

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-526

Relating to Exemptions Under Section 27156
of the California Vehicle Code

Volant Air Intake Systems
Volant Performance Air 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-45-9;

IT IS ORDERED AND RESOLVED: That the installation of the Volant Performance Air Intake System, produced and marketed by Volant Air Intake Systems, 10700 Jersey Blvd. Suite 670, Rancho Cucamonga, California 91730, 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 the vehicles listed in Exhibit A.

The Volant Performance Air Intake System includes the following main components: open-element reusable air filter, filter enclosure (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 Volant Performance Air 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 Volant Performance Air 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 Volant Performance Air 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 Volant Performance Air Intake System using any identification other than that shown in this Executive Order or marketing of the Volant Performance Air 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 Volant Performance Air Intake System may have on any warranty either expressed or implied by the vehicle manufacturer.

This Executive Order is granted based on an examination of the On-Board Diagnostic II (OBD-II) system of a 2002 model-year Chrysler PT Cruiser (engine family 2CRXV0148V40, ULEV, PC) in the modified configuration, and an engineering evaluation of the emissions impact of the device if measured using the Cold-Start CVS-75 Federal Test Procedure. However, the ARB finds that reasonable grounds exist to believe that use of the Volant Performance Air Intake System may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the CVS-75 Federal Test Procedure. 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 Volant Performance Air Intake System adversely affect 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 Volant Performance Air Intake System will affect the durability of emission control systems, Volant Air Intake Systems 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 VOLANT AIR INTAKE SYSTEMS' VOLANT PERFORMANCE AIR 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 15th day of October, 2001.


R. B. Summerfield, Chief
Mobile Source Operations Division

Exhibit A

MY	Make	Model	Disp.	P/N
1994-1995	GM	S-10 pick-up, Blazer	4.3 L	15543
1996-2001	GM	S-10 pick-up, Blazer	4.3 L	15643
1994-1995	GM	S-10 pick-up, Blazer	2.2 L	25543
1996-2001	GM	S-10 pick-up, Blazer	2.2 L	25643
1999-2001	GM	Silverado, Sierra	4.3 L	15743
1999-2001	GM	Silverado, Sierra	4.8, 5.3, 6.0 L	15853
2000-2001	GM	Suburban, Yukon	5.3, 6.0 L	15953
1988-1995	GM	Silverado, Suburban	5.7 L	15857
1996-1998	GM	Silverado, Suburban	5.7 L	15957
2001	GM	Silverado HD, Suburban	8.1 L	15881
1994-1997	GM	Sonoma, S-10	2.2 L	25422
1998-2000	GM	Sonoma, S-10	2.2 L	25522
1996-2000	GM	Astro van	4.3 L	25743
1994-2000	Dodge	Ram	5.9 L	16859
2001	Dodge	Ram	3.9, 5.9 L	16959
1999-2001	Dodge	Dakota crew cab	4.7 L	26847
2000-2001	Dodge	Dakota, Durango	5.2 L	26952
2001-2002	Chrysler	PT Cruiser	2.4 L	13424
1997-2001	Jeep	Wrangler	4.0 L	27640
1998-2000	Ford	Ranger	3.0 L	29630
1996-2001	Ford	F150, Expedition	4.6, 5.4 L	19854
1999-2001	Ford	Lincoln Navigator	32 valve	19054
1996-2000	Ford	F150	4.2 L	29642
1996-2001	Ford	F150, Expedition	4.6, 5.4 L	29854
1999-2001	Ford	F250, Expedition	6.8 L	29068
1999-2001	Ford	F250, Expedition	5.4 L	29954

EVALUATION SUMMARY

Manufacturer Name: Volant Air Intake Systems

Name of Device: Volant Performance Air Intake System

Background:

Volant Air Intake Systems of 10700 Jersey Blvd. Suite 670, Rancho Cucamonga, California 91730, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Volant Performance Air Intake Systems designed for the vehicles listed in Exhibit A. The vehicle application includes those certified to the Ultra Low Emission Vehicle (ULEV) standards.

Recommendation:

Grant exemption to Volant Air Intake Systems as requested and issue Executive Order D-526.

Device Description:

Volant Air Intake Systems' Volant Performance Air Intake Systems are air intake systems specifically designed for installation on the vehicles listed in Exhibit A. The installation of the kit does not require any major modifications to the stock motor, except for the modification of the factory air intake system to accommodate the Volant Performance Air Intake Systems air filter and plumbing. On some models, relocation of the crankcase ventilation hose is required. In these cases, the Volant Performance Air Intake Systems are supplied with crankcase ventilation hoses (which may be silicone, and a color other than black). The filter element used in the Volant Performance Air Intake Systems is an open-element, reusable cotton gauze unit, designed to be less restrictive than the stock air filter.

The Volant Performance Air Intake Systems are intended to increase the vehicles' 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 Volant Performance Air 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, NO_x increase. Worst-case vehicles are examined for their certification emissions. In cases where certification emissions have values low enough to accommodate any small increase in emissions (in this case NO_x), emission testing is deemed not required.

Discussion/Basis for the Recommendation:

A 2002 Chrysler PT Cruiser with a 2.0 liter four cylinder engine (engine family 2CRXV0148V40) was used for the evaluation of the Volant Performance Air Intake System. The test vehicle was certified to the Passenger Car Ultra Low-Emission Vehicle (PC ULEV) standards and was equipped with an enhanced evaporative system. Testing consisted of one CVS-75 Federal Test Procedure (FTP) in the modified configuration (Volant Cool Air Intake installed) to set all On-Board Diagnostics (OBD) II readiness indicators. Testing was conducted at Automotive Testing and Development Services. No emissions measurement was required since similar systems have been

tested previously and have shown to marginally increase the NOx when tested in accordance with the CVS-75 FTP. This marginal increase in NOx is due to a leaning effect of the less restrictive intake system. Since the affected vehicles have certification values that are considerably below the standards, they can accommodate any small increase in NOx emissions.

Based on engineering evaluation and the OBD-II test results, the staff concludes that the Volant Air Intake Systems' Volant Performance Air Intake System meets the requirements for a VC 27156 exemption for the vehicles listed in Exhibit A.

Exhibit A

MY	Make	Model	Disp.	P/N
1994-1995	GM	S-10 pick-up, Blazer	4.3 L	15543
1996-2001	GM	S-10 pick-up, Blazer	4.3 L	15643
1994-1995	GM	S-10 pick-up, Blazer	2.2 L	25543
1996-2001	GM	S-10 pick-up, Blazer	2.2 L	25643
1999-2001	GM	Silverado, Sierra	4.3 L	15743
1999-2001	GM	Silverado, Sierra	4.8, 5.3, 6.0 L	15853
2000-2001	GM	Suburban, Yukon	5.3, 6.0 L	15953
1988-1995	GM	Silverado, Suburban	5.7 L	15857
1996-1998	GM	Silverado, Suburban	5.7 L	15957
2001	GM	Silverado HD, Suburban	8.1 L	15881
1994-1997	GM	Sonoma, S-10	2.2 L	25422
1998-2000	GM	Sonoma, S-10	2.2 L	25522
1996-2000	GM	Astro van	4.3 L	25743
1994-2000	Dodge	Ram	5.9 L	16859
2001	Dodge	Ram	3.9, 5.9 L	16959
1999-2001	Dodge	Dakota crew cab	4.7 L	26847
2000-2001	Dodge	Dakota, Durango	5.2 L	26952
2001-2002	Chrysler	PT Cruiser	2.4 L	13424
1997-2001	Jeep	Wrangler	4.0 L	27640
1998-2000	Ford	Ranger	3.0 L	29630
1996-2001	Ford	F150, Expedition	4.6, 5.4 L	19854
1999-2001	Ford	Lincoln Navigator	32 valve	19054
1996-2000	Ford	F150	4.2 L	29642
1996-2001	Ford	F150, Expedition	4.6, 5.4 L	29854
1999-2001	Ford	F250, Expedition	6.8 L	29068
1999-2001	Ford	F250, Expedition	5.4 L	29954