

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-230
Relating to Exemptions Under Section 27156
of the Vehicle Code

BCS INTERNATIONAL
POWER-UP PLUS DEVICE
(MODELS PS, PM AND PL)

WHEREAS, Vehicle Code Section 27156 and Title 13 California Code of Regulations (hereafter "CCR") Section 2222(e), authorize the California Air Resources Board (ARB) and its Executive Officer to exempt add-on and modified parts from the prohibitions of Vehicle Code Section 27156.

WHEREAS, BCS International has applied to the ARB for exemption from the prohibitions of Vehicle Code Section 27156 for the Power-up Plus device, models PS, PM and PL.

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 Air Resources Board finds:

1. The Power-up Plus is an add-on device that is attached to the fuel line in a motor vehicle.
2. The fuel line is part of the required motor vehicle pollution control system.
3. The Power-up Plus is intended for use with a required pollution control system.
4. The Power-up Plus by being installed in the fuel line alters the original design of a motor vehicle pollution control system.
5. The Power-up Plus is a device subject to the prohibitions of Vehicle Code Section 27156 and an add-on part as defined by 13 CCR Section 1900(b)(1).
6. The Power-up Plus does not reduce the effectiveness of any required motor vehicle pollution control device.
7. The Air Resources Board, in the exercise of technical judgement, is aware of no basis on which the Power-up Plus will provide either a decrease in emission or an increase in fuel economy.
8. It has not been determined what effect use of the Power-up Plus may have on any warranty, either expressed or implied, by the manufacturer of a motor vehicle on which the device is installed.

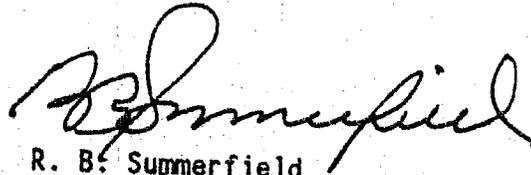
9. The Power-up Plus is not a certified motor vehicle pollution control device pursuant to Health and Safety Code Section 43644.
10. The Air Resources Board by granting an exemption to the BCS International for the Power-up Plus does not recommend or endorse in any way the Power-up Plus for emissions reduction, fuel economy, or any other purpose.

IT IS HEREBY RESOLVED that the Power-up Plus is exempt from the prohibitions of Vehicle Code Section 27156 for installation on 1991 and earlier model-year vehicles powered with gasoline and diesel internal combustion engines subject to the following conditions:

1. 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.
2. No changes are permitted to the device as described in the application for exemption. Any changes to the device, applicable model year, or other factors addressed in this order must be evaluated and approved by the Air Resources Board prior to marketing in California.
3. 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 Executive Order shall be prohibited unless prior approval is obtained from the Air Resources Board. Exemption of this product shall not be construed as an exemption to sell, offer for sale, or advertise any component of the product as an individual device.
4. Any oral or written references to this Executive Order or its content by the BCS International, its principals, agents, employees, distributors, dealers, or other representatives must include the disclaimer that the Executive Order or the exemption it provides is not an endorsement or approval of any fuel economy or emissions reduction claims for the Power-up Plus and is only a finding that the device is exempt from the prohibitions of Vehicle Code Section 27156.
5. 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 7th day of August, 1991.



R. B. Summerfield
Assistant Division Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF BCS INTERNATIONAL'S POWER-UP PLUS DEVICE, MODELS PS, PM
AND PL, FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION
27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
CALIFORNIA ADMINISTRATIVE CODE

August 1991

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AIR RESOURCES BOARD

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by

Mobile Source Division
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Air Resources Board
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(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

BCS International, of 2509 Technology Drive, Hayward, CA 94545, has applied for exemption from the prohibitions in Section 27156 of the California Vehicle Code for the Power-up Plus device, models PS, PM and PL. The device is designed for installation on 1991 and older model-year gasoline and diesel powered vehicles.

Previously the Air Resources Board (ARB) exempted three similar devices; "Polarion-X" by AZ Industries, Inc., "Fuel-Energizer" by the Magnetizer Group, Inc. and "Softron model #100 Fluid Conditioner" by Softron International, Inc. Based on the engineering evaluation of the Power-up Plus device and exemptions issued for the devices that operate in a manner similar to the Power-up Plus, the staff believes that the Power-up Plus will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles.

The staff recommends that the Power-up Plus device, models PS, PM and PL, be exempted from the prohibitions in Vehicle Code Section 27156 and that Executive Order D-230 be issued.

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EVALUATION OF BCS INTERNATIONAL'S POWER-UP PLUS DEVICE, MODELS PS, PM AND PL,
FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION
27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13, OF THE
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I. INTRODUCTION

BCS International, of 2509 Technology Drive, Hayward, CA 94545, has applied for an exemption from the prohibitions of Vehicle Code Section (VC) 27156 for the Power-up Plus device, models PS, PM and PL. The device is designed for installation on 1991 and older model-year gasoline and diesel powered vehicles. The applicant submitted installation instructions and specifications of the device for our evaluation.

II. CONCLUSIONS

Previously, the Air Resources Board (ARB) exempted three similar devices; "Polarion-X" by AZ Industries, Inc., "Fuel-Energizer" by the Magnetizer Group, Inc. and "Softron model #100 Fluid Conditioner" by Softron International, Inc. Based on the engineering evaluation of the device and the exemptions issued to other devices that operate in a manner similar to the Power-up Plus, the staff has determined the Power-up Plus will not have any adverse effects on the exhaust emissions from gasoline and diesel powered vehicles.

III. RECOMMENDATION

The staff recommends that BCS International be granted an exemption from the prohibitions in California Vehicle Code Section 27156 for the Power-up Plus device, models PS, PM and PL, and that Executive Order D-230 be issued.

IV. DEVICE DESCRIPTION

The Power-up Plus is a cylindrical shape device designed for installation in series with the vehicle's fuel line. The Power-up Plus consists of an outer body and an inner core. The outer body, which varies in length from 2.35 inches to 4.86 inches, consists of an inlet port, an outlet port, a body and an end plate. The inner core consists of two cylindrical neodymium iron magnets and two pole plates which separate the magnets from the end of the body and the end plate. The pole plate has a smaller inside diameter than the cylindrical magnet to ensure that the fuel is passed through a uniform magnetic field. The Power-up Plus device is available in three sizes, model PS, PM and PL, depending on the vehicle engine sizes. The device's installation instructions and an engineering drawing including size specifications for the different models are shown in Appendices A and B respectively.

V. DISCUSSION

BCS International claims that the Power-up Plus, when installed on a vehicle's fuel line, magnetically treats fluid hydrocarbon fuels. The manufacturer stated the device is configured so that the fuel passes only through the center opening of the magnet and is uniformly treated by the magnetic field in the center of the cylindrical magnet. The manufacturer also claims this device lowers emissions, increases horsepower and improves fuel economy. The ARB did not perform any testing on the device to substantiate the claims made by the manufacturer. However, it is the staff's opinion that the

technical principles underlying the stated function of the device are not capable of producing any effects on emissions and fuel economy.

The ARB previously exempted three similar devices; "Polarion-X" by AZ Industries, Inc., "Fuel-Energizer" by the Magnetizer Group, Inc. and "Softron model #100 Fluid Conditioner" by Softron International, Inc. Because of previous exemptions issued to similar devices with the same operating principle as the Power-up Plus and the fact that qualifying for an exemption is based on not adversely affecting exhaust emissions, the staff recommends that BCS International be granted an exemption as requested.

APPENDIX

ATTACHMENT 10(C)

State of California

Air Resources Board

Vehicle Code Sections 27156 and 38391 Exemption Application

April 18, 1991

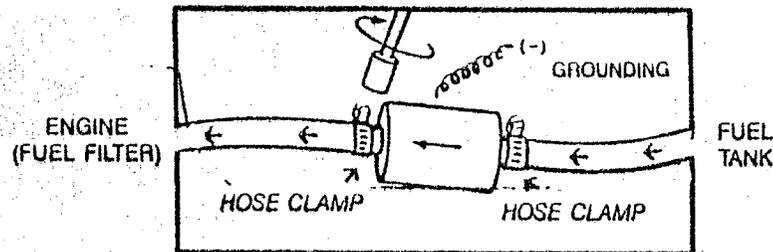
Installation:

- Step 1. Be sure the engine is off and cool.
- Step 2. Detach or unscrew the main inlet fuel line from the filter or the fuel tank.
Take necessary steps to prevent spilling of fuel.
- Step 3. Insert **POWER-UP PLUS™** into the fuel line with its flow arrow pointing in the direction of fuel flow. Secure the unit with the clamps and hose provided (see Fig. 1). For Model P-LX, use proper adaptors to screw into the fuel line (see Fig. 2).
- Step 4. Start the engine to make sure **POWER-UP PLUS™** is securely installed without leaks.

NOTE:

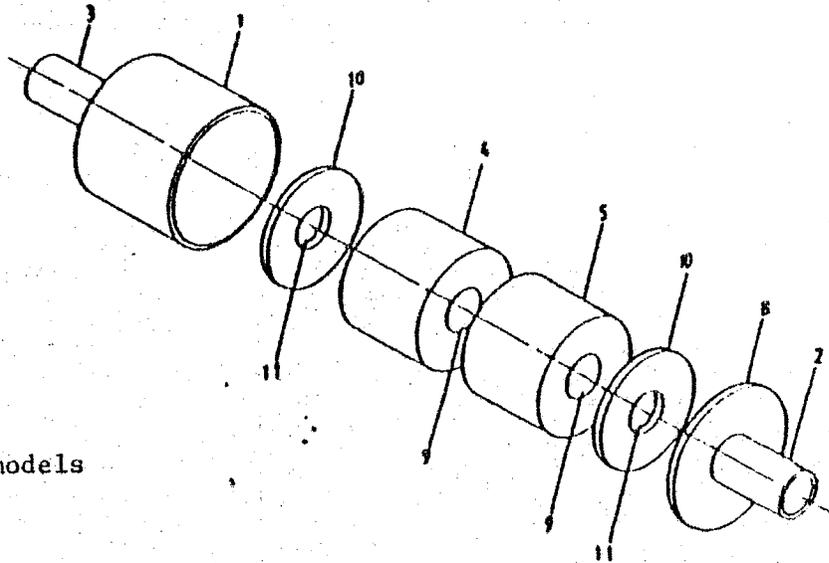
1. **POWER-UP PLUS™** is normally easier to install right next to fuel filter or fuel tank.
2. As soon as the treated fuel reaches the engine, it will start working for you.

Fig. 1 Illustration depicts installation of Model P-S, P-M, P-MX, P-L





DIMENSIONED ENGINEERING DRAWINGS

ATTACHMENT 10(A)

for Power-Up Plus models
 PS, PM, and PL.

	PS	PM	PL
Unit Length	2.15"	2.63"	2.96"
(1) Body			
* length	1.15"	1.63"	1.46"
* outside diameter	1.25"	1.25"	1.60"
(2,3) Inlet/Outlet Ports			
* length	0.50"	0.50"	0.75"
* inside diameter	0.25"	0.25"	0.25"
* outside diameter	0.35"	0.35"	0.42"
(4,5) Neodymium Iron Magnets			
* thickness	0.25"	0.40"	0.35"
* inside diameter	0.25"	0.25"	0.40"
* outside diameter	0.80"	0.80"	1.00"
(8) End Plate			
* thickness	0.25"	0.25"	0.40"
* outside diameter	0.98"	0.98"	1.06"
(10,11) Pole Plates			
* thickness	0.125"	0.125"	0.125"
* inside diameter	0.20"	0.20"	0.32"
* outside diameter	0.80"	0.80"	1.00"