are in grams per mile with deterioration factors added to the results:

	NMOG	CO	NOx	HCHO
Standards	0.117	5.0	0.6	0.011
Device	0.100	2.0	0.2	0.001

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

This Executive Order is granted based on submitted emissions test data which showed that the Toyota Racing Development's Supercharger System did not adversely affect tailpipe emissions during the Cold Start CVS-75 Federal Test Procedure. However, the ARB finds that reasonable grounds exist to believe that use of the Toyota Racing Development's Supercharger System may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the previously prescribed test procedures. Accordingly, the ARB reserves the right to conduct additional emission tests, in the future, as such tests are developed, that will more adequately measure emissions from all cycle phases. If such test results demonstrate that the supercharger adversely affects emissions during off-cycle conditions (defined as those conditions which are beyond the parameters of the Cold-Start CVS-75 Federal Test Procedure), this Executive Order shall be effectively rescinded as of the date the test results are validated. Further, if such test results or other evidence provides the ARB with reason to suspect that the supercharger will affect the durability of the emission control systems, Toyota Racing Development shall be required to submit durability data to show that the durability of the vehicle emission control system is not, in fact, affected and/or that the add-on or modified part demonstrates adequate durability.

In addition to the foregoing, 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 26th day of August 2002

A handwritten signature in black ink, appearing to read "John Lyons", with a stylized flourish at the end.

Allen Lyons, Chief
Mobile Source Operations Division