

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-683

Relating to Exemptions Under Section 27156
of the California Vehicle Code

CorkSport LLC
Power Series Intake 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 Power Series Intake System, produced and marketed by CorkSport LLC of 3315 NE 112th Avenue, Unit B-80 Vancouver, Washington 98682, 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 installation on the following vehicles:

Vehicle Year	Vehicle Model	Part Number
2007 – 2009	Mazda Speed 3	Axe – 6 – 118 - 10
2010	Mazda Speed 3	Axl - 6 – 118 – 100
2006 – 2007	Mazda Speed 6	Ate – 6 – 118 - 10
2007 – 2010	Mazda Cx7	Cx7 – 6 – 118 - 10

The Power Series Intake System includes the following main components: open-element reusable air filter, heat shield (as applicable), intake system tubing, crankcase ventilation hose (as applicable, which may be silicone, and a color other than black), assorted brackets, and hardware.

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

Changes made to the design or operating conditions of the Power Series Intake 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 Power Series Intake 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 Power Series Intake System using any identification other than that shown in this Executive Order or marketing of the Power Series Intake 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.

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

This Executive Order is granted based on emission test results in the modified configuration using the Cold-Start CVS-75 Federal Test Procedure, Supplemental Federal Test Procedure (US06), and an examination of the On-Board Diagnostic II (OBD II) system. A 2010 Mazda Speed 3 with a turbocharged 2.3 liter engine (ATKXVO2.35BA, LEV-II ULEV) was used for the evaluation of the Power Series Intake System. Results from emissions testing conducted at Quantum Technologies SULEV Emissions Laboratory, are shown below (in grams per mile):

2010 Mazda Speed 3					
FTP	120k	NMOG	CO	NOx	HCHO
	Emission Level (w. DF applied)	0.034	1.029	0.052	0.000
	STD	0.055	2.1	0.07	NA
US06		NMHC + NOx	CO		
	Emission Level	0.038	1.166		
	STD	0.140	8.00		

The emission test results in the modified configuration were below the applicable certification standards. Examination of the OBD II system showed the Power Series Intake System does not affect OBD II operation.

If evidence provides the ARB with reason to suspect that the Power Series Intake System will affect the durability of emission control systems, CorkSport LLC shall be required to submit durability data to show that the durability of vehicle emission control systems are not, in fact, affected and/or that the add-on or modified part demonstrates adequate durability.

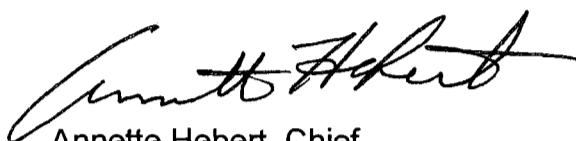
The ARB reserves the right in the future to review this Executive Order and the exemption provided herein to assure that the exempted add-on or modified part continues to meet the standards and procedures of Title 13, California Code of Regulations, Section 2222, et seq.

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 CORKSPORT LLC'S POWER SERIES INTAKE 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 10 day of December 2010.



Annette Hebert, Chief
Mobile Source Operations Division

EVALUATION SUMMARY

Manufacturer Name: CorkSport LLC

Name of Device: Power Series Intake System

Background:

CorkSport LLC of 3315 NE 112th Avenue, Unit B-80, Vancouver, Washington 98682, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Power Series Intake System designed for the vehicles listed below:

Vehicle Year	Vehicle Model	Part Number
2007 – 2009	Mazda Speed 3	Axe – 6 – 118 - 10
2010	Mazda Speed 3	Axl - 6 – 118 – 100
2006 – 2007	Mazda Speed 6	Ate – 6 – 118 - 10
2007 – 2010	Mazda Cx7	Cx7 – 6 – 118 - 10

Recommendation:

Grant exemption to CorkSport LLC as requested and issue Executive Order D-683.

Device Description:

CorkSport LLC's Power Series Intake Systems are air intake systems specifically designed for installation on the following vehicles that all utilize a 2.3 liter turbocharged engine: all 2006 – 2007 Model Year (MY) Mazda Speed 6, 2007 – 2010 MY Mazda Speed 3 and 2007 – 2010 MY Mazda Cx7 vehicles. The installation of the system does not require any major modifications to the original power train and emission control system, except for the modification of the factory air intake system to accommodate the Power Sport Intake System air filter and plumbing. On some models, relocation of the crankcase ventilation hose is required. In these cases, the Power Sport Intake Systems are supplied with crankcase ventilation hoses (as applicable, which may be silicone, and a color other than black). The filter element used in the Power Sport Intake Systems is an open-element, reusable cotton gauze unit, designed to be less restrictive than the original air filter.

The Power Sport Intake Systems are intended to increase the vehicle's volumetric efficiency and power output at particular engine loads and throttle openings. At heavy engine loads and increased throttle openings, the airflow into the engine is increased because the Power Sport Intake Systems are less restrictive than stock air filters. This allows more air to enter the engine, which is compensated by the vehicle engine control module with an increase in fuel flow, resulting in a higher power output. However, the fuel enrichment is limited and the typical net effect is an overall leaning effect of the fuel mixture. The leaning effect is manifested in a marginal, but measurable, NOx increase.

Discussion/Basis for the Recommendation:

This Executive Order is granted based on emission test results in the modified configuration using the Cold-Start CVS-75 Federal Test Procedure, Supplemental Federal Test Procedure (US06), and an examination of the On-Board Diagnostic II (OBD II) system. A 2010 Mazda Speed 3 with a turbocharged 2.3 liter engine (ATKXVO2.35BA, LEV-II ULEV) was used for the evaluation of the Power Sport Intake System. Results from emissions testing conducted at Quantum Technologies SULEV Emissions Laboratory, are shown below (in grams per mile):

2010 Mazda Speed 3					
FTP	120k	NMOG	CO	NOx	HCHO
	Emission Level (w. DF applied)	0.034	1.029	0.052	0.000
	STD	0.055	2.1	0.07	NA
US06		NMHC + NOx		CO	
	Emission Level	0.038		1.116	
	STD	0.14		8.0	

The emission test results in the modified configuration were below the applicable certification standards. Examination of the OBD II system showed the Power Series Intake System does not affect OBD II operation.

The staff concludes that the Power Series Intake System meets the requirements for a VC 27156 exemption for installation on the following vehicles: all 2006 – 2007 MY Mazda Speed 6, 2007 – 2010 MY Mazda Speed 3 and 2007 – 2010 MY Mazda Cx7 vehicles.