

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-133-8
Relating to Exemptions under Section 27156
of the Vehicle Code

REDLINE, INC., A SUBSIDIARY OF IMPAC
REDLINE CARBURETOR CONVERSION KIT #K8649
USING ONE (1) WEBER MODEL 32/34 DFT9 A

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 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 Redline Carburetor Conversion Kit #K8649 using one (1) Weber 32/34 DFT9 A carburetor has been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, is exempt from the prohibitions of Section 27156 of the Vehicle Code for the vehicles listed below:

| <u>Year</u> | <u>Make</u> | <u>Model</u> | <u>Engine (liter, CID)</u> | <u>Redline Kit No.</u> |
|-------------|---------------|---------------|----------------------------|------------------------|
| 1981-1982 | Nissan/Datsun | Pick-up (720) | 2.2, 132 | K8649 |
| 1980-1981 | Nissan/Datsun | 510 | 2.0, 119 | K8649 |

The following modifications to the exhaust emission control system are permitted:

- 1) The Boost Controlled Deceleration Device (B.C.D.D.), on vehicles so equipped, may be disconnected.
- 2) The Altitude Compensator, on vehicles so equipped, may be disconnected.
- 3) A delay valve may be added to the vacuum advance control line.
- 4) The vacuum hose routing may be changed as specified in the installation instructions.

All other original equipment emission control devices must be retained. The vehicle must be tuned to the vehicle manufacturer's specifications.

This Executive Order is valid provided that installation instructions for this device will not recommend tuning the vehicle to specifications different from those submitted by the device 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. Exemption of a kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of a kit as an individual device.

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 REDLINE CARBURETOR CONVERSION KIT #K8649.

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.

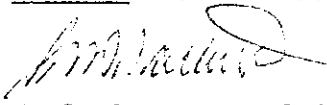
Section 17500 of the Business and Professions Code makes untrue or misleading advertising unlawful, and Section 17534 makes violation punishable as a misdemeanor.

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 El Monte, California, this 27th day of May, 1986.


K. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF THE REDLINE CARBURETOR CONVERSION KIT
NO. K8649 USING ONE (1) 32/34 DFT9 A
WEBER CARBURETOR FOR EXEMPTION FROM THE
PROHIBITIONS OF VEHICLE CODE SECTION 27156
IN ACCORDANCE WITH SECTION 2222, TITLE 13
OF THE CALIFORNIA ADMINISTRATIVE CODE

MAY, 1986

EVALUATION OF THE REDLINE CARBURETOR CONVERSION
KIT NO. K8649 USING ONE (1) MODEL 32/34 DFT9 A
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IN ACCORDANCE WITH SECTION 2222, TITLE 13
OF THE CALIFORNIA ADMINISTRATIVE CODE

by

Mobile Source Division
State of California
AIR RESOURCES BOARD
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

Redline, Inc., a distributor of Italian made Weber carburetors, has applied for exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Conversion Kit No. K8649 using one (1) Weber model 32/34 DFT9 A carburetor.

The Redline Carburetor Conversion Kit is designed to replace the Hitachi carburetors found on 1981-1982 Nissan/Datsun pick-up trucks and 1980-1981 Nissan/Datsun 510 passenger cars with 2.0 or 2.2 liter engines.

Comparative exhaust emission tests and other information submitted demonstrate that the aftermarket Redline Carburetor Conversion Kit No. K8649 using one (1) Weber model 32/34 DFT9 A carburetor does not adversely affect emissions of the applicable vehicles. Based on the results of the tests and the evaluation of the Redline Carburetor Conversion Kit, the staff recommends that the exemption be granted as requested for the following vehicle applications:

| <u>Year</u> | <u>Make</u> | <u>Model</u> | <u>Engine (liter, CID)</u> | <u>Redline Kit No.</u> |
|-------------|---------------|--------------|----------------------------|------------------------|
| 1981-1982 | Nissan/Datsun | Pick-up | 2.2, 132 | K8649 |
| 1980-1981 | Nissan/Datsun | 510 | 2.0, 119 | K8649 |

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EVALUATION OF THE REDLINE CARBURETOR CONVERSION KIT NO. K8649 USING ONE (1) MODEL 32/34 DFT9 A WEBER CARBURETOR FOR EXEMPTION FROM THE PROHIBITIONS OF VEHICLE CODE SECTION 27156 IN ACCORDANCE WITH SECTION 2222, TITLE 13 OF THE CALIFORNIA ADMINISTRATIVE CODE

I. INTRODUCTION

Redline, Inc. of Compton, California, a subsidiary of Imported Parts and Accessories Corporation (IMPAC), is a distributor of Italian made Weber carburetors. The company has applied for exemption from the prohibitions of Vehicle Code Section 27156 for a Carburetor Conversion Kit designated as Redline Kit No. K8649 using one (1) Weber model 32/34 DFT9 A carburetor to replace the original equipment manufacturer (OEM) Hitachi two-barrel carburetors found on the following vehicles:

| <u>Year</u> | <u>Make</u> | <u>Model</u> | <u>Engine (liter, CID)</u> | <u>Redline Kit No.</u> |
|-------------|---------------|--------------|----------------------------|------------------------|
| 1981-1982 | Nissan/Datsun | Pick-up | 2.2, 132 | K8649 |
| 1980-1981 | Nissan/Datsun | 510 | 2.0, 119 | K8649 |

This report describes the evaluation of the Redline Carburetor Conversion Kit and the findings.

II. CONCLUSION

Comparative exhaust emission data and other information submitted by the applicant demonstrated that the Redline Kit No. K8649 using one (1) 32/34 DFT9 A Weber carburetor meets the Air Resources Board (ARB) requirements for exemption from the prohibitions of Vehicle Code Section 27156.

III. RECOMMENDATION

Based on the submitted information and the emissions test data on the Redline Carburetor Conversion Kit, the staff recommends that Redline, Inc. be granted exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Conversion Kit No. K8649 for use on the vehicles described above and that Executive Order No. D-133-8 be issued.

IV. DEVICE DESCRIPTION

The Redline Carburetor Conversion Kit No. K8649 uses one (1) model 32/34 DFT9 A Weber carburetor as an economical replacement for the OEM carburetors found on the 1980-82 Nissan/Datsun pick-up trucks and 510 passenger cars described previously.

These vehicles are equipped with Hitachi model DCR 360 or DCR 342 carburetors depending on the model-year. All these OEM carburetors are of the progressive two-barrel design (See Appendix 1).

The Weber 32/34 DFT9 A is a progressive two-barrel carburetor which is similar in basic design to the OEM carburetors (See Appendix 2). The Weber 32/34 DFT9 A is a slightly different version of the Weber DFT (Ford 740) carburetors used as original equipment on some Ford imports originally sold in California. It has provisions for vacuum operated emission control systems, including distributor vacuum advance/retard units, EGR and air injection control systems.

A variety of emission control devices are used on these vehicles. Some are integral to the OEM carburetor and others are external devices which either control specific functions of the OEM carburetor or are activated by movement of the throttle. The installation of the Weber carburetor retains most of these devices or duplicates the functions of the devices in a

different manner, however, some devices cannot be retained. These devices and their disposition after the installation of the Weber carburetor are:

- 1) The Boost Controlled Deceleration Device (B.C.D.D.), on vehicles so equipped, may be disconnected.
- 2) The Altitude Compensator, on vehicles so equipped, may be disconnected.
- 3) A delay valve may be added to the vacuum advance control line.
- 4) The vacuum hose routing may be changed as specified in the installation instructions.

The Redline Kit No. K8649 comes complete with a Weber DFT9 A carburetor, an air cleaner adaptor and all the hoses, gaskets and hardware necessary to install the Weber carburetor on the Nissan/Datsun pick-ups or 510 passenger cars. Installation instructions, which are included in every kit, show the kit installer how to properly install the Weber carburetor. Vacuum hose routing diagrams, contained in the instructions, show the proper vacuum hose connections to the Weber carburetor (see Appendix 3). An underhood label, included in the kit, is to be affixed to the vehicle near the OEM vacuum hose routing diagram which states that the vehicle is equipped with a Redline Kit and that appropriate vacuum hose routing diagrams may be found in the applicable Redline Kit installation instructions. For persons who may have technical questions or need a copy of a vacuum hose routing diagram, the Redline technical information phone numbers (Tech Lines) are included on this label (see Appendix 4). The carburetor calibration for kit No. K8649 is shown in Appendix 5. A facsimile of the identification label is shown in Appendix 6.

V. DEVICE EVALUATION

The applicant performed comparative cold-start CVS-75 exhaust emission tests at Import Certification Laboratories in Anaheim, California. A 1982

Nissan/Datsun pick-up truck with a 2.2 liter engine and an automatic transmission was used as the test vehicle. The 1982 model-year vehicle was used for testing since vehicles of 1982 model-year were required to meet more stringent emission standards than vehicles of the previous model-years. It would be expected that vehicles of previous model-years would have the same degree of performance/emissions impact as the vehicle tested when using the same Redline Kit.

The results of the submitted data are shown in Table 1.

Table 1

| <u>Condition</u> | <u>Exhaust Emissions gm/mi</u> | | | <u>Fuel Economy</u> |
|------------------|--------------------------------|-----------|------------|---------------------|
| | <u>HC</u> | <u>CO</u> | <u>NOx</u> | <u>City mi/gal</u> |
| Baseline | 0.50 | 17.58 | 0.54 | 22.54 |
| Redline Kit | 0.43 | 19.18 | 0.44 | 18.18 |

VI. DISCUSSION

The Redline carburetor conversion kit No. K8649 uses a model 32134 DFT Weber carburetor. Since this Weber carburetor had been evaluated for the exemption of other Redline kits with similar design, no confirmatory tests were performed. The submitted comparative test data and other information submitted by the applicant were used for the evaluation.

The results of the emission testing show no increase in HC or NOx emissions. The differences in CO emissions between the baseline and device tests are considered to be within the limits of test variability as determined by the Haagen-Smit Laboratory.

This demonstrates that the installation of the Redline Kit. No. K8649 and the modifications to the original exhaust emission control system required for the installation will not have an adverse effect on emissions from the 1982

Nissan/Datsun pick-up test vehicle which was selected to be representative of all the vehicles on this exemption application. It would be expected that the conversion kit No. K8649 would achieve the same level of emission control when installed on the same type of vehicles to replace OEM carburetors of similar designs.

Redline has submitted all the required information and fulfilled the requirements for an exemption.

INSTALLATION INSTRUCTIONS



READ & UNDERSTAND ALL STEPS OF THESE INSTRUCTIONS BEFORE BEGINNING THIS INSTALLATION. AFTER UNPACKING, EXAMINE THE CARBURETOR AND OTHER COMPONENTS FOR SHIPPING DAMAGE.

THESE INSTRUCTIONS SHOULD BE RETAINED WITH VEHICLE RECORDS AFTER INSTALLATION OF THIS KIT FOR SMOG INSPECTION PURPOSES.

DATSUN

1980-81 510

1981-82 720

Z22 ENGINES (All Trans.)

FOR KIT NO'S K8649, 52-50508
USING (1) WEBER 32/34 DFT-9A

TOOLS AND EQUIPMENT NEEDED

Combination, box or open-end wrenches
(metric)
Socket Set (metric)
Screwdrivers (regular and Phillips)
Pliers
Wiping Rags
Knife
Gasket Scraper
Cleaning Solvent
Gasket Sealer

PARTS SUPPLIED WITH INSTALLATION KIT:

1 - Weber 32/34 DFT-9A Carb.
1 - Air Filter Adaptor
1 - Wire Assembly
1 - Hardware Kit

NOTE: A new fuel filter should be installed with this kit.

TUNE-UP SPECIFICATIONS

All tune-up specifications for the Weber Carburetor remain the same as those specified by the Factory for the original unit. Emissions tune-up should be carried out by a suitably qualified Dealer or Independent garage, using infrared gas and analyzing equipment.

NOTE: Late model vehicles fitted with Emission Control Systems have many vacuum lines and electrical connections in the fuel systems. It is essential when dismantling, that disconnected lines should be identified with a corresponding number tag or label system. To establish function, locate and identify the source of each line. Use the under hood emissions diagram, or a factory service manual for reference when identifying hoses. (Modified vacuum diagrams showing the Weber installation are provided in these instructions)

DISASSEMBLY

1. Remove the vehicle gas cap.
2. Disconnect the battery.
3. Remove the two air filter bracket bolts on top of the cam cover and wing nut on center of air filter.
4. Disconnect all vacuum hoses & tubes from the air filter. Identify removed lines to aid in reassembly. (FIG. 1)
5. Remove the air filter from the vehicle.
6. Disconnect all carburetor vacuum lines and wires. Identify removed lines and wires to aid in reassembly. (FIG. 2)

This is sold under the provisions of California Air Resources Board Executive Order No. D-133-8 (C.A.R.B. E.O. No. D-133-8 Products with C.A.R.B. E.O. numbers are exempt from the prohibitions of Section 27156 of the California Vehicle Code. Performance kits so noted are legal for use on public highways in California.

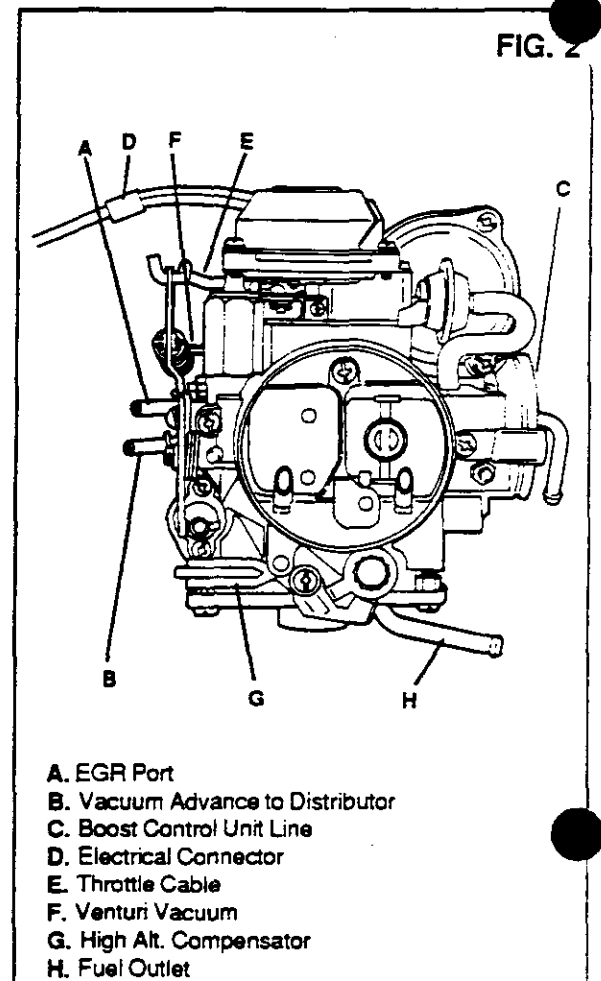
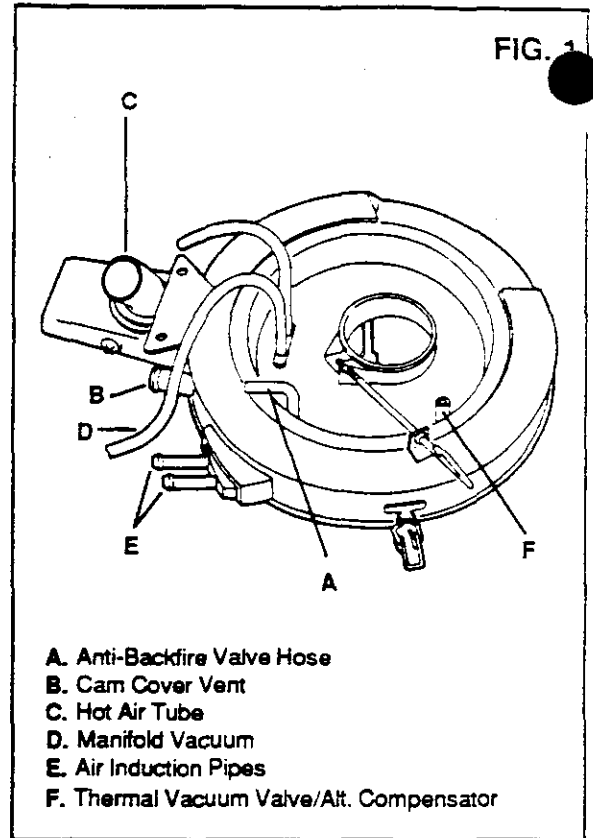
WEBER DISTRIBUTION

(NOTE:) Some vehicles have altitude compensation devices which have three (3) vacuum lines connecting the carburetor with a unit mounted on the right inner fender, behind the Boost control unit. The altitude compensator will not be used with this conversion and may be disconnected and removed. All vacuum sources should be capped off. (FIGS. 5 & 6)

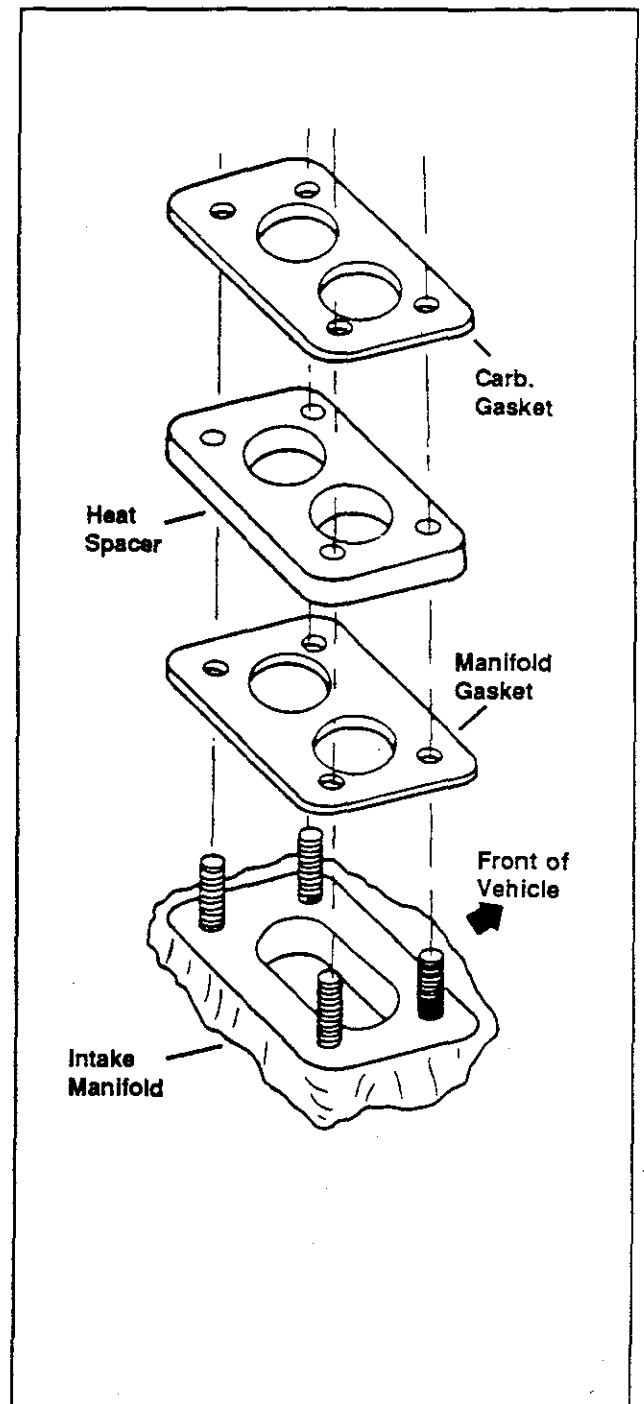
7. Remove the fuel line and clamps.
8. Remove throttle cable from the cable quadrant. (Note: It is **not** necessary to remove throttle cable bracket from manifold.)
9. Remove carburetor flange nuts. Lift off carburetor and spacer from the intake manifold. Insert a clean rag in the intake manifold port and thoroughly clean the carburetor mounting surface of all dirt and gasket debris.

KIT INSTALLATION

10. Remove the rags from the intake port and install the manifold gasket (the one with throttle bore holes closer together) on manifold. (FIG.3)
11. Install the 3/8 spacer supplied (O.E. spacer is not reused) with the tapered holes matching the intake manifold and the throttle bores on Weber Carburetor. (FIG. 3)
12. Install carburetor gasket (the one with throttle bore holes farther apart) on heat spacer. (FIG. 3)
13. Install Weber carburetor with the choke assembly toward the front of vehicle.
14. Secure the carburetor with the flange nuts and washers supplied in the kit.
15. Reconnect throttle cable. Adjust the throttle cable tension to factory specifications, or until desired accelerator pedal tension is achieved.
16. Locate and identify the "positive" 12 volt wires that led to the original idle cut off solenoid and electric choke. Using the female connectors and wires supplied in the kit, connect the Weber idle cut-off solenoid and electric choke to their respective wires on the original loom. Use the shrink tubing supplied to insulate each connection.
17. Connect the fuel hose, supplied in the kit, from the stock fuel inlet on Weber Carburetor. Secure with clamps supplied. Note: It may be necessary to bend stock fuel outlet slightly towards the rear of vehicle to clear Weber throttle lever. Make sure to check this for wide open throttle situations.



18. **ALL VEHICLES:** Cut the stock distributor vacuum advance hose approximately 2-3" from the vacuum advance diaphragm on the distributor. Insert the vacuum delay valve from the kit with the **Gold** side facing the distributor. (FIGS. 4 & 5)
19. **ALL VEHICLES:** Connect the V.V.T, Valve vacuum hose to the venturi vacuum port on the Weber carburetor. (FIGS. 4, 5 & 6)
20. **1980 MODEL 510, '81-'82 MODEL 720:** Connect the EGR control valve vacuum hose to the EGR port on the Weber carburetor. (FIGS 4 & 5)
21. **1981 MODEL 510 ONLY:** Cut the hose for the EGR vacuum control valve and install one of the vacuum tees from the kit. Cut a 2" piece of vacuum hose (supplied in kit) and install it on the Weber Carburetor EGR port. Connect the remaining end of the hose to the tee. (FIGS. 4 & 6)
22. **1980 MODEL 510, '81-'82 MODEL 720:** Connect the distributor vacuum advance hose to the vacuum advance port on the Weber Carburetor. (FIGS. 4 & 5)
23. **1981 MODEL 510 ONLY:** Using the tees supplied in the kit tee together the distributor vacuum advance hose and the No. 1 EGR valve hose as shown in FIG. 6. Connect the remaining end of the distributor vacuum advance hose to the vacuum advance port on the Weber carburetor. (figs. 4 & 6)
24. Using the rubber plugs provided in the kit, cap off the vacuum tees leading to the altitude compensator and Boost Control Unit as shown in FIGS. 5 & 6.
25. Install the air filter adaptor with the allen bolts and gasket supplied.
26. Install the original air filter removed in Step 5 with the spacers and bolts supplied in kit.
27. Reconnect the vacuum lines and tubes to the air filter assembly. **NOTE:** The stock hot air tube from the heat riser and the air suction tubes are of sufficient length; however, they may require some reshaping to ensure that they will stay in place when installed.
8. Reconnect vehicle battery. Reinstall the gas cap.
29. Depress the throttle fully, then release to initiate the cold-start device.



30. **START THE ENGINE.** After warm-up, check for leaks around the carburetor mounting base and correct as needed.
31. Adjust idle speed, fast idle and idle mixture to factory specifications.
32. **CHECK FOR ADEQUATE HOOD CLEARANCE BEFORE CLOSING THE HOOD.**

If after following these instructions, you require further assistance, please call the Weber Tech. Service Dept. at the phone numbers listed below, during normal business hours.

1-800-WEBER US (Outside CA)
(932-3787)

1-800-WEBER CA (CA only)
(932-3722)

WEBER MODEL DFT FAST IDLE ADJUSTMENT: With the engine warmed up and Off, open the throttle and manually engage the choke by closing the choke plates (butterflies). Release the throttle then the choke plates. The fast idle cam should be activated and the fast idle speed screw should be positioned on the cam shoulder. Start the engine **Do not depress the throttle pedal or choke will become inoperative.** To adjust the fast idle speed, loosen the locknut and turn the fast idle screw in (clockwise) to increase speed and out (counter clockwise) to decrease speed. Once fast idle speed is set, tighten the locknut in place.

**UNIVERSAL DFT
WITH VACUUM PORTS IDENTIFIED**

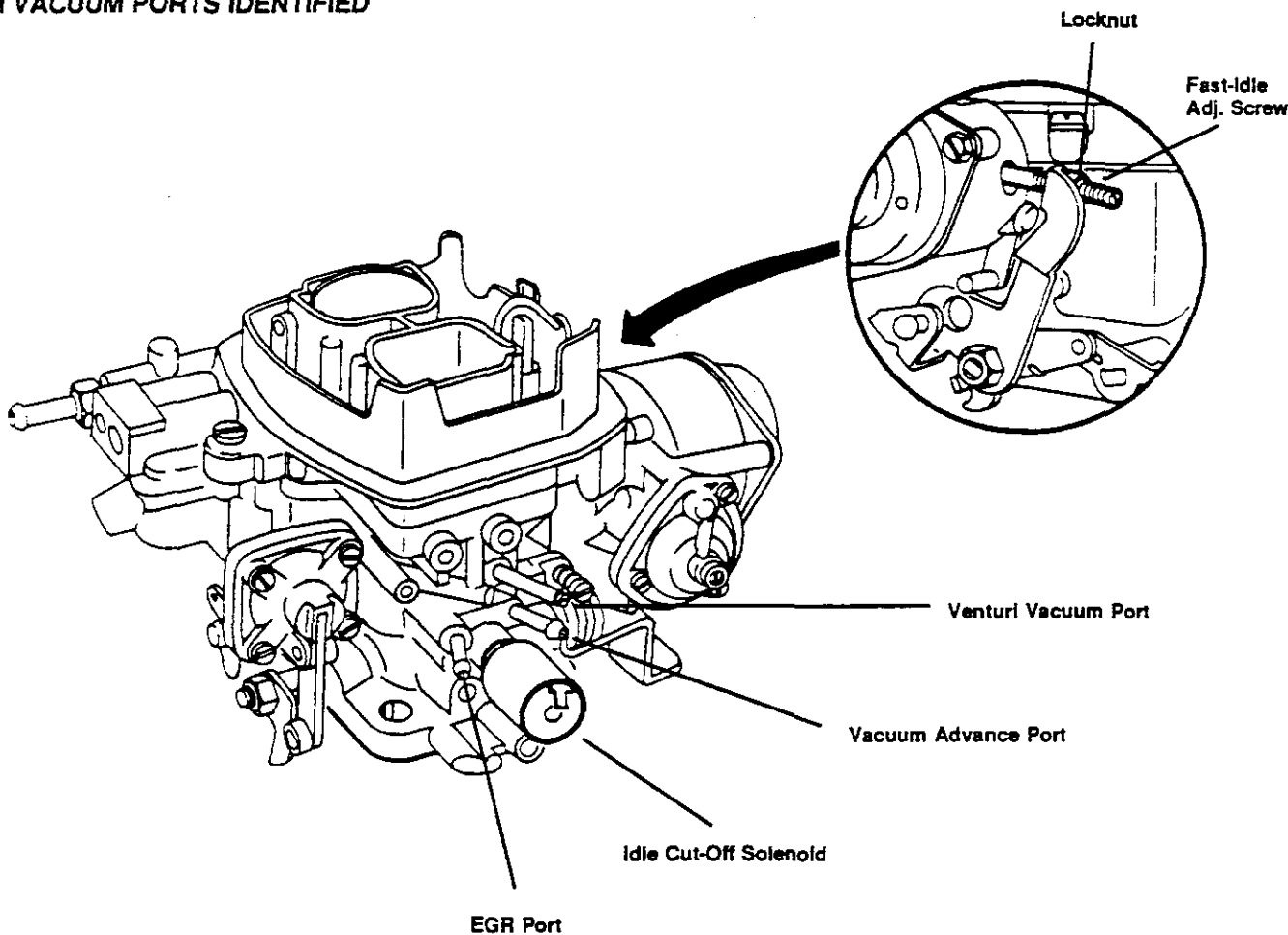


FIG. 4

'80 DATSUN 510
'81-82 DATSUN 720 (Cal, only)

ALL DEVICES SHADED SHOULD BE DISCONNECTED AND REMOVED

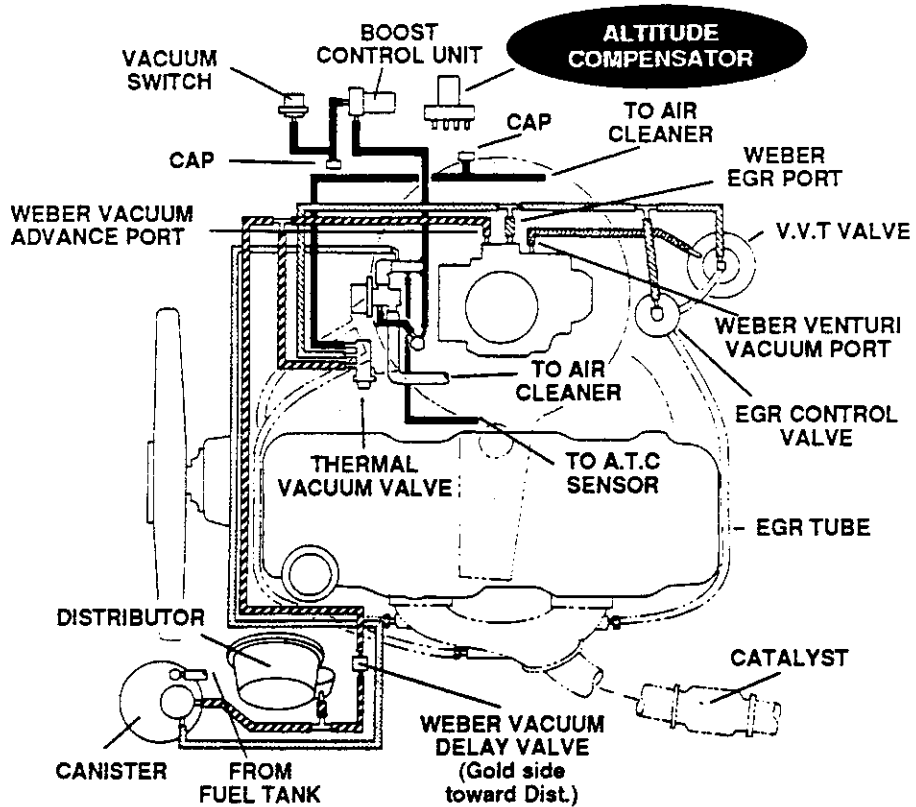


FIG. 5

'81 DATSUN 510 (Cal. only)

ALL DEVICES SHADED SHOULD BE DISCONNECTED AND REMOVED

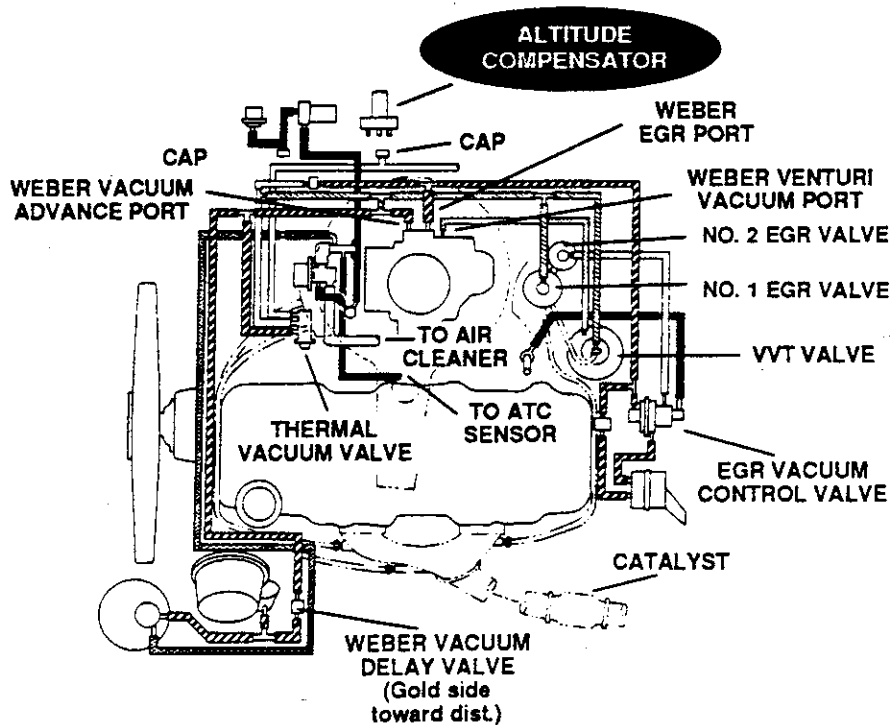


FIG. 6