State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-427-2
Relating to Exemptions Under Section 27156
of the Vehicle Code

N.C.D.L. PERFORMANCE PARTS
HYPERSPEED CONTROLLER

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 Hyperspeed Controller, manufactured and marketed by N.C.D.L. Performance Parts, 2748 Jefferson Street, Napa, California 94558, 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 2000 and older model-year passenger cars, light-duty trucks, and medium-duty vehicles equipped with conventional zirconia oxygen sensors listed in the attached Exhibit A (this exhibit identifies vehicles for which sensor harness connectors can be supplied, not oxygen sensor technology). Excluded vehicles are listed in the attached Exhibit B, but not limited to the vehicles listed therein. The excluded vehicles are those vehicles equipped with titania or linear oxygen sensors, which are not compatible with the operation of the Hyperspeed Controller.

The Hyperspeed Controller includes the following main components: Hyperspeed Controller unit, coolant temperature switch (activation at 135 degrees Fahrenheit), wiring harness, and an OEM type connector to allow for direct connection to the stock primary oxygen sensor harness.

This Executive Order is valid provided that the installation instructions for the Hyperspeed Controller 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 Hyperspeed Controller, 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 Hyperspeed Controller advertised, offered for sale or sold with or installed on a new motor vehicle prior to or concurrent with transfer to an ultimate purchaser.

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

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

This Executive Order is granted based on emission results submitted by N.C.D.L. Performance Parts. Testing was performed on four vehicles: 2000 Chrysler Neon, 2000 Ford Expedition, 2000 Toyota Corolla, and 2000 Volkswagen Jetta. Results from emissions testing conducted at N.C.D.L. are shown below (in grams per mile):

Expedition (MDV3, LEV)	50k	NMOG	CO	NOx	HCHO
	Emission Level (w. DF applied)	0.127	1.7	0.173	0.0027
	STD	0.195	5.0	1.1	0.022
	100k	NMOG	CO	NOx	HCHO
	Emission Level (w. DF applied)	0.161	3.1	0.243	0.0027
	STD	0.280	7.3	1.5	0.032

		NMOG	CO	NOx	HCHO
Neon (PC, ULEV)	Baseline	0.0636	1.012	0.035	0.0013
	Modified	0.0693	0.949	0.16	0.0014
	Change	+0.006	-0.063	+0.125	+0.0001
Corolla (PC, LEV)	Baseline	0.0897	0.679	0.067	0.0008
	Modified	0.0744	0.786	0.070	0.0007
	Change	-0.015	+0.108	+0.003	-0.0001
Jetta (PC, LEV)	Baseline	0.0874	0.827	0.082	0.0017
	Modified	0.0784	0.651	0.090	0.0016
	Change	-0.009	-0.176	+0.008	-0.0001

The emission test results in the modified configuration for the Ford Expedition met the applicable emission standards with the deterioration factors applied. The emission test results in the modified configuration for all three passenger cars were below the allowable limit of 0.01 grams per mile or 10 percent of the baseline emission levels,

except for the oxides of nitrogen (NOx) emissions of the Chrysler Neon which increased significantly. However, the baseline NOx level of this vehicle was very low in comparison with the applicable standards, and the modified NOx emission levels continued to comply with the applicable emission standards (with the deterioration factors applied). Examination of the On-Board Diagnostic II (OBD II) systems with the Hyperspeed Controller installed showed normal operation of the OBD II systems. Therefore, based on the test results, the staff concludes that the Hyperspeed Controller meets the criteria for exempting general criteria parts. However, the ARB finds that reasonable grounds exist to believe that use of the Hyperspeed Controller 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 Hyperspeed Controller adversely affects 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 Hyperspeed Controller will affect the durability of the emission control system, N.C.D.L. Performance Parts shall be required to submit durability data to show that the durability of the vehicle emission control system is not, in fact, affected or that the add-on or modified part demonstrates adequate durability.

Although testing was performed on a 2000 Toyota Corolla, and a 2000 Volkswagen Jetta, all TLEV, LEV, ULEV, and SULEV certified 1997-2000 Toyota/Lexus and 1998-2000 Volkswagen vehicles shall be excluded from this Executive Order because of the high incidence of linear oxygen sensors used by those manufacturers.

In addition to the foregoing, 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 N.C.D.L. PERFORMANCE PARTS'S HYPERSPEED CONTROLLER.

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 after hearing that grounds for revocation exist.

Executed at El Monte, California, this 5th day of April 2001.

R. B. Summerfield, Chief
Mobile Source Operations Division

State of California
AIR RESOURCES BOARD

EVALUATION OF N.C.D.L. PERFORMANCE PARTS' HYPERSPEED CONTROLLER FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

April 2001

by

Mobile Source Operations Division
9528 Telstar Avenue
El Monte, CA 91731

(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

N.C.D.L. Performance Parts of 2748 Jefferson Street, Napa, California 94558, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Hyperspeed Controller designed for 2000 and older model-year passenger cars, light-duty trucks, and medium-duty vehicles equipped with conventional zirconia oxygen sensors listed in the attached Exhibit A (this exhibit identifies vehicles for which sensor harness connectors can be supplied, not oxygen sensor technology). Excluded vehicles are listed in the attached Exhibit B, but not limited to the vehicles listed therein. The excluded vehicles are those vehicles equipped with titania or linear oxygen sensors, which are not compatible with the operation of the Hyperspeed Controller.

Based on comparison of emissions in the modified configuration with the baseline or the applicable standards and an examination of the On-Board Diagnostic II (OBD II) system with the Hyperspeed Controller installed, the staff concludes that the Hyperspeed Controller will not adversely affect exhaust emissions from vehicles for which the exemption is requested.

The staff recommends that N.C.D.L. Performance Parts be granted an exemption as requested and that Executive Order D-427-2 be issued.

TABLE OF CONTENTS

	Page Number
SUMMARY	i
CONTENTS	ii
I. INTRODUCTION	1
II. CONCLUSION	1
III. RECOMMENDATION	1
IV. HYPERSPEED CONTROLLER DESCRIPTION	2
V. DISCUSSION OF THE HYPERSPEED CONTROLLER	3

EVALUATION OF N.C.D.L. PERFORMANCE PARTS' HYPERSPEED CONTROLLER FOR AN EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

N.C.D.L. Performance Parts, Inc., of 2748 Jefferson Street, Napa, California 94558, has applied for an exemption from the prohibitions in Section 27156 of the California Vehicle Code (VC) for the Hyperspeed Controller designed for 2000 and older model-year passenger cars, light-duty trucks, and medium-duty vehicles equipped with conventional zirconia oxygen sensors listed in the attached Exhibit A (this exhibit identifies vehicles for which sensor harness connectors can be supplied, not oxygen sensor technology). Excluded vehicles are listed in the attached Exhibit B, but not limited to the vehicles listed therein. The excluded vehicles are those vehicles equipped with titania or linear oxygen sensors, which are not compatible with the operation of the Hyperspeed Controller.

II. CONCLUSIONS

Based on emission testing, and an examination of the On-Board Diagnostic II (OBD II) system with the Hyperspeed Controller installed, the staff concludes that the Hyperspeed Controller will not adversely affect exhaust emissions from the vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that N.C.D.L. Performance Parts be granted an exemption for their Hyperspeed Controller for installation on 2000 and older model-year passenger cars, light-duty trucks, and medium-duty vehicles equipped with conventional

zirconia oxygen sensors listed in the attached Exhibit A (this exhibit identifies vehicles for which sensor harness connectors can be supplied, not oxygen sensor technology). Excluded vehicles are listed in the attached Exhibit B, but not limited to the vehicles listed therein. The excluded vehicles are those vehicles equipped with titania or linear oxygen sensors, which are not compatible with the Hyperspeed Controller.

IV. HYPERSPEED CONTROLLER DESCRIPTION

The N.C.D.L. Performance Parts Hyperspeed Controller has been specifically designed for installation on the 2000 and older model-year passenger cars, light-duty trucks, and medium-duty vehicles equipped with conventional zirconia oxygen sensors.

The intent of installing the Hyperspeed Controller is to increase power output at particular engine loads and throttle openings. The Hyperspeed Controller modifies the oxygen sensor signal being sent to the engine control module starting at a set minimum engine RPM. The modified oxygen sensor signal is interpreted as a lean condition, and the engine control module responds by adjusting the fuel trim, injecting additional fuel. The extra fuel is then available to produce more power. For four cylinder engines, the minimum enable speed is 2,200 RPM, and for engines with five or more cylinders, the minimum enable speed is 1,750 RPM. The Hyperspeed Controller is supplied with a thermostatic switch that activates the device once the vehicle has reached normal operating temperatures. The thermostatic switch is installed as close to the engine thermostat as possible in order to reach activation temperature as quickly and accurately as possible. The thermostatic switch activates when coolant temperatures have reached 135 degrees Fahrenheit. The Hyperspeed Controller can be

adjusted for both enrichment level and enable RPM in order to maintain fuel economy during low load conditions that exist above the minimum enable speeds for the Hyperspeed Controller. The four cylinder and five or more cylinder Hyperspeed Controller are differentiated by their harness connectors which are not interchangeable.

The installation of the Hyperspeed Controller requires connection to a switched positive 12 volts, chassis ground, RPM pick-up wire, and the tapping of the oxygen sensor signal. The Hyperspeed Controller is supplied with OEM type connectors that allow foolproof connection to the stock oxygen sensor wiring harness. Consumer purchase of the Hyperspeed Controller involves specifying vehicle information so that the proper oxygen sensor harness connector can be supplied by NCDL Performance Parts. At no time should the consumer be splicing into the stock oxygen sensor harness in order to install the Hyperspeed Controller.

V. DISCUSSION OF THE HYPERSPEED CONTROLLER

This Executive Order is granted based on emission results submitted by N.C.D.L. To satisfy the wide scope of vehicle applications for this Executive Order, testing was performed on four vehicles: 2000 Chrysler Neon, 2000 Ford Expedition, 2000 Toyota Corolla, and 2000 Volkswagen Jetta. Results from emissions testing conducted at N.C.D.L. are shown below (in grams per mile):

Expedition (MDV3, LEV)	50k Emission Level (w. DF applied)	NMOG 0.127	CO 1.668	NOx 0.173	HCHO 0.0027
	STD	0.195	5.0	1.1	0.022
	100k Emission Level (w. DF applied)	NMOG 0.161	CO 3.098	NOx 0.243	HCHO 0.0027
	STD	0.280	7.3	1.5	0.032

		NMOG	CO	NOx	HCHO
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	Modified	0.0693	0.949	0.16	0.0014
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	Modified	0.0744	0.786	0.070	0.0007
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Jetta (PC, LEV)	Baseline	0.0874	0.827	0.082	0.0017
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The emission test results in the modified configuration for the Ford Expedition met the applicable emission standards with the deterioration factors applied. The emission test results in the modified configuration for all three passenger cars were below the allowable limit of 0.01 grams per mile or 10 percent of the baseline emission levels, except for the oxides of nitrogen (NOx) emissions of the Chrysler Neon which increased significantly. However, the baseline NOx level of this vehicle was very low in comparison with the applicable standards, and the modified NOx emission levels continued to comply with the applicable emission standards (with the deterioration factors applied). Examination of the On-Board Diagnostic II (OBD II) systems with the Hyperspeed Controller installed showed normal operation of the OBD II systems.

on the test results, the staff concludes that the Hyperspeed Controller meets the criteria for the exemption of general criteria parts.

Although testing was performed on a 2000 Toyota Corolla, and a 2000 Volkswagen Jetta, all TLEV, LEV, ULEV, and SULEV certified 1997-2000 Toyota/Lexus and 1998-2000 Volkswagen vehicles shall be excluded from this Executive Order because of the high incidence of linear oxygen sensors used by these manufacturers.

The ARB finds that reasonable grounds exist to believe that use of the Hyperspeed Controller may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the previously prescribed test procedure. Accordingly, the ARB reserves the right to conduct additional emission tests in the future, as such tests are developed. Also, the excluded vehicles shall not be limited to the vehicles listed in Exhibit B. If for any reason the Hyperspeed Controller is shown to be incompatible with vehicles not named in Exhibit B, N.C.D.L. Performance Parts shall notify the ARB and revise the list of excluded vehicles so that sales of the Hyperspeed Controller do not cause improper function of the emission control systems of the vehicles on which it is installed.

N.C.D.L. Performance Parts has submitted all the required information and fulfilled the requirements for an exemption.

#9: **VEHICLE NAMES, MODEL YEARS, ENGINE DISPLACEMENTS & SYSTEMS THAT ARE COMPATIBLE WITH THE DEVICE, AND FOR WHICH EXEMPTION IS REQUESTED.**

ACURA

Integra	4 Cyl 1.8L
Vigor	5 Cyl 2.5L
Legend	V6 3.2L
NSX	V6 2.5L, 3.0L, 3.2L
TL	5 Cyl 2.5L, V6 3.2L
NSX-T	V6 3.0L
RL	V6 3.5L
CL	4 Cyl 2.2L, 2.3L, V6 3.0L

ALFA ROMEO

Spider	4 Cyl 2.0L
164	V6 3.0L

AUDI

90	V6 2.8L
100	V6 2.8L
Cabriolet	V6 2.8L
S4	5 Cyl 2.2L
Quattro	V8 4.2L
A6	V6 2.8L
S6	5 Cyl 2.2L
A4	V6 2.8L
A8	V8 3.7L, 4.2L
A4 Avant Quattro AWD	V6 2.8L
S4 Quattro AWD	V6 Turbo 2.7L
A6 Avant Quattro AWD	V6 2.8L
A6 Quattro AWD	V6 Turbo 2.7L, V8 4.2L
A8 Quattro AWD	V8 4.2L
TT	4 Cyl Turbo 1.8L

BMW

3 Series	4 Cyl 1.8L, 1.9L, 6 Cyl 2.5L, 2.8L

5 Series	6 Cyl 2.5L, 2.8L, V8 3.0L, 4.0L, 4.4L
7 Series	V8 4.0L, 4.4L, V12 5.0 L, 5.4L
8 Series	V8 4.0L, 4.4L, V12 5.0L, 5.4L, 5.6L
M3	6 Cyl 3.0L, 3.2L
Z3	4 Cyl 1.9L, 6 Cyl 2.8L, 3.2L
M5	V8 5.0L

BUICK

Skylark	4 Cyl 2.3L, 2.4L, V6 3.1L
Century	V6 3.1L
Regal	V6 3.1L, 3.8L, V6 Supercharged 3.8L
Lesabre	V6 3.8L
Park Ave	V6 3.8L, V6 Supercharged 3.8L
Roadmaster	V8 5.7L
Riviera	V6 3.8L, V6 Supercharged 3.8L

CADILLAC

Eldorado	V8 4.6L
Seville	V8 4.6L
DeVille	V8 4.6L, 4.9L
Fleetwood	V8 5.7L
Catera	V6 3.0L

CHEVROLET

Cavalier	4 Cyl 2.2L, 2.3L, 2.4L, V6 3.1L
Corsica	4 Cyl 2.2L
Beretta	4 Cyl 2.2L, 4 Cyl Quad 4 2.3L, V6 3.1L
Lumina	V6 3.1L
Camaro	V6 3.1L, 3.4L, 3.8L, V8 5.7L
Caprice Classic	V8 4.3L
Corvette	V8 5.7L
Impala SS	V8 5.7L
Impala	V6 3.4L, 3.8L
Monte Carlo	V6 3.1L, 3.4L, 3.8L
Malibu	V6 3.1L
Metro	3 Cyl 1.0L, 4 Cyl 1.3L
Prizm	4 Cyl 1.8L

CHRYSLER

LeBaron	4 Cyl 2.0L; V6 3.0L
Concorde	V6 3.3L
New Yorker	V6 3.5L
LHS	V6 3.5L
Sebring	4 Cyl 2.0L, V6 2.5L
Cirrus	4 Cyl 2.0L, 2.4L; V6 2.5L
300M	V6 3.5L

DAEWOO

Lanos	4 Cyl 1.6L
Nubira	4 Cyl 2.0L
Leganza	4 Cyl 2.2L

DODGE

Colt	4 Cyl 1.5L
Shadow	4 Cyl 2.2L, 2.5L
Daytona	4 Cyl 2.5L, V6 3.0L, 4 Cyl Turbo 2.2L
Spirit	4 Cyl 2.5L
Intrepid	V6 2.7L, 3.2L, 3.3L
Dynasty	V6 3.0L, 3.3L
Monaco	V6 3.0L
Stealth	V6 3.0L, V6 Turbo 3.0L
Viper	V10 8.0L
Neon	4 Cyl 2.0L
Avenger	4 Cyl 2.0L, V6 2.5L
Stratus	4 Cyl 2.0L, 2.4L, V6 2.5L

EAGLE

Medallion	4 Cyl 2.2L
Summit	4 Cyl 1.5L, 1.8L, 2.4L
Vision	V6 3.3L, 3.5L
Talon	4 Cyl 1.8L, 2.0L, 4 Cyl Turbo 2.0L
Premier	V6 3.0L

FERRARI

All V8; All V10

FORD

Festiva.	4 Cyl 1.3L
Escort	4 Cyl 1.8L, 1.9L
Tempo	4 Cyl 2.3L
Mustang	4 Cyl 2.3L;4 Cyl Turbo, 2.3L; V6 3.8L, V8 4.6L, 5.0L
Probe	4 Cyl 2.0L; V6 2.5L
Taurus	4 Cyl 2.5L; V6 3.0L, 3.2L; V8 3.4L
Thunderbird	4 Cyl Turbo, 2.3L; V6 3.8L; V6 Supercharged 3.8L
Crown Victoria	V8 4.6L, 5.0L, 5.8L
Aspire	4 Cyl 1.3L
Contour	4 Cyl 2.0L; V6 2.5L
Focus	4 Cyl 2.0L; 4 Cyl 16V 2.0L
LTD	V6 3.8L
EXP	4 Cyl 1.9L; (1988.5) 4 Cyl 1.9L

GEO

Metro	3 Cyl 1.0L; 4 Cyl 1.3L
Prizm	4 Cyl 1.6L, 1.8L
Storm	4 Cyl 1.6L, 1.8L

HONDA

Civic	4 Cyl 1.5L, 1.6L
Civic del Sol	4 Cyl 1.5L, 1.6L
Accord	4 Cyl 2.2L, 2.3L
Prelude	4 Cyl 2.2L, 2.3L

HYUNDAI

Accent	4 Cyl 1.5L
Excel	4 Cyl 1.5L
Scoupe	4 Cyl 1.5L; 4 Cyl Turbo 1.5L
Elantra	4 Cyl 1.6L, 1.8L
Sonata	4 Cyl 2.0L, 2.4L; V6 2.5L, 3.0L
Tiburon	4 Cyl 1.8L, 2.0L

INFINITI

G20	4 Cyl 2.0L
J30	V6 3.0L
Q45	V8 4.1L, 4.5L

I30	V6 3.0L

JAGUAR

XJ6	6 Cyl 4.0L
XJS	6 Cyl 4.0L; V12 6.0L
XJ	V12 6.0L
XJ12	V12 6.0L
XJR	6 Cyl Supercharged 4.0L
XK8	V8 4.0L
XJ8	V8 4.0L
S-Type	V6 3.0L; V8 4.0L

KIA

Sephia	4 Cyl 1.6L, 1.8L

LEXUS

ES 300	V6 3.0L
GS 300	6 Cyl 3.0L
SC 300	6 Cyl 3.0L
SC 400	V8 4.0L
LS 400	V8 4.0L
GS 400	V8 4.0L

LINCOLN

Town Car	V8 4.6L
Continental	V6 3.8L; V8 4.6L
Mark VIII	V8 4.6L
LS	V6 3.0L; V8 3.9L

MAZDA

323	4 Cyl 1.6L
MX-3	4 Cyl 1.6L; V6 1.8L
Protégé	4 Cyl 1.5L, 1.8L
626	4 Cyl 2.0L; V6 2.5L
MX-6	4 Cyl 2.0L; V6 2.5L
Miata	4 Cyl 1.6L, 1.8L
RX-7	Rotary Turbo 1.3L
929	V6 3.0L

Millenia	V6 2.3L, 2.5L; V6 Supercharged 2.3L

MERCEDEZ-BENZ

	4 Cyl 2.2L; 4 Cyl Supercharged 2.3L
	6 Cyl 2.8L, 3.2L, 3.6L
	V8 4.2L, 5.0L
	V12 6.0L
	V6 2.8L, 3.2L

MERCURY

Tracer	4 Cyl 1.8L, 1.9L
Capri	4 Cyl 1.6L, 4 Cyl Turbo 1.6L
Topaz	4 Cyl 2.3L
Sable	V6 3.0L
Cougar	V6 2.5L, V8 4.6L
Grand Marquis	V8 4.6L
Mystique	4 Cyl 2.0L, V6 2.5L

MITSUBISHI

Precis	4 Cyl 1.5L
Mirage	4 Cyl 1.5L, 1.8L
Expo	4 Cyl 1.8L, 2.4L
Eclipse	4 Cyl 1.8L, 2.0L, 2.4L, 4 Cyl Turbo 2.0L, V6 3.0L
Galant	4 Cyl 2.4L, V6 3.0L
3000 GT	V6 3.0L, V6 Turbo 3.0L
Diamante	V6 3.0L, 3.5L

NISSAN

Sentra	4 Cyl , 1.6L, 2.0L
240SX	4 Cyl 2.4L
Altima	4 Cyl 2.4L
Maxima	V6 3.0L
300ZX V6/Turbo	V6 3.0L
200SX	4 Cyl 1.6L, 2.0L

OLDSMOBILE

Achieva	4 Cyl 2.4L

Ciera	V6 3.1L
Cutlass Supreme	V6 3.1L
Cutlass Cruiser	V6 3.1L
Eighty Eight	V6 3.8L
Ninety Eight	V6 3.8L
Regency	V6 3.8L
Intrigue	V6 3.5L

PLYMOUTH

Colt	4 Cyl 1.5L, 1.8L
Colt Vista	4 Cyl 1.8L, 2.4L
Sundance	V6 3.0L
Laser	4 Cyl 1.8L, 2.0L; 4 Cyl. Turbo, 2.0L
Acclaim	4 Cyl 2.5L
Neon	4 Cyl 2.0L
Breeze	4 Cyl 2.0L, 2.4L

PONTIAC

Sunfire	4 Cyl 2.2L, 2.4L
Grand Am	4 Cyl 2.4L; V6 3.4L
Firebird	V6 3.8L; V8 5.7L
Grand Prix	V6 3.8L; V6 Supercharged, 3.8L
Bonneville	V6 3.8L

PORSCHE

968	4 Cyl 3.0L
911 Carrera 2	6 Cyl 3.6L
911 Carrera 4 AWD	6 Cyl 3.6L
911 Turbo	6 Cyl 3.6L
928 GTS	V8 5.4L
911 Carrera	6 Cyl 3.4L
Boxster	6 Cyl 2.7L, 3.2L

SAAB

900	4 Cyl 2.3L; 4 Cyl. Turbo, 2.0L
9000	4 Cyl. LPTurbo, 2.3L; 4 Cyl. Turbo, 2.3L; V6 3.0L
9-3	4 Cyl. Turbo, 2.0L; 4 Cyl. HO Turbo, 2.0L, 2.3L
9-5	4 Cyl. Turbo, 2.3L; V6 Turbo, 3.0L; 4 Cyl. HO Turbo, 2.3L

SATURN

Saturn	4 Cyl 1.9L
Saturn L Series	4 Cyl 2.2L; V6 3.0L

SUBARU

Justy	3 Cyl 1.2L
Loyale AWD	4 Cyl 1.8L
Impreza	4 Cyl 1.8L
Impreza AWD	4 Cyl 1.8L, 2.2L, 2.5L
Legacy	4 Cyl 2.2L
Legacy AWD	4 Cyl 2.2L, 2.5L; 4 Cyl Turbo, 2.2L
SVX	6 Cyl 3.3L

SUZUKI

Swift	4 Cyl 1.3L
Esteem	4 Cyl 1.6L, 1.8L

TOYOTA

Tercel	4 Cyl 1.5L
Paseo	4 Cyl 1.5L
Corolla	4 Cyl 1.8L
Camry	4 Cyl 2.2L
MR2	4 Cyl 2.2L; 4 Cyl Turbo, 2.0L
Celica	4 Cyl 1.8L
Supra	6 Cyl 3.0L; 6 Cyl Turbo, 3.0L
Avalon	V6 3.0L
Solara	4 Cyl 2.2L; V6 3.0L
Echo	4 Cyl 1.5L

VOLKSWAGEN

Golf III	4 Cyl 2.0L
Jetta III	4 Cyl 2.0L; V6 2.8L
Passat	4 Cyl 2.0L; V6 2.8L
Corrado	V6 2.8L
GTI	V6 2.8L; 4 Cyl 2.0L
Cabrio	4 Cyl 2.0L
Golf GTI VR6	V6 2.8L
New Beetle	4 Cyl 2.0L; 4 Cyl Turbo, 1.8L

New Golf	4 Cyl 2.0L
New GTI	4 Cyl 2.0L; V6 2.8L
New Jetta	4 Cyl 2.0L
New Jetta VR6	V6 2.8L
New Cabrio	4 Cyl 2.8L

VOLVO

850	5 Cyl 2.4L; 5 Cyl Turbo, 2.3L
940	4 Cyl 2.3L; 4 Cyl Turbo, 2.3L
960	6 Cyl 2.9L
90 Series	6 Cyl 2.9L
70 Series	5 Cyl 2.4L; 5 Cyl Turbo, 2.3L, 2.4L
80 Series	6 Cyl 2.9L; 6 Cyl 2.8L
40 Series	4 Cyl Turbo, 1.9L

YUGO

	4 Cyl 1.1L, 1.3L

ACURA TRUCKS

SLX 4WD	V6 3.0L, 3.2L, 3.5L

BMW TRUCKS

X5 AWD	V8 4.4L

CADILLAC TRUCKS

Escalade AWD	V8 4.6L

CHEVROLET/GMC TRUCKS

EL Camino/Caballero	V6 4.3L
S10 Blazer/Jimmy 4WD	V6 4.3L
Blazer/Yukon 4WD	V8 5.7L, 454/7.4L
Suburban	V8 454/7.4L
Lumina	V6 3.8L
Astro/Safari	V6 3.8L
Sportvan/Rally Wagon	V6 4.3L; V8 454/7.4L
G-Series/Vandura	V6 3.8L; V8 5.0L, 5.7L, 454/7.4L
S10/Sonoma Pickup	4 Cyl 2.5L; V6 4.3L; V6 High Output 4.3L
Regular Cab Pickup	V6 4.3L; V8 5.7L, 454/7.4L

Extended Cab Pickup	V6 4.3L; V8 5.7L, 454/7.4L
Crew Cab Pickup	V8 454/7.4L
Cab Chassis	V8 454/7.4L
Express/Savana	V6 4.3L; V8 454/7.4L
G-Series/Savana Cargo Van	V6 3.8L, 4.3L; V8 5.0L, 5.7L, 454/7.4L
Venture	V6 3.8L, 4.3L
Tracker 4WD	4 Cyl 2.5L
Envoy	V6 3.8L, 4.3L
Silverado/Sierra Regular Cab	V6 4.3L; V8 5.3L, 6.0L
Silverado/Sierra Extended Cab	V6 4.3L; V8 5.3L, 6.0L
Yukon Denali 4WD	V8 5.3L, 6.0L
Silverado/Sierra Cab Chassis	V8 5.3L, 6.0L
Tahoe/Yukon 4WD	V8 5.3L, 6.0L

CHRYSLER VANS

Town & Country	V6 3.8L, 4.3L

DODGE/PLYMOUTH TRUCKS

Caravan C/V	4 Cyl 2.5L; V6 3.0L
Caravan Voyager	4 Cyl 2.5L; V6 3.0L, 3.8L
Ram Wagon	V6 3.9L; V8 5.9L
Ram Van	V6 3.9L; V8 5.2L, 5.9L
Dakota Pickup	4 Cyl 2.5L; V6 3.9L; V8 5.2L, 5.9L
Dakota Pickup	6 Cyl 4.9L; 4 Cyl 2.5L; V8 5.2L, 5.9L
Dakota Cab Chassis	V6 3.9L; V8 5.2L
Regular Cab Pickup	V6 3.9L; V8 5.9L; V10 8.0L
Cab Chassis	V10 8.0L
Club Cab Pickup	V8 5.9L; V10 8.0L
Durango	V6 3.9L; V8 5.9L
Quad Cab Pickup	V8 5.9L; V10 8.0L
Grand Caravan	V6 3.9L

FORD TRUCKS

Explorer 4WD	V6 4.0L; V8 5.0L
Bronco 4WD	V8 5.8L
Aerostar	V6 4.0L
Club Wagon	V8 460/7.5L
Econoline	V6 4.2L;6 Cyl 4.9L;V8 5.0L,5.4L,5.8L,460/7.5L;V10 6.8L

Econoline Van	V6 4.0L; V8 4.6L, 5.4L; V10 6.8L
Ranger Pickup	4 Cyl 2.0L; V6 3.0L, 4.0L
Courier Pickup	4 Cyl 2.0L
Regular Cab Pickup	6 Cyl 4.9L; V8 5.8L, 460/7.5L; V8 Supercharged
Super Cab Pickup	6 Cyl 4.9L; V8 5.8L, 460/7.5L
Crew Cab Pickup	V8 460/7.5L
Cab Chassis	6 Cyl 4.9L; V8 460/7.5L
Expedition 4WD	V8 5.4L
Windstar	V6 3.0L
Super Duty Regular Cab	V8 5.8L; V10 6.8L
Super Duty Super Cab	V8 5.8L; V10 6.8L
Super Duty Crew Cab	V8 5.8L; V10 6.8L
Super Duty Cab Chassis	V8 5.8L; V10 6.8L
Excursion 4WD	V8 5.8L; V10 6.8L

GMC - See CHEVROLET TRUCKS

GEO TRUCKS

Tracker 4WD	4 Cyl 1.3L, 1.6L, 1.8L

HONDA

Passport	4 Cyl 1.5L, 1.6L, 2.2L, 2.3L
Passport 4WD	V6 3.0L
Odyssey	4 Cyl 1.5L, 1.6L, 2.2L, 2.3L
CR-V 4WD	4 Cyl 1.5L, 1.6L, 2.2L, 2.3L

INFINITI TRUCKS

QX4 4WD	V6 3.0L

ISUZU TRUCKS

Pickup	4 Cyl2.3L; V6 3.1L
Trooper 4WD	4 Cyl 2.2L, 2.8L; V6 3.1L
Amigo	4 Cyl 2.3L
Rodeo 4WD	4 Cyl 2.6L

JEEP TRUCKS

CJ 4WD	6 Cyl 4.0L; 4 Cyl 151, 2.5L; V8 5.2L
Cherokee 4WD	6 Cyl 4.0L; V6 2.8L;V8 5.2L

Cherokee 4WD	4 Cyl 2.5L; V6 2.8L
Pickup 4WD	V8 5.2L; 6 Cyl 4.2L
Comanche Pickup 4WD	4 Cyl 2.5L; V6 2.8L
Wrangler 4WD	4 Cyl 2.5L; 6 Cyl 4.2L
CJ7 4WD	6 Cyl 4.0L, 4.2L; 4 Cyl 2.5L
Grand Cherokee 4WD	6 Cyl 4.0L, 4.2L; V8 5.2L
Grand Cherokee 4WD	V8 5.2L; 6 Cyl 4.0L

LAND ROVER

Range Rover 4WD	V8
Defender 110 4WD	V8

LEXUS

LX 450 4WD	6 Cyl 3.0L
LX 470 4WD	V8 4.0L
RX 300 4WD	V6 3.0L

LINCOLN TRUCKS

Navigator 4WD	V8 4.6L

MAZDA TRUCKS

MPV Van	4 Cyl 1.6L, 1.8L, 2.0L; V6 2.5L,3.0L
MPV Van 4WD	V6 2.5L,3.0L
Navajo 4WD	V6 2.5L,3.0L
B2000 Pickup	4 Cyl 1.6L, 1.8L, 2.0L
B2000 Sundowner	4 Cyl 1.6L, 1.8L, 2.0L
B2200 Pickup	4 Cyl 1.6L, 1.8L, 2.0L
B2300 Pickup	4 Cyl 1.6L, 1.8L, 2.0L
B2600 Pickup	4 Cyl 1.6L, 1.8L, 2.0L
B2600 Pickup 4WD	4 Cyl 1.6L, 1.8L, 2.0L
B2600i Pickup	4 Cyl 1.6L, 1.8L, 2.0L
B2600i Pickup 4WD	4 Cyl 1.6L, 1.8L, 2.0L
B3000 Pickup	V6 2.5L,3.0L
B3000 Pickup 4WD	V6 2.5L,3.0L
B4000 Pickup	V6 2.5L,3.0L
B4000 Pickup 4WD	V6 2.5L,3.0L

MERCEDES-BENZ

M - Class 4WD	V6 3.2L
M - Class 4WD	V8 4.2L, 5.0L

MERCURY TRUCKS

Villager	V6 4.0L
Mountaineer AWD	V6 4.0L; V8 4.6L

MITSUBISHI TRUCKS

Montero 4WD	V6 3.0L, 3.5L
Montero Sport 2WD	4 Cyl 2.4L; V6
Montero Sport 4WD	V6 3.0L, 3.5L
Mighty Max Pickup	4 Cyl 2.4L

NISSAN

Pathfinder 4WD	V6 3.0L
Quest	V6 3.0L
Pickup	4 Cyl 2.4L
Pickup	V6 3.0L
Pickup 4WD	V6 3.0L
Frontier Pickup	4 Cyl 2.4L; V6 3.0L, 3.3L
Xterra 4WD	V6 3.0L; 4 Cyl 2.4L

OLDSMOBILE TRUCKS

Silhouette	V6 3.8L
Bravada AWD	V6 3.8L

PONTIAC VANS

Trans Sport	V6 3.8L
Montana	V6 3.8L

SUBARU TRUCKS

Forester AWD	4 Cyl 2.2L, 2.5L

SUZUKI TRUCKS

Samurai 4WD	4 Cyl 1.6L
Sidekick	4 Cyl 1.6L
Sidekick 4WD	4 Cyl 1.6L

X-90 4WD	4 Cyl 1.6L
Vitara	4 Cyl 1.6L
Vitara 4WD	4 Cyl 1.6L
Grand Vitara	V6 3.0L
Grand Vitara 4WD	V6 3.0L

TOYOTA TRUCKS

Rav4 4WD	4 Cyl 2.7L
Cab Chassis	4 Cyl 2.7L; V6 3.4L
4Runner 4WD	4 Cyl 2.7L; V6 3.0L, 3.4L
Land Cruiser 4WD	4 Cyl 2.7L
Land Cruiser AWD	6 Cyl 3.4L; V8 4.2L, 5.0L, 5.2L
Previa	4 Cyl 2.7L; 4 Cyl Supercharged
Pickup	4 Cyl 2.7L; V6 3.0L, 3.4L
T100 Pickup	4 Cyl 2.7L; V6 3.4L
Tacoma Pickup	4 Cyl 2.7L; V6 3.0L, 3.4L
Tacoma Pickup 4WD	V6 3.0L, 3.4L
Sienna	V6 3.0L, 3.4L
Tundra	V6 3.0L, 3.4L
Tundra 4WD	V8 4.2L, 5.0L, 5.2L

VOLKSWAGEN VANS

Vanagon	4 Cyl 2.0L
Eurovan	V6 2.8L

EXHIBIT B

LIST OF HYPERSPEED'S EXCLUDED VEHICLES USING TITANIUM (TiO2) AND/OR LINEAR OXYGEN SENSOR SYSTEMS

MAKE	MODEL	ENGINE SIZE	YEARS
SUBARU			
	3-door, 4-door, and wagon	1.8	88-89
	Loyale	1.8	90-94
	XT, XT6	1.8,2.7	88-91
	All	TLEV,LEV,ULEV, SULEV	98-2000
SAAB			
	900	2.0,2.1,2.3.2.5	90-94
	All	TLEV,LEV,ULEV, SULEV	98-2000
VOLVO			
	240	2.3	89-93
	740	2.3	89-92
	760	2.8	88-90
	780	2.8	87-90
	940	2.3	91-95
	850	2.0,2.5	93-current
	All	TLEV,LEV,ULEV, SULEV	98-2000
NISSAN			
	Altima	2.4	95-2000
	200SX	3.0	87-88
		1.6,2.0	95-97
	240SX	2.4	94-95
	300ZX	3.0	86-89
	D-21 Pickup	3.0	86-93
	Pathfinder	3.0	87-93
	Maxima	3.0	89-96
	Quest	3.0	93-97
	Pulsar	1.6	87
	Sentra	1.6	87-88,95-97
	Stanza	2.0	86
	All	TLEV,LEV,ULEV, SULEV	98-2000
HYUNDAI			
	All	TLEV,LEV,ULEV, SULEV	98-2000

EXHIBIT B

MERCEDES		
All	TLEV,LEV,ULEV, SULEV	98-2000
MERCURY		
Villager	3.0	93-97
HONDA		
Civic 3Door, VX, HX	1.5,1.6	92-2000
Accord 4 cyl	2.3	98-2000
All	TLEV,LEV,ULEV, SULEV	98-2000
ACURA		
CL	2.3	98-2000
All	TLEV,LEV,ULEV, SULEV	98-2000
INFINITY		
M30	3.0	90-92
I30	3.0	96-2000
G20	2.0	94-2000
All	TLEV,LEV,ULEV, SULEV	98-2000
LAND ROVER		
Defender	3.9,4.0	93-97
Discovery	3.9	94-97
Range Rover	3.9,4.0,4.2,4.6	87-97
JAGUAR		
Vanden Plas	4.0	92-97
XJ6,12 ,XJR,XJS	4.0,6.0	92-97
All	TLEV,LEV,ULEV, SULEV	98-2000
TOYOTA		
All	TLEV,LEV,ULEV, SULEV	97-2000
Pickup	3.0	90-93
Land Cruiser	4.5	93-95
LEXUS		
All	TLEV,LEV,ULEV, SULEV	97-2000
VOLKSWAGEN		
All	TLEV,LEV,ULEV, SULEV	98-2000

EXHIBIT B

JEEP			
	Cheerokee, Commanche, Wagoneer	2.5,4.0	87-88
	ALL	2.5	88
	ALL	4.0	89-90
EAGLE			
	Premire	2.5	88-89
	Premire	3.0	88-90
DODGE			
	Monaco	3.0	89-90
BMW			
	All	TLEV,LEV,ULEV, SULEV	98-2000