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State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-234-3
Relating to Exemptions Under Section 27156
of the Vehicle Code

JONES ELECTRONIC TECHNOLOGIES
Powertech 6 Pak Chip

Pursuant to the authority vested in the Air Resources Board (ARB) 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 Powertech 6 Pak Chip manufactured by Jones Electronic Technologies of 7602 Talbert Ave., Huntington Beach, CA 92648, 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 1981 to 1993 General Motors' vehicles equipped with a 2.8 to 7.4 liter engine as listed in Exhibit A.

This Executive Order is valid provided that installation instructions for the Powertech 6 Pak Chip will not recommend tuning the vehicle to specifications different from those submitted by the manufacturer.

Changes made to the design or operating conditions of the device, as exempted by the ARB, 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 ARB.

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

This Executive Order is granted based on results from emissions tests conducted in accordance with Cold-Start CVS-75 Federal Test Procedure. However, the ARB finds that reasonable grounds exist to believe that use of the Powertech 6 Pak Chip may adversely affect emissions of motor vehicles when operating under conditions outside the parameters of the previously prescribed test procedures. 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 Powertech 6 Pak Chip 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 Powertech 6 Pak Chip will affect the durability of the emission control system, Jones Electronic Technologies shall be required to submit durability data to show that the durability of the vehicle emission control system is not, in fact, affected and/or that the add-on or modified part demonstrates adequate durability.

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 JONES ELECTRONIC TECHNOLOGIES' POWERTECH 6 PAK CHIP.

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.

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 may result in its rescission or submission to the Attorney General of California for such action as he deems advisable.

The Bureau of Automotive Repair will be notified by copy of this order.

Executed at El Monte, California, this 25th day of October 1993.


R. B. Summerfield
Assistant Division Chief
Mobile Source Division

CHEVROLET & PONTIAC PASSENGER CARS

Exhibit A

MODEL ENGINE TRANSMISSION STAGE I POWER TECH CHIPS

MODEL	ENGINE	TRANSMISSION	STAGE I	POWER TECH CHIPS
18101*	305 LC 4	Automatic		
18102*	305 4 BBL	Automatic		
18103*	350 4 BBL	Automatic		
18104*	350 4 BBL	Manual		

1981

18203*	2.RL	Automatic		
18204*	2.RL	Manual		
18201*	305 LC 4	Automatic		
18202*	305 LC 4	Automatic		
18205*	305 Crossfire	Automatic		
18206*	305 LC 4	Manual		
18207*	350 Crossfire	Automatic		

1982

18302*	2.RL	Automatic		
18301**	305 LC 4	Automatic		
18303*	305 Crossfire	Automatic		
18304*	305 LC 4	Automatic		
18305*	305 LC 4	Manual		
18306*	305 LC 4	Manual		
18307*	305 LC 4	Automatic		

1983

18401*	2.RL	Automatic		
18402*	2.RL	Manual		
18411*	305 4 BBL	Automatic		
18412*	305 4 BBL	Manual		
18413*	305 LC 4	Automatic		
18414*	305 LC 4	Manual		
18415*	350 Crossfire	Automatic		
18416*	350 Crossfire	Manual		
18417*	305	Automatic		

1984

18501*	2.RL M.F.T.	Automatic		
18502*	2.RL M.F.T.	Automatic		
18503*	2.RL M.F.T.	Manual		
18518*	2.RL M.F.T.	Automatic		
18519*	2.RL M.F.T.	Manual		
18511*	305 4 BBL	Automatic		
18512*	305 4 BBL	Manual		
18513*	305 LC 4	Automatic		
18514*	305 LC 4	Manual		
18515*	305 T.P.T.	Automatic		
18516*	350 T.P.T.	Automatic		
18517*	350 T.P.T.	Manual		

1985

CHEVROLET & PONTIAC PASSENGER CARS

Exhibit A cont.

POWERTECH CHIPS
STAGE I

MODEL	ENGINE	TRANSMISSION	STAGE I
Cavalier, Sunbird	2.8L M.F.T.	Automatic	1R601*
Cavalier Z 24	2.8L M.F.T.	Automatic	1R602*
Cavalier Z 24	2.8L M.F.T.	Manual 4 Speed	1R603*
Cavalier Z 24	2.8L M.F.T.	Manual 5 Speed	1R604*
Celebrity, 6000	2.8L M.F.T.	Automatic w/OD	1R605*
Celebrity, 6000	2.8L M.F.T.	Automatic 3 Speed	1R606*
Fiero	2.8L M.F.T.	Automatic	1R607*
Fiero	2.8L M.F.T.	Manual 4 Speed	1R608*
Fiero	2.8L M.F.T.	Manual 5 Speed	1R620*
Camaro, Fiero	2.8L M.F.T.	Automatic	1R618*
Camaro, Fiero	2.8L M.F.T.	Manual	1R619*
Calli	305 4 BBL	Automatic	1R629*
Calli	305 4 BBL	Manual	1R610*
Camaro, Monte Carlo, Fiero	305 11.0	Automatic	1R611*
Camaro, Fiero	305 11.0	Manual	1R612*
Chevrolet (A.L. Head)	350 T.P.T.	Automatic	1R613*
Chevrolet (Iron Head)	350 T.P.T.	Automatic	1R614*
Chevrolet (A.L. Head)	350 T.P.T.	Manual	1R615*
Chevrolet (Iron Head)	350 T.P.T.	Manual	1R616*
Camaro, Fiero	305 T.P.T.	Automatic	1R617*
Cavalier	2.8L M.F.T.	Automatic	1R716*
Homecuttle	3.8L S.F.T.	Automatic	1R711*
Fiero	2.8L M.F.T.	Automatic	1R712*
Fiero	2.8L M.F.T.	Manual 4 Speed	1R713*
Fiero	2.8L M.F.T.	Manual 5 Speed	1R714*
Grand Am	3.0L M.F.T.	Automatic	1R715*
Calli	305 4 BBL	Automatic	1R700*
Calli	305 4 BBL	Manual	1R701*
Monte Carlo	305 11.0	Automatic	1R702*
Camaro, Fiero	305 T.P.T.	Automatic	1R703*
Camaro, Fiero	305 T.P.T.	Manual	1R704*
IRON, G1A	350 T.P.T.	Automatic	1R705*
Chevrolet	350 T.P.T.	Automatic	1R706*
Chevrolet	350 T.P.T.	Manual	1R707*

1987

1986

ADD 6P TO THE END OF THE STAGE I CHIP PART # TO GET POWERTECH 6 PAK CHIP #

Exhibit A Cont.

CHEVROLET & PONTIAC PASSENGER CARS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1988	Beretta	2.8L M.F.I.	Automatic	18801*
	Cavalier Z 24	2.8L M.F.I.	Automatic	18802*
	Cavalier Z 24	2.8L M.F.I.	Manual 5 Speed	18803*
	Fiero	2.8L M.F.I.	Automatic w/O.D.	18804*
	Fiero	2.8L M.F.I.	Manual 5 Speed	18805*
	Camaro, Firebird	2.8L	Automatic	18820*
	Camaro, Firebird	2.8L	Manual	18821*
	Monte Carlo	305 4 BBL	Automatic	18810*
	Monte Carlo	305 H.O.	Automatic	18811*
	Camaro, Firebird	305 T.P.I.	Automatic	18812*
	Camaro, Firebird	305 T.P.I.	Manual	18813*
	Camaro, Firebird	305 T.B.I.	Automatic	18814*
	Camaro, Firebird	305 T.B.I.	Manual	18815*
	IROC, GTA	350 T.P.I.	Automatic	18816*
	Corvette	350 T.P.I.	* Automatic	18817*
Corvette	350 T.P.I.	Manual	18819*	
1989	Beretta	2.8L M.F.I.	Automatic	18909*
	Cavalier Z 24	2.8L M.F.I.	Automatic	18910*
	Cavalier Z 24	2.8L M.F.I.	Manual 5 Speed	18911*
	Camaro, Firebird	2.8L	Automatic	18908*
	Camaro, Firebird	305 T.B.I.	Automatic	18901*
	Camaro, Firebird	305 T.B.I.	Manual	18902*
	Camaro, Firebird	305 T.P.I.	Automatic	18903*
	Camaro, Firebird	305 T.P.I.	Manual	18904*
	Camaro, Firebird	350 T.P.I.	Automatic	18905*
	Corvette	350 T.P.I.	Automatic	18906*
	Corvette	350 T.P.I.	Manual	18907*
	1990	Beretta, Corsica	3.1L M.F.I.	Automatic
Cavalier Z 24		3.1L M.F.I.	Automatic	19002*
Cavalier Z 24		3.1L M.F.I.	Manual 5 Speed	19003*
Lumina		3.1L M.F.I.	Automatic	19004*
Lumina		3.1L M.F.I.	Automatic No O.D.	19005*
Beretta		2.3L Quad 4	Manual 5 Speed	19006*
Gran Prix		3.1L M.F.I.	Automatic w/O.D.	19007*
Camaro, Firebird		3.1L M.F.I.	Automatic	19017*
Camaro, Firebird		305 T.B.I.	Automatic	19010*
Camaro, Firebird		305 T.B.I.	Manual	19011*
Camaro, Firebird		305 T.P.I.	Automatic	19012*
Camaro, Firebird		305 T.P.I.	Manual	19013*
Camaro, Firebird		350 T.P.I.	Automatic	19014*
Corvette		350 T.P.I.	Automatic	19015*
Corvette		350 T.P.I.	Manual	19016*

Exhibit A Cont.

CHEVROLET & PONTIAC PASSENGER CARS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE 1
1991	Beretta, Corsica	3.1L M.F.I.	Automatic	19101*
	Beretta, Corsica	3.1L M.F.I.	Manual	19102*
	Cavalier Z 24	3.1L M.F.I.	Automatic	19103*
	Cavalier Z 24	3.1L M.F.I.	Manual	19104*
	Lumina	3.1L M.F.I.	Automatic w/O.D.	19105*
	Lumina	3.1L M.F.I.	Automatic	19106*
	Beretta	2.3L Quad 4	Manual 5 Speed	19107*
	Camaro, Firebird	3.1L M.F.I.	Automatic	19117*
	Camaro, Firebird	3.1L M.F.I.	Manual	19118*
	Camaro, Firebird	305 T.B.I.	Automatic	19110*
	Camaro, Firebird	305 T.B.I.	Manual	19111*
	Camaro, Firebird	305 T.P.I.	Automatic	19112*
	Camaro, Firebird	305 T.P.I.	Manual	19113*
	Camaro, Firebird	350 T.P.I.	Automatic	19114*
	Corvette	350 T.P.I.	Automatic	19115*
	Corvette	350 T.P.I.	Manual	19116*
1992	Beretta, Corsica	3.1L M.F.I.	Automatic	19201*
	Beretta, Corsica	3.1L M.F.I.	Manual	19202*
	Bonneville SSE	3.8L M.F.I.	Automatic	19200*
	Cavalier Z 24	3.1L M.F.I.	Automatic	19203*
	Cavalier Z 24	3.1L M.F.I.	Manual	19204*
	Lumina	3.1L M.F.I.	Automatic	19205*
	Beretta	2.3L Quad 4	Manual 5 Speed	19206*
	Beretta Z-34	3.4L M.F.I.	Automatic	19207*
	Lumina Z-34	3.4L M.F.I.	Automatic	19208*
	Gran Prix	3.4L M.F.I.	Automatic	19209*
	Camaro, Firebird	3.1L M.F.I.	Automatic	19217*
	Camaro, Firebird	3.1L M.F.I.	Manual 5 Speed	19218*
	Camaro, Firebird	305 T.B.I.	Automatic	19210*
	Camaro, Firebird	305 T.B.I.	Manual	19211*
	Camaro, Firebird	305 T.P.I.	Automatic	19212*
	Camaro, Firebird	305 T.P.I.	Manual	19213*
	Camaro, Firebird	350 T.P.I.	Automatic	19214*
	Corvette	350 T.P.I.	Automatic	19215*
	Corvette	350 T.P.I.	Manual	19216*

ADD 6P TO THE END OF THE STAGE 1 CHIP PART # TO GET POWERTECH 6 PAK CHIP #

Exhibit A Cont.

CHEVROLET & G.M.C. TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE 1
1986	Safari / Astro Van	4.3L T.B.I.	Automatic	28601*
	S10/S15 PU / Blazer	2.8L T.B.I.	Automatic	28602*
	S10/S15 PU / Blazer	2.8L T.B.I.	Manual	28603*
1987	S10/S15 PU Blazer	2.8L T.B.I.	Automatic	28708*
	S10/S15 PU Blazer	2.8L T.B.I.	Manual	28717*
	Safari / Astro Van	4.3L T.B.I.	Automatic	28709*
	Pickup	305 T.B.I.	Automatic	28701*
	Pickup	305 T.B.I.	Automatic w/OD	28702*
	Pickup / Blazer / Suburban	350 T.B.I.	Automatic	28703*
	Pickup / Blazer / Suburban	350 T.B.I.	Automatic w/OD	28704*
	Pickup / Blazer	350 T.B.I.	Manual	28705*
	Pickup / Suburban	454 T.B.I.	Automatic	28706*
	Pickup	454 T.B.I.	Manual	28707*
1988	S10/S15, Pickup, Blazer, Jimmy	2.8L T.B.I.	Automatic	28806*
	S10/S15, Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	28807*
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	28805*
	Safari / Astro Van	4.3L T.B.I.	Automatic	28809*
	Pickup CK Series	4.3L T.B.I.	Manual 5 Speed	28820*
	Pickup	305 T.B.I.	Automatic	28810*
	Pickup	305 T.B.I.	Automatic w/OD	28811*
	Pickup	305 T.B.I.	Manual	28812*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic	28813*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic w/OD	28814*
	Pickup, Blazer	350 T.B.I.	Manual	28815*
	Pickup, Suburban	454 T.B.I.	Automatic	28816*
	Pickup	454 T.B.I.	Manual	28817*
1989	S10/S15 PU/Blazer	2.8L T.B.I.	Manual	28905*
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	28906*
	Safari / Astro Van	4.3L T.B.I.	Automatic	28908*
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	28918*
	Pickup CK Series	4.3L T.B.I.	Manual 4 Speed	28919*
	Pickup CK Series	4.3L T.B.I.	Manual 5 Speed	28920*
	Pickup	305 T.B.I.	Automatic	28909*
	Pickup	305 T.B.I.	Automatic w/OD	28910*
	Pickup	305 T.B.I.	Manual	28911*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic	28912*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic w/OD	28913*

CHEVROLET & G.M.C. TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1991 Cont.	Pickup, Suburban	454 T.B.I.	Automatic	29109*
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29110*(1)
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29117*(2)
	Pickup	454 T.B.I.	Manual 5 Speed	29121*
	Super Sport Pickup	454 T.B.I.	Automatic w/OD	29118*
1992	S10/S15 Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	29211*
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	29212*
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Manual	29213*
	S10/S15 Pickup	4.3L C.P.I.	Automatic w/OD	29220*
	Safari / Astro Van	4.3L T.B.I.	Automatic	29214*
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	29215*
	Pickup CK Series	4.3L T.B.I.	Manual	29216*
	Syclone, Typhoon	4.3 Turbo	Automatic	29219*
	Pickup	305 T.B.I.	Automatic	29201*
	Pickup	305 T.B.I.	Automatic w/OD	29202*
	Pickup	305 T.B.I.	Manual 4 Speed	29203*
	Pickup	305 T.B.I.	Manual 5 Speed	29204*
	Pickup, Blazer, Suburban	350 T.B.I.	TH700R4/OD Auto	29205*
	Pickup, Blazer, Suburban	350 T.B.I.	400/OD Auto	29206*
	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	29207*
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	29208*
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29210*
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29217*
	Pickup	454 T.B.I.	Manual 5 Speed	29221*
	Super Sport Pickup	454 T.B.I.	Automatic w/OD	29218*

ADD 6P TO THE END OF THE STAGE 1 CHIP PART # TO GET POWERTECH 6 PAK CHIP #

BUICK & OLDSMOBILE PASSENGER CARS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1983	Regal, Cutlass	3.8L	Automatic	58301*
	Regal, Cutlass	307 4 BBL	Automatic	58302*
1984	Grand National	3.8L Turbo	Automatic	58401*
	Regal, Cutlass	3.8L	Automatic	58402*
	Regal, Cutlass	307 4 BBL	Automatic	58403*
	Hurst Olds.	307 H.O.	Automatic	58404*
1985	Grand National	3.8L Turbo	Automatic	58501*
	Hurst Olds. / 442	307 H.O.	Automatic	58502*
1986	Cent., Delta 88, Ciera	3.8L S.F.I.	Automatic	58601*
	Riviera, Toronado	3.8L S.F.I.	Automatic	58602*
	Regal, Cutlass	307 4 BBL	Automatic	58603*
	Somerset, Calais	3.0L S.F.I.	Automatic	58604*
	T-Type / Grand Nat.	3.8L Turbo	Automatic	58605*
	Hurst Olds. / 442	307 H.O.	Automatic	58606*
1987	Cent., LeSabre, Ciera	3.8L S.F.I.	Automatic	58701*
	GNX	3.8L Turbo	Automatic	58702*
	Regal, Cutlass, LeSabre	307 4 BBL	Automatic	58703*
	Calais	3.0L S.F.I.	Automatic	58704*
	T-Type / Grand Nat.	3.8L Turbo	Automatic	58705*
	Hurst Olds. / 442	307 4 BBL	Automatic	58706*
1988	Cutlass / Gran Prix	2.8L M.P.I.	Automatic w/ O.D.	58801*
	Cutlass / Gran Prix	2.8L M.P.I.	Automatic	58802*
	Cutlass	307 4 BBL	Automatic	58803*
1989	Cutlass / Gran Prix	2.8L M.P.I.	Automatic w/ O.D.	58901*
	Cutlass / Gran Prix	2.8L M.P.I.	Automatic	58902*
	Gran Prix	3.1L M.P.I.	Automatic	58903*
1990	Cutlass Ciera	2.8L M.P.I.	Automatic	59001*
	Gran Prix	3.1L M.P.I.	Automatic	59002*
	Toronado / Trefco	3.8L M.P.I.	Automatic	59003*
1991	Gran Prix	3.1L M.P.I.	Automatic	59101*
	(all)	305 T.B.I.	Automatic	59102*
	Calais / 442	2.3L Quad 4	Manual 5 Speed	59103*
	Gran Prix	3.4L	Automatic	59104*
1992	Bravada	4.3L H.O.C.P.I.	Automatic	59205*
	Cutlass	3.1L M.P.I.	Automatic	59206*
	Cutlass	3.4L M.P.I.	Automatic	59207*
	Achieva	2.3L Quad 4	Manual 5 Speed	59208*

GM CALIFORNIA MODELS PASSENGER CARS & TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1983	(all)	305 LG 4	Automatic	38301C*
	(all)	305 LG 4	Manual	38306C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38304C*
	Camaro, Firebird	305 H.O.	Manual	38305C*
	Camaro, Firebird	305 Crossfire	Automatic	38303C*
1984	(all)	305 4 BBL	Automatic	38410C*
	(all)	305 4 BBL	Manual	28411C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38412C*
	Camaro, Firebird	305 H.O.	Manual	38413C*
	Corvette	350 Crossfire	Automatic	38414C*
	Corvette	350 Crossfire	Manual	38415C*
1985	(all)	305 4 BBL	Automatic	38501C*
	(all)	305 4 BBL	Manual	38502C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38503C*
	Camaro, Firebird	305 H.O.	Manual	38504C*
	Pickup, Blazer	305 4 BBL	Automatic	38505C*
1986	(all)	305 4 BBL	Automatic	38608C*
	(all)	305 4 BBL	Manual	38609C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38610C*
	Camaro, Firebird	305 H.O.	Manual	38611C*
	Pickup	305 4 BBL	Automatic	38612C*
	Pickup, Blazer	350 4 BBL	Automatic	38613C*
1987	(all)	305 4 BBL	Automatic	38701C*
	(all)	305 4 BBL	Manual	38702C*
	Monte Carlo	305 H.O.	Automatic	38703C*
1990	Pickup	305 T.B.I.	Manual 5 Speed	39010C*
	Pickup, Blazer, Suburban	305 T.B.I.	Automatic w/OD	39011C*
	Pickup, Suburban	454 T.B.I.	Automatic	39012C*
	Super Sport Pickup	454 T.B.I.	Automatic	39013C*

CHEVROLET & G.M.C. TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1989	Cont.			
	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	28914*†
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	28915*
	Pickup, Suburban	454 T.B.I.	Automatic	28916*
	Pickup, Suburban	454 T.B.I.	Manual	28917*
1990				
	S10 / S15 Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	29011*
	S10 / S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	29012*
	S10 / S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Manual	29013*
	Safari / Astro Van	4.3L T.B.I.	Automatic	29017*
	Pickup CK Series	4.3L T.B.I.	Automatic	29014*
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	29015*
	Pickup CK Series	4.3L T.B.I.	Manual	29016*
	Pickup	305 T.B.I.	Automatic	29001*
	Pickup	305 T.B.I.	Automatic w/OD	29002*
	Pickup	305 T.B.I.	Manual 4 Speed	29003*
	Pickup	305 T.B.J.	Manual 5 Speed	29004*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic w/OD	29005* †
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic	29006*
	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	29007* †
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	29008*
	Pickup, Suburban	454 T.B.I.	Automatic	29009*
	Pickup	454 T.B.I.	Manual	29010*
	Super Sport Pickup	454 T.B.I.	Automatic	29018*
1991				
	S10 / S15, Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	29111*
	S10 / S15, Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	29112*
	S10 / S15, Pickup, Blazer, Jimmy	4.3L T.B.I.	Manual	29113*
	Safari / Astro Van	4.3L T.B.I.	Automatic	29114*
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	29115*
	Pickup CK Series	4.3L T.B.I.	Manual	29116*
	Syclone	4.3L Turbo	Automatic	29119*
	Pickup	305 T.B.I.	Automatic	29101*
	Pickup	305 T.B.I.	Automatic w/OD	29102*
	Pickup	305 T.B.I.	Manual 4 Speed	29103*
	Pickup	305 T.B.I.	Manual 5 Speed	29104*
	Pickup, Blazer, Suburban	350 T.B.I.	T11700R4/OD Auto	29105*
	Pickup, Blazer, Suburban	350 T.B.I.	400/OD Auto	29106*
	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	29107*
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	29108*

Exhibit A Cont.

1993 MODEL YEAR CARS

PASS. CARS	ENGINE	TRANS	JET P/N
CORSICA	3.1L	AUTO	19301
BERETTA, CORSICA	3.1L	MAN	19302
BONNEVILLE SSE	3.8L	AUTO	19303
CAVALIER Z24	3.1L	AUTO	19304
CAVALIER Z24	3.1L	MAN	19305
LUMINA	3.1L	AUTO	19306
BERETTA	2.3L QUAD4	MAN5SPD	19307
BERETTA Z-34	3.4L	AUTO	19308
LUMINA Z-34	3.4L	AUTO	19309
GRAN PRIX	3.4L	AUTO	19310
CAMARO, FBIRD	3.1L	AUTO	19311
CAMARO, FBIRD	3.1L	MAN5SPD	19312
CAMARO, FBIRD	305TBI	AUTO	19313
CAMARO, FBIRD	305TBI	MAN	19314
CAMARO, FBIRD	305TPI	AUTO	19315
CAMARO, FBIRD	350TPI	AUTO	19316
CORVETTE	350TPI	AUTO	19317
CORVETTE	350TPI	MAN	19318
CAMARO	LT2350	AUTO	19319
CAMARO	LT2350	MAN	19320
BRAVADA	4.3L	AUTO	59305
CUTLASS	3.1L	AUTO	59306
CUTLASS	3.4L	AUTO	59307
ACHIEVA	2.3L	MAN	59308

validate the emission test results submitted by Jones Electronic Technologies.

The Stage 1 Power that was tested in support of the prior Executive Order is incorporated into the Powertech 6 Pak Chip. Its theory of operation is similar to that of the Stage 2 Power. The modifications which are advanced ignition timing and a modified fuel table are only active at wide-open-throttle. The towing mode is another option of the Powertech 6 Pak Chip that is active only at wide-open-throttle. Since all the three modes (Stage 1 & 2 Power and towing) occur only during wide-open-throttle, the emissions impact under the Stage 2 Power and towing are expected to be the same as the test results of the Stage 1 Power. The other two modes, valet and anti-theft, could operate during the drive cycle but for reasons of vehicle driveability will not be operated. The economy mode does operate during the drive cycle since the modifications to ignition timing is exercised during part throttle; however, the advanced timing never exceeds 4 degrees which is within the limits mentioned in the "Procedures For Exemption Of Add-On And Modified Parts".

Jones Electronic Technologies has submitted all the required information and fulfilled the requirements for an exemption.

Appendix A

Appendix A

CHEVROLET & PONTIAC PASSENGER CARS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1991	(all)	305 LG 4	Automatic	18101*
	(all)	305 4 BBL	Automatic	18102*
	Corvette	350 4 BBL	Automatic	18103*
	Corvette	350 4 BBL	Manual	18104*
1992	Camaro, Firebird	2.8L	Automatic	18203*
	Camaro, Firebird	2.8L	Manual	18204*
	(all) W/ ECM# 1225500	305 LG 4	Automatic	18201*
	(all) W/ ECM# 1225950	305 LG 4	Automatic	18202*
	Camaro, Firebird	305 Crossfire	Automatic	18205*
	Camaro, Firebird	305 LG 4	Manual	18206*
	Corvette	350 Crossfire	Automatic	18207*
1993	Camaro, Firebird	2.8L	Automatic	18302*
	(all)	305 LG 4	Automatic	18301*
	Camaro, Firebird	305 Crossfire	Automatic	18303*
	Camaro, Firebird	305 H.O.	Automatic	18304*
	Camaro, Firebird	305 H.O.	Manual	18305*
	Camaro, Firebird	305 LG 4	Manual	18306*
	Monte Carlo	305 H.O.	Automatic	18307*
1994	Camaro, Firebird	2.8L	Automatic	18401*
	Camaro, Firebird	2.8L	Manual	18402*
	Camaro, Monte Carlo, (all)	305 4 BBL	Automatic	18411*
	Camaro, Monte Carlo, (all)	305 4 BBL	Manual	18412*
	Camaro, Monte Carlo, Firebird	305 H.O.	Automatic	18413*
	Camaro, Firebird	305 H.O.	Manual	18414*
	Corvette	350 Crossfire	Automatic	18415*
	Corvette	350 Crossfire	Manual	18416*
	El Camino	305	Automatic	18417*
1995	Celebrity, 6000	2.8L M.F.I.	Automatic	18501*
	Fiero	2.8L M.F.I.	Automatic	18502*
	Fiero	2.8L M.F.I.	Manual	18503*
	Camaro, Firebird	2.8L M.F.I.	Automatic	18518*
	Camaro, Firebird	2.8L M.F.I.	Manual	18519*
	Camaro, Monte Carlo, (all)	305 4 BBL	Automatic	18511*
	Camaro, Monte Carlo, (all)	305 4 BBL	Manual	18512*
	Camaro, Monte Carlo, Firebird	305 H.O.	Automatic	18513*
	Camaro, Firebird	305 H.O.	Manual	18514*
	Camaro, Firebird	305 T.P.I.	Automatic	18515*
	Corvette	350 T.P.I.	Automatic	18516*
	Corvette	350 T.P.I.	Manual	18517*

CHEVROLET & PONTIAC PASSENGER CARS

POWER TECH CHIPS

MODEL ENGINE TRANSMISSION STAGE I

MODEL	ENGINE	TRANSMISSION	STAGE I
Cavalier, Sunbird	2.8L M.F.T.	Automatic	18601*
Cavalier Z 24	2.8L M.F.T.	Automatic	18602*
Cavalier Z 24	2.8L M.F.T.	Manual 4 Speed	18603*
Cavalier Z 24	2.8L M.F.T.	Manual 5 Speed	18604*
Chevrolet, 6000	2.8L M.F.T.	Automatic w/OD	18605*
Chevrolet, 6000	2.8L M.F.T.	Automatic 3 Speed	18606*
Fiero	2.8L M.F.T.	Automatic	18607*
Fiero	2.8L M.F.T.	Manual 4 Speed	18608*
Fiero	2.8L M.F.T.	Manual 5 Speed	18620*
Camaro, Firebird	2.8L M.F.T.	Automatic	18618*
Camaro, Firebird	2.8L M.F.T.	Manual	18619*
Calli	305 4 BBL	Automatic	18609*
Calli	305 4 BBL	Manual	18610*
Camaro, Monte Carlo, Firebird	305 H.O.	Automatic	18611*
Camaro, Firebird	305 H.O.	Manual	18612*
Chevrolet (4-Door Head)	350 T.P.T.	Automatic	18613*
Chevrolet (4-Door Head)	350 T.P.T.	Manual	18614*
Chevrolet (4-Door Head)	350 T.P.T.	Automatic	18615*
Chevrolet (4-Door Head)	350 T.P.T.	Manual	18616*
Camaro, Firebird	2.8L	Automatic	18708*
Camaro, Firebird	2.8L	Manual	18709*
Cavalier	2.8L M.F.T.	Automatic	18716*
Blazer	3.8L S.F.T.	Automatic	18711*
Fiero	2.8L M.F.T.	Automatic	18712*
Fiero	2.8L M.F.T.	Manual 4 Speed	18713*
Fiero	2.8L M.F.T.	Manual 5 Speed	18714*
Grand Am	3.0L M.F.T.	Automatic	18715*
Calli	305 4 BBL	Automatic	18700*
Calli	305 4 BBL	Manual	18701*
Monte Carlo	305 H.O.	Automatic	18702*
Camaro, Firebird	305 T.P.T.	Automatic	18703*
Camaro, Firebird	305 T.P.T.	Manual	18704*
Blazer, GVA	350 T.P.T.	Automatic	18705*
Chevrolet	350 T.P.T.	Automatic	18706*
Chevrolet	350 T.P.T.	Manual	18707*

1987

1986

ADD 62 TO THE END OF THE STAGE I CHIP PART # TO GET POWERTECH 6 PAK CHIP #

CHEVROLET & PONTIAC PASSENGER CARS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1988	Beretta	2.8L M.F.I.	Automatic	18801*
	Cavalier Z 24	2.8L M.F.I.	Automatic	18802*
	Cavalier Z 24	2.8L M.F.I.	Manual 5 Speed	18803*
	Fiero	2.8L M.F.I.	Automatic w/O.D.	18804*
	Fiero	2.8L M.F.I.	Manual 5 Speed	18805*
	Camaro, Firebird	2.8L	Automatic	18820*
	Camaro, Firebird	2.8L	Manual	18821*
	Monte Carlo	305 4 BBL	Automatic	18810*
	Monte Carlo	305 H.O.	Automatic	18811*
	Camaro, Firebird	305 T.P.I.	Automatic	18812*
	Camaro, Firebird	305 T.P.I.	Manual	18813*
	Camaro, Firebird	305 T.B.I.	Automatic	18814*
	Camaro, Firebird	305 T.B.I.	Manual	18815*
	IROC, GTA	350 T.P.I.	Automatic	18816*
	Corvette	350 T.P.I.	* Automatic	18817*
	Corvette	350 T.P.I.	Manual	18819*
	1989	Beretta	2.8L M.F.I.	Automatic
Cavalier Z 24		2.8L M.F.I.	Automatic	18910*
Cavalier Z 24		2.8L M.F.I.	Manual 5 Speed	18911*
Camaro, Firebird		2.8L	Automatic	18908*
Camaro, Firebird		305 T.B.I.	Automatic	18901*
Camaro, Firebird		305 T.B.I.	Manual	18902*
Camaro, Firebird		305 T.P.I.	Automatic	18903*
Camaro, Firebird		305 T.P.I.	Manual	18904*
Camaro, Firebird		350 T.P.I.	Automatic	18905*
Corvette		350 T.P.I.	Automatic	18906*
Corvette		350 T.P.I.	Manual	18907*
1990	Beretta, Corsica	3.1L M.F.I.	Automatic	19001*
	Cavalier Z 24	3.1L M.F.I.	Automatic	19002*
	Cavalier Z 24	3.1L M.F.I.	Manual 5 Speed	19003*
	Lumina	3.1L M.F.I.	Automatic	19004*
	Lumina	3.1L M.F.I.	Automatic No O.D.	19005*
	Beretta	2.3L Quad 4	Manual 5 Speed	19006*
	Gran Prix	3.1L M.F.I.	Automatic w/O.D.	19007*
	Camaro, Firebird	3.1L M.F.I.	Automatic	19017*
	Camaro, Firebird	305 T.B.I.	Automatic	19010*
	Camaro, Firebird	305 T.B.I.	Manual	19011*
	Camaro, Firebird	305 T.P.I.	Automatic	19012*
	Camaro, Firebird	305 T.P.I.	Manual	19013*
	Camaro, Firebird	350 T.P.I.	Automatic	19014*
	Corvette	350 T.P.I.	Automatic	19015*
	Corvette	350 T.P.I.	Manual	19016*

CHEVROLET & PONTIAC PASSENGER CARS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE 1
1991	Beretta, Corsica	3.1L M.F.I.	Automatic	19101*
	Beretta, Corsica	3.1L M.F.I.	Manual	19102*
	Cavalier Z 24	3.1L M.F.I.	Automatic	19103*
	Cavalier Z 24	3.1L M.F.I.	Manual	19104*
	Lumina	3.1L M.F.I.	Automatic w/O.D.	19105*
	Lumina	3.1L M.F.I.	Automatic	19106*
	Beretta	2.3L Quad 4	Manual 5 Speed	19107*
	Camaro, Firebird	3.1L M.F.I.	Automatic	19117*
	Camaro, Firebird	3.1L M.F.I.	Manual	19118*
	Camaro, Firebird	305 T.B.I.	Automatic	19110*
	Camaro, Firebird	305 T.B.I.	Manual	19111*
	Camaro, Firebird	305 T.P.I.	Automatic	19112*
	Camaro, Firebird	305 T.P.I.	Manual	19113*
	Camaro, Firebird	350 T.P.I.	Automatic	19114*
	Corvette	350 T.P.I.	Automatic	19115*
	Corvette	350 T.P.I.	Manual	19116*
1992	Beretta, Corsica	3.1L M.F.I.	Automatic	19201*
	Beretta, Corsica	3.1L M.F.I.	Manual	19202*
	Bonneville SSE	3.8L M.F.I.	Automatic	19200*
	Cavalier Z 24	3.1L M.F.I.	Automatic	19203*
	Cavalier Z 24	3.1L M.F.I.	Manual	19204*
	Lumina	3.1L M.F.I.	Automatic	19205*
	Beretta	2.3L Quad 4	Manual 5 Speed	19206*
	Beretta Z-34	3.4L M.F.I.	Automatic	19207*
	Lumina Z-34	3.4L M.F.I.	Automatic	19208*
	Gran Prix	3.4L M.F.I.	Automatic	19209*
	Camaro, Firebird	3.1L M.F.I.	Automatic	19217*
	Camaro, Firebird	3.1L M.F.I.	Manual 5 Speed	19218*
	Camaro, Firebird	305 T.B.I.	Automatic	19210*
	Camaro, Firebird	305 T.B.I.	Manual	19211*
	Camaro, Firebird	305 T.P.I.	Automatic	19212*
	Camaro, Firebird	305 T.P.I.	Manual	19213*
	Camaro, Firebird	350 T.P.I.	Automatic	19214*
	Corvette	350 T.P.I.	Automatic	19215*
	Corvette	350 T.P.I.	Manual	19216*

ADD 6P TO THE END OF THE STAGE 1 CHIP PART # TO GET POWERTECH 6 PAK CHIP #

CHEVROLET & G.M.C. TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1986	Safari / Astro Van	4.3L T.B.I.	Automatic	28601*
	S10 / S15 PU / Blazer	2.8L T.B.I.	Automatic	28602*
	S10 / S15 PU / Blazer	2.8L T.B.I.	Manual	28603*
1987	S10 / S15 PU Blazer	2.8L T.B.I.	Automatic	28708*
	S10 / S15 PU Blazer	2.8L T.B.I.	Manual	28717*
	Safari / Astro Van	4.3L T.B.I.	Automatic	28709*
	Pickup	305 T.B.I.	Automatic	28701*
	Pickup	305 T.B.I.	Automatic w/OD	28702*
	Pickup / Blazer / Suburban	350 T.B.I.	Automatic	28703*
	Pickup / Blazer / Suburban	350 T.B.I.	Automatic w/OD	28704*
	Pickup / Blazer	350 T.B.I.	Manual	28705*
	Pickup / Suburban	454 T.B.I.	Automatic	28706*
Pickup	454 T.B.I.	Manual	28707*	
1988	S10 / S15, Pickup, Blazer, Jimmy	2.8L T.B.I.	Automatic	28806*
	S10 / S15, Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	28807*
	S10 / S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	28805*
	Safari / Astro Van	4.3L T.B.I.	Automatic	28809*
	Pickup CK Series	4.3L T.B.I.	Manual 5 Speed	28820*
	Pickup	305 T.B.I.	Automatic	28810*
	Pickup	305 T.B.I.	Automatic w/OD	28811*
	Pickup	305 T.B.I.	Manual	28812*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic	28813*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic w/OD	28814*
	Pickup, Blazer	350 T.B.I.	Manual	28815*
	Pickup, Suburban	454 T.B.I.	Automatic	28816*
	Pickup	454 T.B.I.	Manual	28817*
1989	S10 / S15 PU / Blazer	2.8L T.B.I.	Manual	28905*
	S10 / S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	28906*
	Safari / Astro Van	4.3L T.B.I.	Automatic	28908*
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	28918*
	Pickup CK Series	4.3L T.B.I.	Manual 4 Speed	28919*
	Pickup CK Series	4.3L T.B.I.	Manual 5 Speed	28920*
	Pickup	305 T.B.I.	Automatic	28909*
	Pickup	305 T.B.I.	Automatic w/OD	28910*
	Pickup	305 T.B.I.	Manual	28911*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic	28912*
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic w/OD	28913*

ADD 6P TO THE END OF THE STAGE 1 CHIP PART # TO GET POWERTECH 6 PAK CHIP #

CHEVROLET & G.M.C. TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE 1
1991	Cont.			
	Pickup, Suburban	454 T.B.I.	Automatic	29109*
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29110*(1)
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29117*(2)
	Pickup	454 T.B.I.	Manual 5 Speed	29121*
	Super Sport Pickup	454 T.B.I.	Automatic w/OD	29118*
1992				
	S10/S15 Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	29211*
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	29212*
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Manual	29213*
	S10/S15 Pickup	4.3L C.P.I.	Automatic w/OD	29220*
	Safari / Astro Van	4.3L T.B.I.	Automatic	29214*
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	29215*
	Pickup CK Series	4.3L T.B.I.	Manual	29216*
	Syclone, Typhoon	4.3 Turbo	Automatic	29219*
	Pickup	305 T.B.I.	Automatic	29201*
	Pickup	305 T.B.I.	Automatic w/OD	29202*
	Pickup	305 T.B.I.	Manual 4 Speed	29203*
	Pickup	305 T.B.I.	Manual 5 Speed	29204*
	Pickup, Blazer, Suburban	350 T.B.I.	T11700R-4/OD Auto	29205*
	Pickup, Blazer, Suburban	350 T.B.I.	400/OD Auto	29206*
	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	29207*
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	29208*
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29210*
	Pickup, Suburban	454 T.B.I.	Automatic w/OD	29217*
	Pickup	454 T.B.I.	Manual 5 Speed	29221*
	Super Sport Pickup	454 T.B.I.	Automatic w/OD	29218*

ADD 6P TO THE END OF THE STAGE 1 CHIP PART # TO GET POWERTECH 6 PAK CHIP #

CHEVROLET & G.M.C. TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I	
1989 Cont.	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	28914*†	
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	28915*	
	Pickup, Suburban	454 T.B.I.	Automatic	28916*	
	Pickup, Suburban	454 T.B.I.	Manual	28917*	
1990	S10/S15 Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	29011*	
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	29012*	
	S10/S15 Pickup, Blazer, Jimmy	4.3L T.B.I.	Manual	29013*	
	Safari / Astro Van	4.3L T.B.I.	Automatic	29017*	
	Pickup CK Series	4.3L T.B.I.	Automatic	29014*	
	Pickup CK Series	4.3L T.B.I.	Automatic w/OD	29015*	
	Pickup CK Series	4.3L T.B.I.	Manual	29016*	
	Pickup	305 T.B.I.	Automatic	29001*	
	Pickup	305 T.B.I.	Automatic w/OD	29002*	
	Pickup	305 T.B.I.	Manual 4 Speed	29003*	
	Pickup	305 T.B.I.	Manual 5 Speed	29004*	
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic w/OD	29005*†	
	Pickup, Blazer, Suburban	350 T.B.I.	Automatic	29006*	
	Pickup, Blazer	350 T.B.I.	Manual 4 Speed	29007*†	
	Pickup, Blazer	350 T.B.I.	Manual 5 Speed	29008*	
	Pickup, Suburban	454 T.B.I.	Automatic	29009*	
	Pickup	454 T.B.I.	Manual	29010*	
	Super Sport Pickup	454 T.B.I.	Automatic	29018*	
	1991	S10/S15, Pickup, Blazer, Jimmy	2.8L T.B.I.	Manual	29111*
		S10/S15, Pickup, Blazer, Jimmy	4.3L T.B.I.	Automatic	29112*
S10/S15, Pickup, Blazer, Jimmy		4.3L T.B.I.	Manual	29113*	
Safari / Astro Van		4.3L T.B.I.	Automatic	29114*	
Pickup CK Series		4.3L T.B.I.	Automatic w/OD	29115*	
Pickup CK Series		4.3L T.B.I.	Manual	29116*	
Syclone		4.3L Turbo	Automatic	29119*	
Pickup		305 T.B.I.	Automatic	29101*	
Pickup		305 T.B.I.	Automatic w/OD	29102*	
Pickup		305 T.B.I.	Manual 4 Speed	29103*	
Pickup		305 T.B.I.	Manual 5 Speed	29104*	
Pickup, Blazer, Suburban		350 T.B.I.	T11700R4/OD Auto	29105*	
Pickup, Blazer, Suburban		350 T.B.I.	400/OD Auto	29106*	
Pickup, Blazer		350 T.B.I.	Manual 4 Speed	29107*	
Pickup, Blazer		350 T.B.I.	Manual 5 Speed	29108*	

BUICK & OLDSMOBILE PASSENGER CARS

POWERTECH CHIPS
STAGE I

MODEL	ENGINE	TRANSMISSION	STAGE I
Regal, Cutlass	3.8L	Automatic	58301*
Regal, Cutlass	307 4 BBL	Automatic	58302*
Grand National	3.8L Turbo	Automatic	58401*
Regal, Cutlass	3.8L	Automatic	58402*
Regal, Cutlass	307 4 BBL	Automatic	58403*
Hurst Olds	307 H.O.	Automatic	58404*
Grand National	3.8L Turbo	Automatic	58501*
Hurst Olds / 442	307 H.O.	Automatic	58606*
Cem., Delta RR, Ciera	3.8L S.F.I.	Automatic	58601*
Riviera, Toronado	3.8L S.F.I.	Automatic	58602*
Regal, Cutlass	307 4 BBL	Automatic	58603*
Somerset, Cutlas	3.0L S.F.I.	Automatic	58604*
T-Type / Grand Nat.	3.8L Turbo	Automatic	58605*
Hurst Olds / 442	307 4 BBL	Automatic	58706*
Cem., LeSabre, Ciera	3.8L S.F.I.	Automatic	58701*
GNX	3.8L Turbo	Automatic	58702*
Regal, Cutlass, LeSabre	307 4 BBL	Automatic	58703*
Cutlass	3.0L S.F.I.	Automatic	58704*
T-Type / Grand Nat.	3.8L Turbo	Automatic	58705*
Cutlass / 442	307 4 BBL	Automatic	58806*
Cutlass / Grand Prix	2.8L M.P.I.	Automatic w/O.D.	58801*
Cutlass / Grand Prix	2.8L M.P.I.	Automatic	58802*
Cutlass	307 4 BBL	Automatic	58803*
Cutlass / Grand Prix	2.8L M.P.I.	Automatic w/O.D.	58901*
Cutlass / Grand Prix	2.8L M.P.I.	Automatic	58902*
Grand Prix	3.1L M.P.I.	Automatic	58903*
Cutlass Ciera	2.8L M.P.I.	Automatic	59001*
Grand Prix	3.1L M.P.I.	Automatic	59002*
Toronado / Trefco	3.8L M.P.I.	Automatic	59003*
Grand Prix	3.1L M.P.I.	Automatic	59101*
(all)	305 T.B.T.	Automatic	59102*
Cutlass / 442	2.3L Quad 4	Manual 5 Speed	59103*
Grand Prix	3.4L	Automatic	59104*
Havana	4.3L H.O.C.P.I.	Automatic	59205*
Cutlass	3.1L M.P.I.	Automatic	59206*
Cutlass	3.4L M.P.I.	Automatic	59207*
Achieva	2.3L Quad 4	Manual 5 Speed	59208*

1992

1991

1990

1989

1988

1987

1986

1985

1984

1983

GM CALIFORNIA MODELS PASSENGER CARS & TRUCKS

	MODEL	ENGINE	TRANSMISSION	POWER TECH CHIPS STAGE I
1983	(all)	305 LG 4	Automatic	38301C*
	(all)	305 LG 4	Manual	38306C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38304C*
	Camaro, Firebird	305 H.O.	Manual	38305C*
	Camaro, Firebird	305 Crossfire	Automatic	38303C*
1984	(all)	305 4 BBL	Automatic	38410C*
	(all)	305 4 BBL	Manual	28411C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38412C*
	Camaro, Firebird	305 H.O.	Manual	38413C*
	Corvette	350 Crossfire	Automatic	38414C*
	Corvette	350 Crossfire	Manual	38415C*
1985	(all)	305 4 BBL	Automatic	38501C*
	(all)	305 4 BBL	Manual	38502C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38503C*
	Camaro, Firebird	305 H.O.	Manual	38504C*
	Pickup, Blazer	305 4 BBL	Automatic	38505C*
1986	(all)	305 4 BBL	Automatic	38608C*
	(all)	305 4 BBL	Manual	38609C*
	Camaro, Firebird, Monte Carlo	305 H.O.	Automatic	38610C*
	Camaro, Firebird	305 H.O.	Manual	38611C*
	Pickup	305 4 BBL	Automatic	38612C*
	Pickup, Blazer	350 4 BBL	Automatic	38613C*
1987	(all)	305 4 BBL	Automatic	38701C*
	(all)	305 4 BBL	Manual	38702C*
	Monte Carlo	305 H.O.	Automatic	38703C*
1980	Pickup	305 T.B.I.	Manual 5 Speed	39010C*
	Pickup, Blazer, Suburban	305 T.B.I.	Automatic w/OD	39011C*
	Pickup, Suburban	454 T.B.I.	Automatic	39012C*
	Super Sport Pickup	454 T.B.I.	Automatic	39013C*

ADD 6P TO THE END OF THE STAGE 1 CHIP PART # TO GET POWERTECH 6 PAK CHIP #

1993 TRUCK APPLICATIONS

	ENG	TRANS	JET PN
S10 S15 PU BLZR JIM	2.8L	MAN	29301
S10 S15 PU BLZR JIM	4.3L	MAN	29303
S10 S15 PU BLZR JIM	4.3CPI	AUTO	29304
SAFARI ASTRO	4.3L	AUTO	29305
PU CK SERIES	4.3L	AUTO	29306
PICKUP	305	MAN5	29310
PICKUP1500	350	700R4	29311
PICKUP1500	350	4L80E	29312
PICKUP	350	ELECT 700	29313
PICKUP25-3500	350	4L80E	29314
PICKUP	350	MAN4	29315
PICKUP	350	MAN5	29316
PICKUP 25-3500	350	MAN5	29317
PICKUP 4.10GEAR	454	AUTO	29318
PICKUP 4.56GEAR	454	AUTO	29318
PICKUP 3.42GEAR	454	AUTO	29319
PICKUP 3.73GEAR	454	AUTO	29319
SUPER SPORT PU	454	AUTO	29320
PICKUP	454	MAN	29321

1993 MODEL YEAR CARS

PASS. CARS	ENGINE	TRANS	JET P/N
CORSICA	3.1L	AUTO	19301
BERETTA, CORSICA	3.1L	MAN	19302
BONNEVILLE SSE	3.8L	AUTO	19303
CAVALIER Z24	3.1L	AUTO	19304
CAVALIER Z24	3.1L	MAN	19305
LUMINA	3.1L	AUTO	19306
BERETTA	2.3L QUAD4	MAN5SPD	19307
BERETTA Z-34	3.4L	AUTO	19308
LUMINA Z-34	3.4L	AUTO	19309
GRAN PRIX	3.4L	AUTO	19310
CAMARO, FBIRD	3.1L	AUTO	19311
CAMARO, FBIRD	3.1L	MAN5SPD	19312
CAMARO, FBIRD	305TBI	AUTO	19313
CAMARO, FBIRD	305TBI	MAN	19314
CAMARO, FBIRD	305TPI	AUTO	19315
CAMARO, FBIRD	350TPI	AUTO	19316
CORVETTE	350TPI	AUTO	19317
CORVETTE	350TPI	MAN	19318
CAMARO	LT2350	AUTO	19319
CAMARO	LT2350	MAN	19320
BRAVADA	4.3L	AUTO	59305
CUTLASS	3.1L	AUTO	59306
CUTLASS	3.4L	AUTO	59307
ACHIEVA	2.3L	MAN	59308

Exhibit A Cont.

1993 TRUCK APPLICATIONS

	ENG	TRANS	JET PN
S10 S15 PU BLZR JIM	2.8L	MAN	29301
S10 S15 PU BLZR JIM	4.3L	MAN	29303
S10 S15 PU BLZR JIM	4.3CPI	AUTO	29304
SAFARI ASTRO	4.3L	AUTO	29305
PU CK SERIES	4.3L	AUTO	29306
PICKUP	305	MAN5	29310
PICKUP1500	350	700R4	29311
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PICKUP25-3500	350	4L80E	29314
PICKUP	350	MAN4	29315
PICKUP	350	MAN5	29316
PICKUP 25-3500	350	MAN5	29317
PICKUP 4.10GEAR	454	AUTO	29318
PICKUP 4.56GEAR	454	AUTO	29318
PICKUP 3.42GEAR	454	AUTO	29319
PICKUP 3.73GEAR	454	AUTO	29319
SUPER SPORT PU	454	AUTO	29320
PICKUP	454	MAN	29321

State of California
AIR RESOURCES BOARD

EVALUATION OF JONES ELECTRONIC TECHNOLOGIES' POWERTECH 6 PAK CHIP
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF
THE CALIFORNIA CODE OF REGULATIONS

October 1993

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AIR RESOURCES BOARD

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FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE
SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF
THE CALIFORNIA CODE OF REGULATIONS

by

Mobile Source Division
9528 Telstar Avenue
El Monte, CA 91731-2990

(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 the mention of trade names or commercial products constitute endorsement or recommendation for use.)

SUMMARY

Jones Electronic Technologies has applied for an exemption from the prohibitions of Vehicle Code Section 27156 for their Powertech 6 Pak Chip. The Powertech 6 Pak Chip is a module that contains a programmable read only memory (PROM) computer chip for installation on 1981 to 1993 General Motors' vehicles powered by a 2.8 to 7.4 liter gasoline engine. The 6 Pak Chip contains 6 driving modes for the vehicle to operate: economy, towing, Stage 1 Power, Stage 2 Power, valet, and anti-theft. Jones Electronic Technologies has submitted a completed application and all the required information.

Based on the submitted information and prior emission test results performed on a late model 5.7L GM truck with the Stage 1 Power chip, the staff concludes that the installation of Jones Electronic Technologies' Powertech 6 Pak Chip will not adversely affect exhaust emissions on the specified vehicles.

The staff recommends Jones Electronic Technologies be granted an exemption as requested and that Executive Order D-234-3 be issued.

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EVALUATION OF JONES ELECTRONIC TECHNOLOGIES' POWERTECH 6 PAK CHIP FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE CALIFORNIA CODE OF REGULATIONS

I. INTRODUCTION

Jones Electronic Technologies of 7602 Talbert Ave., Huntington Beach, California 92648, applied for an exemption from the prohibitions of Vehicle Code Section 27156 for their Powertech 6 Pak Chip. The Powertech 6 Pak Chip is a module that contains a programmable read only memory (PROM) computer chip, for installation on 1981 to 1993 General Motors' vehicles powered by a 2.8 to 7.4 liter gasoline engine. The 6 Pak Chip contains 6 driving modes for the vehicle to operate: economy, towing, Stage 1 Power, Stage 2 Power, valet, and anti-theft. Jones Electronic Technologies has submitted a completed application and all the required information.

II. CONCLUSION

Based on the submitted information and the results from prior exhaust emissions test, the staff concludes that Jones Electronic Technologies' Powertech 6 Pak Chip will not adversely affect exhaust emissions from vehicles for which the exemption is requested.

III. RECOMMENDATION

The staff recommends that Jones Electronic Technologies be granted an exemption as requested and that Executive Order D-234-3 be issued.

IV. POWERTECH 6 PAK CHIP DESCRIPTION

Many computer controlled vehicles are equipped with an electronic control unit (ECU). The ECU incorporates a programmable read only memory (PROM) computer chip containing the operational data needed for proper engine operation. Engine sensors such as temperature, vacuum, and oxygen are fed directly into the ECU where they are analyzed and compared to the

theft mode is designed to prevent the flow of fuel to the vehicle's engine during a start condition. An additional key lock switch is also incorporated into the Powertech 6 Pak Chip package that disables the vehicle's starting feature. Applicable vehicles to the Powertech 6 Pak Chip are listed in Appendix A.

V. DISCUSSION OF THE POWERTECH 6 PAK CHIP

A 1991 5.7 liter General Motors full size truck was used as the test vehicle to evaluate the effect of the Stage 1 Power chip on a prior Jones Electronic Technologies Executive Order. The test program consisted of one (cold start) CVS-75 FTP on the vehicle in the modified configuration. The results of the exhaust emissions test performed at the Automotive Testing & Development Services are shown in Table 1.

Table 1

CVS-75 TEST RESULTS

(Automotive Testing & Development Services)

	<u>HC</u>	<u>CO</u>	<u>NOx</u>
	(grams/mile)		
Device	0.33	2.86	0.66
Deterioration factor (D.F.)	1.035	1.026	1.0
Device w/ applied D.F.	0.34	2.93	0.66
Standards	0.50	9.0	1.0
Difference	-0.16	-6.07	-0.34

The CVS-75 emissions test results at Automotive Testing & Development Services indicate that the HC, CO and NOx emissions of the vehicle with the Stage 1 Power mode installed, are below the emission standards set for that engine family. The Air Resources Board did not conduct confirmatory testing to