

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-39-1

Relating to Exemptions under Section 27156
of the Vehicle Code

DIS-AUT ENTERPRISES
"H₂O VAPOR INJECTOR"

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 Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-5;

IT IS ORDERED AND RESOLVED: That the installation of the "H₂O Vapor Injector" manufactured by Dis-Aut Enterprises, P.O. Box 1699, Ontario, CA 91762 has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for 1980 and older model year vehicles with conventional PCV systems.

This device consists of a glass bottle, rubber hose, mounting bracket, plastic tee, and a bottle cap with a vapor outlet port, air inlet port, and water fill port. This exemption is valid on those units which meet the following requirement:

- (1) The names "H₂O Vapor Injector" and "Dis-Aut Enterprises" are identified on the unit.
- (2) The vapor outlet port of the device incorporates a 0.022-inch diameter orifice.
- (3) The vaporous mixture is admitted into the existing PCV system of the engine.
- (4) Water is specified as the working fluid.

This Executive Order is valid provided that installation instructions for this device 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 device, as exempted by the Air Resources Board, that adversely affect the performance of a vehicle's pollution control system shall invalidate this Executive Order.

Marketing of this device using an identification other than that shown in this Executive Order or marketing of this device 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 a kit shall not be construed as an exemption to sell, offer for sale or advertise any component of a kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

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 "H₂O Vapor Injector".

No claim of any kind, such as "Approved by Air Resources Board" may be made with respect to the action taken herein in any advertising or other oral or written communication.

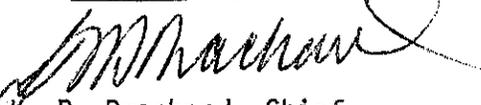
Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

Section 43644 of the Health and Safety Code provides as follows:

"43644. (a) No person shall install, sell, offer for sale, or advertise, or, except in an application to the state board for certification of a device, represent, any device as a motor vehicle pollution control device for use on any used motor vehicle unless that device has been certified by the state board. No person shall sell, offer for sale, advertise, or represent any motor vehicle pollution control device as a certified device which, in fact, is not a certified device. Any violation of this subdivision is a misdemeanor."

Any apparent violation of the conditions of this Executive Order will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at El Monte, California, this 30th day of July, 1980.


K. D. Drachand, Chief
Mobile Source Control Division

State of California
AIR RESOURCES BOARD

Staff Report

June 6, 1980

Evaluation of the Dis-Aut Enterprises
"H₂O Vapor injector" In Accordance
with Section 2222, Title 13, California
Administrative Code

I. Introduction

Dis-Aut Enterprises has applied for exemption of its "H₂O Vapor Injector" from the prohibitions of Section 27156 of the Vehicle Code. This application will update Executive Order D-39 which exempted 1974 and older model vehicles to include 1975-80 model vehicles.

II. Device Description and Function

The "H₂O Vapor Injector" is designed to bleed vapor into the PCV vacuum hose through a 0.022 inch diameter metering orifice. The device consists of a glass jar with an air inlet tube, water filler and orifice in the cap. Air is drawn through the inlet tube to the bottom of the jar where it escapes through holes in the tube. As air rises through the water in the jar it picks up moisture. The moisture-laden air is then drawn through the 0.022 inch orifice to the intake manifold via a tee in the PCV hose.

A more complete description of the function of the H₂O Vapor Injector may be found in the ARB Staff report dated September 4, 1974.

III. Evaluation

Previous flow bench testing of the H₂O Vapor Injector indicates that the maximum flow at high vacuum will be less than 0.24 SCFM through the 0.022 inch diameter orifice. The system design has not changed since the original testing was performed in 1974; therefore, no change in air flow should occur.

The low air flow rates will have little effect on idle air/fuel ratio, even on a small displacement engine. As intake manifold vacuum drops, the effect of lower vacuum is to decrease the air flow rate through the device. This, combined with higher engine air flows under low vacuum, makes the device's contribution negligible.

The applicant has eliminated secondary air leaks noted in the original staff report by sealing the cap to the glass reservoir and subjecting each unit to a vacuum leak down test.

The applicant has agreed to delete all claims for fuel economy benefit from his advertising literature and packaging labels since such claims are not substantiated by test results.

IV. Conclusion

It is the staff's opinion that the installation and use of the "H₂O Vapor Injector" will not cause emissions from newer motor vehicles to increase because of the extremely low air flow rates involved.

The staff recommends that Dis-Aut Enterprises be granted an exemption from the prohibitions of VC 27156 for the "H₂O Vapor Injector" for 1980 and older model vehicles with conventional PCV systems.