HOLLEY MODEL 2280 2-BARREL

CARBURETOR APPLICATION

CHRYSLER CORP.

Application	Chrysler Corp. Carb. No. Man. Trans.	Auto. Trans.
318" V8 Federal	R-9001A	R-8999A, R-9000A R-9209A

CARBURETOR IDENTIFICATION

Carburetor part number is stamped on main body flange in front of lever controlled by throttle position transducer under choke vacuum diaphragm.

DESCRIPTION

The Holley model 2280 2-bbl. carburetor uses 4 basic fuel metering systems; basic idle system, accelerator pump system, main meteringg and power enrichment systems. The idle system provides mixture at idle and low speed engine operation. The accelerator pump system provides an additional predetermined amount of fuel for acceleration. The main metering provides an economical mixture for normal cruising. And the power enrichment system provides a richer mixture when high power output is required (full throttle operation).

ADJUSTMENTS

HOT (SLOW) IDLE RPM

See appropriate article in TUNE-UP SERVICE PROCEDURES.

IDLE MIXTURE

See appropriate article in TUNE-UP SERVICE PROCEDURES.

COLD (FAST) IDLE RPM

See appropriate article in TUNE-UP SERVICE PROCEDURES.

FLOAT LEVEL

1) Install float and hinge pin in main body. Install hinge pin retainer. Install float needle valve, seat and gasket in main body. Tighten securely. *See Fig. 1.*

2) Invert main body. Catch accelerator pump intake check ball if previously installed. Hold retainer in place with finger to fully seat float pin in cradle.

3) Using a "T" scale, measure float level specified clearance from air horn gasket surface on main body to toe of each float. To adjust, bend float tang. If necessary, bend either float arm to equalize float positions.

ACCELERATOR PUMP STROKE

1) Remove bowl valve vent cover and spring. Care must be taken not to dislodge or lose vent valve lever retainer. Install accelerator pump rod in inner hole of pump operating lever. *See Fig. 2.*

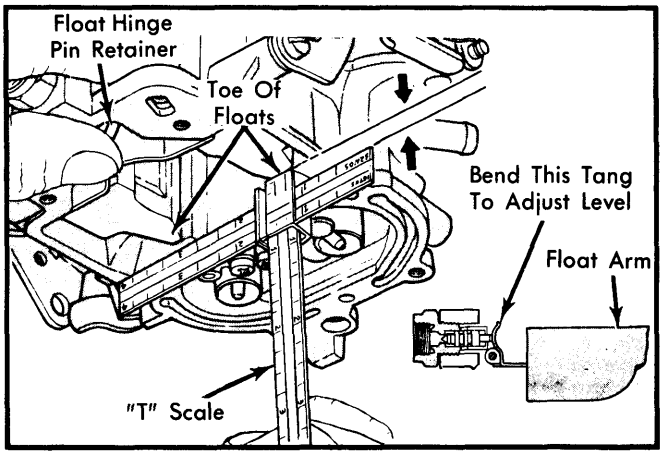

Fig. 1 Adjusting Float Level

2) Place throttle at curb idle position. Position a straight edge across bowl vent cover gasket surface above accelerator pump lever.

3) Pump lever should just be contacting straight edge. To adjust, bend accelerator pump rod at point shown. Install vent valve spring and cover.

NOTE — *If accelerator pump stroke is changed, bowl vent valve and mechanical power valve must be readjusted.*

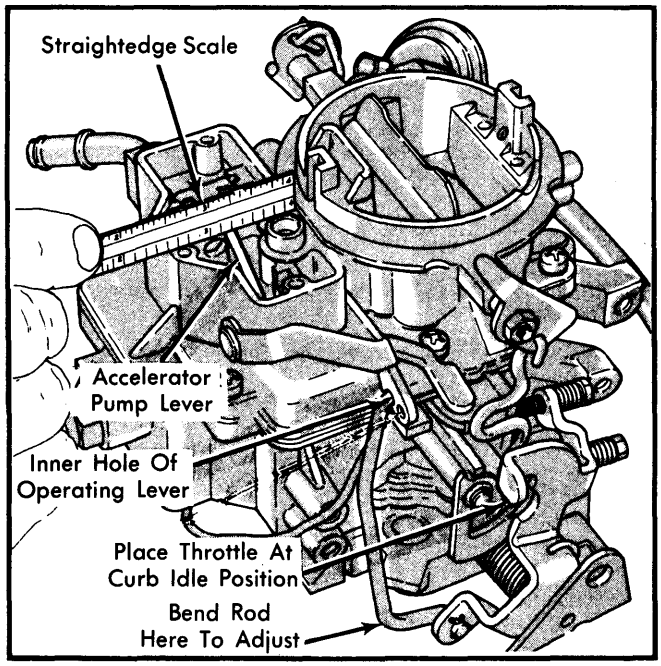

Fig. 2 Adjusting Accelerator Pump Stroke

CHOKE UNLOADER

1) Hold throttle valves in wide open position. Close choke valve by applying light closing pressure on choke control lever. *See Fig. 3.*

2) Measure choke unloader specified clearance between upper edge of choke valve and air horn wall. To adjust, bend choke unloader tang on accelerator pump lever.

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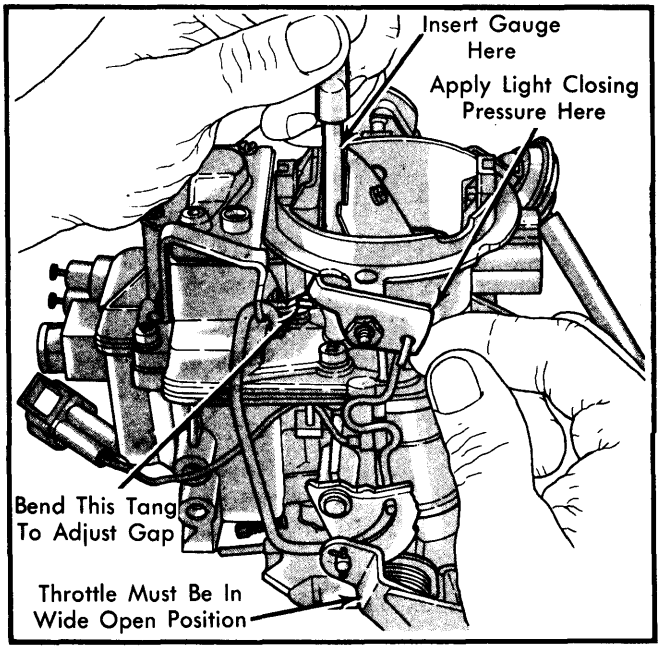

Fig. 3 Adjusting Choke Unloader

CHOKE VACUUM KICK

1) Open throttle and close choke. Now close throttle to trap fast idle cam in closed choke position. See *Fig. 4*.

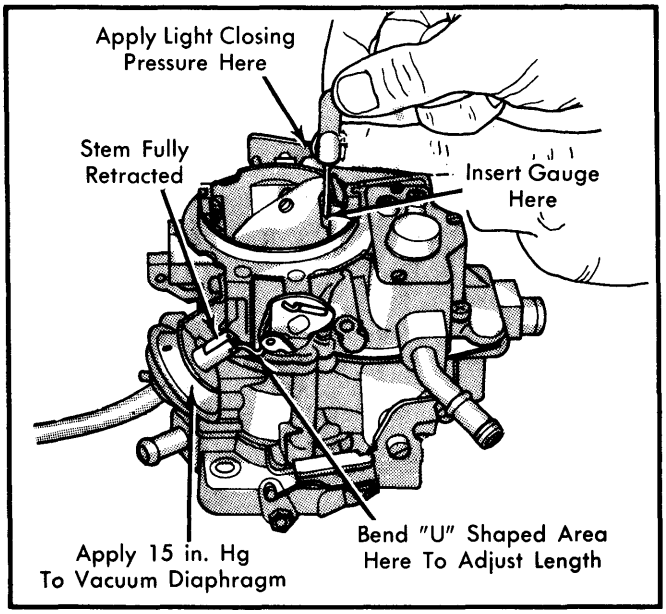

Fig. 4 Adjusting Choke Vacuum Kick

2) Connect an outside vacuum source to choke vacuum diaphragm. Apply a minimum of 15 in. Hg of vacuum. Apply enough closing force on choke valve with finger to compress spring in diaphragm without distorting linkage.

NOTE – *Diaphragm stem reaches a stop as spring is compressed.*

3) Measure choke vacuum kick specified clearance between upper edge of choke valve and air horn wall. Clearance can be measured using a specified drill or pin gauge.

4) To adjust, bend vacuum diaphragm rod at existing "U" bend to obtain specified clearance. Check all linkage for freedom of movement. Install vacuum hose on diaphragm.

FAST IDLE CAM POSITION

1) Position fast idle speed screw on second highest step of fast idle cam. Close choke valve by applying light pressure with finger on choke shaft lever. See *Fig. 5*.

2) Measure fast idle cam specified clearance between upper edge of choke valve and air horn wall. Clearance can be measured using a specified drill or pin gauge.

3) To adjust, bend fast idle cam connector rod at existing bend as shown in illustration.

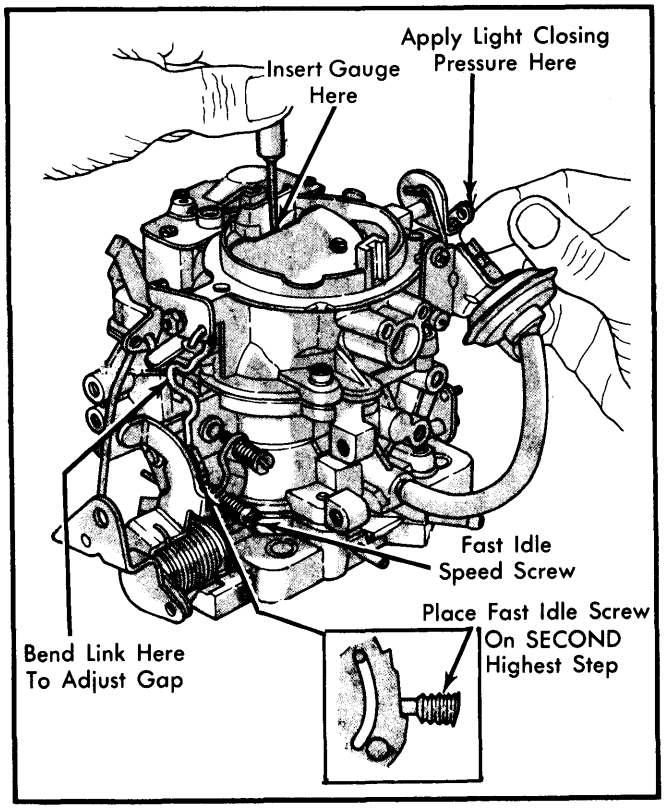

Fig. 5 Adjusting Fast Idle Cam Position

BOWL VENT VALVE

1) Remove bowl vent valve cover and spring. Take care not to dislodge or lose vent valve lever retainer. Position throttle at curb idle position. See *Fig. 6*.

2) Press firmly down on vent valve at point where spring seats. Measure vent valve specified clearance between vent valve tang and vent valve lever.

3) To adjust, bend end of vent valve lever up or down until specified clearance is obtained. Install vent valve spring and cover.

HOLLEY MODEL 2280 2-BARREL (Cont.)

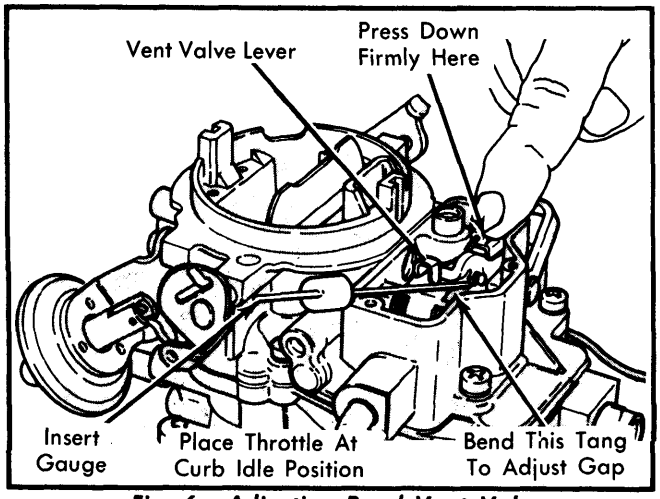

Fig. 6 Adjusting Bowl Vent Valve

MECHANICAL POWER VALVE

1) Remove bowl vent valve cover, spring and retainer. Now remove vent valve lever and pivot pin. Hold throttle lever in wide open position. *See Fig. 7.*

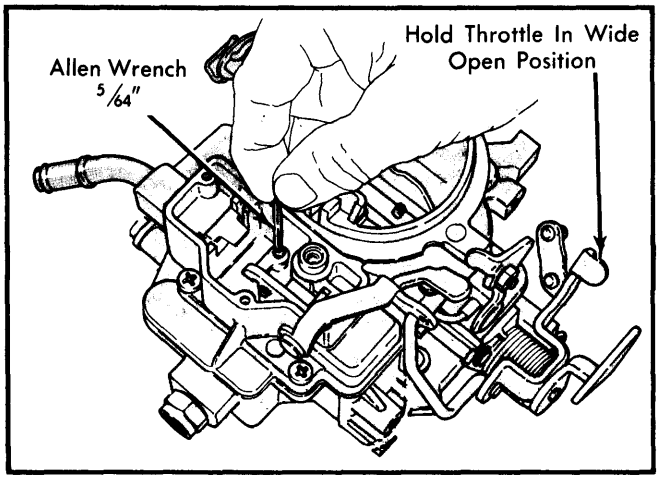

Fig. 7 Adjusting Mechanical Power Valve

2) Insert a 5/64" Allen wrench in mechanical power valve adjustment screw. Push down on screw, then release to determine if there is any clearance. If so, turn screw clockwise until there is no clearance.

3) Now turn screw clockwise 1 full turn. Install vent valve lever, pivot pin and retainer. Install spring and bowl vent valve cover.

OVERHAUL

DISASSEMBLY

1) Position carburetor on a suitable holding fixture. Remove air cleaner bolt and retainer. Remove accelerator pump link arm.

2) Remove bowl vent cover plate. Remove spring, retainer, pin and vent valve actuating arm. Remove choke vacuum diaphragm, linkage and bracket.

3) Remove nut and washer securing fast idle cam lever to choke valve shaft. Disconnect fast idle cam rod from lever and fast idle cam.

4) Remove 6 air horn screws. Lift air horn straight up from main body. Remove air horn gasket. Remove bowl vent valve seal. Disconnect spring and lift valve lever, spring and pin out of air horn.

5) Remove link connecting accelerator pump plunger to operating lever. Remove accelerator pump plunger.

6) Gently pry up vacuum piston retaining ring tangs. Remove vacuum power valve piston. Remove clip securing accelerator pump operating shaft and remove shaft. Remove pump arm and internal pump lever.

7) Gently pry off mechanical power valve push rod plastic cap and remove clip. Remove mechanical power valve push rod and spring assembly.

8) Remove fuel inlet fitting and gasket. Remove float hinge pin retainer, hinge pin, float baffle and float assembly. Remove main metering jets.

9) Using special tool (C-4231) remove vacuum power valve and mechanical power valve. Make sure blade of tool is squarely seated in slots of valves to avoid damage.

NOTE – *Do not get 2 power valve assemblies mixed up. Mechanical power valve needle is about .050" longer than vacuum power valve needle. Mechanical power valve is located on choke side of carburetor. Do not mix up valve seats. Assemblies must be reinstalled in original locations.*

10) Remove venturi cluster screws. Lift cluster and gasket away from main body. Do not remove idle well tubes. Turn main body upside down and catch accelerator pump weight and check ball.

11) Remove 4 throttle body screws. Separate throttle body from main body. Remove idle stop carburetor switch from main body.

12) Remove pin retaining idle stop carburetor switch ground wire and push brass ground switch lead through plastic insulator. Remove plastic insulator and wire.

13) Remove clip and the remove fast idle cam. Carefully remove limiter caps from idle mixture screws. Remove mixture screws and spring from throttle body.

CLEANING & INSPECTION

- Do not soak choke diaphragm or plastic parts in solvent.
- Rinse all metal parts with HOT water after using solvent. Blow dry with compressed air.
- Do not use wire, drill or any hard parts to clean passages and orifices in carburetor.
- Be sure gasket holes match up and all parts are clean and ready for installation.

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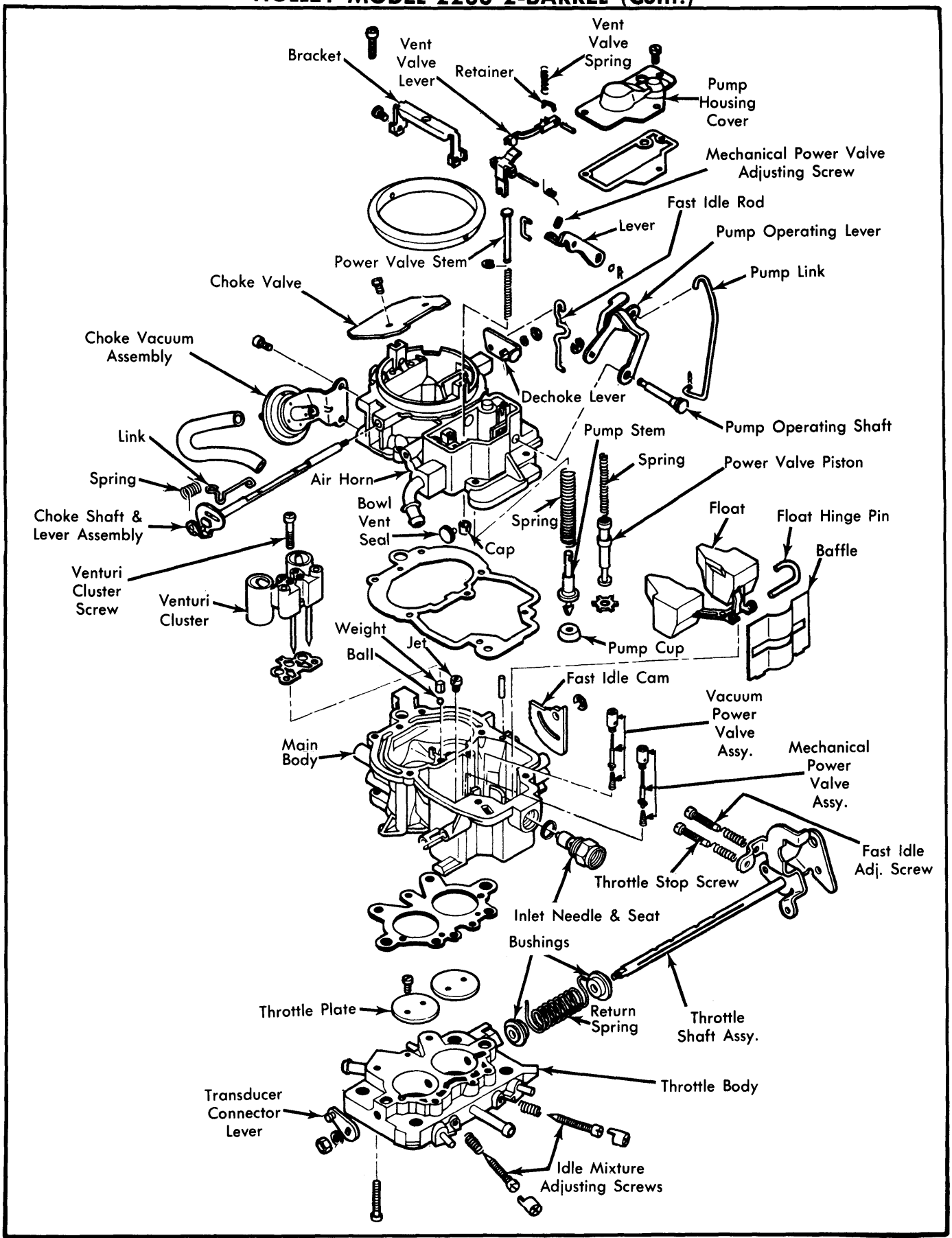

Fig. 8 Exploded View of Holley Model 2280 2-Barrel Carburetor

HOLLEY MODEL 2280 2-BARREL (Cont.)

REASSEMBLY

Throttle Body – Install idle mixture screws and springs. Gently seat both mixture screws by hand. Now back out 1 full turn as a preliminary idle mixture adjustment.

Main Body – 1) Install fast idle cam on shaft with steps facing fast idle speed screw. Install retaining clip.

2) Install idle stop carburetor switch plastic insulator. Install brass contact and ground wire. Install pin to retain wire.

3) Turn main body upside down. Place throttle body gasket in position. Position throttle body on main body. Install 4 screws and tighten to 40 INCH lbs.

4) Install accelerator pump discharge check ball and weight. Fill fuel bowl with clean fuel to check ball and seat operation.

5) Hold ball and weight down with a brass rod. Place accelerator pump plunger in well and operate by hand. If no resistance is felt, check ball is leaking.

6) Remove weight and leave check ball in place. Use a small drift punch and lightly tap ball against seat to form a new seal. Remove old check ball and install new ball and weight.

7) Perform fuel leak test again. If there is still no resistance felt, main body must be replaced. If resistance is felt, check ball is sealing correctly.

8) Install new venturi cluster gaskets. Install venturi cluster in position in main body. Install screws and tighten securely.

9) Install main metering jets. Use tool outlined during disassembly and install mechanical power valves and vacuum power valves. Take care not to damage power valve needles. Make sure valves are installed in original locations as noted during disassembly.

10) Install hinge pin in float. Insert hinge pin through slot in float baffle. Tabs on baffle should point down. Place assembly in cradle in main body. Install hinge pin retainer.

11) Install fuel inlet fitting with new gasket. Adjust float level at this time.

Air Horn – 1) Install vacuum power piston spring and piston. Install retaining ring over piston and carefully seat in place. Check piston operaton for binding or sticking. If piston binds or sticks, install new piston.

2) Install mechanical power valve push rod spring, rod and retaining clip. Install plastic cap on push rod.

3) Install accelerator pump arm, internal pump lever and pump operating shaft. Install retaining clip. Install accelerator pump drive spring, pump assembly, connector link, washer and clip.

4) Assemble vent valve lever, spring and shaft. Install assembly into vent valve shaft cradle. Install vent seal.

5) Install new air horn gasket. Carefully lower air horn into positon on main body. Care must be taken not to damage accelerator pump plunger.

6) Install air horn screws. Starting from center and working out, tighten screws to 25 INCH lbs.

7) Connect plain end of fast idle cam connector rod to slot in fast idle cam, from inside of cam. Engage other end of link in choke lever.

8) Open choke valve wide open. Align flats and slide choke lever onto choke shaft. Install lockwasher and tighten nut.

9) Connect choke vacuum break diaphragm rod to slot in choke lever. Install diaphragm assembly and tighten screws.

10) Install bowl vent lever, pin and retainer into pin cradle. Install spring and bowl vent cover plate.

11) Install accelerator pump into inner hole of lever. Install new cotter pin. Install air cleaner bolt and retainer.

12) Install air cleaner bolt and retainer. Install carburetor on vehicle.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level Setting	Accel. Pump Setting	Choke Unloader Setting	Choke Vac. Kick Setting	Fast Idle Cam Setting	Bowl Vent Valve Setting
R-8999A	5/16"	Flush①	.310"	.130"	.070"	.030"
R-9000A	5/16"	Flush①	.310"	.130"	.070"	.030"
R-9001A	5/16"	Flush①	.310"	.150"	.070"	.030"
R-9209A	5/16"	Flush①	.310"	.150"	.070"	.030"

① – See adjustment procedure.