

EO Book

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-14-6
Relating to Exemptions under Section 27156
of the Vehicle Code

ENERGY PRODUCTS INTERNATIONAL
"V.C. METER MODEL 000-2"

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 of the Health and Safety Code and Executive Order G-30A;

IT IS ORDERED AND RESOLVED: That the installation of the "V.C. Meter Model 000-2" manufactured by Energy Products, International, P.O. Box 1601, Fort Lauderdale, Florida 33302 has been found to not 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 1976 and older model-year vehicles with engine size greater than 140 CID/2.3L.

The device is an air bleed valve inserted in the PCV line between the PCV valve and the carburetor or intake manifold to control the amount of air leak into the intake manifold.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those listed by the vehicle 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 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 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 THE "V.C. METER MODEL 000-2" DEVICE.

No claim of any kind, such as "Approved by 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 will be submitted to the Attorney General of California for such action as he deems advisable.

Executed at Sacramento, California, this 27th day of August, 1976.

Original Signed By
Thomas C. Austin
Deputy Executive Officer-Technical

State of California

AIR RESOURCES BOARD

August 6, 1976

Staff Report

Evaluation of Energy Products, International
"V.C. Meter Model 000-2" for Compliance
with the Requirements of Section 27156
of the California Motor Vehicle Code

I. Introduction

Energy Products, International of 48 Hendricks Isle #3, Fort Lauderdale, Florida 33301 has requested an extension to their exemption from the prohibitions of California Motor Vehicle Code Section 27156 for its "V.C. Meter Model 000-2" to include 1976 and older vehicles with engines greater than 140 cubic inch displacement/2.3 liters (See Exhibit A). The applicant was previously granted an exemption for the "V.C. Meter" by Executive Order D-14-5A dated April 15, 1975 for 1972-1975 model year vehicles with engines greater than 140 CID/2.3L.

II. Device Description

"V.C. Meter Model 000-2" is an air bleed valve inserted in the PCV line between the PCV valve and the carburetor or intake manifold to control the amount of air leak into the intake manifold. A staff report on the same device dated March 4, 1975, describes in more detail the operation and function of the device. The Model 000-2 differs from the original design only in that it incorporates a 1/8 inch thick 80 pores per lineal inch (ppi) polyurethane filter.

August 6, 1976

III. System Evaluation

A test program was conducted at the ARB laboratory on air bleed devices, Project M270A dated June 1974. Based on the statistical analysis of the test results, the following criteria was established on air bleed devices:

Maximum air bleed rates as measured by bench flow tests shall be 0.50 CFM for engine sizes greater than 140 CID/2.3L, and 0.30 CFM for engine sizes of 140 CID/2.3L or less at 7 inches Hg vacuum or higher.

Air bleed rates above these may result in an increase in exhaust emissions. Previous bench flow tests of the "V.C. Meter" device showed a maximum air bleed rate of 0.4 cfm at 7 inches Hg and higher vacuum, and 0.30 cfm at wide open throttle. As discussed by the staff report dated March 4, 1975, based on the criteria established on air bleed devices, the staff considered the installation of the "V.C. Meter" device in vehicles (with engine sizes greater than 140 CID/2.3L) would not significantly increase exhaust emissions.

The applicant stated that "V.C. Meter Model 000-2" is essentially the same in construction and performance as previous models except for the use of a smaller particle size filter in the new device to reduce the possibility of engine contamination from the essentially unfiltered air entering the induction system. It is the staff's judgement that the use of the improved filter will not alter the performance of the device.

August 6, 1976

IV. Manufacturer's Claims

The manufacturer claims the installation of the "V.C. Meter Model 000-2" device in the vehicle will result in an improvement in the fuel economy and power output, a smoother running engine, and elimination of spark plug and oil deterioration.

Previous ARB emission tests (Project M270A) on a fleet of vehicles showed that the installation of an air bleed device did not significantly improve fuel economy of the vehicles tested. In addition, the amount of air bleed induced by the device is less than 1% of air flow at cruise and wide open throttle conditions. This leaning effect will not significantly change the air/fuel ratio and manifold pressure. Therefore it is the staff's judgement that the device will have no measurable effect on engine performance and will not eliminate spark plug and oil deterioration due to a better control of air fuel mixture as claimed by the applicant.

The applicant was notified by telephone of the ARB findings regarding the advertised benefits of the device. The applicant agreed to delete such claims from the installation instructions.


V. Conclusion and Recommendation

The above evaluation of the "V.C. Meter Model 000-2" by the ARB staff showed that the installation of the device on the vehicles will not adversely affect the OEM exhaust emission control system.

Evaluation of Energy Products, International
"V.C. Meter Model 000-2" for Compliance with
the Requirements of Section 27156 of the
California Motor Vehicle Code

August 6, 1976

The staff therefore recommends that Energy Products, International be granted an exemption from the prohibitions of Section 27156 of the Vehicle Code for its, "V.C. Meter Model 000-2" for installation on 1976 and older model year vehicles with engines greater than 140 CID/2.3L.



Energy Products, Inc.

January 12, 1976

P.O. Box 1601
Fort Lauderdale, Fla. 33302

State of California "Mr. Richard Kenny"
AIR RESOURCES BOARD Senior Engineer

Re: EXECUTIVE ORDER D-14-5-A
Relating to Exemptions under Section 27156 of the Vehicle Code.

(V.C. Meter)

Dear Mr. Kenny:

Again it is time to re-apply for the exemption on the V.C. Meter, although there has been no change in the product, we have in the mean time moved the office to Fort Lauderdale, Florida, but this should not effect the current exemption.

We have from the beginning had our product manufactured by GAMCO, INC., in Oakland, California, they have done an excellent job for us and will continue the use of their facility. There address is GAMCO, Inc. 4726 East 12th St., Oakland, Ca. 94601

Please address the exemption to the following address:

Energy Products, Inc.
48 Hendricks Isle., #3
Fort Lauderdale, Florida 33301
(or the P.O. Box)

Thanking you once again and wishing you the Happiest of a New Year,

Sincerely,



L. Gregory Johnson
President
Energy Products, Inc.

* HOLLYWOOD ACCESSORIES OF CALIFORNIA are the exclusive distributors
Nationally of the V.C. Meter.

Energy Products International

July 30th, 1976

Mr. Fernando Tan
AIR RESOURCES BOARD LABORATORY
9528 Telstar Avenue
El Monte, Ca. 91731

Dear Mr. Tan:

As per our conversation this afternoon, I will concerning future packaging so state, that this product the V.C. Meter has been changed and the new order number will be (000-2). This V.C. Meter also has the more dense protective filter as per your request.

Looking forward to the new exemption, I remain

Very truly yours,



L. Gregory Johnson
President.

V.C. METER™

"COMMON SENSE"

If fuel has the right combustion formula it burns extremely clean. Just take a coal-oil lantern, light the wick — put the chimney on and turn up the wick. You will see black smoke at the top of the chimney (unburned fuel). Now just turn the wick down and the black smoke disappears and you then have optimum light and clean burning fuel that you are utilizing to the utmost. This very same principle applies to your engine. You need something to vary the combustion formula for the varied driving conditions thus minimizing carbon build-up. The Variable Combustion Meter (V.C. METER) allows for the varied changes

ONE YEAR GUARANTEE

The V.C. METER is guaranteed for life from date of purchase [to be determined by receipt of mail-in warranty card] against defects in materials and workmanship. Should unit become defective during this period under normal and proper use, unit will be repaired or replaced without charge. The liability under this warranty is expressly limited to repair or replacement of unit which our personal examination discloses to be defective.

DISTRIBUTED BY

WARRANTY VALIDATION FORM

Mail to: ENERGY PRODUCTS INTERNATIONAL
P. O. Box 1601
Fort Lauderdale, FL 33302

Purchase Date: _____ Purchased from: _____

Address: _____
City State Zip

Your name: _____

Address: _____

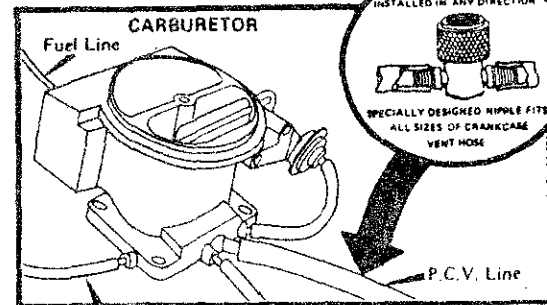
City: _____ State: _____ Zip: _____

EASY TO INSTALL

V.C. METER™

INSTALLATION INSTRUCTIONS:

1. Take off wing nut and lift air cleaner
2. Look at carburetor carefully.
3. Attached to carburetor you will see:
 - (a) A fuel line ending at fuel pump.
 - (b) A rubber vacuum hose that ends at the distributor.
 - (c) A crankcase vent line (made of rubber or metal) that ends at P.C.V. Valve
 - (d) If P.C.V. line is made of rubber simply cut hose and insert nipples of VCM. Filter on VCM should be pointing straight up
 - (e) If P.C.V. line is metal — cut out small section and use two pieces of rubber hose and insert nipples of VCM into hose and hose over the metal line — it's that simple!
 - (f) Put air cleaner back on as the installation is complete

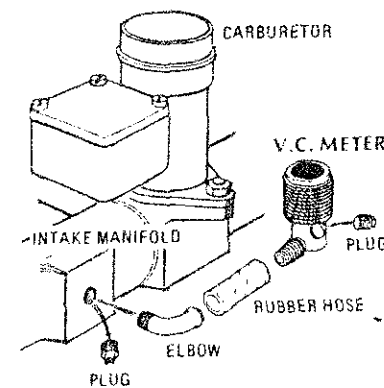


Distributor Vacuum Advance Line

Note: Once in a while a P.C.V. hose is oversized. In this case it is suggested that you use clamps. Proper installation will bypass carburetor completely. On some imports a hole must be drilled into the intake manifold. (See below.)

*California restrictions

DATSUN & TOYOTA PRODUCTS: — OTHER IMPORTS



1. Find the plug in the intake manifold and unscrew it.
2. Unscrew one of the standard nipples from your V.C. METER and replace it with plug.
3. Screw the elbow from kit into the manifold in place of the plug.
4. Push one end of the rubber hose onto this elbow, then push the nipple on the V.C. METER into the other end of the hose. Make the V.C. METER as straight up and down as you can.
5. That's all you're finished!



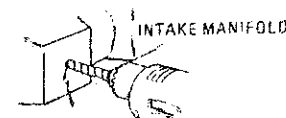
If plug is on top of intake manifold

IMPORTED CARS THAT DO NOT HAVE PLUGS IN INTAKE MANIFOLD

You can drill and tap a hole to use for your V.C. METER. Put the hole as close to the center of the manifold as you can and as close to the carburetor as metal will allow.

- * 1. Drill hole with a 1/8" wire drill
2. Tap hole with a 1/8" metric thread
3. Screw in the elbow.
- * 4. Push one end of the rubber hose onto this elbow, then push the nipple on the V.C. METER, into the other end of the hose. Make the V.C. METER as straight up and down as you can.

Also read instructions above.



1. Drill hole with a 1/8" wire drill
 2. Tap hole with a 1/8" metric thread
- 20 micron filtration required in California only

Avoid dropping metal chips inside intake manifold (use magnetic drill).
NOTE Cap, rubber hose and elbow can be purchased inexpensively at any auto accessory parts store.

HOW TO TEST YOUR VARIABLE COMBUSTION METER

FOR ECONOMY: If you do not already have an accurate check on your MPG prior to installing your V.C. METER, drive one or two tankfuls of gas while checking mileage. THEN INSTALL V.C. METER AND NOTICE THE DIFFERENCE OF MPG.

FOR POWER: With proper combustion formula — ECONOMY and POWER go hand in glove. During your first tankful of gas you will feel NEW POWER in your engine. You can pass, pull a trailer and enjoy driving much more with your installed V.C. METER. After a tankful or two of gas if you have any doubt whatsoever put masking tape on unit (over filter) and you will feel the difference in power loss.

FOR SERVICE: Check your oil and condition of spark plugs carefully. Drive as hard as you wish for 1500 to 2000 miles then check your oil dip-stick and spark plugs and you should find no deterioration, and will note a smoother running engine.

THINGS TO KNOW:

Prior to the advent of the P.C.V. Valve - the engine was vented and crankcase emissions filtered out of the vent into the atmosphere and on the roads. When the system was closed to reduce pollution the engine would no longer breathe as it had in the past. The V.C. METER was developed to help the system breathe in order to provide a proper combustion formula to accomplish a "clean dry burn" in the combustion chamber. The VCM works best under load. It meters the combustion formula (air to fuel ratio) to assure a better combustion that ultimately results in a greater utilization of fuel to obtain more power and allow engine to perform and idle better.

THINGS TO WATCH FOR:

The VCM is adaptable to any engine with a P.C.V. Valve and line (metal or rubber) leading to base of carburetor, as the VCM works it serves as a constant "mini-cleanup" for the engine by minimizing the carbon build up on the cylinder heads, upper cylinder walls, valves and spark plugs by simply effecting a "clean dry burn" in the combustion chamber through air-fuel ratio control.

P.C.V. Valve:* It is vitally important that this valve be checked every 3000 to 4000 miles and replaced between 8000 and 10,000 miles or before, if necessary. The P.C.V. hose should also be checked for any leaks or physical deterioration. It is illegal to operate a vehicle with an inoperating P.C.V. Valve.

* Do not confuse this factory installed valve with the "V.C. Meter."

WHAT YOU MAY REASONABLY EXPECT FROM YOUR "VCM"

You may expect an increase in your gas mileage because a "clean dry burn" means you are getting optimum performance from the gas you burn. This in turn means greater engine power and smoother performance.

Some people report good improvement on their first tankful of gas on both increased MPG and POWER. Others report a modest increase their first month — an increase their second month — increase their third month and sometimes into the fourth month. The VCM functions the same on each engine but each engine is different and therefore the results vary but ultimately most everyone obtains increase in power and a smoother running engine.

THE VCM PERFORMS UNDER LOAD:

The VCM is designed to perform under load and remains in a closed position when the engine is at idle (engine vacuum at its highest). When you depress gas pedal firmly you cause the engine vacuum to drop as the combustion formula changes. It is at this time that the VCM opens and goes to work. When you go up a hill, pull a trailer, pass another car or in any way impose a "load" whereby the engine must breathe deeper — this is the signal for the V.C. METER to perform. The VCM is least effective when you are driving slow in a city — it is most effective and accomplishes its most dramatic results when "under load!"

V.C. METER "FILTER!"

The V.C. METER is self servicing with the exception of the small filter on top. Every 15,000 miles — Rinse it in kerosine — dry by shaking it. It is then good for another 15,000 miles.

V.C. METER PAYS FOR ITSELF MANY TIMES OVER:

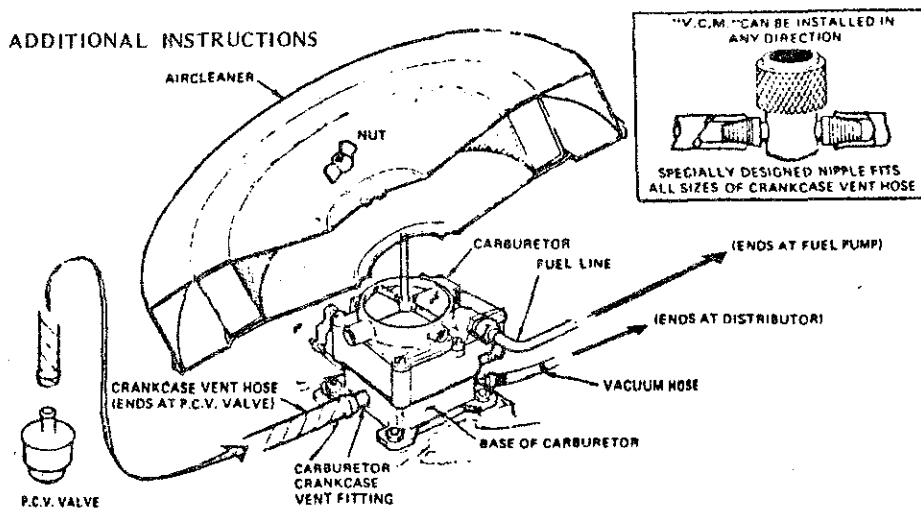
Most all of us look upon our automobiles, pick ups, campers, motor homes and trucks as an expense (which they are). The V.C. METER will in most cases (at today's prices) return your original small investment for your VCM after approximately 8 tankfuls of gas. After that — every tankful of gas represents a good savings for you.

NO ENGINE TUNE-UP NECESSARY:

Having to tune-up your engine after installing V.C. METER is not necessary. Simply install it in the P.C.V. VALVE LINE leading to base of carburetor.

IMPORTANT: Installation of the V.C. METER is simple and usually can be accomplished in 5 minutes or less.

ADDITIONAL INSTRUCTIONS



* NOTE — V.C. METER may be installed in any state or country unless restricted by prevailing statutes.