

SERVICE INSTRUCTIONS

FOR CARTER CARBURETOR MODEL - AFB

Variations in shapes and location of some parts will occur between models in this group. Although the following instructions cover the complete disassembly, disassemble the carburetor far enough to permit installation of kit contents and thorough cleaning. NOTE: This kit may contain extra and similar gaskets and retainers that are applicable to other carburetors in this group. Therefore, to assure usage of correct pieces, use old gaskets and retainers for identification.

DISASSEMBLY

Remove screws (1), cover plates (2), step-up pistons (3), step-up rods (4) and springs (5). Rods (4) can be removed from piston (3) by unhooking spring (6) from end of rod. Remove pin spring (7) from lower end, and retainer (8) from upper end of rod (9), and remove rod. Remove pin spring (7) from upper end of rod (10), revolve rod and disconnect from fast idle cam. Remove pin spring (7) and revolve rod (11) to disconnect from choke shaft lever.

On Models with "S" shaped pump link note position of link for correct reassembly. Remove screw (12), pump arm (13) and pump link (14). Remove air horn screws (15) noting location of different length screws so they can be reinstalled correctly. Lift air horn (16) straight up to avoid damage to parts attached. Invert air horn and remove float pins (17), floats (18) needle-seat and gasket assemblies (19). Remove gasket (20) then fitting and gasket (21) and strainer if included.

Remove pump plunger (22) and spring (23) from pump cylinder (side opposite choke). If included, remove dash pot plunger (24) and spring (25) located on choke side.

Remove primary venturi screws (26) venturi assemblies (27) and gaskets (28). Remove pump jet housing screws (29) pump jet housing (30) gasket (31) and invert casting to remove needle (32). Remove pump intake check (33) located in fuel bowl next to pump cylinder. Early models will require the casting to be inverted to remove the screw plug, intake seat and check ball not shown in illustration.

If equipped, remove screws (34) thermostatic valve assembly (35) and gasket (36). Remove secondary venturi screws (37) secondary venturi assemblies (38) and gaskets (39). If equipped, remove auxiliary throttle shaft, valves, and weight assembly (40). Remove primary and secondary metering jets (41 and 42). Some models will locate the secondary jets directly under the secondary venturis.

To disassemble the climatic choke, remove screws (43) retainer or retainers (44) coil housing (45) gasket (46) and baffle plate (47). Remove screws (48) piston housing (49) and gasket (50).

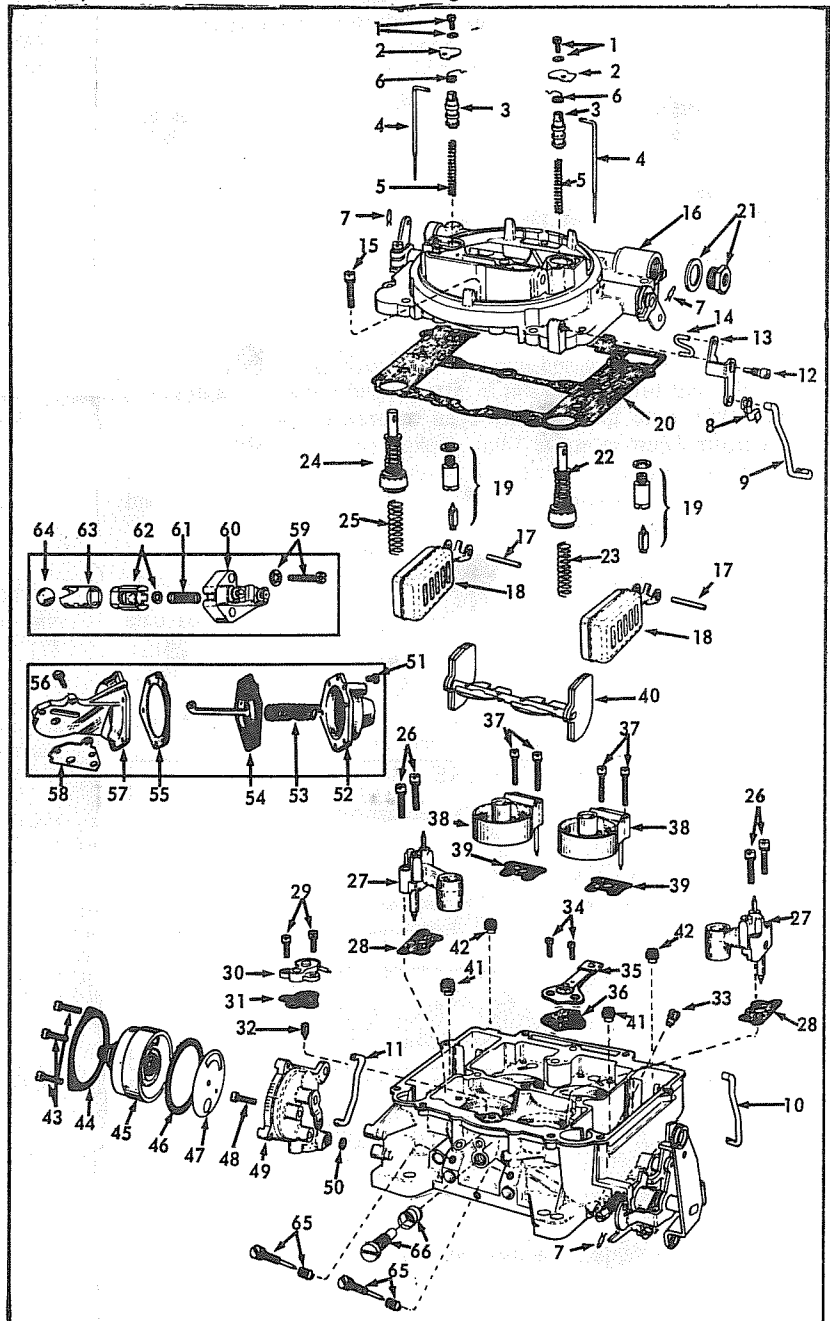
On Models equipped with the secondary throttle vacuum diaphragm control (refer to insert), remove screws (51) housing cover (52) spring (53) diaphragm (54) and gasket (55). Remove housing screws (56) housing (57) and gasket (58).

On Models equipped with the starter switch (refer to insert), remove screws (59) terminal cap (60) spring (61) guide block and shims (62) plunger (63) and tilt casting to remove ball (64).

Remove idle screws and springs (65). NOTE: On Cleaner Air Package carburetors (C.A.P.) do not remove idle mixture screws (65) as these screws have limited travel and will be broken if removed. If equipped, remove idle by-pass screw and spring (66). DO NOT REMOVE the idle limiter caps if equipped from idle mixture screws (65), unless the new service caps are available.

CLEANING

Clean all parts thoroughly in an approved carburetor cleaning solvent or lacquer thinner. Special attention should be given to carbon deposits in throttle bores and passages. Do not use a wire or similar instrument to clean passages and calibrated holes, as calibration of carburetor may be destroyed. Do not immerse diaphragm, leather, rubber or similar materials in cleaning solvent.



REASSEMBLY

Reverse numerical sequence to reassemble carburetor, using reference numbers shown in illustration as guide and note following instructions:

1. On models using flange baffle plate, plate may be used again if it is not corroded and can be cleaned up. Replace if in doubt. Also inspect insulator (if used) for warpage and cracks.
2. Idle adjusting needles should be seated lightly and then backed out approximately two turns for initial setting.
3. Starter switch plunger (79) must be installed with groove in plunger in "up" position.
4. Make sure metering jets are installed correctly. Primary jets have large hole — secondary, small hole.

5. Venturi clusters are not interchangeable. If installed in wrong location it will not go all the way down. Make sure cluster fully seats against gasket.
6. Refer to illustration for correct installation of "S" shape pump link.
7. Refer to Adjustment Data Chart for adjustment specifications.
8. **WHEN ADJUSTING FLOATS, CARE MUST BE EXERCISED NOT TO ALLOW THE FLARED TIP FUEL INLET NEEDLE TO BE PRESSED INTO THE NEEDLE SEAT AS DAMAGE TO THE TIP AND/OR A FALSE SETTING WILL RESULT. ALLOW WEIGHT OF FLOAT ONLY TO SEAT NEEDLE WHEN GAUGING.**

ADJUSTMENTS

FLOAT LEVEL ADJUSTMENT (Fig. 1)

With air horn inverted and bowl cover gasket in place, bend float lever until clearance listed in Adjustment Data Chart is obtained between top of float (at outer end) and air horn gasket. *Never allow needle to be pressed into seat.* Adjust float lever arms until sides of floats are parallel to the outer edge of the air horn casting.

FLOAT DROP ADJUSTMENT (Fig. 2)

With air horn held upright and level, adjust stop tabs on float brackets to obtain 23/32" all models except 1961-66 Cadillac set 15/16 clearance between outer end of each float and air horn gasket.

PUMP ADJUSTMENT (Fig. 3)

1. Install rod in hole of lever shown in Adjustment Data Chart.
2. Hold choke valve wide open and back out idle speed screw until throttle valves are seated in bores of carburetor.
3. Bend throttle connector rod at lower angle to obtain correct clearance (listed in Adjustment Data Chart) from the top of the bowl cover to top of plunger shaft.

CHOKE PISTON LINKAGE ADJUSTMENT (Fig. 4)

TYPE I

With choke valve closed, the distance between choke piston lever and stop in housing should be that listed in Adjustment Data Chart. Adjust by loosening clamp screw of lever on countershaft arm and repositioning lever. If lever is riveted to shaft, adjust by bending connector rod.

TYPE II

Open the choke valve and insert a .026" wire gauge (bend 90° 1/8" from its end) between top slot in piston cylinder and bottom of slot in the piston. Hold throttle valve open to prevent fast idle cam from contacting adjusting screw. Close choke valve until resistance is felt against wire gauge. The distance between top of choke valve and inner wall of air horn should be as listed in Adjustment Data Chart. Bend choke connector rod to adjust.

TYPE III

With choke valve closed, bend choke connector rod until top of piston is flush with top of piston cylinder. and inner wall of air horn should be that listed in Adjustment Data Chart. Bend choke connector rod to adjust.

FAST IDLE LINKAGE (Fig. 5 and Fig. 6)

TYPE I (Fig. 5)

With choke valve closed, bend fast idle link (B) until end of fast idle screw is aligned with index mark on cam.

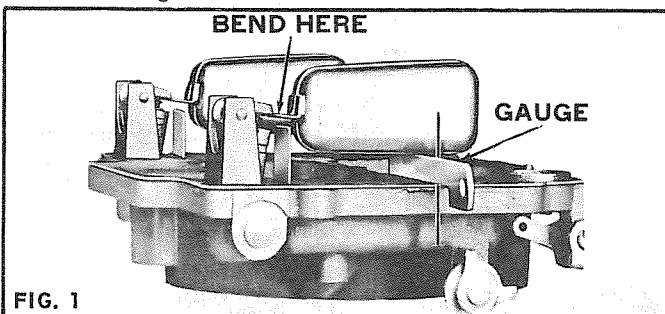


FIG. 1

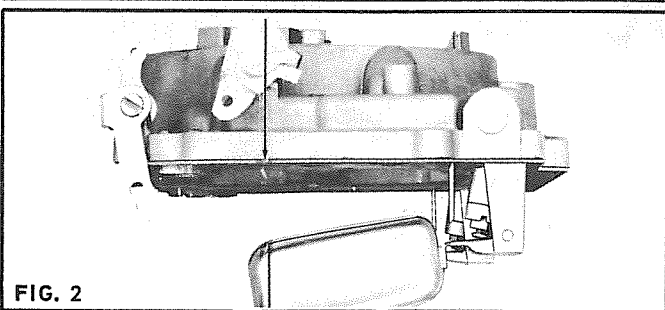


FIG. 2

TYPE II (Fig. 6)

1. Place fast idle speed screw on the second highest step of fast idle cam.
2. Move choke valve toward the closed position without forcing.
3. Bend fast idle connector link to give the dimension as listed in Adjustment Data Chart between top edge of choke valve and inner wall of air horn.

FAST IDLE THROTTLE VALVE (See Fig. 5)

With choke valve closed, place fast idle screw (A) on highest step of fast idle cam or index mark and turn the screw until the dimension is obtained as listed in Adjustment Data Chart, between the lower edge of primary throttle valve and bore of carburetor.

UNLOADER ADJUSTMENT (Fig. 7)

With throttle wide open bend lip on throttle lever to obtain specified clearance (see Adjustment Data Chart) between choke valve and inner wall of air horn.

IDLE ADJUSTMENT (See Fig. 7)

With engine at normal operating temperature, transmission in neutral, adjust idle speed screw (1) for proper R.P.M. listed in Data Chart. Adjust both idle mixture screws (2) for smoothest engine operation.

NOTE: On some models idle speed is controlled by an air by-pass adjustment screw (3) and throttle valves remain seated. To adjust proceed as follows:

1. Open air by-pass screw (3) approximately two full turns from seated position.
2. Open idle mixture screws (2) approximately 1/2 turns from seated position.
3. Start engine and adjust air by-pass screw (3) for proper R.P.M. listed in Data Chart.
4. Turn mixture screws in or out to obtain smoothest idle.
5. Correct idle speed by readjusting idle by-pass air screw — then readjust mixture screws. Repeat if necessary.

NOTE: Dodge and Plymouth 1967 and later carburetors with emission control, refer to car dealer shop manual for the proper idle mixture procedure and the installation of idle limiter caps if equipped.

DASHPOT — IF EQUIPPED

With throttle valves closed (at curb idle) and diaphragm stem fully depressed adjust dashpot to give the clearance of 1/8 inch between dashpot stem and throttle lever.

IDLE SPEED SOLENOID ADJUSTMENT — IF EQUIPPED.

1. With engine at normal operating temperature, turn idle speed solenoid adjusting screw "in" or "out" to obtain 900 RPM on automatic transmissions, 1000 RPM on manual transmissions.
2. Turn idle mixture screws "in" or "out" to obtain the smoothest idle within the range of idle limiter caps.
3. It may be necessary to repeat step 1.
4. With engine still running (Solenoid energized) turn carburetor idle speed screw inward until the end of the screw just touches the throttle lever. Now back off the screw one full turn to obtain the slow curb idle speed.

BOWL VENT (Fig. 8 and Fig. 8A) IF EQUIPPED.

1. Type I (Fig. 8)
With throttle valves set at (curb idle) the clearance should be 9/64 inch between valve and its seat at smallest opening. To adjust, bend tang (B).
2. Type II (Fig. 8A)
 - a. Remove rivet plug (A) from hole in air horn.
 - b. Insert a narrow ruler in hole. Allow ruler to rest lightly on top of valve. The dimension should be 3/4 inch from top of hole in casting. Throttle valves set at (Curb idle).
 - c. To adjust, bend vent valve operating lever (B).
 - d. Install rivet plug.

NOTE: If pump stroke has been changed from the standard setting, readjust bowl vent valve setting.