

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-193-1
Relating to Exemptions Under Section 27156
of the Vehicle Code

CAR SOUND EXHAUST SYSTEMS, INC.
NEW AFTERMARKET CATALYTIC CONVERTER SERIES 900

WHEREAS, Vehicle Code Section 27156 and Title 13 California Code of Regulations (hereafter "CCR") Section 2222(h), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt new aftermarket catalytic converters from the prohibitions of Vehicle Code Section 27156.

WHEREAS, Car Sound Exhaust Systems, Inc. has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for their catalytic converter series 900 for use as three-way plus oxidation converter on vehicles with maximum engine size of 5.0L and maximum vehicle inertia weight of 5500 lbs.

WHEREAS, pursuant to the authority vested in the Executive Officer by Health and Safety Code Section 39515 and in the Chief, Mobile Source Division by Health and Safety Code Section 39516 and Executive Order G-45-5, the ARB finds that the above aftermarket catalytic converter series comply with the California Vehicle Code Section 27156 and Title 13, CCR, Section 2222(h).

IT IS HEREBY RESOLVED that the above catalytic converter series is exempt from the prohibitions of Vehicle Code Section 27156 for installation on the approved application vehicles subject to the following conditions:

1. No changes are permitted to the converter as described in the application for exemption. Any changes to the converter, applicable model year, or other factors addressed in this Order must be evaluated and approved by the ARB.
2. Marketing of a converter using an identification other than those shown in the exemption application or marketing of a converter for an application other than those listed in the application catalog shall be prohibited unless prior approval is obtained from the ARB. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any component of a converter as an individual device.
3. Any oral or written references to this Executive Order or its content by Car Sound Exhaust Systems, Inc., its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption is not an endorsement or approval of any emissions reduction claims for the catalytic converter and is only a finding that the converter is exempt from the prohibitions of Vehicle Code Section 27156.

Violation of any of the above conditions shall be grounds for revocation of this Order. The Order may be revoked only after ten days written notice of intention to revoke it, during 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 18th day of September, 1989.



K. D. Drachand, Chief
Mobile Source Division

CONTENTS

	<u>Page Number</u>
<u>SUMMARY</u>	i
<u>CONTENTS</u>	ii
I. <u>INTRODUCTION</u>	1
II. <u>CONCLUSION</u>	1
III. <u>RECOMMENDATIONS</u>	1
IV. <u>DEVICE DESCRIPTION</u>	1
V. <u>DEVICE EVALUATION</u>	2
VI. <u>DISCUSSION</u>	2

EVALUATION OF CAR SOUND EXHAUST SYSTEMS, INC.'S NEW
AFTERMARKET CATALYTIC CONVERTER SERIES 900 FOR EXEMPTION
FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 AND
TITLE 13, CALIFORNIA CODE OF REGULATIONS, SECTION 2222(h)

I. INTRODUCTION

Car Sound Exhaust Systems, Inc. (CSES), of 16191 Phoebe Avenue, La Mirada, CA 90638, has applied for exemption of their new aftermarket catalytic converter series 900 under the "California Evaluation Procedures for New Aftermarket Non-Original Equipment Catalytic Converters". The application is for using the 900 series as three-way plus oxidation catalyst on vehicles with maximum engine size of 5.0L and maximum vehicle inertia weight of 5500 lbs.

II. CONCLUSION

The applicant submitted all the required information and test results. California regulations require conversion efficiency of 70% for HC and CO, and 50% for NOx for three-way plus oxidation new aftermarket catalytic converters. The test results and information show that the CSES catalytic converter series 900 meets the requirements of Vehicle Code Section 27156 and Title 13, California Code of Regulations, Section 2222(h) for the stated applications.

III. RECOMMENDATION

The staff recommends that CSES be granted an exemption as requested and that Executive Order No. D-193-1 be issued, permitting advertisement, sale and installation of their new aftermarket catalytic converter series 900 as three-way plus oxidation catalyst.

IV. DEVICE DESCRIPTION

The CSES catalytic converter consists of honeycomb type substrates coated with palladium and rhodium for reduction catalyst and platinum and palladium for oxidation catalyst. The substrate is enclosed in an outer shell or container of stainless steel. The CSES catalytic converters use

materials and construction similar to the original equipment manufacturers. Their catalytic converter is sold with installation instructions and a two year or 25,000 miles warranty on the substrates and five years or 50,000 miles warranty on the container or shell.

V. DEVICE EVALUATION

CSES provided test data on the catalytic converter series 900 conducted by Automotive Testing and Development Services, Inc. (ATDS), of Huntington Beach, California, in accordance with federal test procedures. The mileage accumulation and test vehicles are as follows:

<u>Converter Type</u>	<u>Mil. Acc. Veh No. 1</u>	<u>Mil. Acc. Veh. No. 2</u>	<u>Test Vehicle</u>
900 3-Way +OC	1977 Ford LTD Country Squire 7.5L	1977 Lincoln Town Car 7.5L	1986 Chevrolet Caprice 5.0L

The test results and conversion efficiencies are shown below:

<u>Converter</u>	<u>Test Type</u>	<u>HC</u>	<u>CO</u>	<u>NOX</u>
900 3-Way +OC	Simulator	3.263	33.560	2.340
	Converter (1) Efficiency (1)	0.518 84%	9.064 73%	1.033 56%
	Converter (2) Efficiency (2)	0.557 83%	9.716 71%	1.091 53%
	Ave. Efficiency	83.5%	72%	54.5%

VI. DISCUSSION

CSES catalytic converter series 900 involved in this application is used as 3-way plus oxidation converter. The conversion efficiencies meet the requirements of the California regulations which are 70% for HC and CO and 50% for NOx on three-way plus oxidation converters. The staff based the evaluation of the CSES new aftermarket converters on the results from ATDS tests and the submitted information.