

1974 Holley Carburetors

HOLLEY MODEL 2245 2-BARREL

CHRYSLER CORP.

ADJUSTMENTS

Holley Carburetor No.

Application	Man. Trans.	Auto. Trans.
360" (Federal)		R-6731A
400" (Federal)		R-6737A

CARBURETOR IDENTIFICATION

Holley part number stamped on fuel bowl. Prefix letter "R" indicates complete carburetor assembly. Suffix letter "A" indicates an assembly. A suffix numeral indicates modification from original specifications.

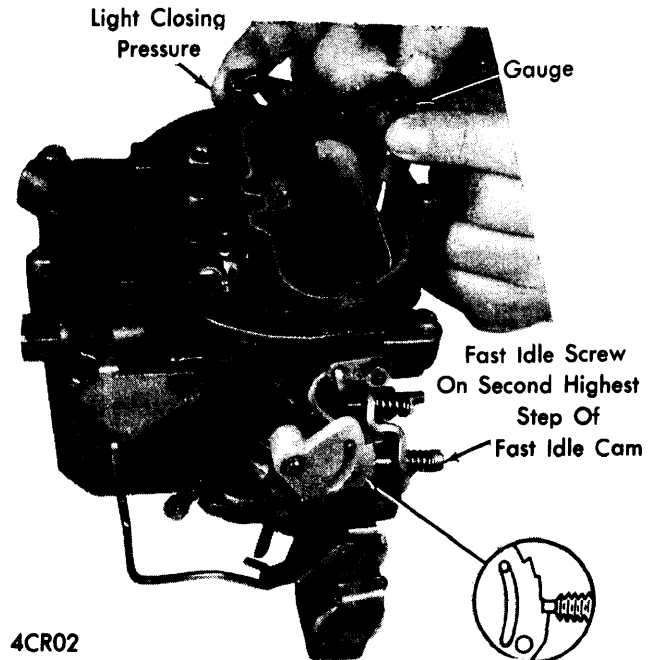
DESCRIPTION

Holley model 2245 dual venturi carburetor utilizes four basic fuel metering systems: Idle system provides mixture for idle and low speed; accelerator pump system provides additional fuel for acceleration; main metering system provides an economical mixture for normal cruising; and power enrichment system provides a richer mixture when high power output is required.

In addition to these fuel systems, the carburetor uses an automatic choke and choke diaphragm. Automatic choke is assisted by an electric heating element, to provide for shorter choke duration in warm weather. Choke diaphragm prevents overchoking by opening choke valve when engine is being cranked.

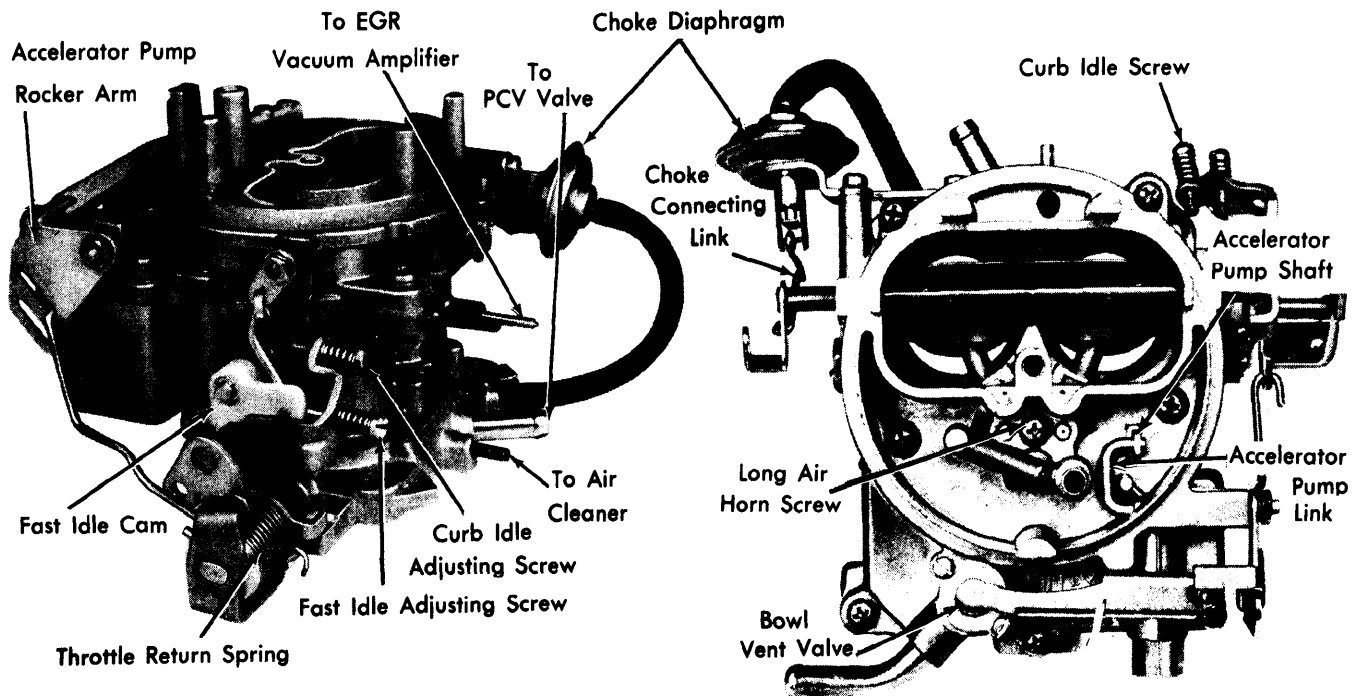
FAST IDLE CAM POSITION

With fast idle speed adjusting screw on second highest speed step of fast idle cam move choke valve toward closed position with light pressure on choke lever. Insert drill gauge (see specifications) between top of choke valve and air horn. If slight drag not obtained as gauge removed adjust clearance by bending connector rod at angle.



4CR02

FAST IDLE CAM POSITION ADJUSTMENT



4CR01

HOLLEY 2245 CARBURETOR

HOLLEY MODEL 2245 2-BARREL (Cont.)

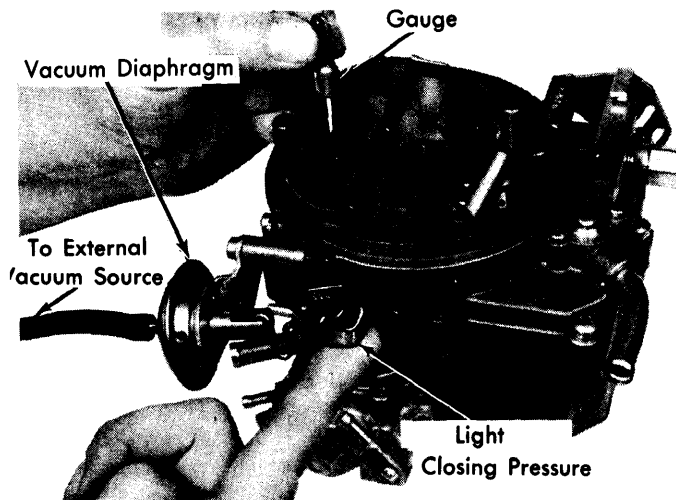
AUTOMATIC CHOKE

New choke unit contains electric assist heating element controlled by thermostatic switch. Both the choke and control switch are serviced as an assembly only. No adjustment is necessary or possible. **NOTE** — For testing procedures, see appropriate article in Exhaust Emission Manual.

VACUUM KICK

NOTE — This adjustment can be made on or off car.

On Car — With engine running, disconnect fast idle linkage until choke will close to kick position with engine at curb idle. Insert specified gauge between top of choke valve and air horn wall. Adjustment will be necessary if slight drag is not felt as gauge is withdrawn. Adjust by opening or closing "U" bend in diaphragm link.



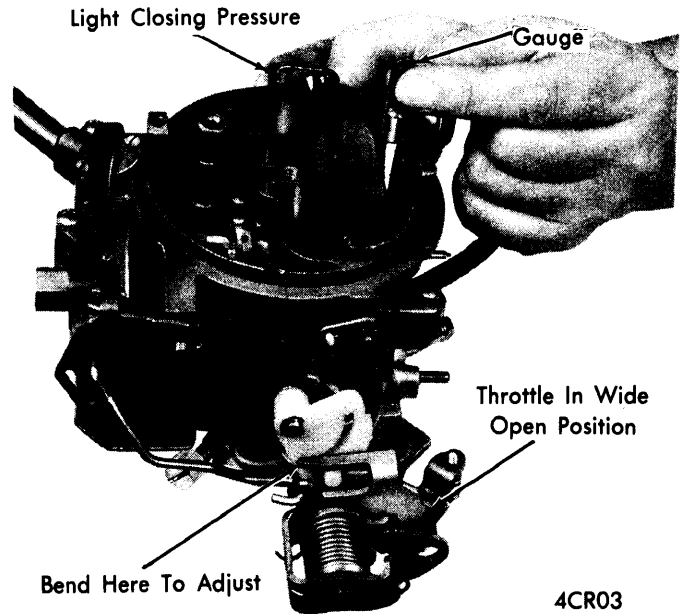
4CR04

VACUUM KICK ADJUSTMENT

Off Car — Using a vacuum source of at least 10 in. Hg, disconnect vacuum hose from carburetor and connect it to hose from vacuum source. Insert specified gauge and check clearance as indicated above. Adjust by opening or closing "U" bend of diaphragm link. Then with no vacuum applied, choke should move freely. If not, check for misalignment, caused by bending operation.

CHOKE UNLOADER (WIDE OPEN KICK)

Hold throttle valves in wide open position. Insert specified gauge between choke valve and wall of air horn. With finger slightly pressing against choke shaft lever, slight drag should be felt as gauge is withdrawn. If adjustment is necessary, bend unloader tang on throttle lever until correct opening is obtained.



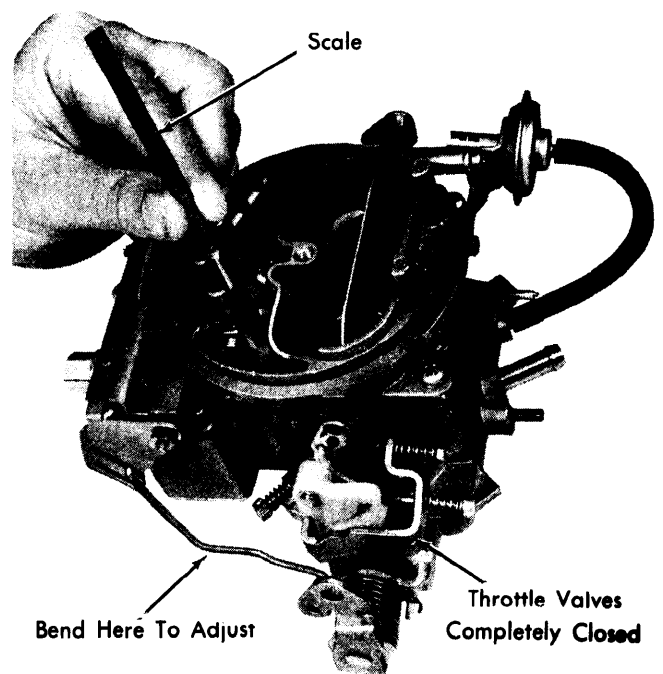
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CHOKE UNLOADER ADJUSTMENT

ACCELERATOR PUMP STROKE

1) Back out curb idle speed adjusting screw and open choke valve so that throttle valves will be completely seated in their bores. Be sure that pump accelerator pump rod is installed in correct slot of accelerator pump rocker (slot closest to retainer nut).

2) With throttle valves tightly closed, measure distance between top of air horn and end of plunger shaft. If not to specifications, adjust by bending pump operating rod (at loop of rod), until correct setting has been obtained.



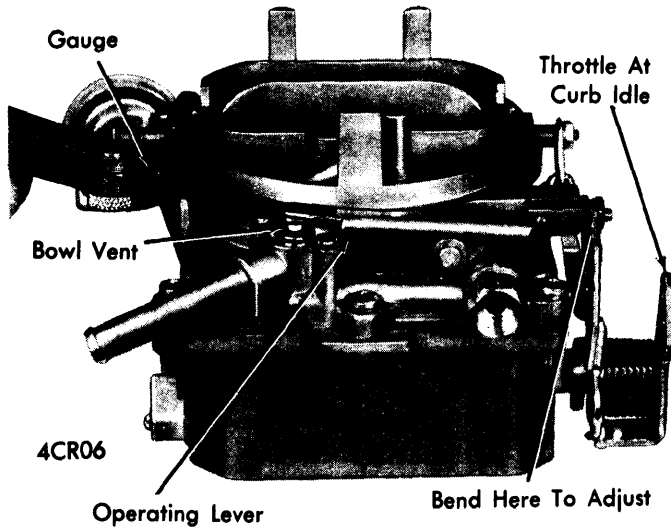
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ACCELERATOR PUMP ADJUSTMENT

HOLLEY MODEL 2245 2-BARREL (Cont.)

BOWL VENT VALVE CLEARANCE

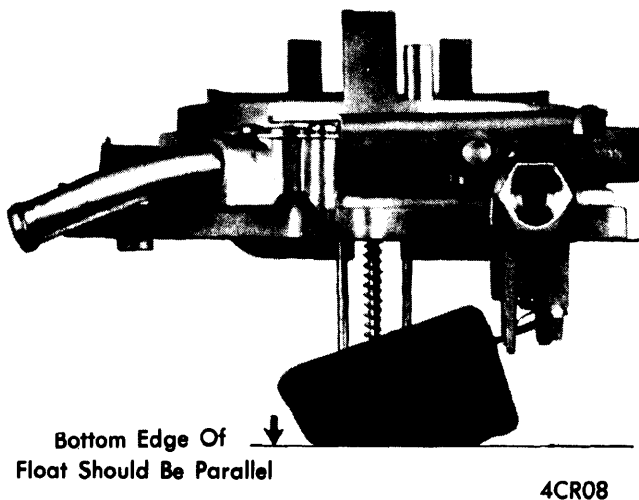
With throttle valves at curb idle position, it should be possible to insert specified gauge between bowl vent valve plunger stem and operating rod. If necessary to adjust, bend tang on pump lever to change arc of contact with throttle lever.



BOWL VENT VALVE ADJUSTMENT

FLOAT DROP

With air horn in normal position bottom edge of float should be parallel to underside surface of air horn. Bend tang on float arm to obtain correct adjustment.



CHECKING FLOAT DROP

FAST IDLE SPEED

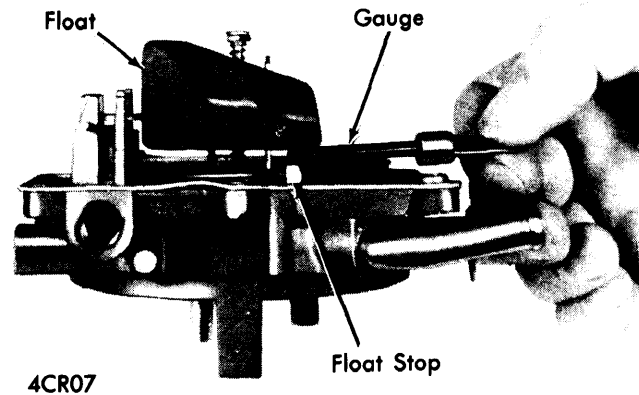
With engine at normal operating temperature but not running and transmission in Park or Neutral and with curb idle speed and mixture at specifications proceed as follows:

- 1) Open throttle slightly and close choke valve to position fast idle adjusting screw on second highest speed step of fast idle cam.
- 2) Start engine and determine stabilized RPM. Adjust fast idle speed screw to secure specified fast idle RPM (see specifications).
- 3) Reposition fast idle speed screw on cam after each adjustment to provide correct throttle closing torque.

FLOAT SETTING

NOTE - When measuring float setting, be sure that weight of float only is forcing needle on seat.

With air horn inverted measure clearance between top of float and float stop (see Specifications). Drill or gauge must be perfectly level when measuring. Bend float lip as required if adjustment necessary.



CHECKING FLOAT LEVEL SETTING

IDLE SPEED & MIXTURE

NOTE - In order to comply with emission standards, specifications shown on engine compartment emission control tune-up decal must be used in all instances. Decal information should be considered the most valid information available. If performing only adjustment procedures, do not remove idle mixture limiter caps.

Preparations For Adjustment - Block wheels and apply parking brake. Start and warm engine to normal operating temperature. Turn air conditioner off and place transmission in Neutral (not "P"). If equipped with air pump, disconnect air outlet hose and plug hose to exhaust manifold. Set timing to specifications.

Idle Speed (RPM) & Mixture

Application	Idle RPM	Air/Fuel Ratio
All	750	14.2-1

ROUGH IDLE & LOW SPEED SURGE CORRECTION

NOTE - Following procedures should only be used when normal tune-up procedures fail to give satisfactory idle performance at specified CO level (air/fuel ratio) or after major overhaul or part replacement.

With preparations for adjustment complete, remove idle limiter caps. Turn mixture screws in until seated, then back out each screw 1 1/2 turns. Reset idle and mixture to specifications using an exhaust gas analyzer. When correct CO level (air/fuel ratio) is reached at specified idle RPM, install new limiter caps.

HOLLEY MODEL 2245 2-BARREL (Cont.)

CARBURETOR ADJUSTMENT SPECIFICATIONS							
Holley Carb. No.	Idle Speed (Engine RPM)		Accel. Pump Setting	Float Setting	Fast Idle Cam Setting	Vacuum Kick Setting	Choke Unloader Setting
	Hot	Fast					
R-6731A	750	1800	.255"	.180"	.110"	.150"	.170"
R-6737A	750	1600	.255"	.180"	.110"	.150"	.170"

OVERHAUL

DISASSEMBLY

With carburetor mounted on elevating legs (so as not to damage throttle valves and provide a suitable working base), remove pump rocker arm from flats on pump shaft, disengage accelerator pump rod from center slot in arm and from hole in throttle lever and proceed as follows:

- 1) Remove nut and washer that attaches choke lever to choke shaft. Disengage fast idle connector rod from lever and fast idle cam. Remove vacuum diaphragm hose from throttle body fitting. Remove choke diaphragm and mounting bracket screws from air horn.
- 2) Remove choke diaphragm, and at the same time, disengage choke operating link from the choke operating lever. Set choke unit aside for separate cleaning. **CAUTION** – A liquid cleaner may damage the diaphragm material. Remove retaining clip that retains bowl vent valve lever on stub shaft on air horn. Slide lever off shaft, being careful not to lose lever spring (note position of spring).
- 3) Remove air horn attaching screws (8) and lift air horn straight up from main body. **CAUTION** – Use extreme care in handling air horn so as not to bend or damage main well tubes.
- 4) Disengage accelerator pump plunger from pump shaft by pushing up on bottom of plunger, then tilting slightly toward center, then slide off pump shaft. Slide plunger stem from air horn and remove compression spring. Slide pump shaft out of air horn.
- 5) Remove fuel inlet fitting and gasket. Invert air horn and remove screw that attaches fuel baffle to air horn. Remove float and fuel inlet needle, then remove needle valve seat.
- 6) Using a special tool (C-4232), remove vacuum power piston. The assembly is staked in position and the staking must be removed, using a suitable sharp tool. **WARNING** – Do not attempt to remove main well tubes from air horn since they are a press fit.
- 7) Remove bowl vent valve cover and remove vent valve, spring and seal. Remove seal from bottom of valve. Remove main metering jets and power valve assembly. Invert main body and drop out accelerator pump discharge check needle from discharge passage.
- 8) Remove fast idle cam from stub shaft. Remove throttle body from main body. Turn idle limiter caps to stop (top on throttle side and bottom of stop on choke side). Remove limiter plastic caps. Count number of turns to seat the screws. Same number of turns (from the seat) must be maintained when carburetor is reassembled. Remove idle mixture screws.

CLEANING & INSPECTION

- 1) Clean carburetor parts either in denatured alcohol or suitable carburetor cleaning solvent. Avoid placing the plastic parts or diaphragm in ANY liquid. Clean the external surfaces of plastic components and the vacuum diaphragm with a clean cloth or soft brush. Depressing the stem of the diaphragm will afford an additional hole for the removal of dirt. **NOTE** – Compressed air can be used to remove loose dirt but should not be connected to the vacuum diaphragm fitting.
- 2) If a commercial cleaner or solvent recommends the use of water as a rinse, it should be HOT. After rinsing, all traces of water must be blown from the passages with air pressure. It is recommended to further rinse all parts in clean kerosene or gasoline.
- 3) Under no circumstances should jets or orifices be cleaned with a wire or drill. Such a procedure may enlarge the jets or orifices and destroy the factory calibration.

REASSEMBLY

Reverse disassembly procedure, using all new gaskets. Note the following:

- 1) If the tapered portion of the idle mixture screws is grooved or ridged, install a new screw. Turn screws lightly against their seat with fingers (DO NOT USE A SCREW-DRIVER). Back off the number of turns (from the seat) counted at disassembly. Install new limiter caps with tab against stop (screws should be equal number of turns on both sides).
- 2) Test freeness of choke mechanism in air horn. Choke shaft must float free in bearing bores.
- 3) When installing vacuum power piston in its cylinder, lock in position by prick punching rim of cylinder in at least three places. Compress piston to be sure no binding exists.
- 4) Before installing air horn, adjust float setting. Invert air horn so that weight of float only is forcing needle against seat. Measure the clearance between top of float and float stop. Clearance should be .200" (#7 drill)(13/64"). Hold air horn in upright position and check float drop. Bottom edge of float should be parallel to underside surface of air horn. Bend tang on float arm to adjust.
- 5) Test the vacuum diaphragm before installing on the air horn. Depress the diaphragm stem, then place finger over the fitting to seal the opening. Release the stem. If the stem moves more than 1/16" in 10 seconds, replace the diaphragm.