

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-503  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

TST PRODUCTS, INC.  
POWERMAX COMPUTERS  
(PowerMax, PowerMax 2, & PowerMax 3)

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 PowerMax Computers (PowerMax, PowerMax 2, & PowerMax 3), marketed by TST Products, Inc., 268 N. Country Club Road, Columbus, Indiana 47202 have been found not to reduce the effectiveness of the applicable vehicle pollution control system and, therefore, are exempt from the prohibitions of Section 27156 of the Vehicle Code for 1998 ½ and 1999 Dodge Ram Trucks equipped with the 5.9L ISB Cummins Turbo Diesel engine.

The PowerMax Computers includes the following main parts: PowerMax Control Computer, boost altering bleed orifice or spring, and wiring harnesses. The PowerMax Computer is mounted under the vehicle's dashboard and has no user adjustments except for an on-off switch. Engine performance modifications include increasing the fuel delivery and modifying the turbo wastegate during boost conditions. An increase in fuel delivery is achieved by an increase in the fuel pulse width during high loads and wide open throttle conditions. The following is the maximum increase in fuel pulse width with the corresponding Powermax model: 20% on the PowerMax, 30% on the PowerMax 2, and 50% on the PowerMax 3.

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

This Executive Order shall not apply to any PowerMax Computers 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 PowerMax Computers, 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 PowerMax Computers using any identification other than that shown in this Executive Order or marketing of the PowerMax Computers 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 PowerMax Computers 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 PowerMax Computers 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 worst case kit, PowerMax 3, did not adversely affect tailpipe emissions during comparative Cold Start 505 Federal Test Procedure.

	HC	CO	NOx	PM	Opacity
Stock	0.11	1.7	8.3	0.088	10.4%
PowerMax 3	0.09	1.7	8.8	0.069	10.0%
Difference	-0.02	0.0	0.5	-0.059	
% Change	-20%	0.0%	6%	-22%	

Test results showed that tailpipe emissions with the PowerMax 3 installed on the vehicle did not cause exhaust emissions to exceed the baseline emissions by more than the allowed limits of 10 percent or 0.1 grams per mile on hydrocarbon (HC) and oxides of nitrogen (NOx), 15 percent or 1.0 grams per mile carbon monoxide (CO), and 15 percent or 0.03 grams per mile on particulate matter (PM) as specified in the "Procedures for Exemption of Add-On and Modified Parts".

This Executive Order is also based on On Board Diagnostic II (OBD II) testing conducted on the same vehicle. Test data showed that the PowerMax 3 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 TST Products, Inc.'s PowerMax Computers 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 PowerMax Computers 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 PowerMax Computers will affect the durability of the emission control systems, TST Products, 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 TST PRODUCTS, INC.'S POWERMAX COMPUTERS.

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 27<sup>th</sup> day of December 2000.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division