State of California
AIR RESOURCES BOARD

EXECUTIVE ORDER D-133-12
Relating to Exemptions under Section 27156
of the Vehicle Code

REDLINE, INC., A SUBSIDIARY OF IMPAC
REDLINE CARBURETOR CONVERSION KITS #K8607 AND #K8608
USING ONE (1) WEBER MODEL 32/34 DFT9 A or 32/39 DFT11 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 Kits #K8607 and #K8608 using one (1) Weber 32/34 DFT9 A or 32/34 DFT11 A carburetor have been found not to reduce the effectiveness of required motor vehicle pollution control devices and, therefore, are exempt from the prohibitions of Section 27156 of the Vehicle Code for the vehicles listed below:

Year	Make	Model	Engine (liter, CID)	Redline Kit No.
1977-1978	Ford	Courier	2.3, 140	K8607
1979-1980	Ford	Courier	2.3, 140	K8608

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

1) The throttle positioner (dashpot), on vehicles so equipped, may be removed.

2) The deceleration control valve (Coasting Richer valve) and accelerator microswitch, on vehicles so equipped, may be disconnected and removed.

3) 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 KITS #K8607 AND #K8608.

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 8th day of September, 1986.

R. D. Drachand, Chief
Mobile Source Division

State of California
AIR RESOURCES BOARD

EVALUATION OF THE REDLINE CARBURETOR CONVERSION KITS NO. K8607 AND NO. K8608 USING ONE (1) 32/34 DFT9 A OR 32/34 DFT11 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

SEPTEMBER, 1986

EVALUATION OF THE REDLINE CARBURETOR CONVERSION KITS NO. K8607 AND NO. K8608 USING ONE (1) 32/34 DFT9 A OR 32/34 DFT11 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

by

Mobile Source Division
State of California
AIR RESOURCES BOARD
9528 Telstar Avenue
El Monte, CA 91731

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 Kits No. K8607 and No. K8608 using one (1) Weber model 32/34 DFT9 A or 32/34 DFT11 A carburetor.

These Redline Carburetor Conversion Kits are designed to replace the Hitachi carburetors found on 1977-1980 Ford Courier pick-up trucks with 2.3 liter engines.

Comparative exhaust emission tests and other information submitted demonstrate that the aftermarket Redline Carburetor Conversion Kits No. K8607 and No. K8608 using one (1) Weber model 32/34 DFT9 A or 32/34 DFT11 A carburetor do not adversely affect emissions of the applicable vehicles. Based on the results of the tests and the evaluation of the Redline Carburetor Conversion Kits, the staff recommends that the exemption be granted as requested for the following vehicle applications:

Year	Make	Model	Engine (liter, CID)	Redline Kit No.
1977-1978	Ford	Courier	2.3, 140	K8607
1979-1980	Ford	Courier	2.3, 140	K8608

CONTENTS

EVALUATION OF THE REDLINE CARBURETOR CONVERSION KITS NO. K8607 AND NO. K8608 USING ONE (1) MODEL 32/34 DFT9 A OR 32/34 DFT11 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 two Carburetor Conversion Kits designated as Redline Kits No. K8607 and No. K8608 using one (1) Weber model 32/34 DFT9 A or 32/34 DFT11 A carburetor to replace the original equipment manufacturer (OEM) Hitachi two-barrel carburetors found on the following vehicles:

Year	Make	Model	Engine (liter, CID)	Redline Kit No.
1977-1978	Ford	Courier	2.3, 140	K8607
1979-1980	Ford	Courier	2.3, 140	K8608

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

II. CONCLUSION

Comparative exhaust emission data and other information submitted by the applicant demonstrated that the Redline Kits No. K8607 and No. K8608 using one (1) 32/34 DFT9 A or 32/34 DFT11 A Weber carburetor meet 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 Kits, the staff recommends that Redline, Inc. be

granted exemption from the prohibitions of Vehicle Code Section 27156 for the Redline Carburetor Conversion Kits No. K8607 and No. K8608 for use on the vehicles described above and that Executive Order No. D-133-12 be issued.

IV. DEVICE DESCRIPTION

The Redline Carburetor Conversion Kits No. K8607 and No. K8608 are similar in design. Each kit uses one (1) model 32/34 DFT9 A or 32/34 DFT11 A Weber carburetor as an economical replacement for the OEM carburetors found on the 1977-1980 Ford Courier pick-up trucks described previously.

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

The Weber 32/34 DFT is a progressive two-barrel carburetor which is similar in basic design to the OEM carburetors (See Appendix 2). The Weber 32/34 DFT is a slightly different version of the Weber DFT (Ford 740) carburetors used as original equipment on some Ford imports orignally 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 throttle positioner (dashpot), on vehicles so equipped, is removed.

2) The deceleration control valve (Coasting Richer Valve) and accelerator switch, on vehicles so equipped, are disconnected and removed.

The Redline Kits No. K8607 and No. K8608 come complete with a Weber DFT carburetor, an air cleaner adaptor and all the hoses, gaskets and hardware necessary to install the Weber carburetor on the Ford Courier. 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 calibrations for the kits No. K8607 and No. K8608 are shown in Appendix 5. Facsimilies of the identification labels are 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 1980 Ford Courier pick-up truck with a 2.3 liter engine and a 5-speed manual transmission was used as the test vehicle. The 1980 model-year vehicle was used for testing since vehicles of 1980 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
Test Procedure: CVS-75

Condition	Exhaust Emissions gm/mi HC	CO	NOx	Fuel Economy City mi/gal
Baseline	1.54	25.77	0.71	19.30
	1.72	30.31	0.75	18.76
Average	1.63	28.04	0.73	19.03
Redline Kit	1.28	15.98	0.69	17.51
	1.32	15.51	0.72	17.65
Average	1.30	15.75	0.71	17.58

Confirmatory testing was performed at the Haagen-Smit Laboratory, on the same vehicle and the results of these tests are shown in Table 2.

Table 2
Test Procedure: CVS-75

Condition	Exhaust Emissions gm/mi HC	CO	NOx	Fuel Economy City mi/gal
Baseline	1.68	23.07	0.94	17.7
	1.56	23.94	0.84	17.6
Average	1.62	23.51	0.89	17.6
Redline Kit	1.36	17.95	0.76	15.3
	1.33	13.66	0.70	15.6
Average	1.35	15.81	0.73	15.5

VI. DISCUSSION

The results of the emission testing show no increase in emissions. This demonstrates that the installation of the Redline Kit. No. K8608 and the modifications to the original exhaust emission control system required for the installation will not have an adverse effect on emissions from the 1980 Ford Courier pick-up test vehicle which was selected to be representative of all the vehicles on this exemption application. Since Redline Kits No. K8607 and No. K8608 are similar in design, it would be expected that the conversion kit No. K8607 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.

HITACHI DCS 328 2-BARREL (Cont.)

10) Mark the primary throttle plate location in reference to its bore and to its relative position on throttle shaft. Remove throttle plate and shaft from lower body.

INSPECTION & CLEANING

Clean all parts thoroughly in solvent and check all passages and parts for wear or damage. Make sure that all jets are clear and clean. Do not attempt to clean jets by using wire or other objects which might damage calibrated orifices. Discard old gaskets and use new gaskets for assembly.

REASSEMBLY

Reassemble carburetor in reverse order of disassembly. Make sure that primary and secondary components are installed in their correct locations. When installing throttle valve or choke valve, make sure to eliminate gap between valve and wall of carburetor. When assembling float, ensure float collar is installed.

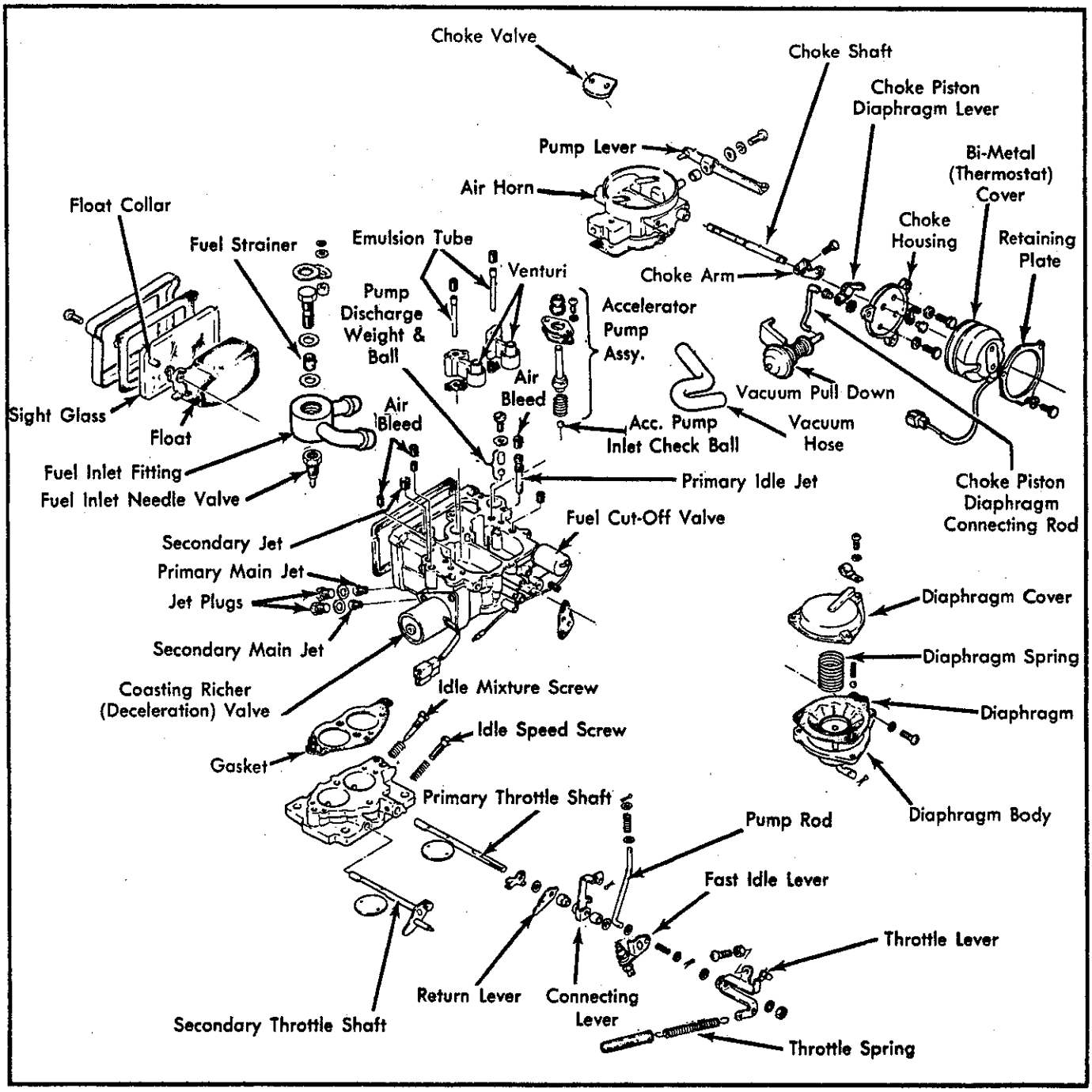
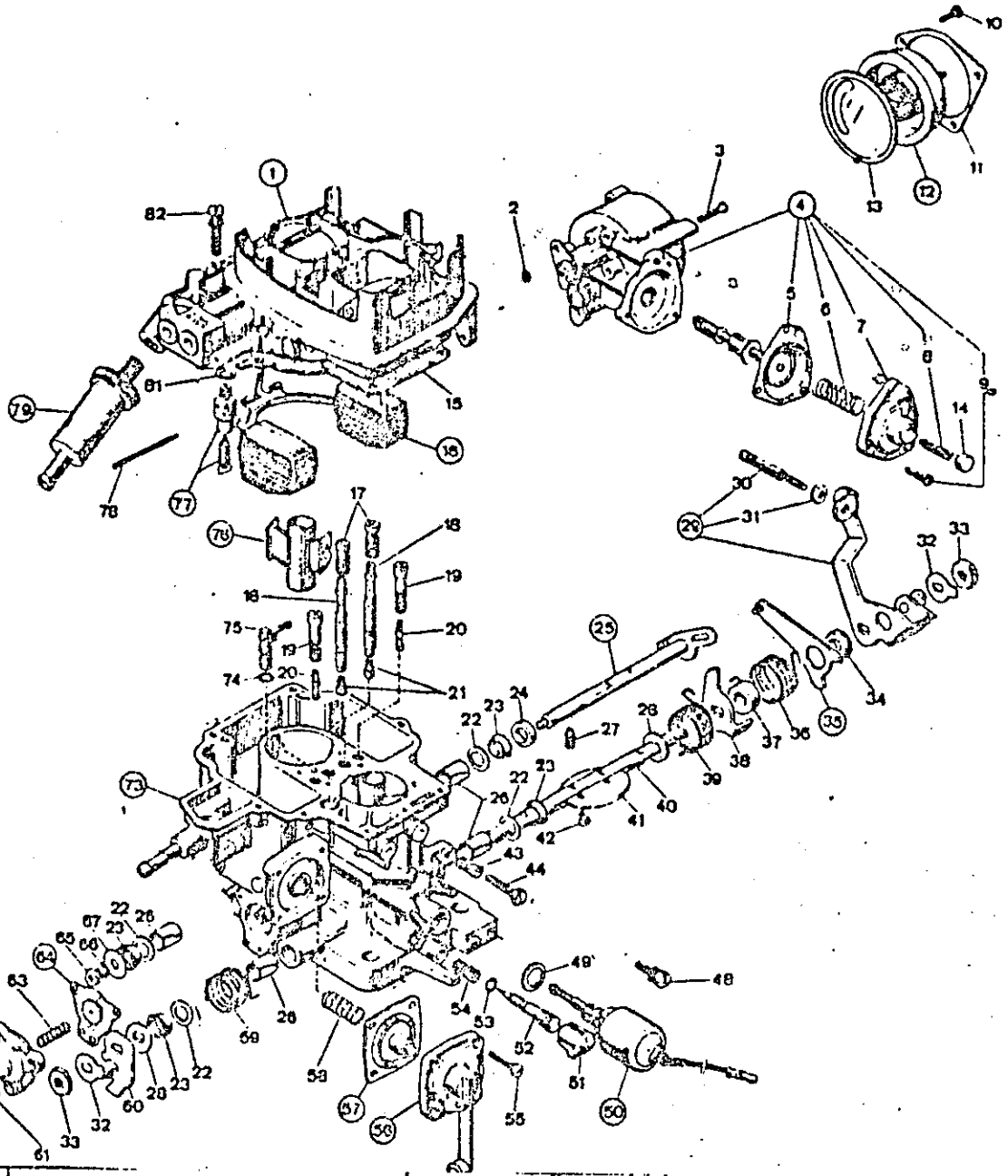


Fig. 7 Exploded View of Hitachi DCS 328 2-Barrel Carburetor (Ford Courier 2300)



Key Nr	Qty	PART NAME	Reference number	Key Nr.	Qty	PART NAME	Reference number
1	1	TOP COVER ASSY	31715.710	18	1	Secondary emulsion tube	61450.[illegible]
2	1	Auto choke "O" ring seal	41665.006	19	2	Idle jet holder	83570.[illegible]
3	3	Auto-choke fixing screw	64665.001	20	1	Primary idle jet	74403.[illegible]
4	1	AUTO-CHOKE ASSY including:	57804.226	20	1	Secondary idle jet	74403.[illegible]
5	1	- Choke diaphragm	47407.169	21	1	Primary main jet	73405.[illegible]
6	1	- Diaphragm loading spring	47600.226	21	1	Secondary main jet	73405.[illegible]
7	1	- Diaphragm cover	32304.041	22	4	Washer	65612.[illegible]
8	1	- Diaphragm adjusting screw	64695.022	23	4	Shaft sealing bush	41578.[illegible]
9	3	- Diaphragm cover fixing screw	64660.004	24	1	Spacer	12700.[illegible]
10	3	Plate fixing screw	64615.008	25	1	Secondary shaft	10315.[illegible]
11	1	Thermostat housing lock ring	62135.029	26	4	Shaft bearing plate	62150.[illegible]
12	1	Thermostat housing	57804.225	27	1	Secondary throttle adjusting screw	64[illegible]
13	1	Heat sealing gasket	41040.056	28	2	Washer	65[illegible]
14	1	Screw plug	61075.011	29	1	Throttle valve control lever including	45[illegible]
15	1	Carburetor cover gasket	41106.037	30	1	- Fast idle adjusting screw	64[illegible]
16	1	Float	61030.012	31	1	- Adjusting screw fixing nut	64[illegible]
17	1	Primary air correction jet	77601.280*	32	2	Lock washer	65[illegible]
17	1	Secondary air correction jet	77601.260*	33	2	Primary shaft fixing nut	64[illegible]
18	1	Primary emulsion tube	61450.222*	34	1	Bush for free lever	12[illegible]

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

(213) 604-0275

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

Stage of Development Proto Date: 9/16/86

Prototype # K-8608 Location of # _____

Carburetor Model 32/34 DFT Part # 22670.045C

NA =Not Applicable
AF = As Factory

Application: Ford Model Courier Year 80 Month _____

Engine Size 2.3 Air Cond. - (Yes) No

Transmission: (MT) AT

Calibrated Parts

Main venturi	32/34
Auxiliary venturi	4.0/4.0
Main jet	"117" / 115
Air corrector jet	155 / 160
Emulsion tube	F-21 / F-30
Full power fuel bush	.50
full power air bush	A/F
Power valve spring	47600 131 P.n.
Fuel enrichment bush	170
Air enrichment bush	110
Mixture enrichment tube/hole	2.00
Auxiliary venturi mixture enrichment bush	

Adjustments

	Value
Float levelling:	
with gasket (brass)	mm
with gasket (plastic)	7 mm
without gasket (brass)	mm
without gasket (plastic)	mm
from face to carburetor bowl	mm
Maximum float stroke	19 mm
Accelerating pump:	
10 complete pump strokes	
delivery	cm^3
Pump Cam Throttle opening pump	14850 130
Stroke adjustment	mm

Calibrated Parts, Con't.		
idle jet	"60" / "60"	
idle air bush	175/70	
irreversibility hole	NA	
idle mixture adjusting hole/bush	1.20	
idle mixture bush	NA	
Sonic idle air bush/hole	NA	
By-pass idle air hole		
By-pass idle mixture hole		
Spark Advance hole	AF	
Progression hole	AF	T^1
	AF	T^2
		T^3
		T^4
		T^5
Progression slot	NA	
Throttle plate angle	78°/78°	
Needle valve	1.50	
Fuel recycle hole	.50	
Pump jet	.50	
Pump discharge		
Inlet valve w/discharge pump	.45	
Pneumatic pump jet	NA	
Pneumatic pump discharge	NA	
Mechanical pump diaphragm	47407.050 p.n.	

Adjustments, Con't.	Value
Main throttle plate adjustment	
1st throttle opening at start of 2nd one	7.2 mm
Dash-pot	
Throttle opening at dash pot contact	NA mm
Manual starter	
Mechanical pull-down	mm
Fast idle	mm
Pneumatic pull-down	mm
Minimum pneumatic pull-down	mm
Max pneumatic pull-down (half choke)	mm
Starter rod complete	P.n.
Starter spring	P.n.
Automatic starter	
Starter plate clearance adj.	.6 mm
Mechanical pull-down	5 mm
Fast idle on starter piston	
Fast idle	
Fast idle cam timing	(mm/step nr.)
Pull-down lever/modular clr.	mm
Minimum pneumatic pull-down	mm
Maximum pneumatic pull-down	mm
Fixed index mark	
Moving index adjustment	

libratated Parts, Con't.

Starter jet	
Starter air jet	
Gasket kit	P.n.
Tune up kit	P.n.
Master repair kit	P.n.

Adjustments, Con't.

	Value
Bimetal assembly 57804 416	P.n.
Pull-down diaphragm spring	P.n.
Starter spring	P.n.
Starter spring	P.n.

ADDITIONAL NOTES

SEE ATTACHMENT

Stage of Development Proto Date: 9/16/86

Prototype # K-8608 Location of # _____

Carburetor Model 32/34 DFT Part # 22670.045C

NA =Not Applicable
AF = As Factory

Application: Ford Model Courier Year 80 Month _____

Engine Size 2.3 Air Cond. - (Yes) No

Transmission: (MT) AT

Calibrated Parts

Main venturi	32/34
Auxiliary venturi	4.0/4.0
Main jet	"117" / 115
Air corrector jet	155 / 160
Emulsion tube	F-21 / F-30
Full power fuel bush	.50
full power air bush	A/F
Power valve spring	47600 131 P.n.
Fuel enrichment bush	170
Air enrichment bush	110
Mixture enrichment tube/hole	2.00
Auxiliary venturi mixture enrichment bush	

Adjustments

	Value
Float levelling:	
with gasket (brass)	mm
with gasket (plastic)	7 mm
without gasket (brass)	mm
without gasket (plastic)	mm
from face to carburetor bowl	mm
Maximum float stroke	19 mm
Accelerating pump:	
10 complete pump strokes	
delivery	cm^3
Pump Cam Throttle opening pump	14850 130
Stroke adjustment	mm

Calibrated Parts, Con't.		
idle jet	"60" / "60"	
idle air bush	175/70	
irreversibility hole	NA	
idle mixture adjusting hole/bush	1.20	
idle mixture bush	NA	
Sonic idle air bush/hole	NA	
By-pass idle air hole		
By-pass idle mixture hole		
Spark Advance hole	AF	
Progression hole	AF	T^1
	AF	T^2
		T^3
		T^4
		T^5
Progression slot	NA	
Throttle plate angle	78°/78°	
Needle valve	1.50	
Fuel recycle hole	.50	
Pump jet	.50	
Pump discharge		
Inlet valve w/discharge pump	.45	
Pneumatic pump jet	NA	
Pneumatic pump discharge	NA	
Mechanical pump diaphragm	47407.050	P.n.

Adjustments, Con't.		
		Value
Main throttle plate adjustment		
1st throttle opening at start of 2nd one	7.2	mm
Dash-pot		
Throttle opening at dash pot contact	NA	mm
Manual starter		
Mechanical pull-down		mm
Fast idle		mm
Pneumatic pull-down		mm
Minimum pneumatic pull-down		mm
Max pneumatic pull-down (half choke)		mm
Starter rod complete		P.n.
Starter spring		P.n.
Automatic starter		
Starter plate clearance adj.	.6	mm
Mechanical pull-down	5	mm
Fast idle on starter piston		
Fast idle		
Fast idle cam timing		(mm/step nr.)
Pull-down lever/modular clr.		mm
Minimum pneumatic pull-down		mm
Maximum pneumatic pull-down		mm
Fixed index mark		
Moving index adjustment		

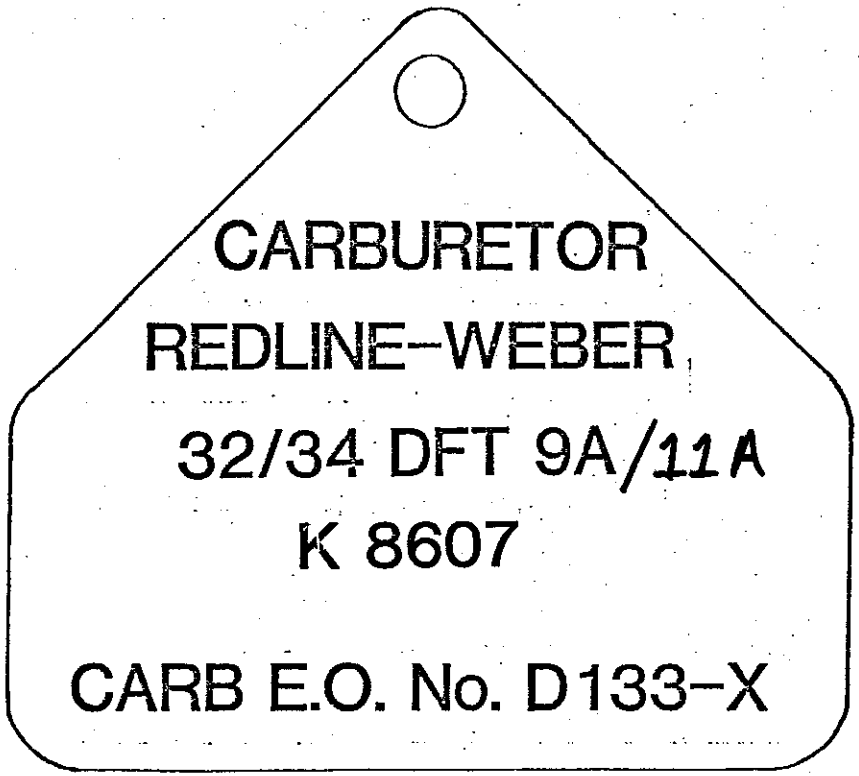
.libratedParts, Con't.

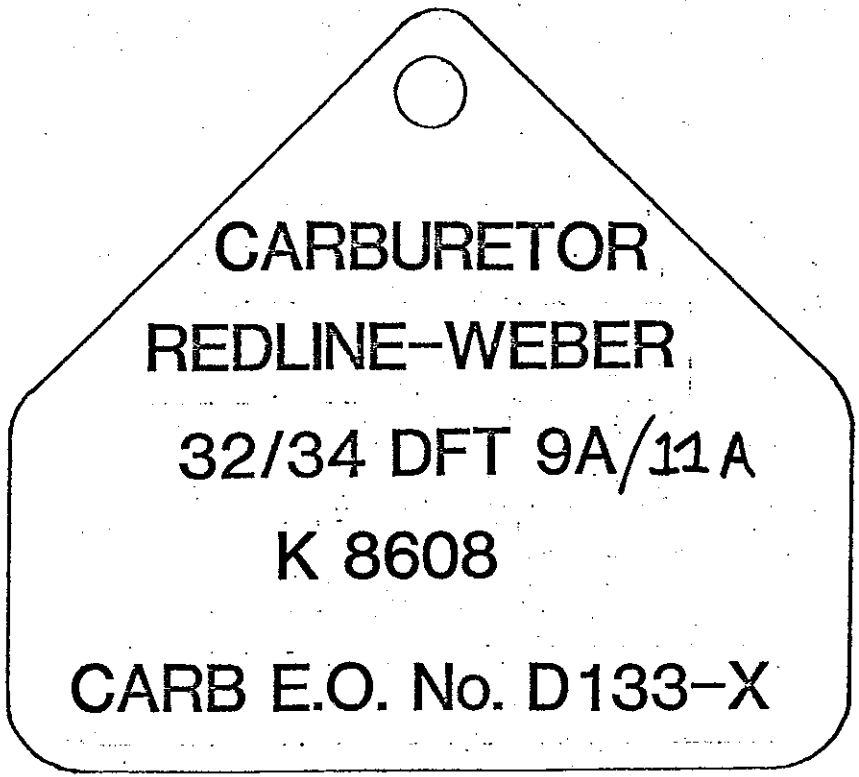
Adjustments, Con't.

			Value
Starter jet		Bimetal assembly 57804 416	P.n.
Starter air jet		Pull-down diaphragm spring	P.n.
Gasket kit	P.n.	Starter spring	P.n.
Tune up kit	P.n.	Starter spring	P.n.
Master repair kit	P.n.		

ADDITIONAL NOTES

SEE ATTACHMENT


CARBURETOR
REDLINE-WEBER
32/34 DFT 9A/11A
K 8607
CARB E.O. No. D133-X


CARBURETOR
REDLINE-WEBER
32/34 DFT 9A/11A
K 8608
CARB E.O. No. D133-X

INSTALLATION INSTRUCTIONS

WEBER CARBURETORS

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.

FORD COURIER & MAZDA PICKUP

1972 TO 1984

Kit Nos. K8605 and 52-50701 ('72-'78 Courier 1.8 and Mazda B1600, B1800)
K8606 and 52-50703 ('79 -'82 Courier, 2.0 and '79-'84 Mazda B2000)
K8607 and 52-50704 ('77-'78 Courier, 2.3)
K8608 and 52-50705 ('79-'80 Courier, 2.3)

TOOLS AND EQUIPMENT NEEDED

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

PARTS SUPPLIED WITH INSTALLATION KIT:

1 - 32/34 DFT Weber Carb.
1 - Air Filter Adaptor
1 - Wire Assembly
1 - Under Hood Label
1 - Hardware 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 the 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's gas cap.
2. Disconnect the battery.
3. **'72-'78 VEHICLES 1.6-1.8 LITRE ENG.: '77-'78 2.3 LITRE ENG.:** Loosen the air filter clamp and attached hoses. Remove the air filter from the carburetor.
4. **'79-'84 VEHICLES 2.0-2.3 LITRE ENG.:** Remove the two air filter mounting nuts, (INSIDE AIR FILTER HOUSING.) Disconnect the air pump hoses and remove the filter assembly. Retain the mounting nuts for use later.
5. Remove the servo-diaphragm assembly and (if equipped) the dashpot & bracket assembly. These devices will not be used with the Weber carburetor. Remove the vacuum hoses for

Kit Nos. K8605, K8606, 52-50701 and 52-50703 are sold under the provisions of California Air Resources Board Executive Order No. D-133-7 (C.A.R.B. E.O. No. D-133-7) 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.

these devices and plug the vacuum sources with the plugs provided in the kit.

6. If the vehicle is equipped with a "Coasting Richer" micro-switch, unplug the wires and remove the switch from the bracket. This device will not be used with the Weber carburetor.

7. Disconnect the fuel inlet and fuel return lines from the original carburetor.

8. **'72-'75 VEHICLES:** Disconnect and remove the original dashpot, coasting richer valve and the accelerator switch. Disconnect all vacuum lines connected to the stock carburator. All vacuum lines except the distributor vacuum advance should be plugged with the rubber caps provided in the kit.

9. **'76-'84 VEHICLES:** Disconnect all vacuum hoses and electircal wires connected to the original carburetor. Use a factory service manual or the underhood vacuum diagram to identify and tag each hose. **(Note: Weber modified vacuum diagrams are found at the end of these instructions for '76-'84 model years)**

10. Disconnect the throttle linkage from the carburetor. Remove the throttle return spring.

11. Remove the stock carburetor hold-down nuts and washers. Carefully lift the carburetor off the intake manifold.

12. Remove the stock heat spacer and flange gaskets. Insert a clean rag in the intake manifold ports.

13. Thoroughly clean the carburetor mounting surface of the intake manifold.

14. **ALL 1.6-1.8 LITRE ENG.:** Remove the stock throttle lever from the original carburetor. Cut the micro-switch tab off and install the lever on the Weber carburetor. **(FIG. A)**

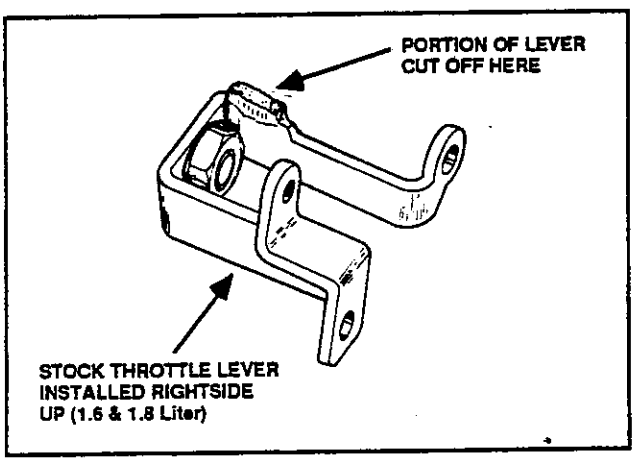


FIG. A

15. **ALL 2.0 LITRE ENG.:** The throttle lever required for these applications is already installed on the Weber carburetor.

16. **ALL 2.3 LITRE ENG.:** Remove the stock throttle lever from the original carburetor. Turn the lever **UPSIDE DOWN** and install it on the Weber carburetor. **(FIG. B) CAUTION:** When installing the throttle lever on the Weber carburetor, **DO NOT OVERTIGHTEN THE NUT.** Proper tightness can be acheived by installing the nut just slightly more than finger-tight. After tightening the nut, open the choke by hand and check for full throttle operation from idle to wide-open-throttle. If any sticking or binding occurs, loosen the nut and re-tighten with reduced torque. If excessive torque is applied, realignment of the throttle plate may be necessary. Recheck throttle operation. When proper tightness of the nut has been achieved, and no sticking or binding occurs during operation of the throttle; lock the nut in position by bending the tab on the lockwasher around the nut.

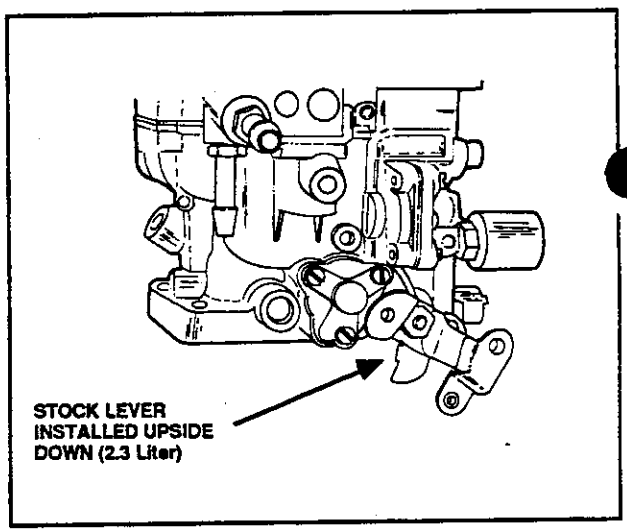


FIG. B

17. Remove the stock carburetor mounting studs from the intake manifold using either a stud tool or the "double-nut" method, if the proper tool is not available. **(DOUBLE NUT METHOD:** Install two nuts approx. 1/3 the way down on the stud and lock them together. Using a suitable wrench on the lower nut, loosen the stud and remove.)

18. Install the new studs provided in the kit using either a stud tool or the "double-nut" method described in step #16. **(FOR STUD INSTALLATION USE THE TOP NUT TO TIGHTEN THE STUD INTO THE INTAKE MANIFOLD FLANGE.)**

INSTALLATION

19. Remove the rags from the intake manifold parts. Lightly coat both sides of the manifold flange gasket, provided in the kit, with a suitable gasket sealer. Install the flange gasket on the intake manifold. **NOTE:** The 2.0 litre eng. manifold gasket is the smaller of the two gaskets in the kit and has one oblong hole in the center. The smaller end of the hole faces toward the driver's side fender well. **(FIG. C)**

20. Install the heat spacer on top of the manifold flange gasket. **NOTE:** The 2.0 Liter spacer has a notch that must face the driver's side fender well to clear the EGR valve assembly. **(FIG C)**

21. Install the carburetor flange gasket on top of heat spacer. **(FIG. C)**

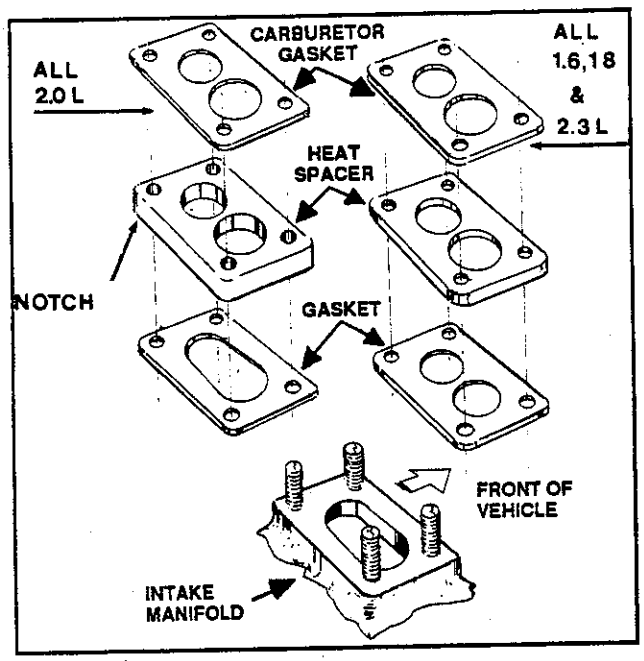


FIG. C

22. **ALL 1.6, 1.8, 2.3 LITRE ENG.:** Install the Weber carburetor on the vehicle with the choke element facing towards the **FRONT** (RADIATOR) of the engine.
ALL 2.0 LITRE ENG.: Install the Weber carburetor on the vehicle with the choke element facing towards the **REAR** (FIREWALL) of the engine component.

23. Install the carburetor washers and mounting nuts supplied in the kit. **CAUTION; DO NOT OVER-TIGHTEN CARBURETOR MOUNTING NUTS. MAXIMUM TORQUE SHOULD NOT EXCEED 7 FT. LBS.**

24. **ALL 1.6, 1.8, 2.3 LITRE ENG.:** Connect the throttle linkage to the Weber carburetor using the spacers and longer bolts from the kit. **(FIG D)**

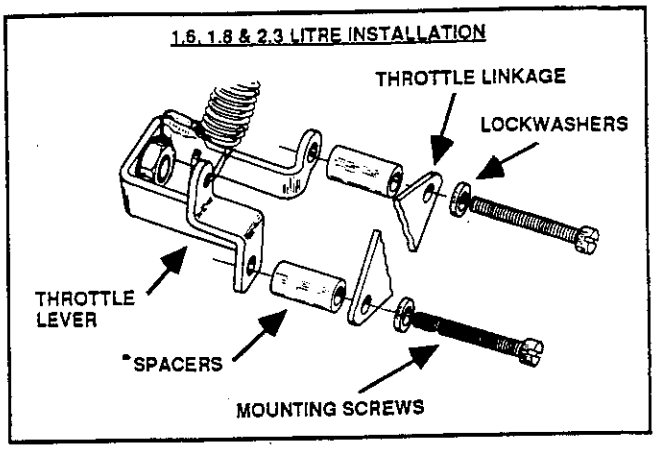


FIG. D

25. **ALL 2.0 LITRE ENG.:** Connect the throttle linkage directly to the carburetor throttle lever, reusing the stock hardware.

26. **ALL 1.6, 1.8, 2.0 LITRE ENG.:** Reconnect the throttle return spring to its original position in the stock return spring bracket. **(FIG. D)**

ALL 2.3 LITRE ENG.: Install the throttle return spring bracket supplied in the kit using the original bolt on the left rear side of manifold. **(FIG. E)**

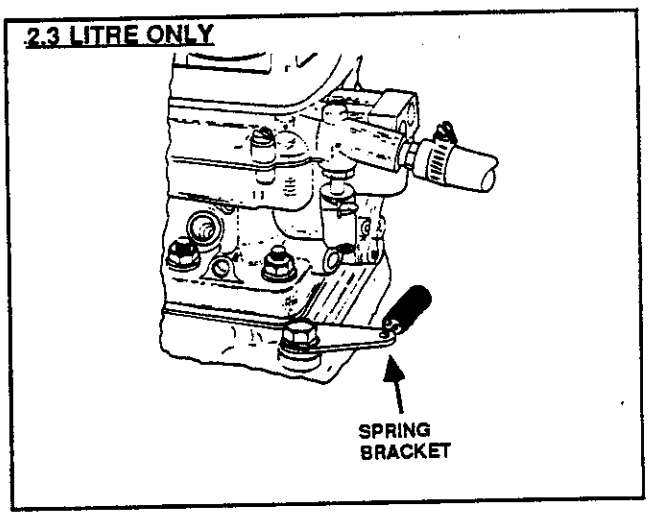


FIG. E

27. Reconnect the fuel supply and fuel return lines to the Weber carburetor as shown in **FIG. F.** Extra hose is provided in the kit if the return line should need to be rerouted.

28. **'72-'75 VEHICLES (ALL):** Connect the Distributor vacuum advance hose to the port on the Weber carburetor shown in **FIG. F.** Cap off the carburetor EGR port with the rubber cap provided in the kit. **NOTE:** ALL OTHER ORIGINAL DEVICES SHOULD HAVE BEEN REMOVED AS EXPLAINED IN STEP #8.

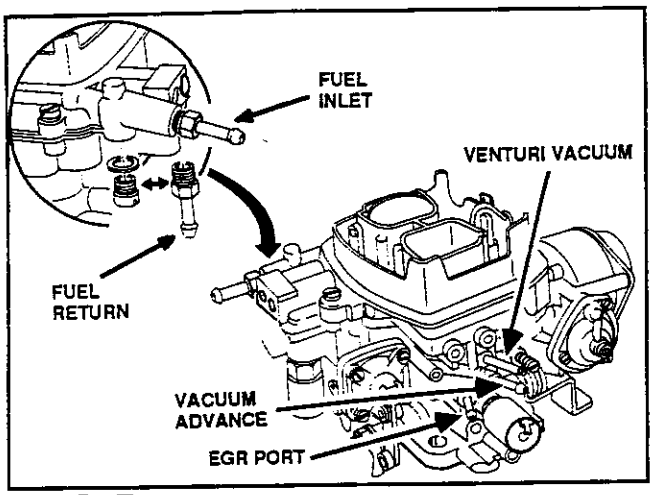


FIG. F

29. **'76-'84 VEHICLES (ALL):** Refer to the appropriate vacuum diagram for your year & engine size for correct vacuum hose routing. **(FIGS. G THRU Q) NOTE: ALL DEVICES CIRCLED ON THESE DIAGRAMS SHOULD BE DISCONNECTED AND REMOVED.**

30. Connect the wire assembly supplied in the kit to the Weber choke element and idle cut-off solenoid. Connect the remaining end to the original 12V source used for the stock carburetor. **CAUTION: BE SURE NO HOSES OR ELECTRICAL WIRES CONTACT THE EGR CONTROL VALVE. HIGH TEMPERATURES ARE PRESENT AND CAN DAMAGE WIRES/HOSES CAUSING ELECTRICAL SHORTS AND VACUUM LEAKS.**

31. Install the air filter adapter on the Weber carburetor and secure it using the two Allen bolts from the kit.

32. Replace the stock air filter assembly and secur in place using the original hardware. Reconnec any hoses attached to the air filter assembly.

33. Reconnect the battery and reinstall the gas cap.

34. **CAUTION: CHECK THROTTLE FOR FREE OPERATION. IF THERE IS ANY INDICATION OF STICKING OR BINDING, CORRECT AS NECESSARY BEFORE PROCEEDING.**

35. Start the engine. Check for fuel and vacuum leaks.

36. Adjust idle speed and mixture to factory specifications.

37. Affix underhood label.

38. **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)
(932-3722)

1-800-WEBER CA (CA Only)
(932-3787)

1976 COURIER/MAZDA 1.8 & 2.3 ENGINE

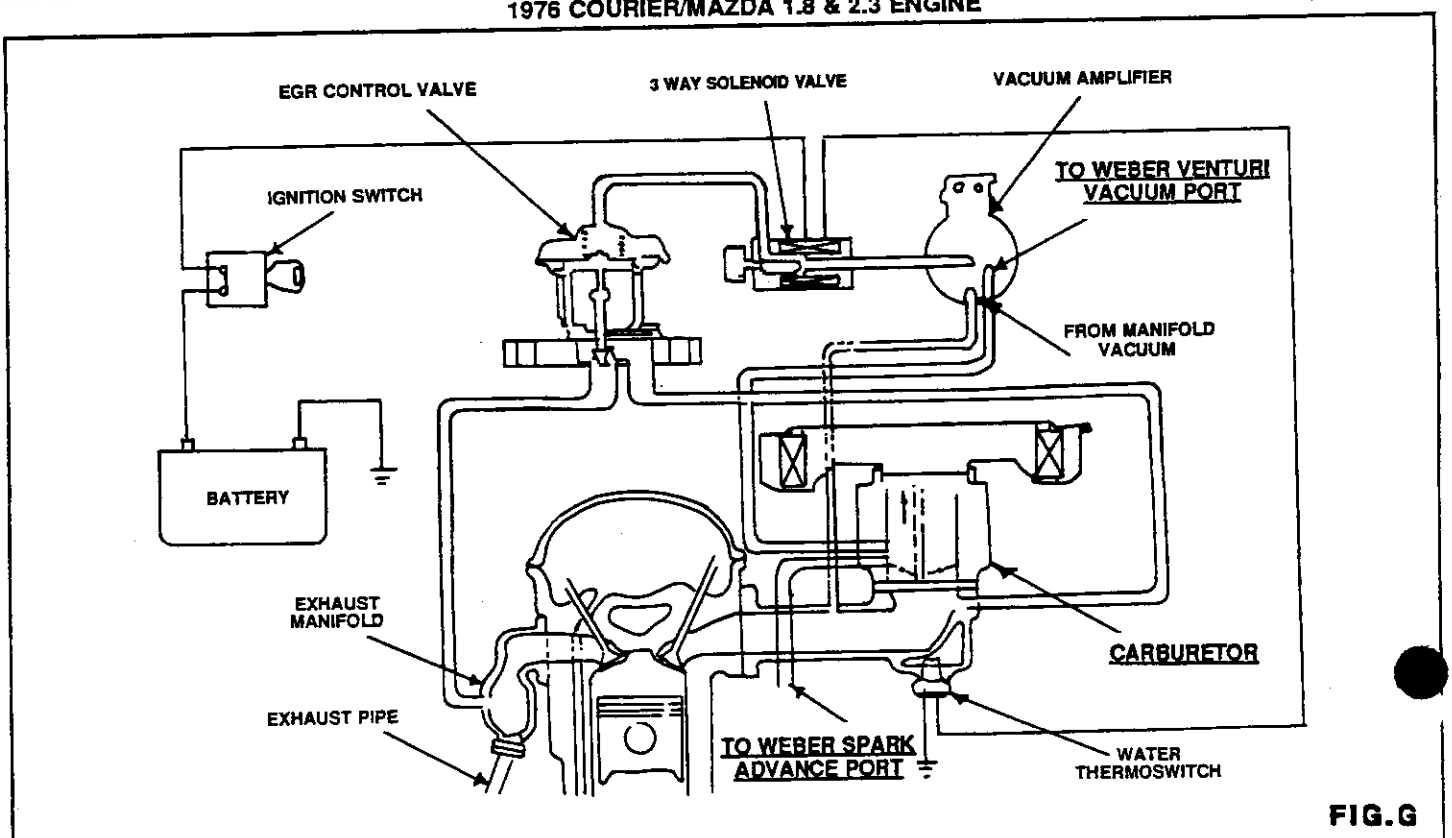


FIG.G

'77 - '78 COURIER 1.8 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

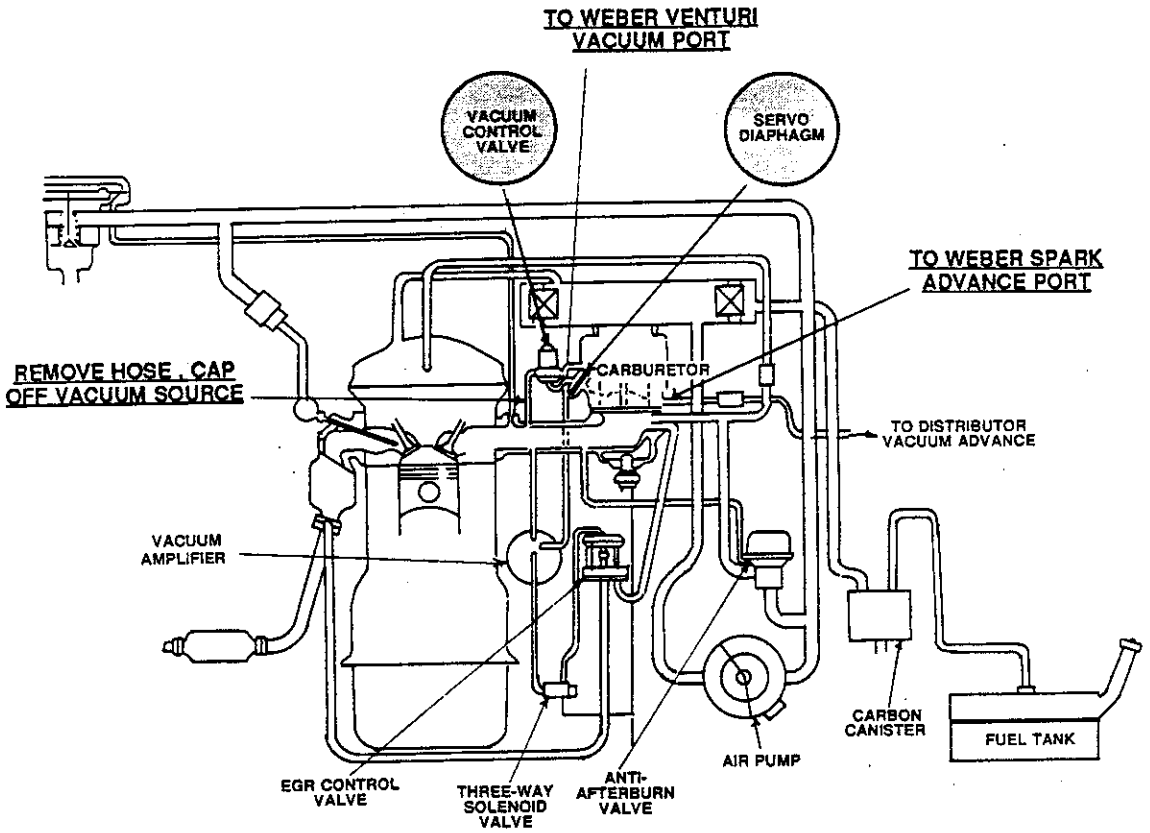


FIG. H

'77 - '78 COURIER 2.3 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

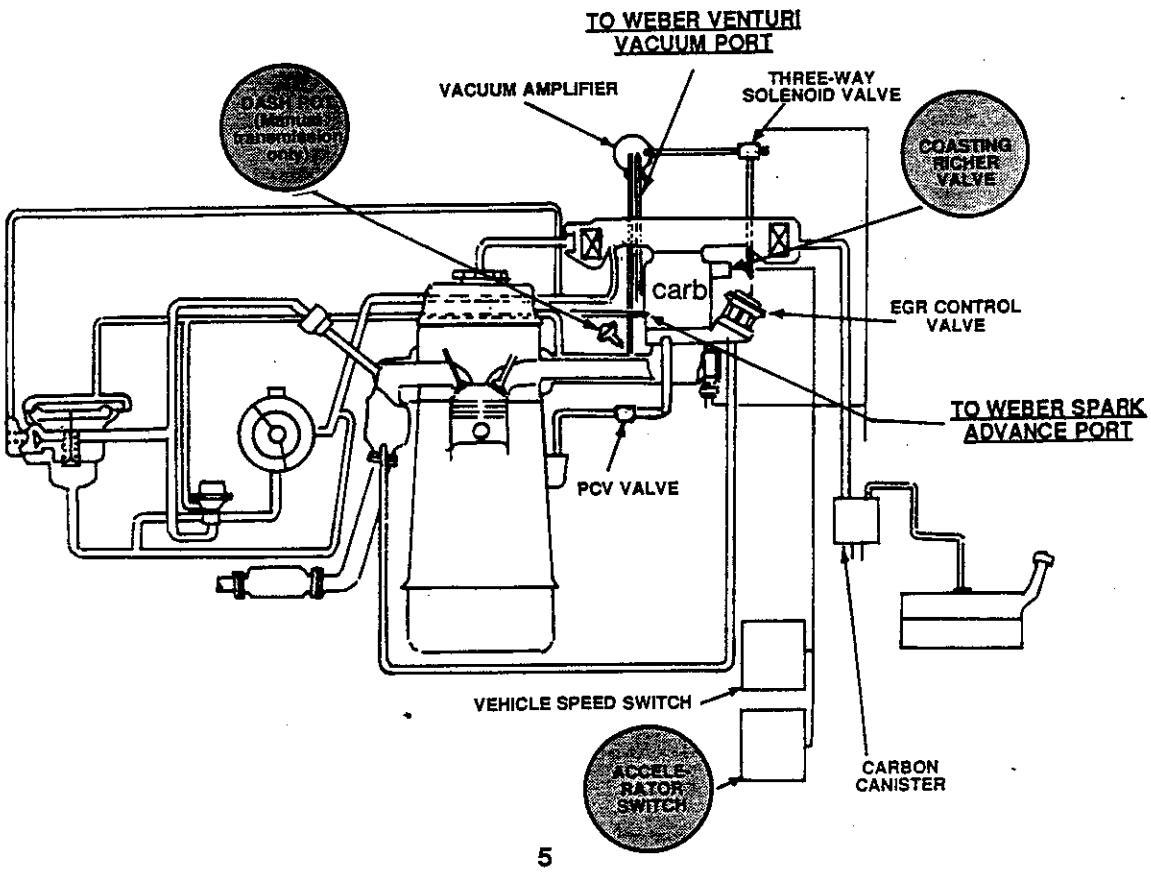


FIG. I

'79 - '80 COURIER 2.0 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

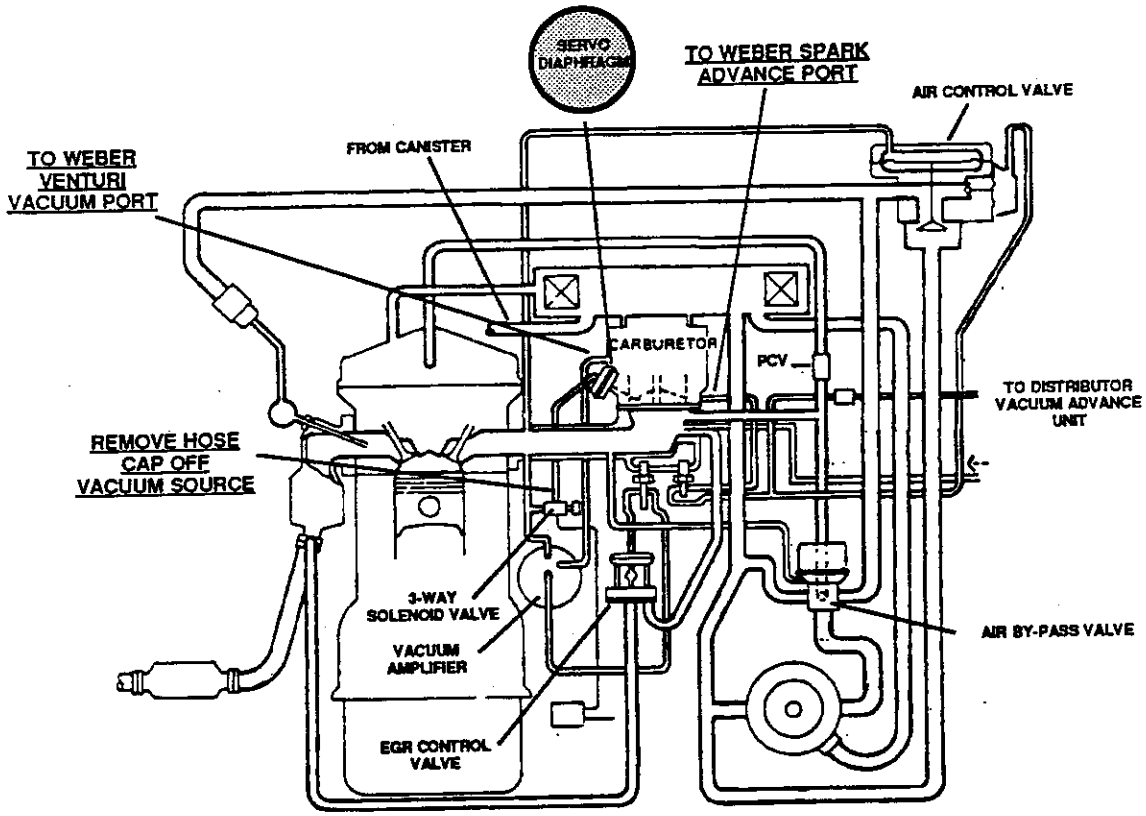


FIG. J

'79 - '80 COURIER 2.3 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

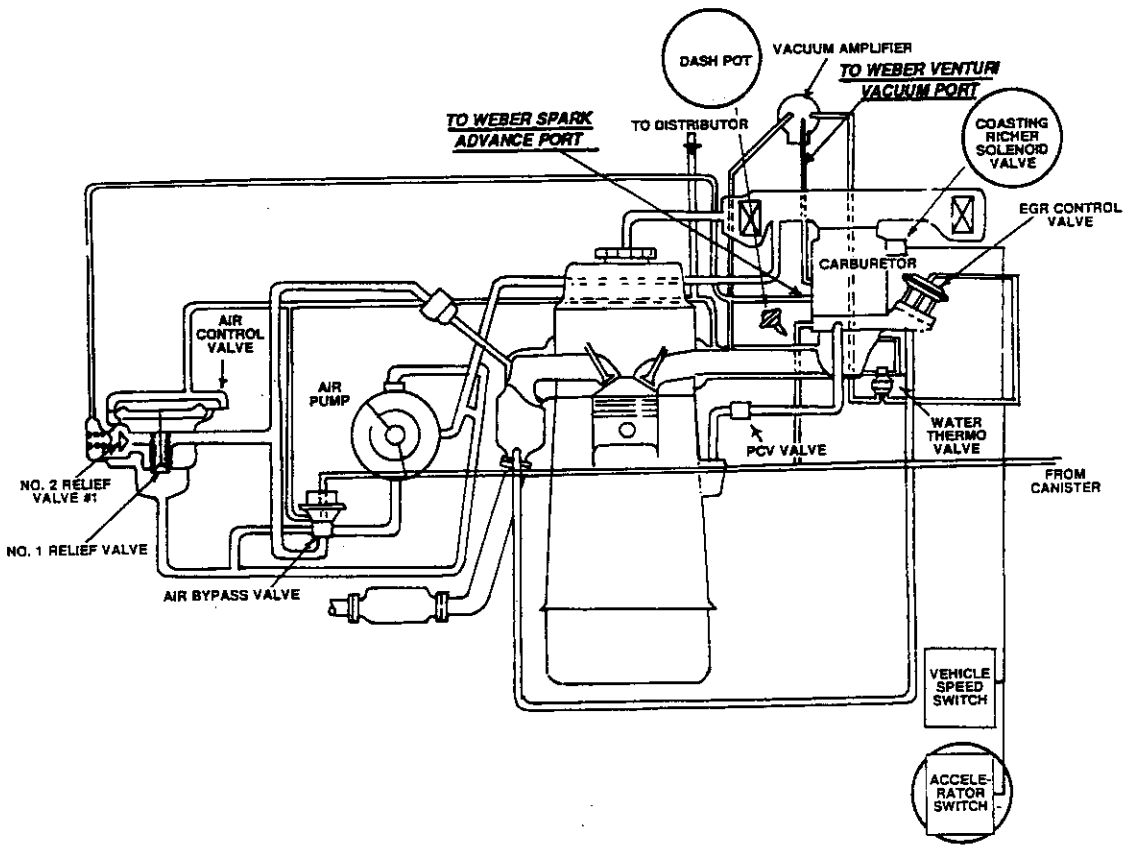


FIG. K

'80 -'81 COURIER 2.0 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

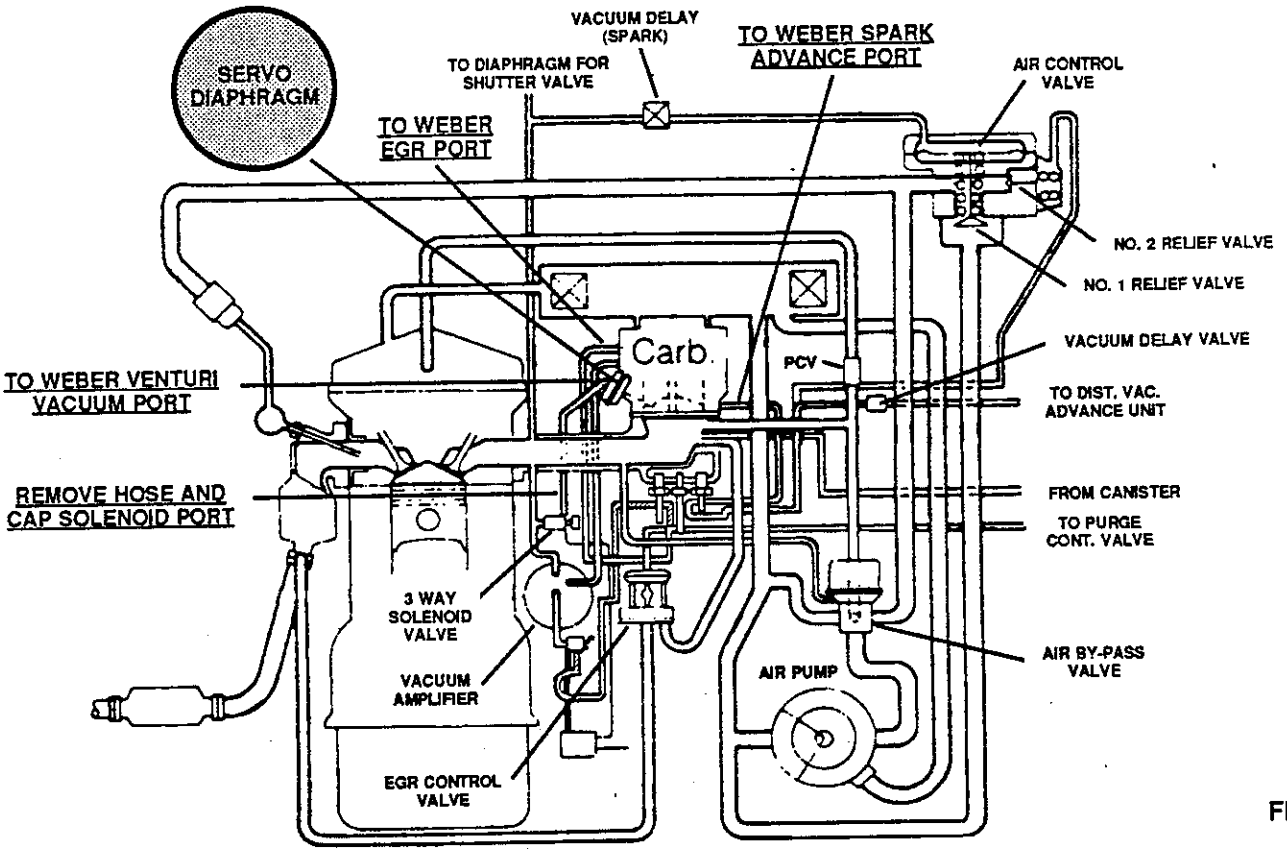


FIG. L

'81 - '82 COURIER 2.3 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

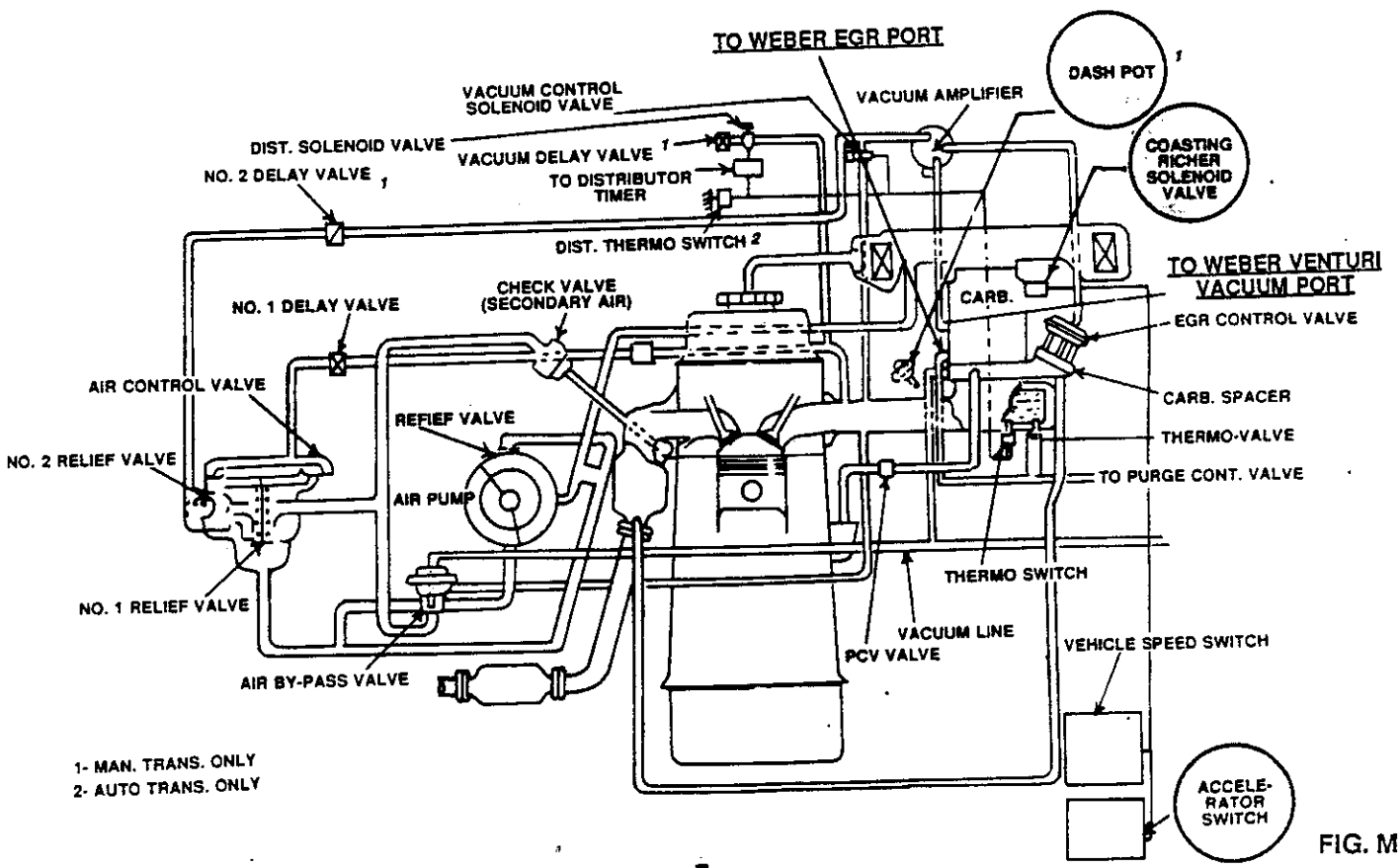


FIG. M

'79 - '80 MAZDA B2000 2.0 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

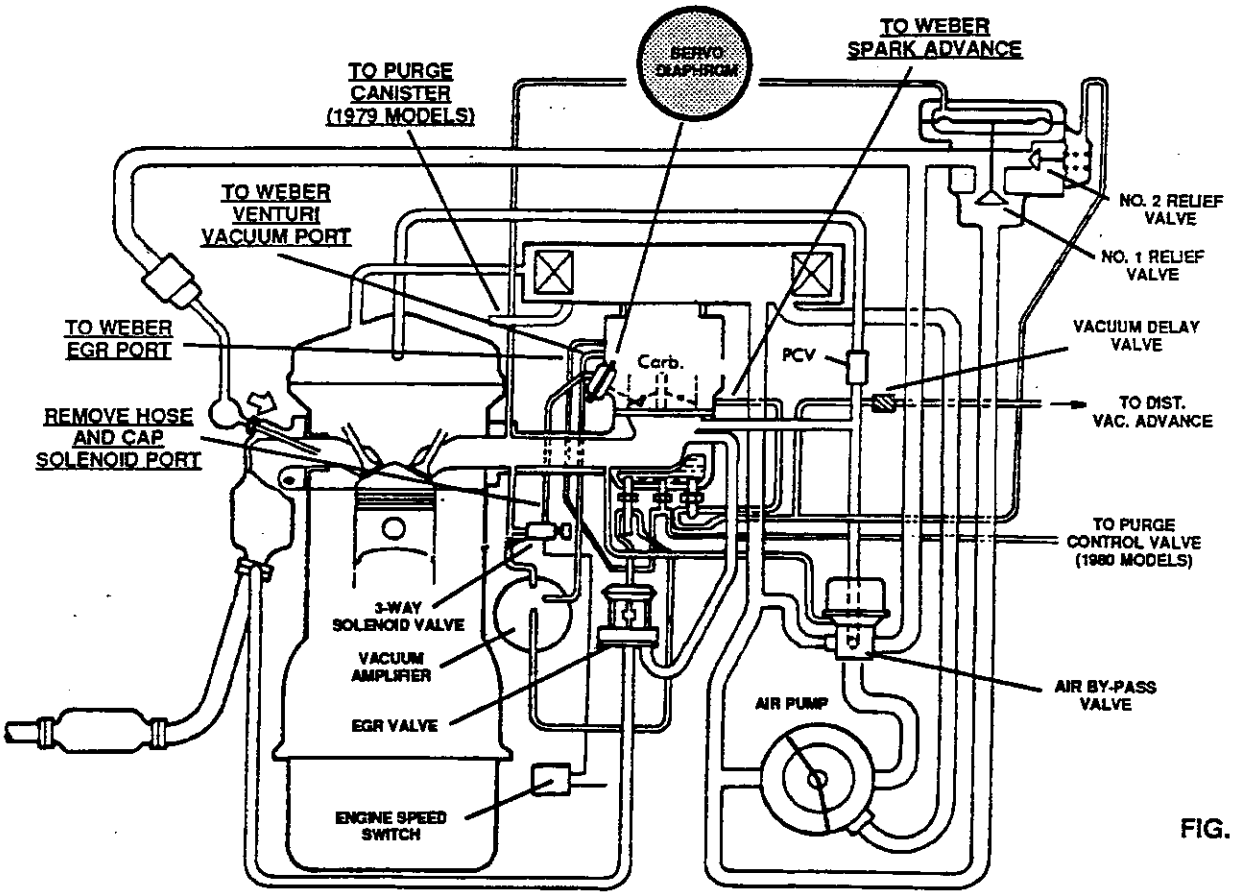


FIG. N

'81 - '82 MAZDA B2000 2.0 LITRE (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

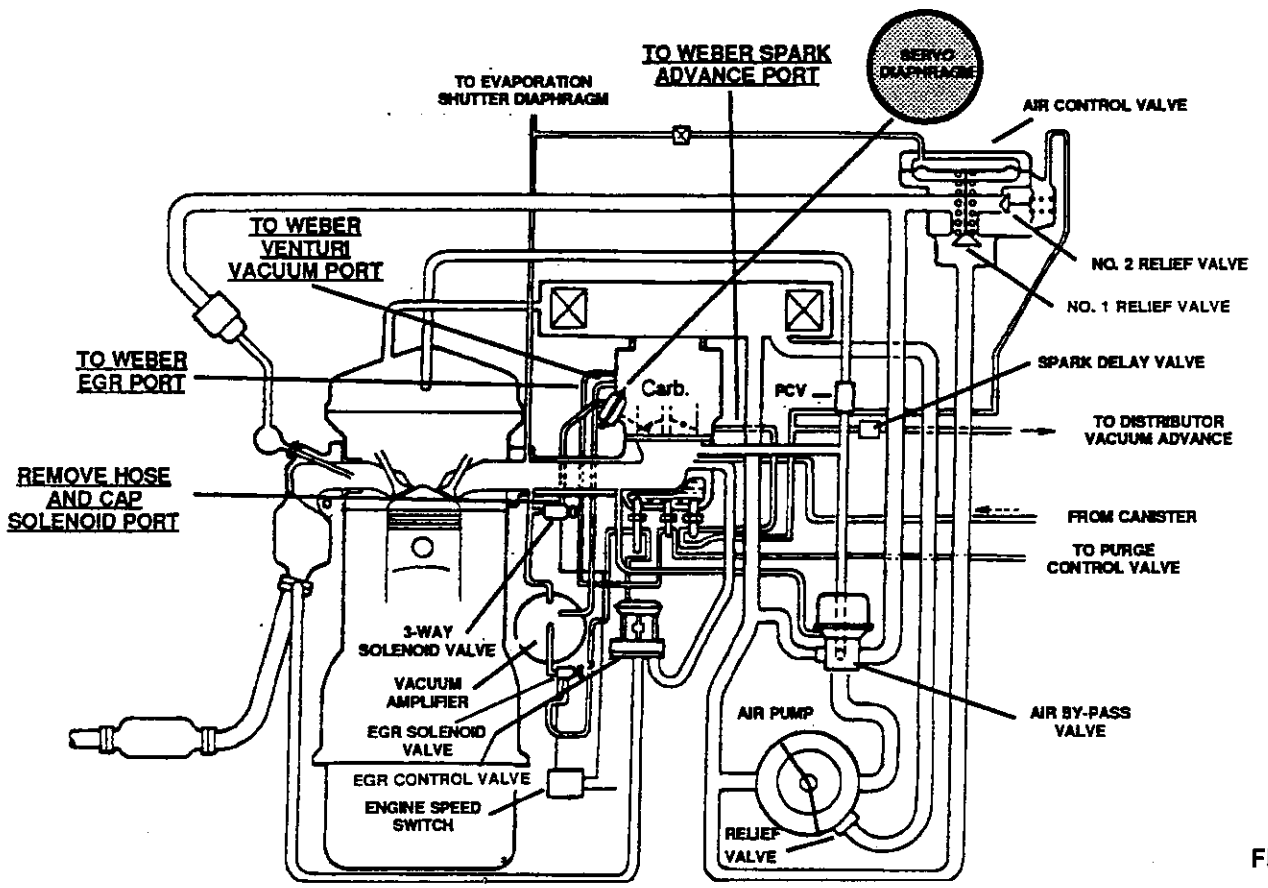


FIG. O

'83 MAZDA 2.0 LITRE ALL/T (CAL.)
'84 MAZDA 2.0 LITRE M/T (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

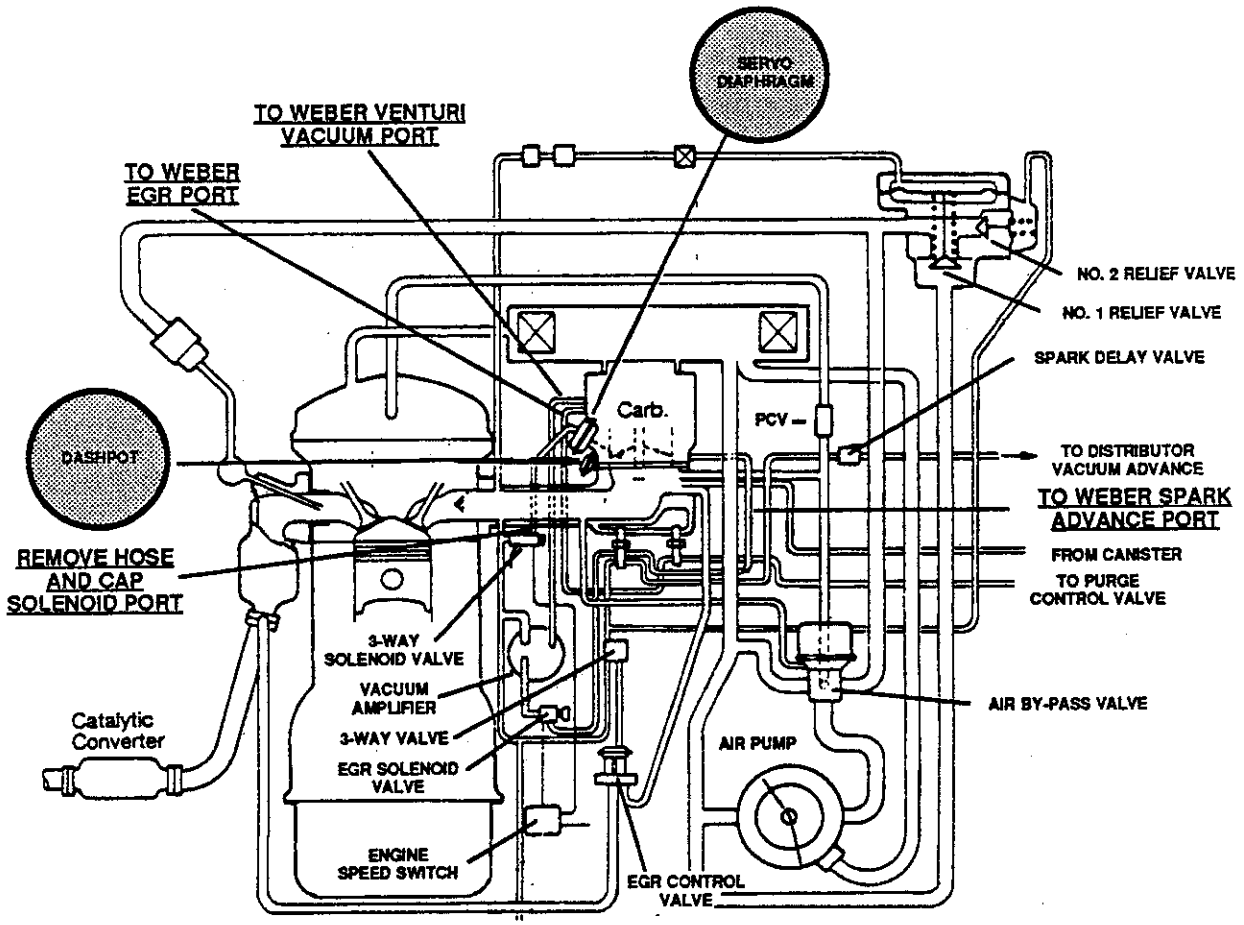


FIG. P

'84 MAZDA 2.0 LITRE A/T (CAL.)

[ALL DEVICES CIRCLED SHOULD BE DISCONNECTED AND REMOVED]

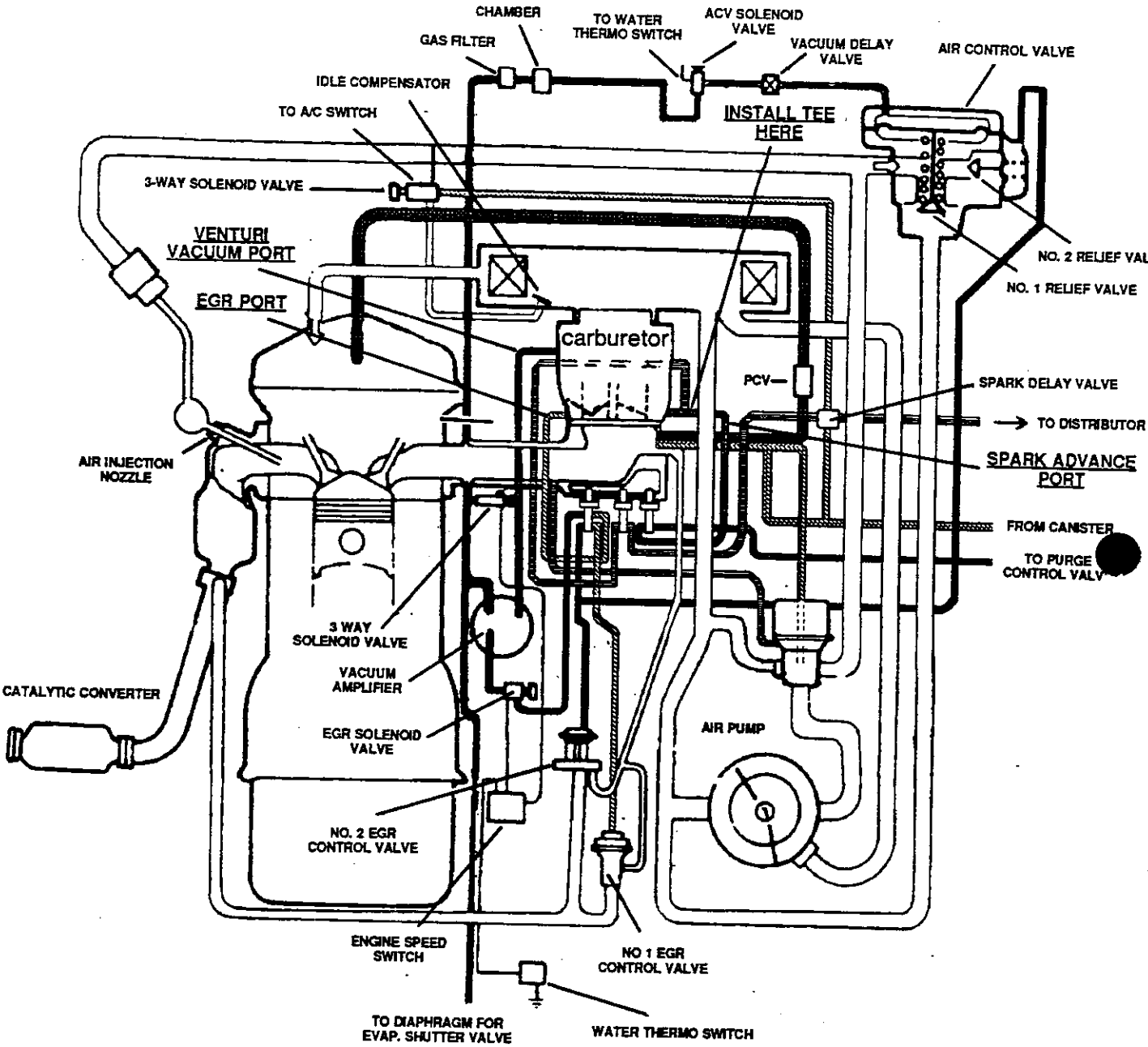


FIG. Q