

Holley Carburetors

1968-69 HOLLEY SINGLE BARREL MODEL 1931 (Continued)

Carburetor	Pump Connector Location
R-3966-A, R-3968-A, R-4102-A#2 (Center) Hole
R-3967-A #3 Hole
R-4294-A #1 Hole

Automatic Choke

Loosen three cover clamp retaining screws, rotate cover and thermostatic coil assembly to align reference mark on cover with correct graduation of scale on housing (see Specifications).

CARBURETOR ADJUSTMENT SPECIFICATIONS								
Holley Carb. No.	Idle Speed (Engine RPM)		Initial Idle Mixture ②	Float Level Setting	Unloader Setting	Bowl Vent Setting	Choke Qualifying Setting	Auto. Choke Setting
	Hot ①	Fast						
R-3966-A	600	1600 ③	1 Turn	5/16"	15/64"	1/16" ④	7/64"	1 Rich
R-3967-A	525	1600 ③	1 Turn	5/16"	15/64"	1/16" ④	7/64" ⑤	1 Rich
R-3968-A	600	1600 ③	1 Turn	5/16"	15/64"	1/16" ④	1/8"	1 Rich
R-4102-A	525	1600 ③	1 Turn	5/16"	15/64"	1/16" ④	9/64" ⑥	1 Rich
R-4294-A	525	1600	⑦	5/16"	15/64"	1/16"	1/8"	1 Rich

① - Auto. Trans. in DRIVE, Air Cond. OFF.

② - Turns open from lightly seated position.

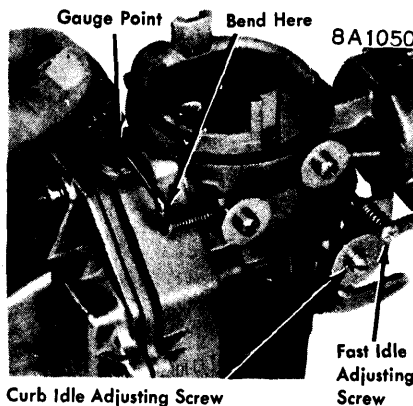
③ - With fast idle screw on second step of fast idle cam.

④ - 5/64" on all "2A" Carbs.

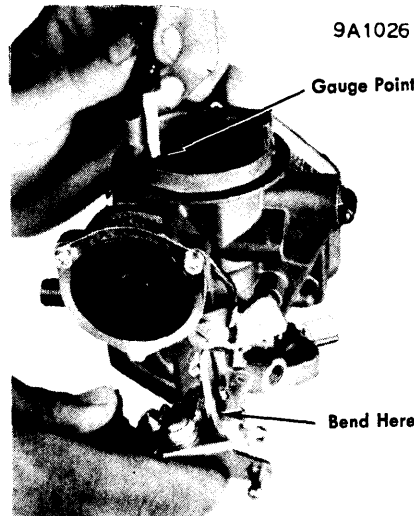
⑤ - 3/32" on "2A" Carbs.

⑥ - 1/8" on "2A" Carbs.

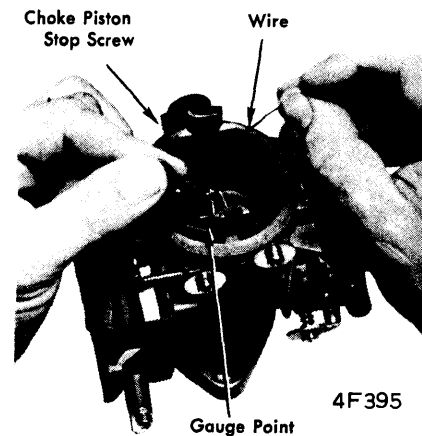
⑦ - Idle limiter caps used.



BOWL VENT ADJUSTMENT



UNLOADER ADJUSTMENT



CHOKE QUALIFYING (CHOKE PISTON STOP) ADJUSTMENT

OVERHAUL

Disassembly

1) Remove needle valve and seat assembly from float bowl, remove bowl retaining screws and separate fuel bowl from carburetor body, remove float assembly from bowl cover.

2) Remove metering block assembly from carburetor body **CAUTION - Hold power valve piston down to prevent loss of power valve spring.** Remove power valve assembly and spring. Remove main jet from metering block. Remove dashpot.

3) Remove clip and slide accelerator pump link out of pump lever, remove pump diaphragm assembly and spring. Remove pump operating lever clip, slide lever off pin, and separate link from lever.

4) Remove fast idle cam. On 1969 models remove idle limiter cap by installing a sheet metal screw in center of cap and turning clockwise. Remove idle mixture adjusting screw and spring from throttle flange. Remove fast and curb idle adjusting screws and springs, noting their position to aid reassembly. Remove bowl vent rod assembly.

5) Remove three choke cover retaining screws, remove retaining ring, choke cover and thermostatic coil assembly, and gasket. For normal servicing it is not necessary to remove choke valve or shaft.

6) If necessary to remove these parts, spread choke link retaining tab and choke link. Remove choke valve by removing retaining screws, choke link lever screw, and sliding shaft from carburetor. **NOTE - Do not remove choke piston unless it is sticking or binding.** Remove piston through end of cylinder after carefully piercing welch plug and prying out. After noting position of stopscrew, back it out counterclockwise, counting turns for repositioning during assembly. **CAUTION - Stopscrew must be returned to original position when reassembling carburetor - see Adjustments.**

7) Do not remove throttle valve or throttle shaft unless new parts required to correct binding or wear. If necessary to remove these parts, take out throttle valve screws, lift valve out, slide shaft out of carburetor casting.

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Cleaning & Inspection

Clean all metal parts in carburetor solvent, remove carbon deposits and blow out all passages with compressed air. Inspect all parts for wear, cracks, nicks, grooving, or corrosion.

Reassembly

Use all new gaskets. Reassemble by reversing disassembly procedure and note the following:

Throttle Valve Installation - Use new throttle valve screws, install screws loosely, close throttle valve and tap valve lightly to centralize it in bore, tighten screws securely. Check throttle operation and make certain valve closes without binding.

Choke Piston Installation - If piston and link have been removed, replace in cylinder, return stopscrew to original setting, install welch plug and stake with ball peen hammer.

Choke Valve Installation - Install choke valve attaching screws loosely, rotate valve to closed position and tap lightly to position it in bore and tighten screws securely. Check for binding by operating choke shaft. Insert choke piston link into tab and secure by bending tab with long nosed pliers.

Metering Block Installation - **CAUTION** - Block must be installed exactly as follows to prevent warpage which

could cause poor engine performance: After accelerating pump diaphragm assembly installed, install metering block with lockwashers on attaching screws and turn screws in loosely, then tighten screws evenly and securely in sequence listed below. Install fuel bowl cover with new gasket and tighten cover screws evenly and securely.

Metering Block Tightening Sequence

Tightening Order	Screw Location
1	Upper Center
2	Lower Center
3	Upper Right Corner
4	Upper Left Corner
5	Lower Left Corner

Automatic Choke Assembly - Install new choke housing gasket. Hold choke valve closed and install cover with thermostatic coil end engaging clockwise side of choke shaft lever, install retaining ring and three retaining screws, rotate cover assembly to correct setting (see Adjustments) and tighten retaining screws.

Limiter Cap Installation - When installing idle mixture adjustment screw, turn screw in by hand until it bottoms and back out 1 turn to provide an initial adjustment. After final idle mixture adjustment is made on vehicle install new idle limiter cap.

