

State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-133-10B
Relating to Exemptions under Section 27156
of the Vehicle Code

REDLINE, INC., A SUBSIDIARY OF IMPAC
REDLINE CARBURETOR CONVERSION KIT NO. K8625

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 No. K8625 manufactured by Redline, Inc. 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(s)</u>	<u>Make</u>	<u>Vehicle Model or Engine Type</u>	<u>Redline Kit No.</u>	<u>Weber Carb. Model No.</u>
1979-1982	Datsun	210 models	K8625	32/36 DGAV 3381

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

- (1) The Fuel Shut-Off Vacuum Switch, on vehicles so equipped, may be disconnected and removed.
- (2) The Throttle Positioner or Dashpot, on vehicles so equipped, may be disconnected and removed.
- (3) The Throttle Valve Switch, on vehicles so equipped, may be disconnected and removed.
- (4) The Throttle Opener Control System (TOCS), on vehicles so equipped, may be disconnected and removed.
- (5) The Altitude Compensator, on vehicles so equipped, may be disconnected and removed.
- (6) The Mixture Ratio Control Valve, on vehicles so equipped, may be disconnected and removed.

- (7) The Vacuum Hose Routing may be changed as specified in the kit installation instructions.

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

Changes made to the design or operating conditions of the conversion kits, 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 these conversion kits 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 conversion kit shall not be construed as an exemption to sell, offer for sale, or advertise any component of a conversion kit as an individual device.

This Executive Order does not constitute any opinion as to the effect that the use of these conversion kits 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, INC. CARBURETOR CONVERSION KIT NO. K8625.

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."

REDLINE, INC.

EXECUTIVE ORDER D-133-10B
(Page 3 of 3)

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.

Executive Order No. D-133-10, dated May 30, 1986, is superseded and of no further force and effect.

Executed at El Monte, California, this 5th day of August, 1986.



K. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF THE REDLINE CARBURETOR CONVERSION KIT
NO. K8625 FOR EXEMPTION FROM THE
PROHIBITIONS OF VEHICLE CODE SECTION 27156
IN ACCORDANCE WITH SECTION 2222, TITLE 13
OF THE CALIFORNIA ADMINISTRATIVE CODE

AUGUST, 1986

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KIT NO. K8625 FOR EXEMPTION
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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. K8625 using one (1) Weber model 32/36 DGAV 33B1 carburetor.

This Redline Carburetor Conversion Kit is designed to replace the Hitachi carburetors found on 1979-1982 Datsun 210 vehicles.

Comparative exhaust emission test data and other information submitted demonstrate that the aftermarket Redline Carburetor Conversion Kit No. K8625 does not adversely affect emissions of the applicable vehicles. Based on ARB's test data which confirms the above fact 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(s)</u>	<u>Make</u>	<u>Vehicle Model or Engine Type</u>	<u>Redline Kit No.</u>	<u>Weber Carb. Model No.</u>
1979-1982	Datsun	210 models	K8625	32/36 DGAV 33B1

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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. K8625 using a Weber carburetor to replace the original equipment manufacturer (OEM) Hitachi two-barrel carburetors found on the following vehicles:

<u>Year(s)</u>	<u>Make</u>	<u>Vehicle Model or Engine Type</u>	<u>Redline Kit No.</u>	<u>Weber Carb. Model No.</u>
1979-1982	Datsun	210 models	K8625	32/36 DGAV 33B1

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. K8625 using 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. K8625 for use on the vehicles described above and that Executive Order No. D-133-10B be issued.

IV. DEVICE DESCRIPTION

The Redline Carburetor Conversion Kit No. K8625 uses one (1) model 32/36 DGAV 33B1 Weber carburetor as an economical replacement for the OEM carburetors found on the 1979-1982 Datsun vehicles described previously.

These Datsun vehicles are equipped with a Hitachi carburetor. These Hitachi carburetors are of the progressive two-barrel design (See Appendix 1).

The Weber 32/36 DGAV 33B1 is a progressive two-barrel carburetor which is similar in basic design to the OEM carburetors (See Appendix 2). 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 Fuel Shut-off Vacuum Switch, on vehicles so equipped, is disconnected and removed
- 2) The Throttle Positioner or Dashpot, on vehicles so equipped, is disconnected and removed.
- 3) The Throttle Valve Switch, on vehicles so equipped, is disconnected and removed.
- 4) The Throttle Opener Control System (TOCS), on vehicles so equipped, is disconnected and removed.
- 5) The Altitude Compensator, on vehicles so equipped, is disconnected and removed.
- 6) The Mixture Ratio Control Valve, on vehicles so equipped, is disconnected and removed.

For details of which devices must be disconnected depending on the model-year of the vehicle in question see Appendix 3.

The Redline Kits come complete with a Weber carburetor, an air cleaner adaptor, all the hoses, gaskets and hardware necessary to install the Weber carburetor on the Datsun vehicles. 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 4). 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 5).

V. DEVICE EVALUATION

A carburetor is a critical emissions-related component of a vehicle. Any carburetor conversion, especially one which requires the disconnection of auxiliary emission control components must be evaluated and tested. Comparative exhaust emissions tests have been accepted as a means of determining if the carburetor conversion and the disconnections associated with it will not have an adverse emissions impact.

However, the effect of disconnecting an altitude compensator cannot be evaluated by comparative exhaust emissions tests performed at low altitudes. Therefore, a special test program and analytical method was developed for determining the tailpipe air/fuel ratio (TAFR) at elevations of 6000 feet

without an altitude compensator in conjunction with a carburetor conversion. The method was based on the equation presented in ARB's manufacturers advisory correspondence (MAC) 78-2, Section II.B.1. According to the California High-Altitude Test Requirements, the TAFR at 6000 feet must be stoichiometric or leaner to demonstrate compliance with the requirements.

The test vehicle used for the evaluation was a 1981 Datsun 210 with a 1.5 liter engine and a 5-speed manual transmission. A 1981 model-year vehicle was used for testing because Redline was able to procure it easily and the 1981 emission control system is identical to the 1982 system. It would be expected that vehicles of the previous model-years and the 1982 model-year would have the same degree of performance/emissions impact as the vehicle tested when using the same Redline kit.

First, comparative exhaust emission tests were performed to determine the effects of the carburetor conversion and the disconnections associated with it, except for the disconnection of the altitude compensator. When the Weber carburetor was installed on the test vehicle the throttle opener control system, fuel shut-off vacuum switch, mixture ratio control valve and altitude compensator were disconnected. The applicant performed testing at Import Certification Laboratories of Anaheim, California. The data submitted by Redline are shown in Table 1.

Table 1

<u>Condition</u>	<u>Exhaust Emissions gm/mi</u> <u>Test Procedure CVS-75</u>			<u>Fuel Economy</u>
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>City mi/gal</u>
Baseline	0.53	13.25	0.57	24.4
Redline Kit	0.48	8.98	0.55	21.5

These results show no increase in emissions, however, when confirmatory testing was performed at the Haagen-Smit Laboratory, significant increases in both HC and CO were recorded. These results are shown in Table 2.

Table 2

<u>Condition</u>	Exhaust Emissions gm/mi Test Procedure CVS-75			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>City mi/gal</u>
Baseline	0.400	14.770	0.520	25.3
	0.448	15.274	0.518	25.0
Average	0.424	15.022	0.519	25.2
Redline Kit	0.586	37.122	0.458	23.5
	0.638	38.560	0.430	23.4
Average	0.612	37.841	0.444	23.4

Therefore, the vehicle was returned to Redline with notice of the failure. Redline determined that the vacuum hose routing was improper when the vehicle was tested at the Haagen-Smit Laboratory. They corrected the problem and tested the vehicle at ICL again. The results of this test are shown in Table 3.

Table 3

<u>Condition</u>	Exhaust Emissions gm/mi Test Procedure CVS-75			Fuel Economy
	<u>HC</u>	<u>CO</u>	<u>NOx</u>	<u>City mi/gal</u>
Redline Kit	0.322	2.891	0.42	26.354

These results show no increase over the baseline values established by the confirmatory tests at the Haagen-Smit Laboratory. Redline was granted a retest of the Weber carburetor at the Haagen-Smit Laboratory and the results of these tests are shown in Table 4. The baseline values are also shown in this table for comparison.

Table 4

Condition	Exhaust Emissions gm/mi Test Procedure CVS-75			Fuel Economy
	HC	CO	NOx	City mi/gal
Baseline	0.424	15.022	0.519	25.2
Redline Kit	0.394	7.870	0.650	23.1
	0.398	8.740	0.490	23.5
	0.368	10.042	0.466	22.2
	0.400	10.380	0.600	23.2
Average	0.390	9.258	0.55	23.0

With the test vehicle in the device configuration (altitude compensator disconnected) a series of steady-state exhaust emission tests were performed at the Haagen-Smit Laboratory. The 1st series was run with the secondary air and a 2nd series without. Based on the measured concentrations of exhaust emissions and using the carbon balance method, the TAFR's under each steady-state test condition were calculated. According to equation 1 of MAC 78-2, Section II, the TAFR at an altitude of 6000 ft is:

$$TAFR_{6000} = \frac{m_{i0} + 0.84m_{s0}}{1.09m_{f0}} = \frac{m_{i0}}{1.09m_{f0}} + \frac{0.84m_{s0}}{1.09m_{f0}}$$

Where m_{i0} = mass flowrate of intake air at sea level

m_{s0} = mass flowrate of secondary air at sea level

m_{f0} = mass flowrate of fuel at sea level

Therefore $\frac{m_{i0}}{m_{f0}} = TAFR_0$ due to intake air

$\frac{m_{s0}}{m_{f0}} = TAFR_0$ due to secondary air

By calculating the $TAFR_0$'s of the vehicle with secondary air and without, the $TAFR_0$ due to secondary air can be calculated by subtracting the $TAFR_0$ without secondary air from the $TAFR_0$ with secondary air, or:

$$TAFR_0 \text{ (with secondary air)} - TAFR_0 \text{ (without secondary air)} = TAFR_0 \text{ (due to secondary air).}$$

This allows the original equation to be written in this form:

$$\text{TAFR}_{6000} = \frac{\text{TAFR}_0 \text{ (without secondary air)}}{1.09} + \frac{(0.84)\text{TAFR}_0 \text{ (due to secondary air)}}{1.09}$$

Inserting the calculated TAFR_0 values into the above equation, the resulting TAFRs at 6000 feet are shown in Table 5.

Table 5

Tailpipe Air/Fuel Ratios (TAFR)		
Stoichiometric Air/Fuel Ratio of Test Fuel = 14.6		
<u>Mode</u>	<u>TAFR at Sea Level</u>	<u>TAFR at 6000 feet</u>
Idle	16.7	14.9
30 mph 3rd gear	16.5	14.9
30 mph 4th gear	19.6	17.4
50 mph 4th gear	16.7	15.0
50 mph 5th gear	17.1	15.4

These results show that in all driving modes tested, the TAFR at 6000 feet is leaner than stoichiometric.

VI. DISCUSSION

The results of the final tests performed on the Datsun test vehicle show no increase in HC or CO and only a slight increase in NOx which is considered to be within the limits of test variability as determined by the Haagen-Smit Laboratory. The results of the special test program and analysis demonstrate the ability of the Weber carburetor to comply with the California High Altitude Test Requirements. This demonstrates that while the installation of the Weber DGAV carburetor requires the disconnection of several emission control components no adverse emissions impact occurs.

Redline has fulfilled the requirements for this exemption, therefore, the staff recommends that Executive Order D-133-10B be issued.

HITACHI DCG 306, DCH 306 & DCJ 306 2-BARREL (Cont.)

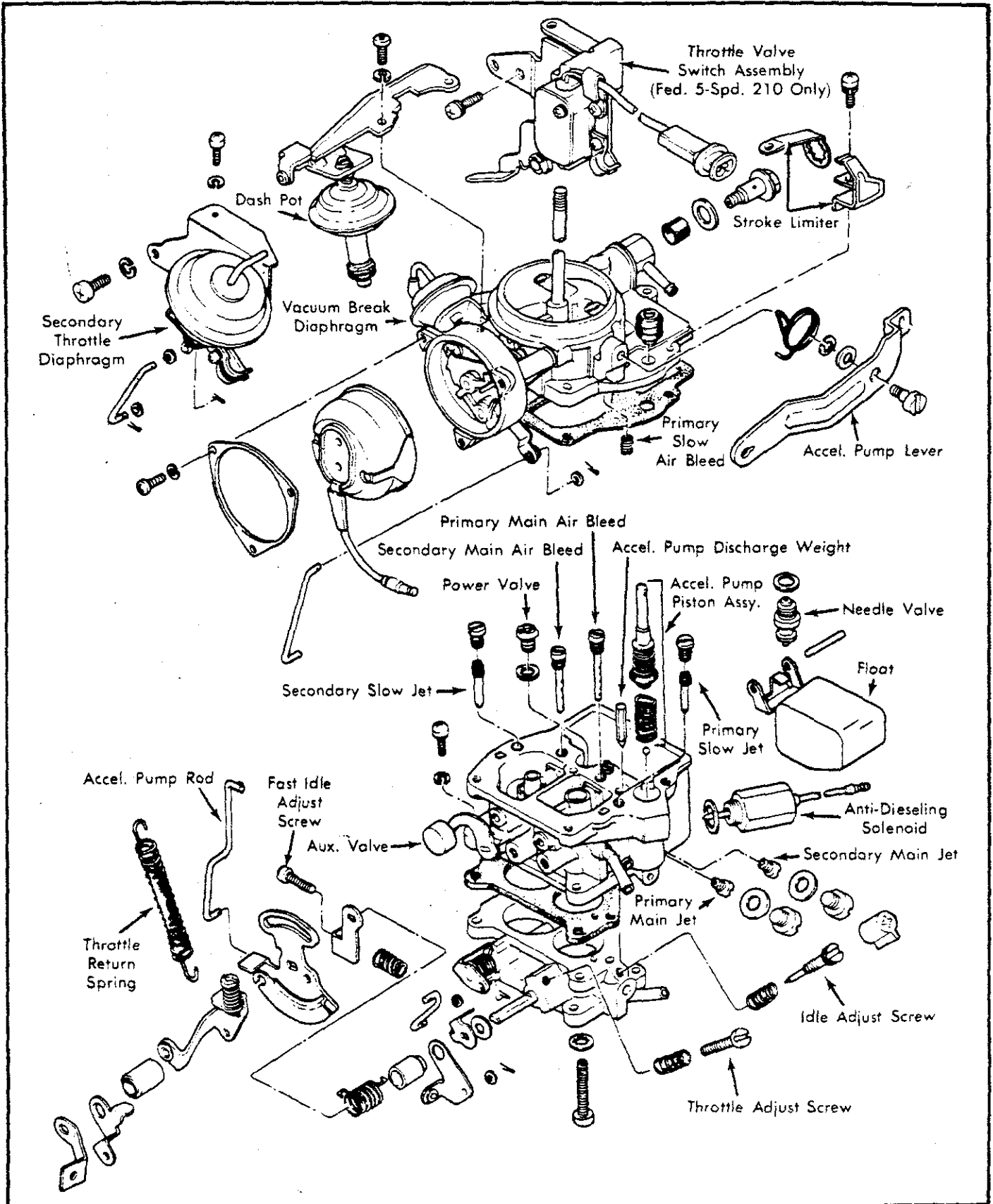
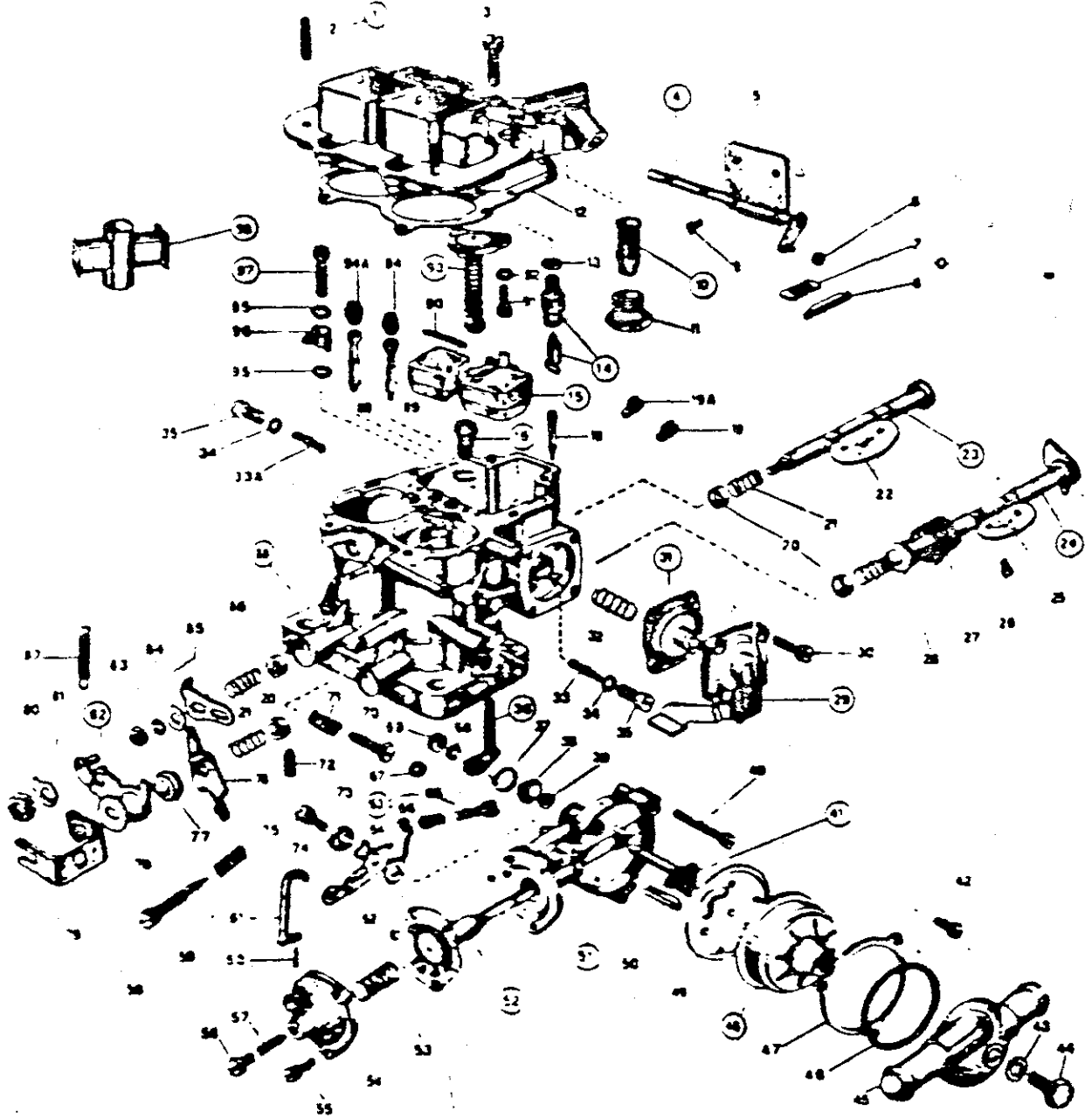
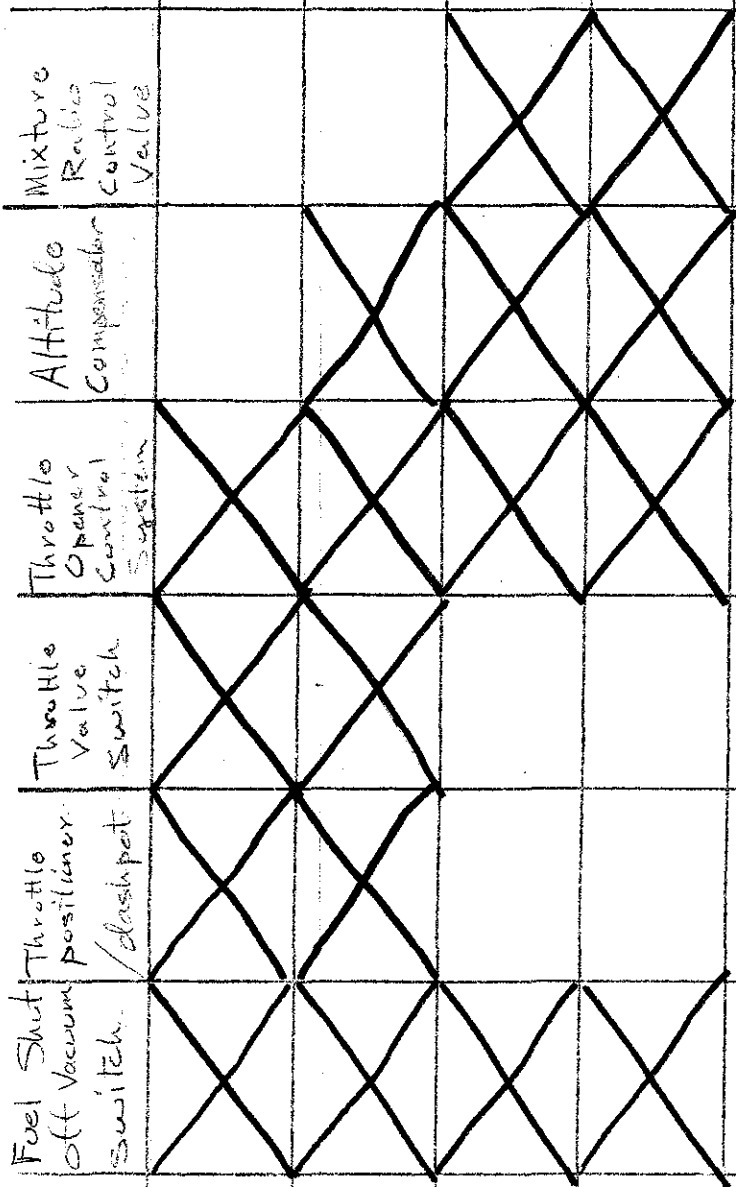


Fig. 7 Exploded View of 1979 Datsun 210 and 310 Hitachi Carburetor

WEBER CARBURETOR

Type 32 36 DGAV





79'

210

80'

210

81'

210

82'

210



INSTALLATION INSTRUCTIONS

READ & UNDERSTAND ALL STEPS OF THESE INSTRUCTIONS BEFORE BEGINNING THIS INSTALLATION. After unpacking, examine the carburetor and other components for shipping damage. If any damage is found, notify shipper/supplier immediately.

WEBER TECH-LINE

800-WEBER CA Inside California
(932-3722)
800-WEBER US Outside California
(932-3787)

DATSUN B210, 310 (1974-1982)

For Kit Nos. ¹⁹⁷⁵K8624, ¹⁹⁷⁵K8625, ¹⁹⁷⁵52-50502 and ¹⁹⁷⁵52-50503
Using Weber ⁷⁵⁻⁷⁷32/36 DGEV ⁷⁷⁻⁸²33B I

TOOLS AND EQUIPMENT NEEDED:

- Combination, box or open end wrenches (metric)
- Socket set with 12 mm socket
- Screwdriver (regular and Phillips)
- Pliers
- Gasket Scraper
- Rags
- Cleaning Solvent
- Knife

PARTS SUPPLIED WITH INSTALLATION KIT

- 1 - 32/36 DGAV ^{33B I} Weber Carburetor
- 1 - Air Filter Adapter & Gasket
- 1 - Hardware Kit, Fuel Line & Vacuum Line
- 1 - Carburetor Adapter

NOTE: It is recommended to obtain a new fuel filter and install it when installing 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 analyzing equipment.

NOTE: Late model vehicles fitted with Emission Control Systems have many vacuum lines and electrical connections in their fuel systems. It is essential when dismantling, that disconnected lines be identified with a corresponding number tag or label system. To establish function, locate and identify the source of each line.

1. Remove the vehicle's gas cap.
2. Disconnect the battery.
3. Remove factory air filter assembly and attached components. Tag hoses for proper identification during reassembly. Disconnect the stock fuel line and plug off to prevent dirt from entering the fuel system.
4. Disconnect all electrical connections to carburetor and tag them for proper identification during reassembly.
5. Disconnect throttle cable at bracket and lever. Remove clip and pin from idle kick-up lever (if applicable).
6. Using either the map inside the vehicle's engine compartment, or a factory service manual for your year/model Datsun; tag each vacuum line attached to the original carburetor for proper identification during reassembly. Disconnect all carburetor vacuum hoses once they are identified. **NOTE:** 1980-82 vehicles only. Disconnect and remove the altitude compensator from the fender well. It will not be used with the Weber carburetor.
7. Remove the four (4) nuts that secure the carburetor to the intake manifold. Remove the carburetor and heat spacer. Insert a clean rag in the intake ports to prevent dirt and gasket material from entering the engine.
8. Remove the stock 6mm carburetor mounting studs from the intake manifold using either a stud tool or the "double-nut" method if the proper tool is not available. (Install two nuts approx. 1/3 the way on the stud and lock them together. Then using a suitable wrench on the lower nut, loosen the stud and remove.)

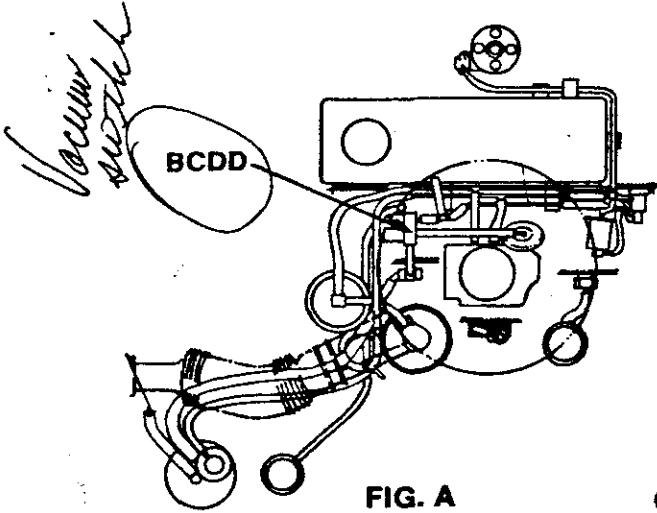
This kit meets original equipment performance levels and is offered as a direct replacement by Weber, U.S.

W. Alan E.O. Working similar to Carter

See Attachment

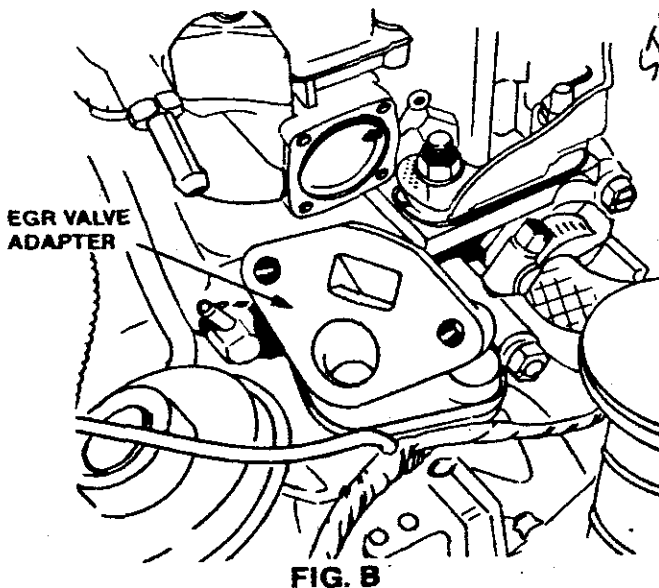
9. Once the studs have been removed, use a gasket scraper to thoroughly clean the carburetor mounting surface.

10. Remove the B.C.D.D. (Boost Control Decel Device) located on top of the #1 cylinder runner. Plug-off the manifold vacuum source with one of the rubber caps supplied in the kit. (Fig. A)



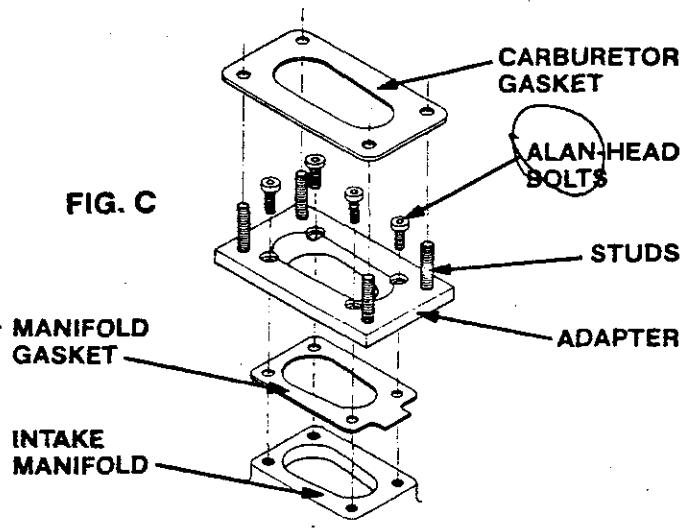
11. Remove the EGR Valve from the intake manifold and insert a clean rag in the EGR ports. Clean the EGR valve and the manifold surfaces thoroughly, using a gasket scraper.

12. Remove the rag and install one of the EGR Valve gaskets supplied in the kit. (NOTE: A light coat of gasket sealer should be used to ensure against exhaust gas leaks under the adapter.) Place the EGR Valve adapter (elbow) on the intake manifold. (Fig. B) Use the original EGR Valve washers and nuts to secure the adapter to the intake manifold.

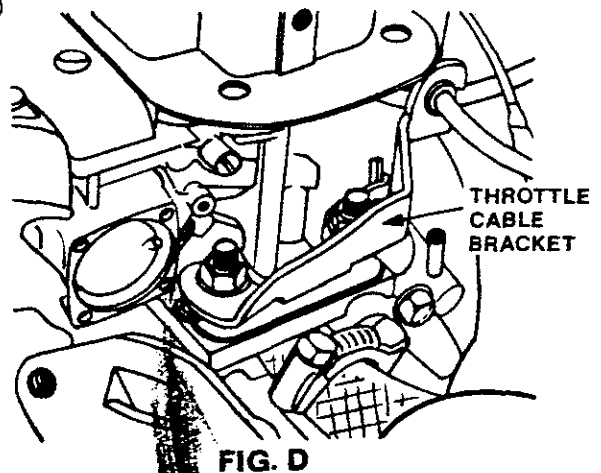


13. Install the second EGR Valve gasket and EGR Valve assembly using the two (2) 8mm bolts and lock washers supplied in the kit. (NOTE: Do not use gasket sealer on this flange gasket.)

14. Remove the ~~rag~~ from the intake ports and install the gasket and adapter components from the kit as shown in Fig. C. (NOTE: When installing the 8mm carb. studs into the adapter, use either the correct tool or the "double-nut" method.)



15. Mount the Weber carburetor with the throttle linkage facing toward the vehicle's firewall. Install the throttle cable bracket over the two (2) studs on the driver's side of the carburetor. (Fig. D) Use the four (4) nuts and lockwashers supplied in the kit to secure the carburetor and bracket. (NOTE: Do not tighten the nuts completely at this time.)



16. Remove the two screws on the throttle cable jacket on the firewall and turn the jacket over (180°). Reinstall the jacket in the throttle cable bracket and re-tighten the screws.

See attachment

STEPS (See attachment) 13, 14, 15, 16

ee
AWACHMENT

- ✓ 17. Reconnect the throttle cable to the throttle lever. Check linkage for proper operation and correct as necessary.
When all functions are ensured correct, tighten carburetor-securing nuts to 12 ft/lbs in small increments to prevent damage to carburetor base. Check tightness and operation of all other linkage mountings and connections.
- ✓ 18. Use the piece of wire supplied in the kit to reconnect the choke and the I.C.S. (Idle Cut-Off Solenoid) to the original choke wire.
- ✓ 19. Remove the plug from the stock fuel line and install the new hose supplied in the kit. Install a new fuel filter at this time.
- ✓ 20. Connect the distributor vacuum advance line to the vacuum port on the choke-side of the carburetor, nearest the FRONT of the vehicle.
- ✓ 21. Connect the EGR vacuum line to the port on the choke-side of the carburetor, nearest the FIREWALL.

DO NOT
REPLACE
W/200

- 22. A. 1979-82 Vehicles Only: Remove the plug from the vacuum line on the V.V.T. (Venturi Vacuum Transducer) and connect it to the port on the Linkage Side of the carburetor. (Facing firewall.)
- ✓ B. 1980-82 Vehicles: Connect the 3/8" hose from the charcoal canister to the barbed fitting on the top of the carburetor.

If vehicle is 1979, remove the 3/8" barbed fitting from the carburetor top and install the 1/2" NPT Allen Plug supplied in kit.

- ✓ 23. Install the air filter adapter with the gasket and allen bolts supplied.
- 24. Install the 6mm x 90mm air filter stud in the air filter adapter, using the jam nut supplied.
- 25. Install the air filter assembly, using the two (2) oval air filter spacers, bolts, and washers supplied. See Fig. E

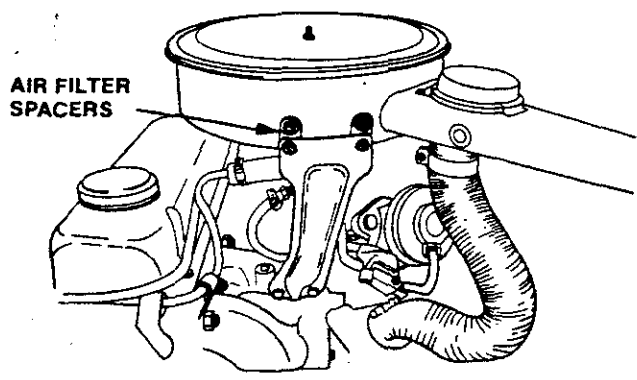
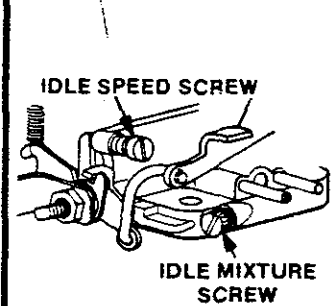


FIG. E

- 26. Reconnect battery and replace gas cap.
- 27. Crank-over the engine until the carburetor fills with fuel, then depress the throttle pedal once to initiate choke unit.
- 28. **START ENGINE**
 - A. Check for leaks around the carburetor mounting base and the fuel line connection. Correct as necessary.
 - B. Set idle speed and mixture to Factory specifications.
- 29. CHECK FOR ADEQUATE HOOD CLEARANCE BEFORE CLOSING THE HOOD.



**MODEL DGV/DGAV
LEAN BEST
IDLE SETTING
PROCEDURE**

NOTE: Before adjusting carburetor, be sure engine is at operating temperature, (choke is fully off) air cleaner is removed and vacuum lines are plugged off.

- (1) The Weber DGV/DGAV idle speed screw should be adjusted to its "preliminary" set-point before adjusting the idle mixture. To set the idle speed screw follow these steps:
- (2) Back "out" the idle speed screw until the tip of the screw no longer touches the throttle lever. Then slowly turn the screw in until it just comes in contact with the throttle lever.
- (3) From the "contact" position, turn the idle speed screw "in" one (1) full turn.
- (4) If a tachometer is available, install it prior to starting the engine. If a tachometer is not available set idle mixture "by ear."
- (5) Start engine, be sure choke is not engaged, and proceed to adjust the idle mixture.
- (6) Turn the idle mixture screw "in" (clockwise) until the engine RPM begins to fluctuate on the tachometer. (If adjusting by ear, until a noticeable drop in speed is heard.)
- (7) Back "out" (counterclockwise) the idle mixture screw slowly, until the engine idle becomes steady. Try to obtain the leanest setting without affecting the idle speed. If necessary, repeat steps 6 and 7 until the best setting is achieved.
- (8) Once the idle mixture is set, fine tune the engine's idle speed; if necessary, by readjusting the idle speed screw (Note: Turning "in" (clockwise) the idle speed screw will increase engine speed. Turning "out" (counterclockwise) the idle speed screw will decrease the engine speed.)
- (9) If idle speed is reset, go back and repeat steps 6 and 7.

If after following these instructions, you require further assistance, please call the Weber Tech. Service Dept.



k8625 Instructional Changes

Step (6) Add ^{at end of note:} Plug the fitting on the air filter assembly that lead to the altitude compensator using the larger vacuum cap supplied in the Kit. Also, plug both fittings on the mixture ratio control solenoid (mounted on the front air cleaner bracket) to prevent dirt from entering the solenoid, and plug the air cleaner fitting that lead to the solenoid. (If so equipped ↑)

Step (11) Add a "caution" telling customer to disconnect water temp. switch to avoid damage to switch while removing and re-installing EGR Valve. (See Jim for location of switch [get pictures] and details.)

Fig. C. "Alan" should be "Allen"

Steps (12, 13, 14, 15, 16) Kit is much easier to install in this order — EGR adapter, Weber Carburetor, EGR Valve
 ie: steps 12, 14, 15, 13, 16

Step (18) All — ^{Socket} Choke to ^{Washer} Choke  OE
 74-79 — ^{Red wire} ICU to ICU  OE
 80-82 — Solid Blue Wire of BCDD (Vacuum Switch) to ICU
 ↑ wire to be cut and stripped and female spade connector crimped to it.
 Short Blue Wire in kit to ICU from this corner

Step (14) (page) should be (page)

Both the allen-head bolts and the carb mounting studs will be installed using loc-tite. ~~The studs~~ ~~thread into open bottom holes and will require~~ ~~correct height placement to allow just enough~~ ~~length for carb and nut.~~ Also, the double-nut method should not be necessary.

right measurement inserted
to studs closer
to insert to achieve
right of 90° and studs
lower to valve cover
length 850

Step (17) Sliding the throttle cable ^{into} the cable bracket is not mentioned. Also, the cable adjustment via an allen set-screw should be addressed at this time. - ~~And~~ ~~the~~ ~~will~~ ~~be~~ ~~refer~~
 Allen set screw note refers to Not overtightening set screw.

Step (22) What plug in the vacuum line?
 Remove the cross screw in the VV version the carb and connect the VT hose to it. (Is that what is meant?) *yes*

Fig. (X) Show parts on Weber and reference to this figure in the appropriate steps ie: use *union*
~~the~~ ~~draw~~ ~~drawing~~

Step (18) (Addition to earlier change) Shrink tubing is to be used at all (4) terminal locations

"Note:" in "Tune-Up Specifications" should be separate.

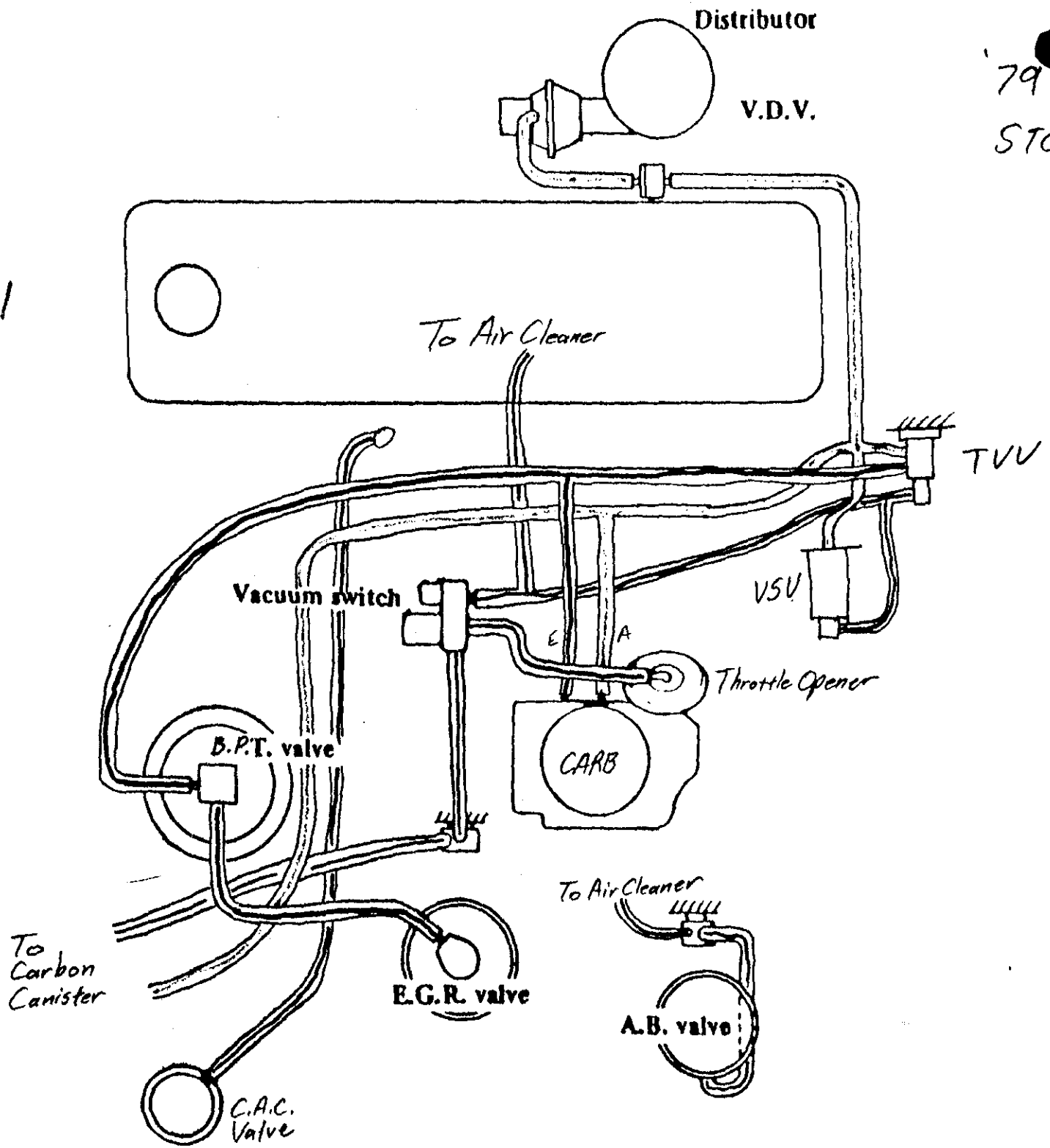
EGR and Advance hoses are to be teed into the Advance port on the Weber. The EGR port is not to be used.

Step 10 - Fig. A - change "BCDD" to "Vacuum Switch".

Step 6 - Do not restrict Altitude Compensator to just '80-'82 vehicles (it was optional on many others) Also, some years used Altitude Compensators mounted inside the air cleaner. These should not be removed, but the fittings should be capped.

79 210
Stock

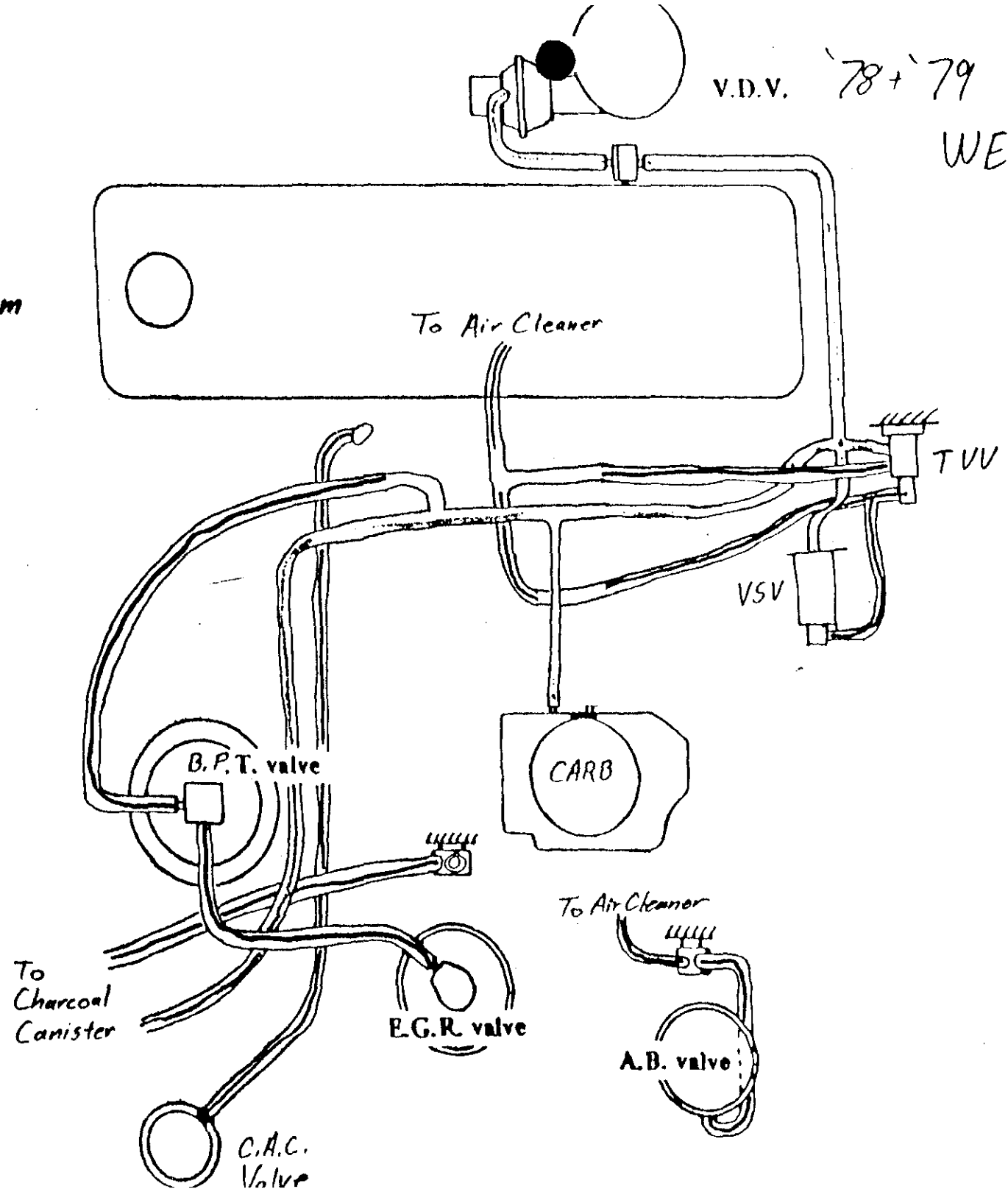
EGR
Vacuum Advance
Canister Purge Signal
Manifold Vacuum
Signal Bleed



EGR

- vac. Adv
- Canister Purge
- Manifold Vacuum
- Signal Bleed
- vac. Cap

V.D.V. '78+' '79 210
WEBER



EGR

Vac. Adv.

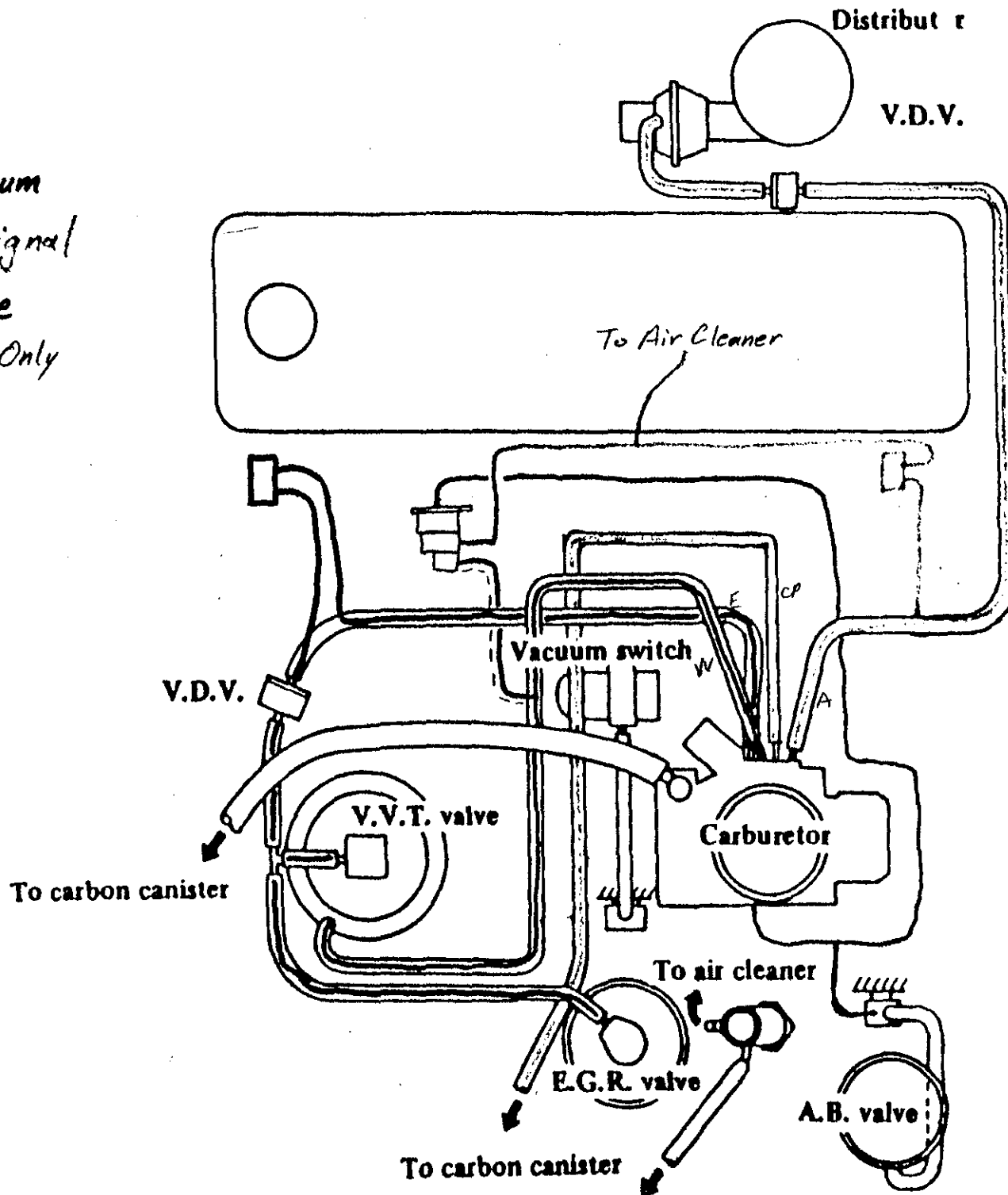
Venturi Vacuum

Canister Signal

Power Valve

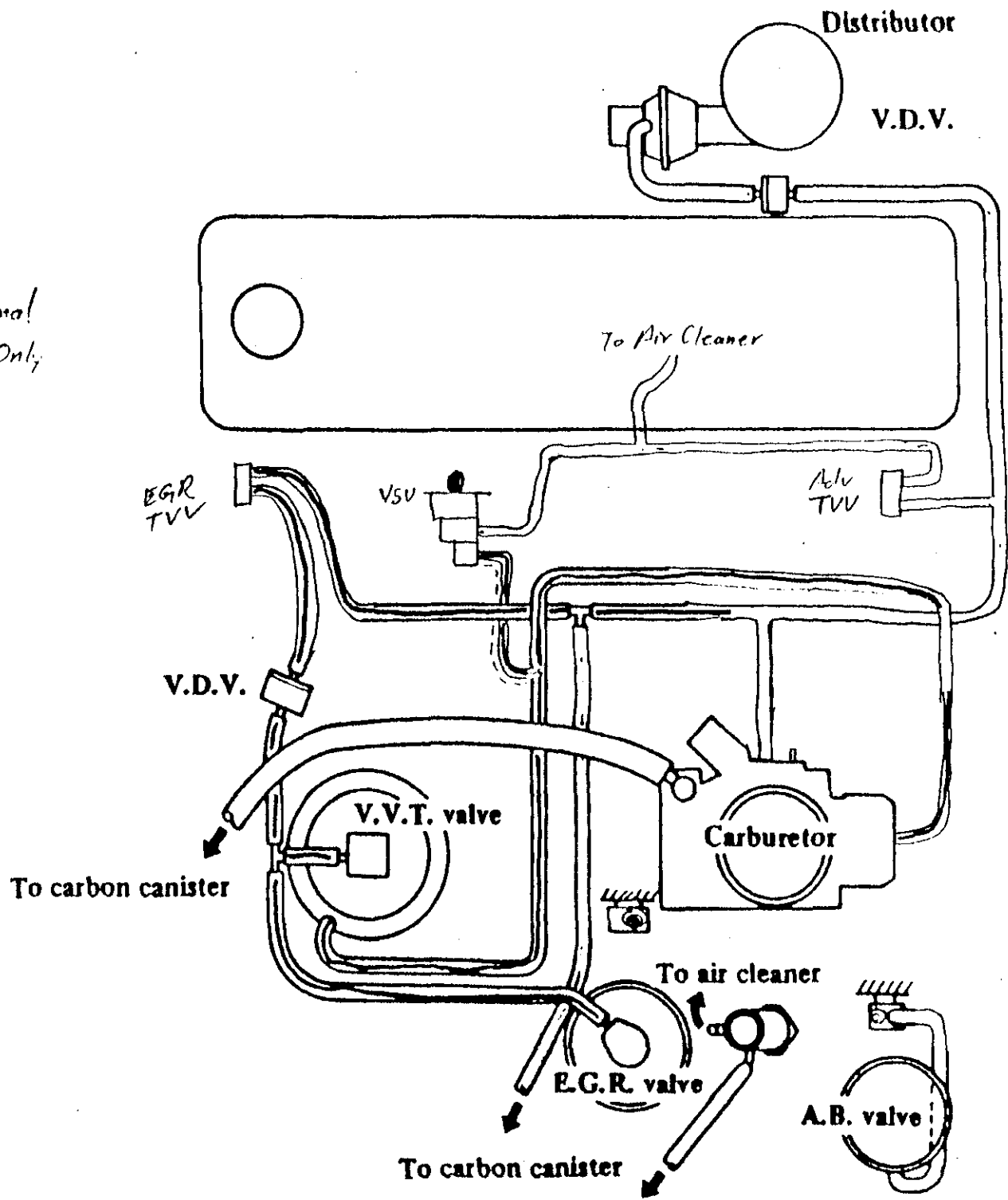
--- M/T Only

80-210
STOCK



EGR
Vac. Adv.
Venturi Vac.
Vacuum Caps
Canister Signal
---- M/T Only

'80 210
Weber



Distributor

'81 + '82 210
STOCK

V.D.V.

To air cleaner

Vacuum switch

V.D.V.

MR
control
solenoid

Throttle opener

V.V.T. valve

Carburetor

Vacuum switching valve

To carbon canister

T.V.V.

E.G.R.
valve

To air cleaner

To air cleaner

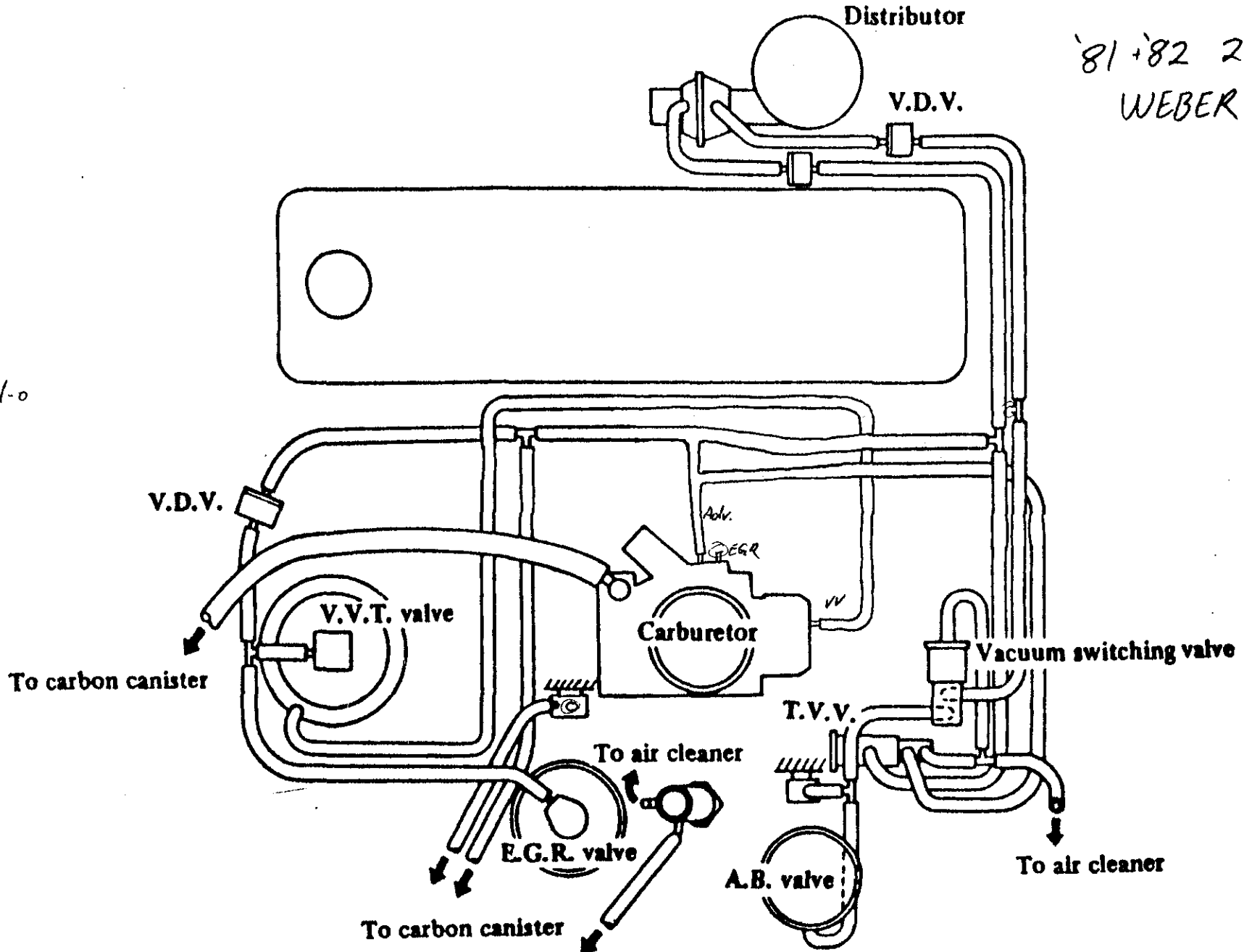
To carbon canister

A.B. valve

To altitude compensator



capped-o



5/13/86

THIS VEHICLE IS EQUIPPED WITH A REDLINE/WEBER CARBURETOR CONVERSION KIT. (See carburetor identification tag for kit number) PLEASE REFER TO THE APPROPRIATE VACUUM DIAGRAM SUPPLIED WITH THE KIT FOR PROPER VACUUM HOSE ROUTING. IF NEEDED, COPIES OF THE APPLICABLE VACUUM MAP ARE AVAILABLE THROUGH REDLINE, INC.

TECH LINES

California 1-800 932-3722
U.S. 1-800 932-3787