HOLLEY MODEL 6510-C & 6520 2-BARREL (Cont.)

CARBURETOR APPLICATION

CHRYSLER CORP. (MODEL 6520)

Application	Chrysler Corp. Part No. Man. Trans.	Auto. Trans.
2.2L (135") 4 Cylinder		
Federal		
With A/C	R-9061A	R-9063A
Without A/C	R-9060A	R-9062A
Calif.		
With A/C	R-9126A	R-9605A
Without A/C	R-9125A	R-9604A

GENERAL MOTORS – CHEVROLET (MODEL 6510-C)

Application	Chevrolet Part No. Man. Trans.	Auto. Trans.
1.6L (98") 4 Cylinder		
Nationwide		
With A/C	14023771	14023770
Without A/C	14023769	14023768
Federal Only	14023777	.....

CARBURETOR IDENTIFICATION

Carburetor part number or identification number may be found stamped on the fuel bowl assembly or on a metal tag attached to carburetor.

DESCRIPTION

The Holley 6510-C and 6520 carburetors are referred to as "Feedback" type. They are similar in design to the 5200 and 6500 models, but use an electric mixture control solenoid to control the mixture strength, rather than the power enrichment valve in the 5200 series and the vacuum mixture enrichment of the 6500.

Both models are equipped with an electric mixture control solenoid mounted in the power enrichment valve bore of the main carburetor body. The solenoid is activated by a signal from the Electronic Control Module (G.M.) or Fuel Control Computer (Chrysler Corp.). When the solenoid is activated, the plunger moves downward and decreases the amount of fuel flowing in the main mixture circuit. At the same time, an air bleed is opened to further lean out the mixture. When the solenoid is de-energized, more fuel flows and the mixture becomes richer.

On General Motors models, a throttle position sensor (TPS) informs the ECM of throttle position. Chrysler Corp. models use an idle switch and a wide-open-throttle switch (A/C models) to report throttle position to the computer. Under wide-open throttle conditions, the mixture is fully enriched.

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.

MIXTURE CONTROL SOLENOID

Mixture control solenoid is NOT adjustable.

FLOAT LEVEL

1) With air horn removed, turn upside down. Allow weight of float to press down against float needle valve. *See Fig. 1.*

2) Measure float level specified clearance between top of float and air horn gasket surface. Clearance can be checked using a specified drill or pin gauge.

3) Make sure float tang still rests on float needle when clearance is checked. To adjust bend tang that contacts float needle.

NOTE – *Do not apply pressure to float needle while checking or changing adjustment.*

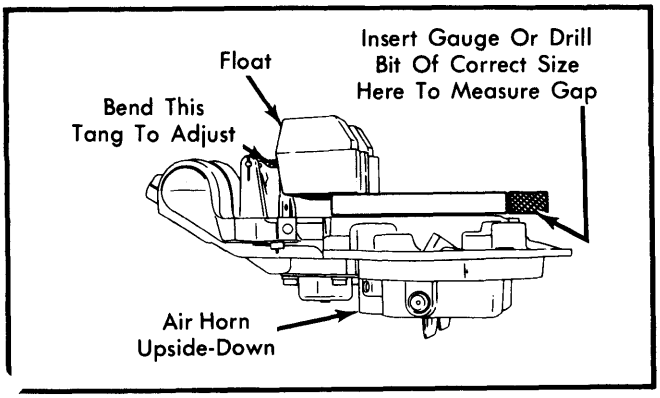

Fig. 1 Adjusting Float Level

FLOAT DROP

Chrysler Corp. Only – 1) Hold air horn right side up and measure from gasket surface to lower toe of float to obtain float drop dimension.

2) Use a small screwdriver to bend tang on float to adjust float drop. Support float while applying pressure on tang.

CHOKE VACUUM BREAK (INITIAL CHOKE VALVE CLEARANCE)

NOTE – *General Motors models use tamper-proof screws to retain choke coil cover. File screw heads until cover retaining ring can be removed and then remove remaining portion of cover screws from choke housing. (New screws are supplied in service kit.)*

1) On Chrysler Corp. models, open throttle, close choke valves, then close throttle. On all models, connect a vacuum source to vacuum break diaphragm and apply enough vacuum (at least 15 in. Hg) to seat diaphragm.

2) On General Motors models, push fast idle cam lever down (clockwise) to close choke valves.

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3) On Chrysler models, apply force on top of choke valves to close blades as far as possible and take slack out of linkage (an internal spring will compress). Insert drill or gauge between top of choke valve and bore wall.

4) On General Motors models, take slack out of linkage in the direction of opening the choke. Position drill or gauge between lower edge of choke valve and bore wall.

5) Adjust by rotating hex-head screw in center of diaphragm housing. After adjustment, replace vacuum hose and insert blocking rivet in hex-head screw.

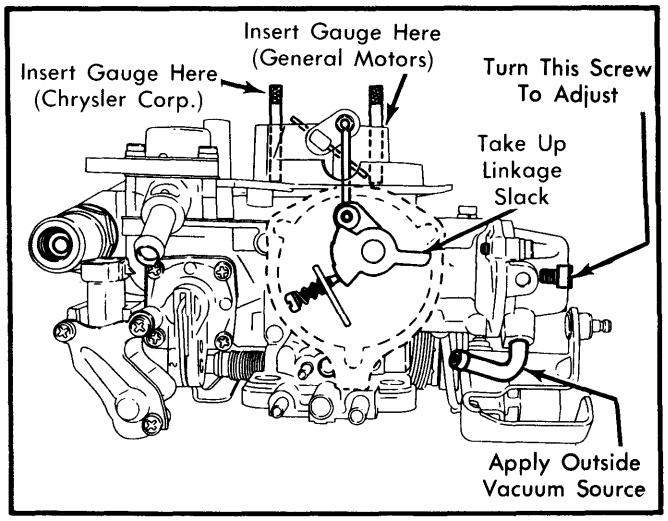

Fig. 2 Adjusting Choke Vacuum Break (Initial Choke Valve Clearance)

FAST IDLE CAM POSITION

General Motors Only – 1) Place fast idle speed screw on 2nd step of fast idle cam. Insert gauge between lower edge of choke valve and inside of air horn wall.

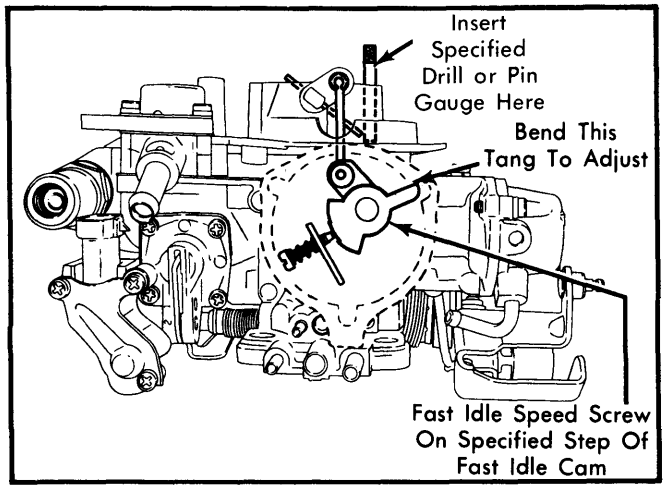

Fig. 3 Adjusting Fast Idle Cam Position

2) With clearance correct, choke lever tang should just contact lever on fast idle cam. To adjust, bend tang. *See Fig. 3.*

CHOKE UNLOADER

General Motors Only – 1) Hold throttle valves wide open. Measure choke unloader specified clearance between lower edge of choke valve and air horn wall. *See Fig. 4.*

2) Clearance can be measured using a specified drill or pin gauge. To adjust, bend choke unloader tang on fast idle cam.

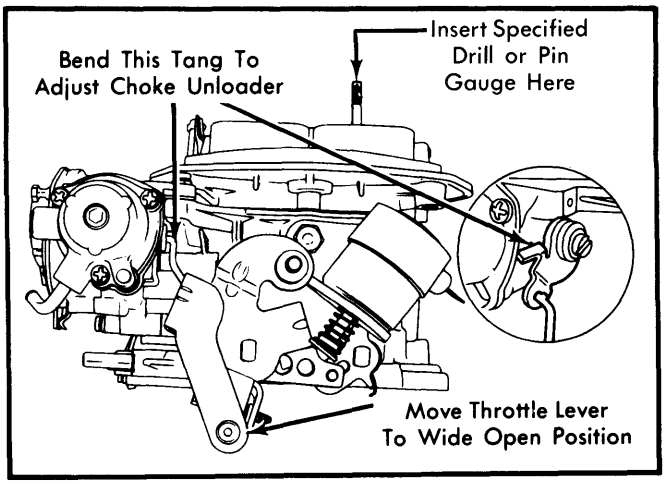

Fig. 4 Adjusting Choke Unloader

AUTOMATIC CHOKE

NOTE – *The choke assembly is installed with a locating tang and cannot be adjusted. Choke assembly removal is not required unless throttle body is to be immersed in carburetor cleaner.*

SECONDARY THROTTLE STOP SCREW

1) Back off secondary throttle stop screw until secondary valve seats in bore. *See Fig. 5*

2) Turn screw in until it just contacts tab on secondary throttle lever. Now turn screw an additional ¼ turn.

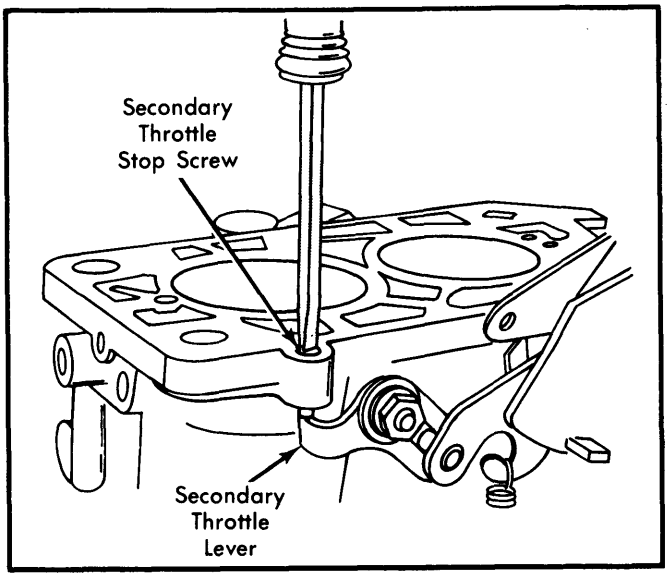

Fig. 5 Adjusting Secondary Throttle Stop Screw

THROTTLE POSITION SENSOR

General Motors Only – 1) Remove cover over adjustment screw by drilling small hole in plug. Turn a screw into plug, then using a screwdriver, pry against screw head to pull out plug.

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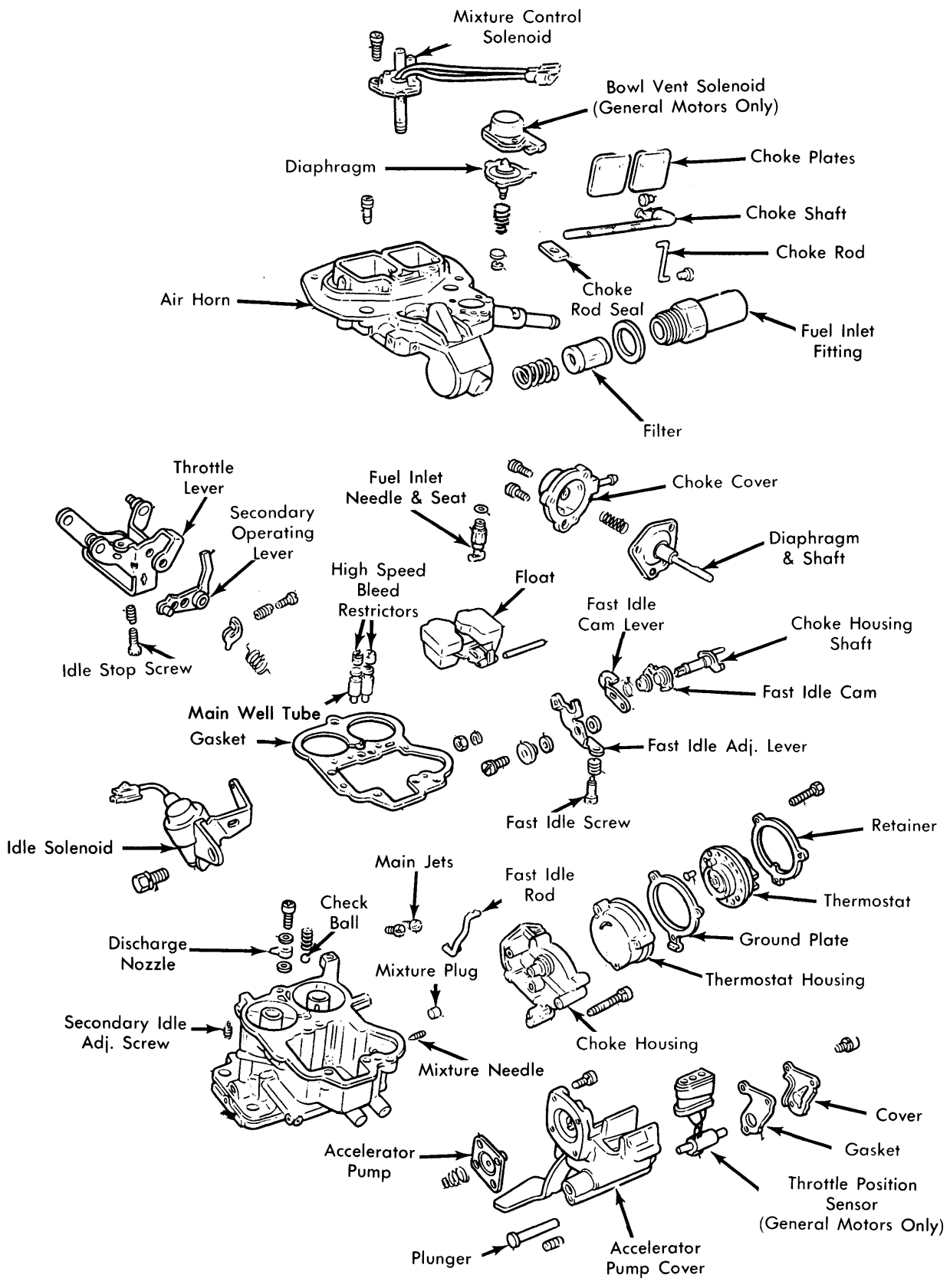

Fig. 6 Exploded View of Holley Model 6510-C 2-Barrel Carburetor

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2) Connect 3 jumper wires between harness and connector for TPS. Connect a digital voltmeter between Black and Dark Blue wires. Remove adjustment screw and coat threads with thread locking compound.

3) Turn ignition on but do not start engine. Install screw and quickly adjust to obtain .41 volts with closed throttle. Install new plug or cover screw with silicone sealant. Remove jumper wires and reconnect TPS connector.

OVERHAUL

DISASSEMBLY

Air Horn – 1) Remove fuel inlet fitting and filter (General Motors models). Disconnect and remove choke operating rod and discard seal. Remove mixture control solenoid by removing 2 mounting screws.

2) On Chrysler Corp. models, remove anti-rattle spring and idle stop solenoid. Scribe location mark on wide-open throttle switch and remove switch. On all models, remove 5 air horn screws and remove air horn.

3) Remove float pin, float and inlet needle. Remove needle seat and gasket from air horn. On General Motors models, remove bowl vent solenoid. On Chrysler Corp. models, remove and discard bowl vent seal retainer, diaphragm, seal and spring.

Main Body – 1) Remove primary and secondary main metering jets, noting size for correct installation. Also remove primary and secondary high speed bleeds and main well tubes, noting location for reassembly.

2) Remove pump discharge nozzle and gasket. Invert body and catch check ball and spring (General Motors) or 2 check balls (Chrysler Corp.).

3) Remove 4 screws and accelerator pump cover. Remove spring and pump diaphragm. On General Motors models, remove Throttle Position Sensor (TPS) before immersing cover in carburetor cleaner.

4) Use a file or grinder to remove heads on choke cover retaining screws. Remove retaining ring and screws, then remove coil, ground ring, and coil housing.

5) Remove choke housing shaft nut, lock washer, lever, spring retainer and cam from choke housing shaft. Remove screw and lockwasher, then remove bushing, spring washer, fast idle lever, and washer from housing.

6) Grind or file head off choke diaphragm over retaining screw, then remove other screws with screwdriver. Remove cover and spring.

7) On General Motors models, invert carburetor body and place punch in locator point beneath mixture needle plug. Drive out plug with punch. Lightly seat screw, counting number of turns required. Remove mixture screw. Remove idle speed solenoid.

8) On Chrysler Corp. models, drill a 1/16" pilot hole in bottom of throttle body at 45° angle toward mixture plug. Redrill hole to 1/8" and drive out mixture screw plug with punch. Insert a sharp punch through mixture screw hole and slide roll pin out. Count turns required to seat needle, then remove needle.

CLEANING & INSPECTION

- Do not immerse plastic or rubber parts in solvent. Do not immerse diaphragm assemblies or solenoid in solvent.
- Blow out all passages with compressed air. Do not use wire or drill bit to clean carburetor orifices.
- Inspect all parts for wear, cracks, nicks or burrs, and damage. Replace parts as necessary.
- After cleaning with solvent, wash all parts in hot water and blow dry with compressed air.

REASSEMBLY

To reassemble carburetor, reverse disassembly procedures. Use new gaskets and seals. Make sure that new gaskets fit correctly and that all holes and slots are punched through and correctly located.

CARBURETOR ADJUSTMENT SPECIFICATIONS

Application	Float Level Setting	Float Drop Setting	Fast Idle Cam Setting	Choke Vacuum Kick Setting	Choke Unloader Setting	Auto. Choke Setting
Chrysler Corp						
R9060A	.480"	1.875"	.....	.030"	.....	①
R9061A	.480"	1.875"	.....	.030"	.....	①
R9062A	.480"	1.875"	.....	.065"	.....	①
R9063A	.480"	1.875"	.....	.065"	.....	①
R9064A	.480"	1.875"	.....	.065"	.....	①
R9065A	.480"	1.875"	.....	.065"	.....	①
R9125A	.480"	1.875"	.....	.030"	.....	①
R9126A	.480"	1.875"	.....	.030"	.....	①
General Motors						
14004768	.470-.530"	.....	.130"	.300"	.350"	①
14004769	.470-.530"	.....	.130"	.300"	.350"	①
14004770	.470-.530"	.....	.130"	.300"	.350"	①
14004771	.470-.530"	.....	.130"	.300"	.350"	①
14004777	.470-.530"	.....	.130"	.300"	.350"	①

① – No adjustment required.