

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-507  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

MARKALL, INC.  
Supercharger System, HPT320K & HPT430K

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-45-9;

IT IS ORDERED AND RESOLVED: That the installation of the Supercharger System, manufactured and marketed by Markall, Inc., 3203 W. Pendleton Avenue, Santa Ana, California 92704 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 2000 model-year and older Mercedes-Benz vehicles equipped with either a 3.2, 4.3, or 5.0 liter fuel injected engine. Kit HPT320K is applicable to the 3.2 liter engine and kit HPT430K is applicable to the 4.3 and 5.0 liter engines.

The Supercharger System includes the following main parts: Eaton supercharger with a maximum boost of 4 psi., 3" diameter supercharger pulley, 6" diameter crankshaft pulley, intake manifold, air intake tubing, and an open element K&N air cleaner. The throttle body and mass airflow sensor are relocated to the inlet housing of the supercharger, a new wiring harness extension using factory connectors is included as part of the relocation of these components. The manufacturer recommends 92 octane fuel.

This Executive Order is valid provided the installation instructions for the Supercharger System will not recommend tuning the vehicle to specifications different from those of the vehicle manufacturer.

This Executive Order shall not apply to any Supercharger System advertised, offered for sale, sold with, or installed on a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

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.

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.

Exemption of the Supercharger System 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 System may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on submitted emissions test data which showed that the Supercharger System did not adversely affect tailpipe emissions during the Cold Start CVS-75 Federal Test Procedure. Testing was conducted on a 2000 model-year 4.3L Mercedes E430 that is certified to the Low Emission Vehicle (LEV) emission standard. Emission levels of the modified vehicle met the applicable emission standards. The following test results are in grams per mile with the deterioration factors applied:

	NMOG	CO	NOx	HCHO
Standard	0.075	3.4	0.2	0.015
Device w/dfs	0.021	0.3	0.1	0.0004

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

However, the ARB finds that reasonable grounds exist to believe that use of the Markall, Inc.'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, Markall, Inc. 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.

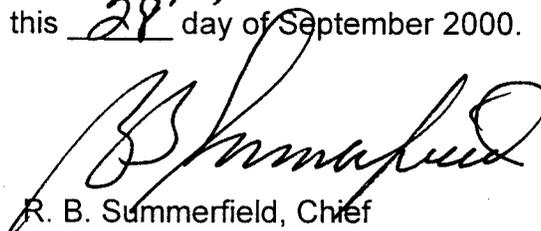
In addition to the foregoing, the ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

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 MARKALL, INC.'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 after hearing that grounds for revocation exist.

Executed at El Monte, California, this 28<sup>th</sup> day of September 2000.



R. B. Summerfield, Chief  
Mobile Source Operations Division