

# Holley Carburetors

## 1969 CHRYSLER CORP. HOLLEY TRIPLE CARBURETORS

Coronet Super-Bee & Belvedere Road Runner 440" V8 6-Pack Engine  
 Holley Carburetor No. Synchro-mesh Auto. Trans.

Front .....	2300C.....	R-4393-A.....	R-4393-A
Center .....	2300.....	R-4391-A.....	R-4392-A
Rear.....	2300C.....	R-4394-A.....	R-4394-A

### TRIPLE CARBURETOR INSTALLATION

Center carburetor and two end (front and rear) carburetors are tandem mounted on an aluminum intake manifold. Center carburetor throttle actuation is conventional with throttle lever linked to accelerator pedal. Front and rear carburetor throttles are linked to vacuum diaphragm units which open throttle valves in these carburetors in accordance with vacuum requirements; however, these throttle valves are also linked to center carburetor throttle lever by adjustable connector rods to provide positive closing of all throttles in accordance with accelerator pedal movement (center carburetor throttle rod is slotted to provide for this action).

### DESCRIPTION

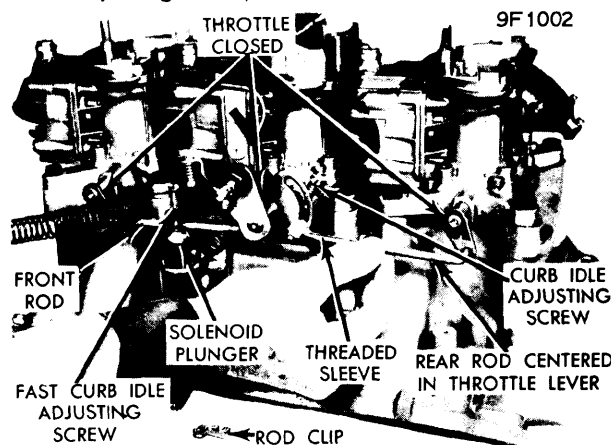
**Model 2300C (Center Carburetor)** – Two barrel downdraft carburetors of conventional Holley design with usual fuel systems (Idle, Main Metering, Vacuum Power Enrichment, Accelerating Pump Systems). Accelerating pump is diaphragm type located on bottom of fuel bowl assembly. A positive action bowl vent valve is actuated by a lug on the accelerating pump lever. A separate well type automatic choke unit is used and carburetor has a vacuum diaphragm type Vacuum Kick to provide initial choke opening when engine begins to fire.

**Model 2300 (Front & Rear Carburetors)** – Two barrel downdraft carburetors of same general design as center carburetors (above) except that they do not have Idle, Vacuum Power Enrichment, Accelerating Pump, or choke systems and these adjustments are not required.

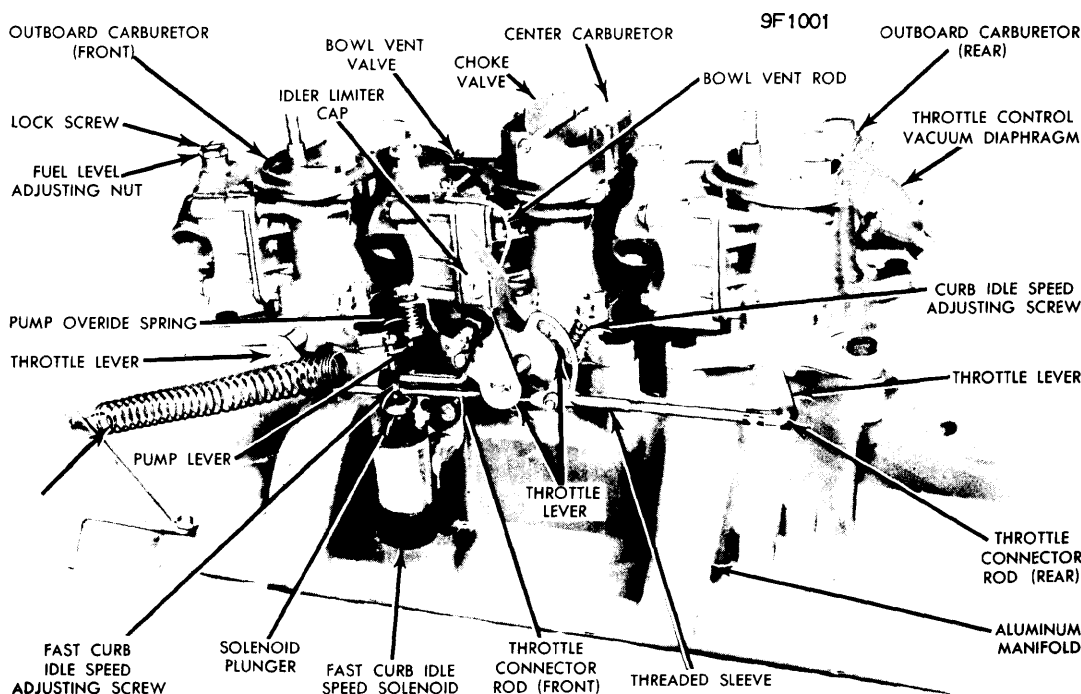
### ADJUSTMENT

#### Front & Rear Carburetor Throttle Rod Adjustment

This adjustment is required to synchronize front and rear carburetor throttle valves with center carburetor. Adjust with ignition switch OFF (to de-energize fast curb idle solenoid so that clearance exists between solenoid plunger and adjusting screw).



FRONT & REAR CARBURETOR THROTTLE ROD ADJUSTMENT



TRIPLE CARBURETOR INSTALLATION

## 1969 CHRYSLER CORP. HOLLEY TRIPLE CARBURETORS (Cont.)

1) Remove air cleaner, disconnect front and rear carburetor connector rods from throttle levers. Close throttle valves on all carburetors and hold throttle levers in this position.

2) Adjust length of front and rear connector rods by turning rod in or out of threaded sleeve until rod end freely enters hole in throttle lever, connect rods. **NOTE** - Fast curb idle adjusting screw will be adjusted when making Idle Speed and Mixture adjustment.

### Idle Speed & Mixture (Center Carburetor)

Make adjustments only after Ignition Timing checked and with engine at normal operating temperature. Air cleaner must be installed. On automatic transmission cars, position selector lever in **Neutral** (not in Park). On air conditioned cars, turn air conditioner **Off**. Connect tachometer and install exhaust gas analyser (Sun Electric Combustion Vacuum Unit Model 80 with Exhaust Condenser Model EC and Hose 669-14 or equivalent).

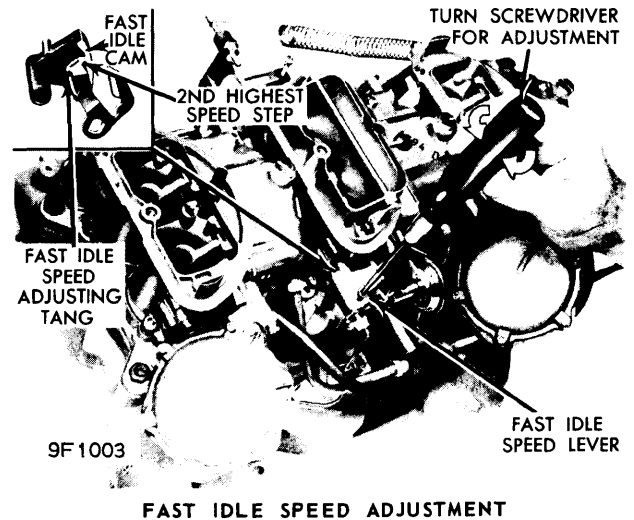
**Fast Curb Idle Speed** - With engine running (fast curb idle solenoid energized), adjust fast curb idle adjusting screw on throttle lever (this screw contacts solenoid plunger) for specified hot idle speed. See Specifications.

**Idle Mixture** - Adjust both idle mixture screws equally for air/fuel ratio of 14.2 at specified idle speed.

**Throttle Stopscrew** - After completing idle mixture and fast curb idle speed adjustment (solenoid adjusting screw), disconnect solenoid lead which will allow throttle valves to close against throttle stopscrew (installed in boss in carburetor body), adjust this stopscrew for idle speed of 500 RPM. Reconnect solenoid lead after completing this adjustment.

### Fast Idle Speed (On Engine)

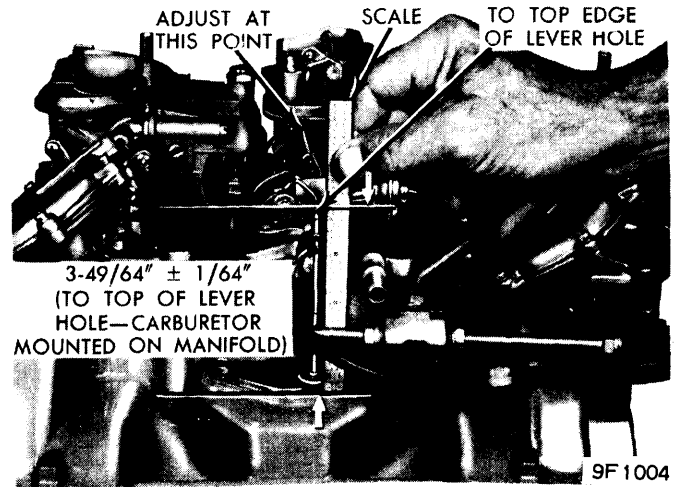
With engine off, open throttle slightly and close choke valve until fast idle lever tang can be positioned on second highest speed step of fast idle cam. Operate engine with automatic transmission lever in PARK or NEUTRAL, check engine RPM when speed stabilized. If fast idle speed not correct (see Specifications), adjust by inserting screwdriver in fast idle tang slot and bending fast idle tang in a direction **perpendicular** to contact surface of cam (**CAUTION** - Bending tang in any other direction will change cam position adjustment). After each adjustment reposition fast idle tang on cam and recheck fast idle speed.



FAST IDLE SPEED ADJUSTMENT

### Choke Control Lever Qualifying Adjustment

This adjustment required to establish correct relationship between choke valve position, automatic choke, and fast idle cam and must be made before checking or adjusting Fast Idle Cam Position, Vacuum Kick, or Unloader. Adjustment can be made with carburetor on bench or on engine.



CHOKER CONTROL LEVER QUALIFYING ADJUSTMENT

### CARBURETOR ADJUSTMENT SPECIFICATIONS

Holley Carb. No.	Idle Speed (Engine RPM)		Initial Idle Mixture	Bowl Vent Clearance	Fast Idle Cam Setting	Unloader Setting	Vacuum Kick Setting	Auto. Choke Setting	Dry Float Setting
	Hot ①	Fast ②							
R-4391-A	1000	2200	③	.080-.125"	#53(.059")	5/32"	#28(.140")	2 Rich	9/16"
R-4392-A	900	1800	③	.080-.125"	#53(.059")	5/32"	#28(.140")	2 Rich	9/16"
R-4393-A	None	None	None	None	None	None	None	None	3/4"
R-4394-A	None	None	None	None	None	None	None	None	3/4"

- ① Auto. Trans. in Neutral Air Conditioner Off.
- ② With fast idle tang on 2nd highest step of fast idle cam.
- ③ Idle limiter caps used.

## 1969 CHRYSLER CORP. HOLLEY TRIPLE CARBURETORS (Cont.)

1) Open throttle valves to mid-position, close choke valve by light pressure on choke control lever.

2) Measurement from top of choke rod hole in control lever to choke assembly (carburetor on engine) should be  $3\text{-}49/64'' \pm 1/64''$ , or from same point to carburetor base (carburetor on bench) should be  $1\text{-}23/32'' \pm 1/64''$ . Adjust as necessary by bending choke lever rod at point just below air cleaner flange on air horn (see illustration). **CAUTION - Improper bending may cause binding of the rod. Check for free movement between open and closed choke positions and rebend rod to eliminate any interference.**

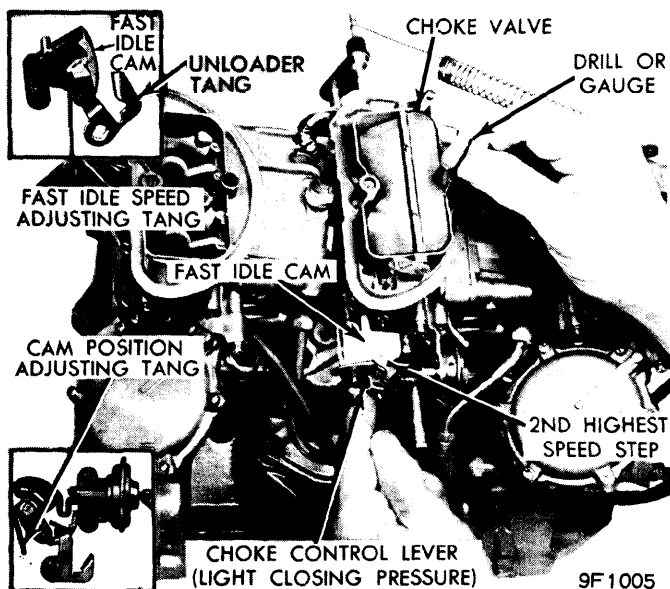
**Fast Idle Cam Position**

This adjustment required to establish correct relationship between choke valve and fast idle cam positions and can be made with carburetor on bench or on the car.

1) Position fast idle lever tang on second highest step of fast idle cam, move choke valve toward closed position with light pressure on choke control lever.

2) Insert drill rod of specified size (see Specifications) between upper edge of choke valve and air horn wall. Slight drag should be noted as drill is withdrawn.

3) Adjust as required by bending tang on choke control lever (see illustration).



FAST IDLE CAM POSITION ADJUSTMENT

**Vacuum Kick**

This adjustment can be checked on the bench (using an auxiliary vacuum source of at least 10" of Hg. connected to vacuum unit hose) or on the engine (using auxiliary vacuum source or by running engine to supply vacuum).

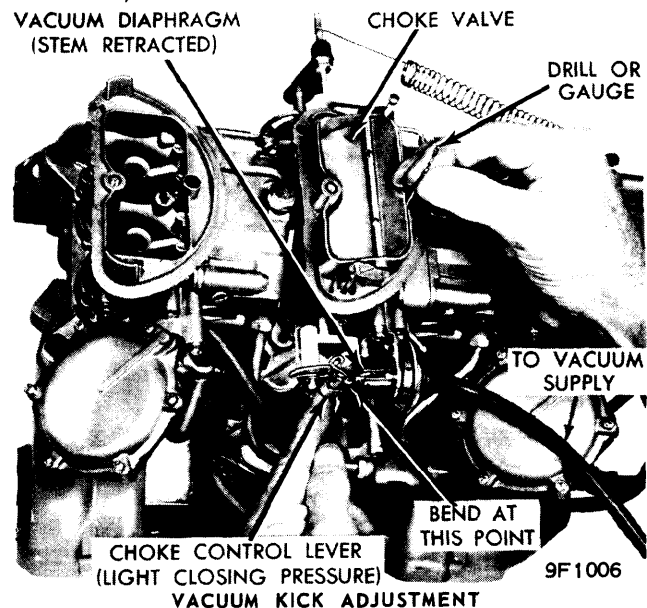
1) Position fast idle cam to allow choke valve to close to kick position, operate engine to supply vacuum to vacuum kick diaphragm.

2) Insert drill rod of specified size (see Specifications) between upper edge of choke valve and air horn wall, apply closing pressure on choke control lever to provide minimum choke valve opening without distortion of dia-

phragm link (NOTE - Internal spring in unit must be fully compressed which will be noted by extension of diaphragm stem). Slight drag should be noted as drill is withdrawn.

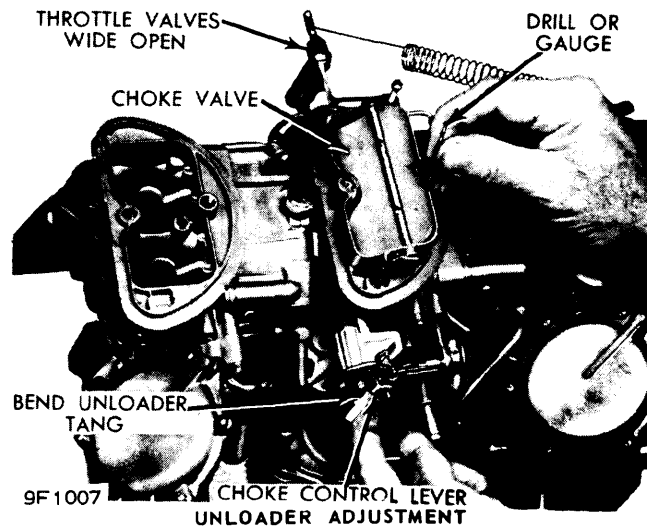
3) Adjust as required by changing diaphragm link length by opening or closing the bend in the link (**CAUTION - Do not apply twisting or bending force to diaphragm**) to obtain correct choke valve opening.

4) Check adjustment as follows: With no vacuum applied to diaphragm, choke valve should move freely between open and closed positions. If movement is not free, check linkage for misalignment or bending and repeat adjustment if necessary.

**Unloader**

Choke Control Lever Qualifying Adjustment must be made before checking or adjusting Unloader.

1) Hold throttle valves in wide open position. Insert drill rod of specified size (see Specifications) between upper edge of choke valve and air horn wall. With light closing



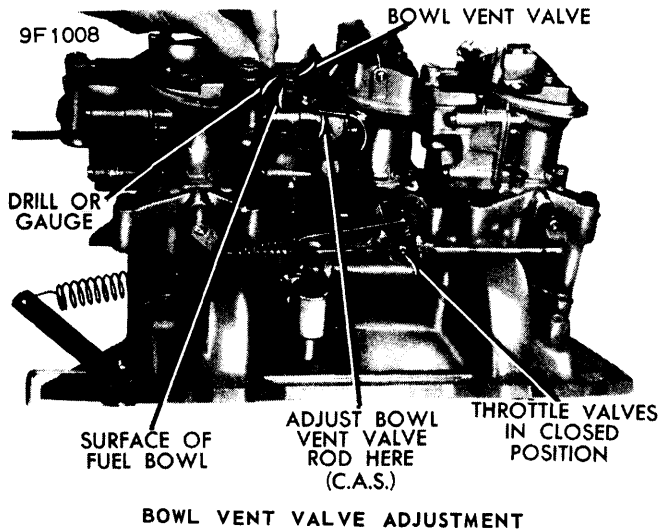
## 1969 CHRYSLER CORP. HOLLEY TRIPLE CARBURETORS (Cont.)

pressure on choke control lever, a slight drag should be noted as drill is withdrawn.

2) Adjust as required by bending unloader tang on choke control lever (see illustration).

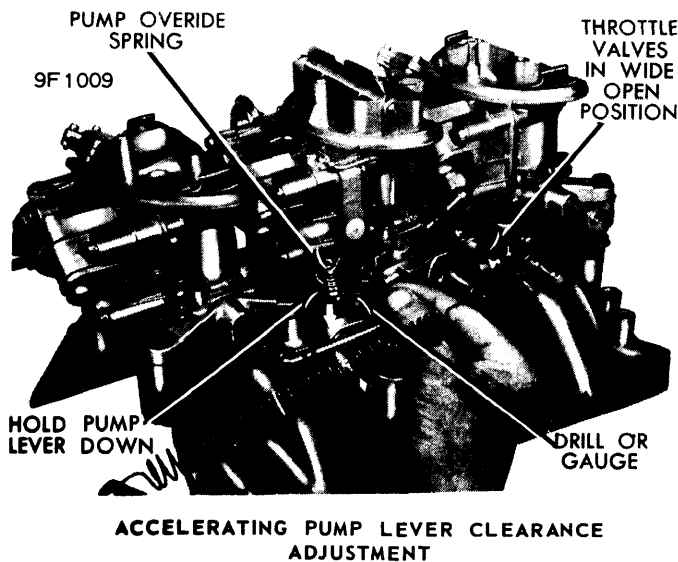
### Bowl Vent Valve

With throttle valves closed in curb idle position, check vent valve opening on bowl cover by inserting drill rod of specified size (see Specifications) between valve and top of fuel bowl. Adjust as required by bending vent valve rod at point indicated (see illustration).



### Accelerating Pump Lever Clearance

With throttle valves wide open, hold pump lever on pump assembly down, check clearance between adjusting nut on lower end of pump override spring stud and pump lever with a feeler gauge. Clearance should be .015" (minimum), .0625" (maximum). Adjust as required by bending pump actuating lever end to change arc of contact with throttle lever. Check adjustment by opening throttle valves to operate pump. There should be no free movement of pump linkage with throttle valves at curb idle position.

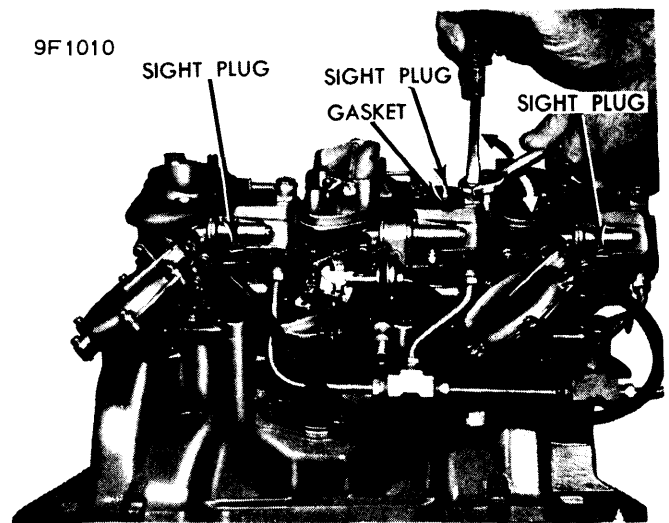


### Fuel Level (On Engine)

Make certain that fuel pump pressure is correct (5 lbs.) before checking fuel level. Check and adjust all carburetors similarly.

1) With engine running, remove sight plug from side of fuel bowl (CAUTION - Use shop towel or container under bowl to catch any flow due to incorrect setting.) Fuel should be even with threads in sight plug hole but should not flow out.

2) If adjustment required, loosen lockscrew on top of fuel bowl, turn adjusting nut up or down until fuel just dribbles from plug hole, tighten lockscrew. Reinstall sight plug and gasket and tighten securely.



### Automatic Choke

CAUTION - This unit is serviced as a complete assembly. Do not attempt to repair unit or change adjustment. If setting has been disturbed, it can be reset by loosening locknut and using a screwdriver to turn assembly until index mark on disc is aligned with correct mark on bracket (see Specifications), tighten locknut.

### Dry Float Level (On Bench)

With float assembled in fuel bowl, invert assembly so that float rests against seated intake needle, measure distance from top of float (at end) and inner surface of bowl. If this distance not correct (see Specifications), loosen lockscrew on intake needle assembly and turn adjusting nut up or down as required. NOTE - This is a preliminary adjustment. Check and adjust fuel level after carburetor installed on engine.

# Holley Carburetors

## 1969 CHRYSLER CORP. HOLLEY TRIPLE CARBURETORS (Cont.)

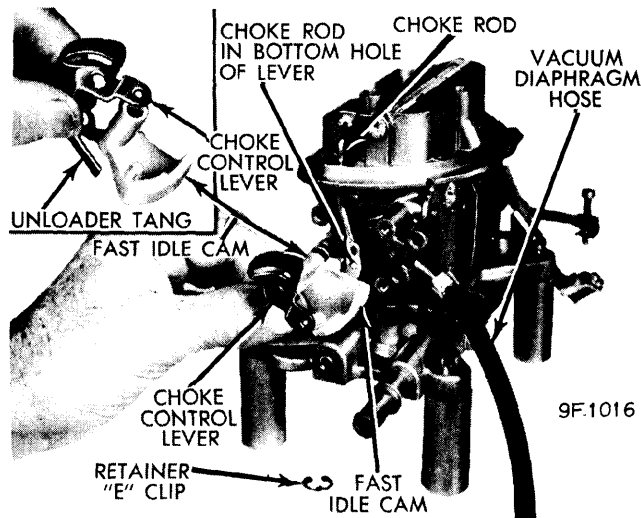
### OVERHAUL

**OVERHAUL NOTE:** Model 2300 (secondary carburetors) do not have choke system, accelerating pump system, or power enrichment system. They have a different metering body assembly and special overhaul procedure is required as noted. When disassembling secondary carburetors, disregard instructions for parts not used.

#### Disassembly

Install carburetor on stand (C-3886), or use elevating legs (Tool T109-2875) or other suitable support to prevent damage to throttle valves. Remove screws and seal washers attaching fuel bowl and metering body to main body, remove fuel bowl and discard seal washers. Remove metering body and discard gaskets. Disassemble sub-assemblies as follows:

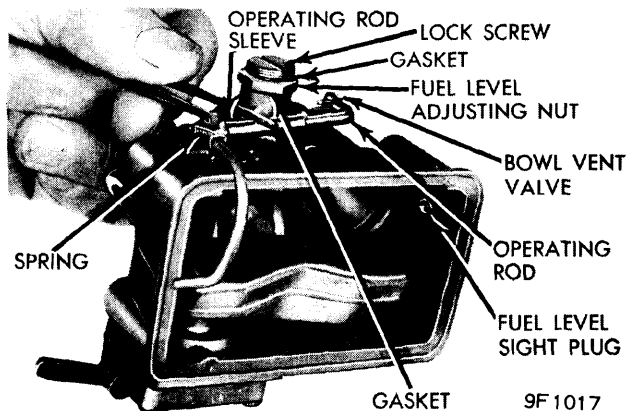
**Main Body - 1)** Remove attaching screw and washer and slide choke unloader lever off end of throttle shaft.



**CHOKE CONTROL & FAST IDLE CAM  
(PRIMARY CARBURETORS)**

2) Disconnect choke diaphragm hose from throttle body fitting, remove choke diaphragm attaching screws, disengage link from fast idle cam and remove choke diaphragm assembly.

3) Remove clip retaining fast idle lever and cam, slide lever and cam off shaft while disengaging choke rod from bottom hole of cam lever (**CAUTION** - Note choke rod position and reinstall in same hole).

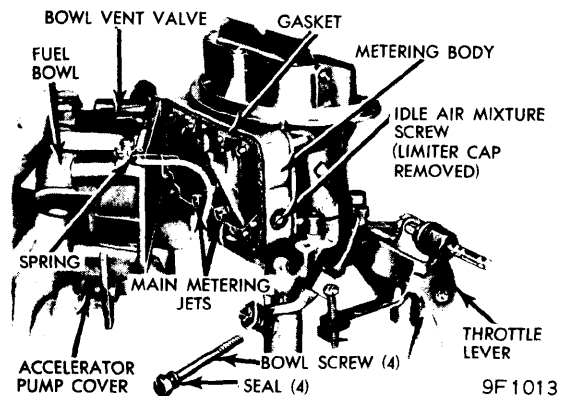


**BOWL VENT VALVE & BOWL ASSEMBLY**

4) Remove pump discharge nozzle retaining screw and discard gasket, lift out discharge nozzle and discard nozzle gasket. Remove vacuum diaphragm hose (to outboard carburetors). Invert main body and drop out pump discharge needle from discharge passage.

5) Remove throttle body attaching screws, remove throttle body and discard gasket.

**Fuel Bowl - 1)** Remove attaching screw, remove bowl vent valve, plate, spring, and vent valve assembly from bowl.

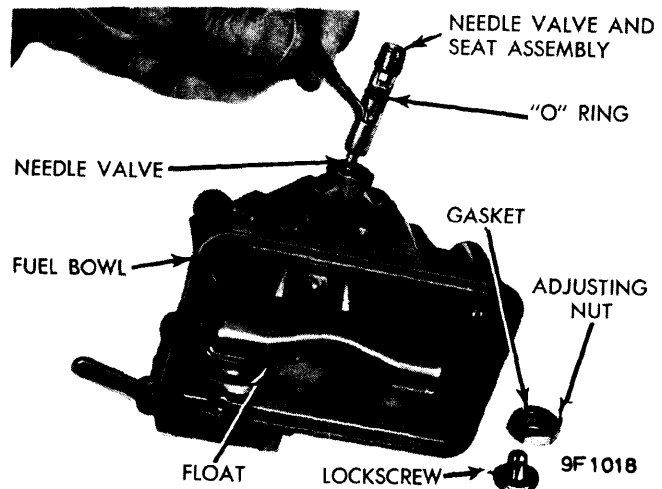


**FUEL BOWL REMOVAL & INSTALLATION  
(PRIMARY CARBURETORS)**

2) Remove fuel level adjusting screw locknut, remove adjusting nut, slide needle valve and seat out of fuel bowl and discard needle seat "O" ring.

3) Remove float lever bracket attaching screws and remove float, spring, and fulcrum pin from bowl. Remove sight plug and gasket and discard gasket. Remove fuel inlet fitting and discard gasket.

4) Remove accelerating pump cover attaching screws using clutch head screwdriver (CL-13), remove cover, carefully remove pump diaphragm and return spring.

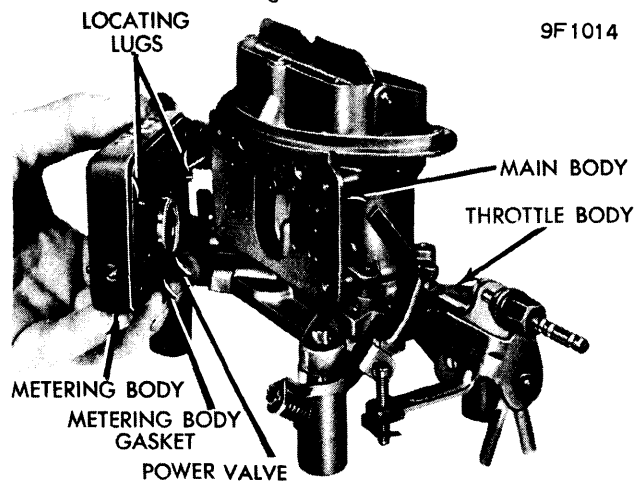


**FLOAT & NEEDLE VALVE ASSEMBLY**

## 1969 CHRYSLER CORP. HOLLEY TRIPLE CARBURETORS (Cont.)

**Main Metering Body (Primary Carb.)** – 1) Remove power valve assembly using suitable tool (C-3747) and main metering jets (C-3748).

2) Pry plastic limiter caps off idle mixture adjusting screws and discard caps. Turn adjusting screws in until lightly seated and COUNT number of turns required so that screws can be reinstalled in exact same position, then remove screws and gaskets.

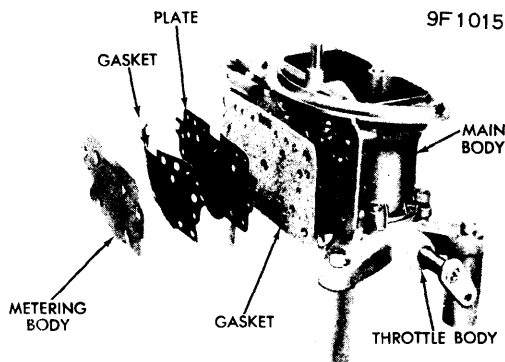


METERING BODY REMOVAL & INSTALLATION  
(PRIMARY CARBURETORS)

**Main Metering Body (Secondary Carbs.)** – 1) After removing fuel bowl, use clutch head screwdriver to remove metering body attaching screws, remove metering body, gasket, plate, and bowl gasket, discard gaskets. NOTE – Idle mixture adjusting screws, power valve, or separate metering jets are not used on these models.

**Throttle Body** – For normal cleaning and overhaul of carburetors, throttle valves should not be removed unless they are nicked or damaged and replacement is required. To remove valves, remove staking on throttle valve screws with a file, remove screws, slide throttle valves out of carburetor bores.

**Vacuum Diaphragm (Secondary Carbs.)** – Remove diaphragm attaching screws, lift diaphragm assembly off and



METERING BODY, PLATE & GASKETS  
(SECONDARY CARBURETORS)

disengage diaphragm stem from throttle shaft lever stud. NOTE – Diaphragm assembly can be disassembled, if required, by removing cover screws. Cover, return spring, and diaphragm assembly can then be removed.

### Cleaning & Inspecting

Use denatured alcohol or suitable commercial solvent (Metalclene, etc.) to remove gum deposits. If solvent used, rinse with hot water and blow dry with air, then rinse in clean gasoline or kerosene. Use particular care to blow out all passages with air. CAUTION – Do not use solvent to clean rubber diaphragms and do not use wire or drills to clean jets or other calibrated parts. Check castings for cracks, warpage, damaged or marred mating surfaces, or stripped screw threads. Replace broken or distorted springs, screws with damaged threads, and distorted lock-washers. Inspect floats for damage. Inspect throttle and choke valves for nicked edges or worn plating and replace as required.

► **VACUUM DIAPHRAGM CAUTION** – DO NOT place assembly in any cleaning liquid. Clean external surfaces with clean cloth or soft wire brush, shake dirt from stem side of diaphragm. Air can be used to remove loose dirt but air hose must not be connected to vacuum inlet fitting.

### Reassembly

Use all new gaskets, “O” rings, and seal washers. Reassemble carburetors by reversing disassembly procedure and note the following important points:

**Throttle Valve Installation** – Slide new throttle valves in position on throttle shaft with valve number on bottom (toward mounting flange and away from vacuum port), install valve screws loosely. Close valves and hold in place with finger pressure on high side of valves, tap valves lightly to center them in bores, tighten screws securely. Check for smooth operation from closed to open position without drag or binding, and for centering by holding throttle body up to a strong light (light visible around entire edge of valve should be uniform). Stake screws by squeezing with pliers.

**Power Valve** – Use new gasket and tighten power valve to 120 inch lbs. torque.

**Idle Mixture Screws & Limiter Caps** – Install new screws if tapered portion grooved or ridged. Press new gasket in each idle mixture port, then thread screw through gasket and tighten until lightly seated, finally back out screw exact number of turns noted at disassembly. Install new plastic limiter cap over idle screw with tab on cap against stop in screw bore.

**Accelerating Pump Diaphragm** – Install diaphragm with contact button rivet head toward pump lever in cover.

**Bowl Vent Valve Assembly** – Spring short loop must enter hole in plate from underneath and long end must be hooked under rod.

**Fuel Bowl** – Use new seal washers on bowl mounting screws, make certain that bowl, metering body, and gaskets are aligned, tighten bowl screws to 50 inch. lbs. torque.