

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER D-397-4  
Relating to Exemptions Under Section 27156  
of the Vehicle Code

GREDDY PERFORMANCE PRODUCTS, INC.  
GREDDY EXHAUST MANIFOLD

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 Greddy Exhaust Manifold manufactured out of 16 gauge stainless steel tubing by Trust Company, LTD. of 3155 Odai, Shibayama, Sanbu-Gun, Chiba, 289-16 Japan and marketed by Greddy Performance Products, Inc. of 9 Vanderbilt, Irvine, California 92618 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 the Greddy Performance Products, Inc. vehicle applications as listed below, excluding those vehicles certified to Ultra-Low Emission Vehicle (ULEV), Low-Emission Vehicle (LEV) or Transitional Low-Emission Vehicle standards.

<u>Model Year</u>	<u>Vehicle Model</u>	<u>Engine Size</u>
1992-95	Honda Civic/EX/SI/DX	1.5L/1.6L ?
1996-98	Honda Civic EX	1.6L
1990-93	Honda Accord	2.2L
1994-1997	Honda Accord	2.2L
1992-95	Honda Prelude SI-VTEC	2.2L ?
1994-98	Acura Integra GSR	1.8L

This exemption was issued based on emissions test data on a 1998 1.6L Honda Civic which showed that the vehicle met the applicable emission standards with the Greddy Exhaust Manifold installed. The test results are shown below.

1998 1.6L Honda Civic

	<u>HC</u>	<u>CO</u>	<u>NOx</u>
Device (g/mi)	0.17	2.3	0.3
Standard (g/mi)	0.25	3.4	0.4

This exemption shall not apply to any device, apparatus, or mechanism advertised, offered for sale or sold with, or installed on, a motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

This Executive Order is valid provided that the installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the system 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 any 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.

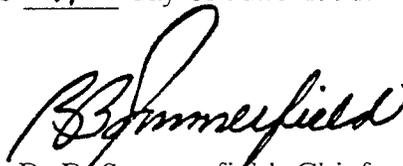
This Executive Order does not constitute any opinion as to the effect that the use of this device may have on any warranty either expressed or implied by the vehicle manufacturer.

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 GREDDY PERFORMANCE PRODUCTS, INC.'S EXHAUST MANIFOLD SYSTEMS.

No claims 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 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 after hearing that grounds for revocation exist.

Executed at El Monte, California, this 11<sup>th</sup> day of June 1998.



R. B. Summerfield, Chief  
Mobile Source Operations Division

State of California  
AIR RESOURCES BOARD

EVALUATION OF GREDDY PERFORMANCE PRODUCTS, INC.'S  
GREDDY EXHAUST MANIFOLD  
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE  
SECTION 27156 IN ACCORDANCE WITH SECTION 2222,  
TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

June, 1998

by

Mobile Source Operations Division  
Aftermarket Parts Section  
9528 Telstar Avenue  
El Monte, CA 91734-8001

(This report has been reviewed by the staff of the California Air Resources Board and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Air Resources Board, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.)

## SUMMARY

Greddy Performance Products, Inc. of 9 Vanderbilt, Irvine, California 92618, has applied for exemption from the prohibitions in Section 27156 of the California Vehicle Code for the Greddy Exhaust Manifold listed in the Appendix.

Greddy Performance Products, Inc. has submitted a complete application with all the required information. Based on the test results from exhaust emission tests performed at an independent laboratory on a 1.6L 1998 Honda Civic, staff concludes that Greddy Performance Products, Inc.'s Exhaust Manifold will not adversely affect exhaust emissions from vehicles for which an exemption is requested.

The staff recommends that Greddy Performance Products, Inc. be granted an exemption from the prohibitions in Vehicle Code Section 27156 and that Executive Order D-397-4 be issued.

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SECTION 27156 IN ACCORDANCE WITH SECTION 2222,  
TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

Greddy Performance Products, Inc. of 9 Vanderbilt, Irvine, California 92618, has applied for an exemption from the prohibitions of Vehicle Code Section (VC) 27156 for the vehicles listed in the Appendix. Greddy Performance Products, Inc. has submitted a completed application and all the required information, as well as exhaust emissions test data from a 1998 1.6L Honda Civic which was tested at California Environmental Engineering (CEE), Santa Ana, California.

II. CONCLUSIONS

Based on the submitted information and the results from exhaust emissions tests performed at CEE, the staff has determined that Greddy Performance Products, Inc.'s Exhaust Manifold will not have any adverse effects on the exhaust emissions from vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that Greddy Performance Products, Inc. be granted an exemption from the prohibitions in California Vehicle Code Section 27156 for those vehicles listed in the Appendix and that Executive Order D-397-4 be issued.

IV. DEVICE DESCRIPTION

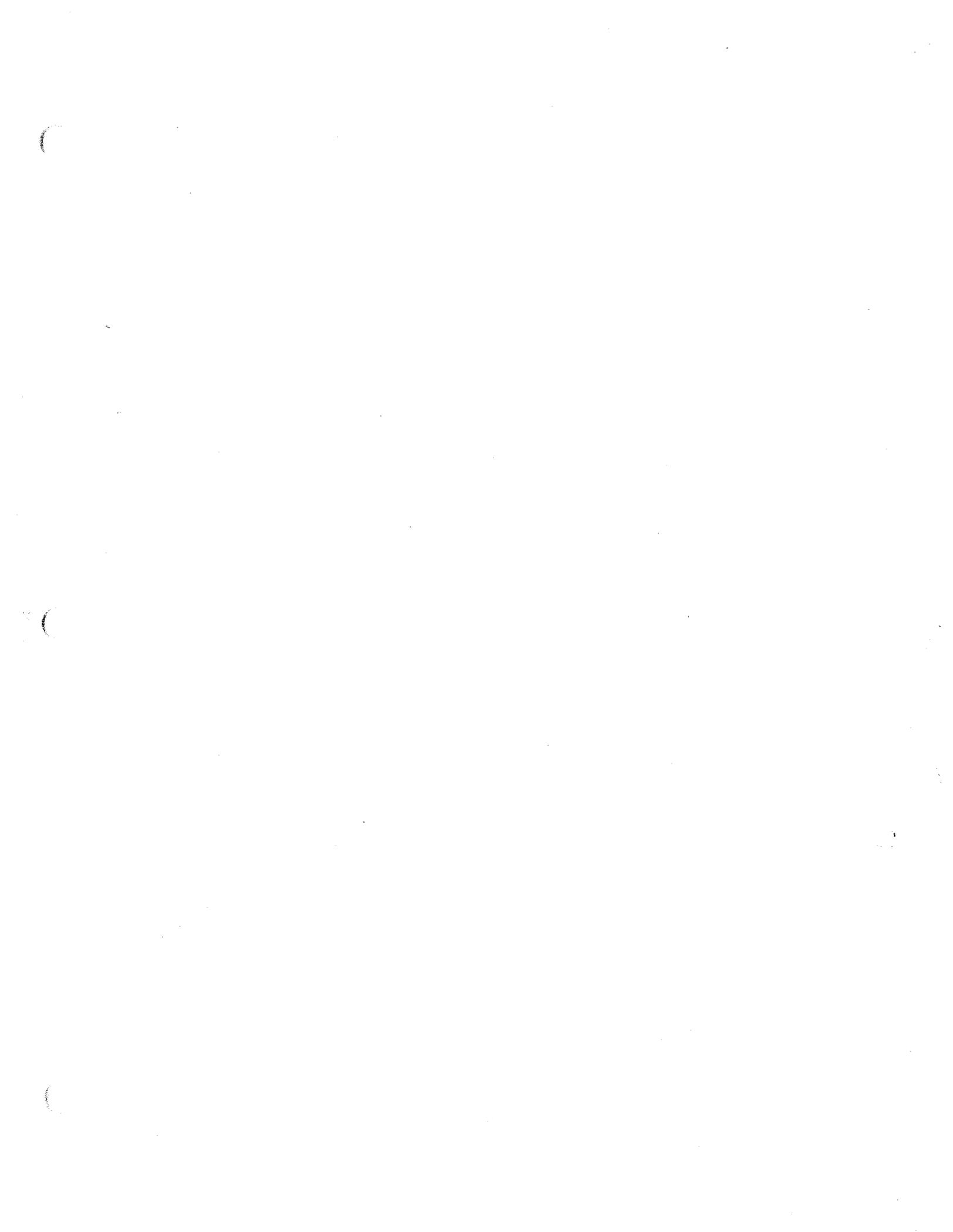
The Greddy Performance Products, Inc. Exhaust Manifold is designed for installation on the vehicles listed in the Appendix. The exhaust manifold operates in conjunction with the original equipment manufacturer's (OEM) computer controlled fuel injected system and emission control systems already certified with the stock engine.

The purpose of modifying the exhaust system of the engine is to improve engine performance throughout the R.P.M. range which results in increased power, performance and fuel economy. As with the original equipment manufacturer's (OEM) exhaust system, Greddy Performance Products, Inc.'s Exhaust Manifold, routes exhaust gases from the engine into the catalytic converter.

The Greddy Performance Products, Inc.'s exhaust manifold has a 4-into-2-into-1 configuration (four primary tubes merged with two secondary tubes which then combine into a 2.0 inch collector pipe). It is manufactured using a 16 gauge stainless steel, with primary and secondary tube diameters of 1 3/4 inch. The 2.0 inch collector pipe fits directly onto the catalytic converter. The installation of the Greddy Exhaust Manifold alters the OEM location of the oxygen sensor on some Honda models. The oxygen sensor is located downstream of the original location to retain monitoring all four exhaust ports at the collector in the same manner as the OEM. An OEM quality wiring harness is provided by Greddy Performance Products, Inc. to accommodate the re-location of the oxygen sensor. The manifolds include all installation hardware and pre-catalyst tubing. The tune-up specifications are unaltered from OEM specifications.

V. DISCUSSION

A 1998 Honda Civic equipped with a 1.6 liter fuel injected engine was used for the evaluation of the exhaust manifolds. The exhaust emission tests were performed at the California Environmental Engineering laboratory. The testing consisted of the CVS-75 Federal Test Procedure (FTP) in the modified (headers installed) configuration against the emission standards. A summary of the test results are shown below:



California Environmental Engineering  
(Based on Cold-Start CVS-75 FTP)

On a 1998 Honda Civic with a 1.6L Engine  
Exhaust Emission Test Results (gm/mi)

	<u>Non-Methane Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>
Device (g/mi)	0.17	2.3	0.3
Standard (g/mi)	0.25	3.4	0.4

The test results from the exhaust emission tests show that the vehicles emission levels with the Greddy Exhaust Manifold installed meet the applicable emission standards and comply with the procedures for "Exemption of Add-On and Modified Parts". Additionally, ARB staff evaluated the impact of the Greddy Exhaust Manifold on the On-Board Diagnostic II (OBD II) system. Scan tool testing confirmed that the headers did not affect the vehicle's ability to perform OBD II system operations. The staff concludes that the installation of the Greddy Exhaust Manifold will not have an adverse effect on exhaust emissions on the vehicles for which the exemption is requested. Greddy Performance Products, Inc. has submitted all the required information and fulfilled the requirements for an exemption.

APPENDIX

LIST OF MODEL, MODEL YEAR VEHICLES AND ENGINE DISPLACEMENT THAT ARE COMPATABLE WITH GREDDY PERFORMANCE PRODUCTS, INC.'S EXHAUST MANIFOLD.

<u>Model Year</u>	<u>Vehicle Model</u>	<u>Engine Size</u>
1992-95	Honda Civic/EX/SI/DX	1.5L/1.6L
1996-98	Honda Civic EX	1.6L
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