



General Instructions

- Take lots of pictures as you take your carburetor apart. This will give you a reference of where things go.
- Using a cookie sheet with folded up sides will help keep parts from falling on the floor.
- We suggest not removing the throttle shaft, valves, or choke shaft unless they are corroded, or very dirty. These parts can be easily damaged and are difficult to re-assemble.
- Instruction sheets that come with our carburetor kits are somewhat generic. It may not match your parts exactly.
- Do NOT use WD-40 around your carburetor. It reacts with ethanol.
- Using Silicon Spray Lubricant on the gaskets will help with sticking in case you need to take the carburetor apart again.
- Be careful after taking the top of the carburetor off. Turning the carburetor upside down may cause parts to fall out and you won't know where they were.
- Screws and jets that are frozen can often be removed after heating outside the screw or jet.
- Stuck check balls can be removed by heating the outside of where the check ball resides and tapping the carburetor on the work bench.
- Do not discard any parts until complete done. You may have to refer for size, or matching.

Cleaning:

- Clean with carburetor dis-assembled.
- Soak all parts except rubber & electrical in Simple Green for 2 hours. Aluminum parts will get discolored if left longer.
- Wash parts with hot water if available to remove all chemicals.
- Blow out each passage way taking special notice of the smaller ones. Test each passage that air goes through the entire passage.
- Blow out the idle mixture hole.

- Check any hole above the idle mixture hole (inside the bore). This is the idle discharge and often becomes plugged.
- A tooth brush can facilitate cleaning parts.
- Soda blasting, then washing again will make the carburetor look good any will clean any minor deposits.
- Any corrosion, or deposits that are hard to remove may indicate the passages are also corroded and the carburetor should be replaced.
- If your engine has been sitting for 6 months or more, the gas has probably turned, and the gas tank will need to be cleaned as well as the fuel lines. Flushing new gas through the tank will not be enough.

Assembly:

- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
 - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
 - Plastic, or Nitrophyl floats should be weighed. The weight is in grams. Check our technical pages for any weight specification that we may have.
- Most gaskets will fit as expected, but you may have to trim some, especially under the venturis.
- Your kit may include multiple gaskets in order to get better coverage out of the kit. Use the one that fits the best. Look for any opening the gasket may leave allowing air into the carburetor. Some holes may be casting holes that don't lead to anything and do not have to be covered.
- Mounting gaskets for multiple bore carburetors do not have to have matching holes. Example a four-barrel gasket can be open in the middle instead of 4 holes as long as the carburetor has some kind of passage between bores. The passage is between primary, or secondary, not both.
- When adjusting the float be careful not to put any pressure on the needle. The viton tip is easily damaged.
- Most idle mixture screws can be cleaned using a soft wire wheel. Inspect for any scoring, which would indicate over tightening. Screw with scoring should be replaced.

Accelerator Pumps:

- On leather cups run your finger around the inside of the cup to break any manufacturer sealant.
- Apply 2 drops of oil to cups (leather, or rubber) before inserting into carburetor. Do not soak the cup in oil. The swelling of the cup needs to happen inside the carburetor. Allow the 2 drops of oil and the gas to do its job naturally.
- Twist the pump as you are inserting to help keep the cup from curling or folding over.
- Test your accelerator pump circuit before putting the top of the carburetor back on. Our technical pages have instructions on how to do this for most carburetor types.
- Pump wells are usually slight tapered, and the pump will not seal until it gets towards the bottom.

INSTRUCTION SHEET

CARTER AUTOMOTIVE

9000 SERIES MODEL AFB

50-728

DISASSEMBLY

The numerical sequence of the exploded view may be used as a guide to disassemble unit far enough to permit cleaning, inspection and installation of kit contents. Notice the holes from which linkage rods are removed so they can be returned to the same locations during reassembly. **CAUTION:** If choke or throttle shaft requires removal, the attaching valve screws are staked over and the staking must be filed off before screws are turned.

CLEANING

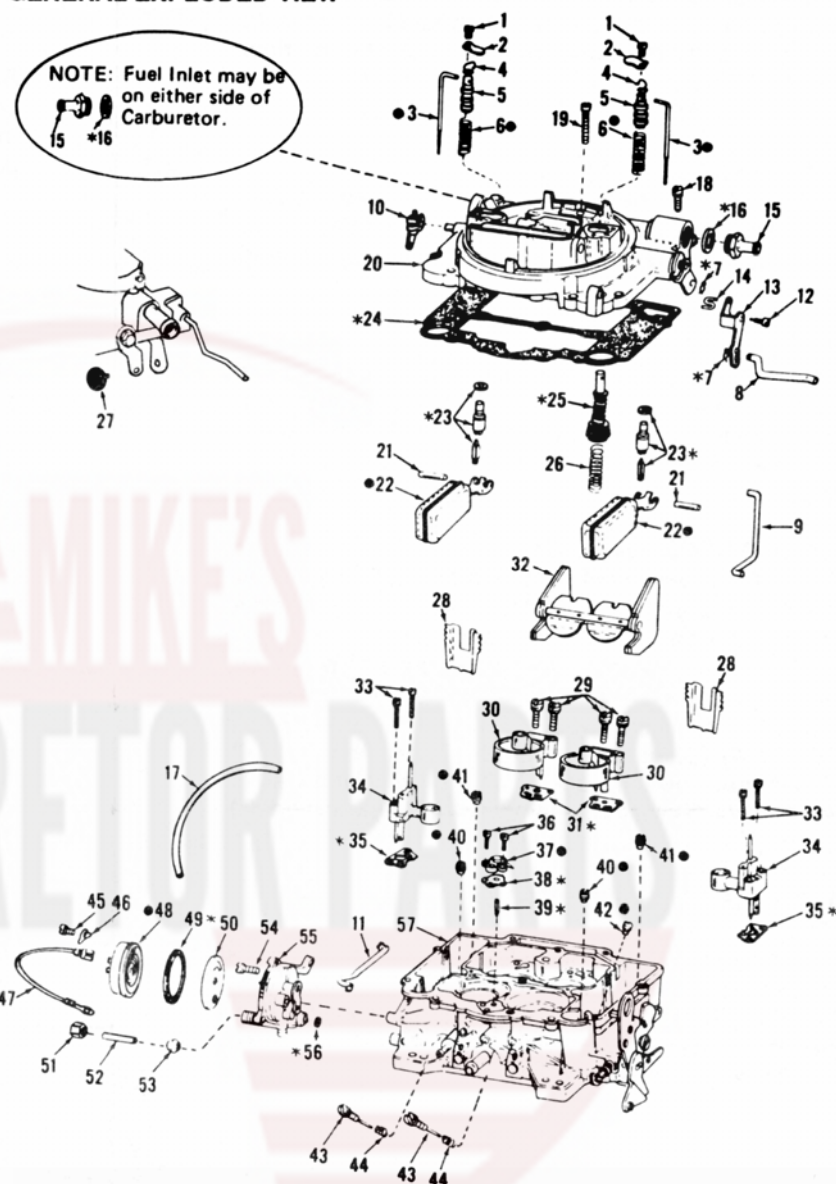
Clean all parts in an approved cleaning solvent. Special attention should be given to carbon deposits in throttle bore and passages. Rinse parts in suitable solvent. Blow out all passages with compressed air. Do not soak leather, rubber or similar material in solvent.

REASSEMBLY

Reverse the numerical sequence using reference numbers shown in exploded view as a guide and note the following special instructions:

1. Idle mixture screw (43) should be seated lightly and then backed out two turns for the initial setting. Refer to manufacturer's service manual for proper idle and fast idle final adjustment on the engine.
2. Vacuum piston springs (6), vacuum piston (5) and metering rod assemblies (3, 4) should be installed after bowl cover (20) has been attached to body.
3. Mark venturi assemblies (30, 34) before removal so they can be reinstalled in their proper location.
4. Be sure the fuel baffles on the bowl cover slide down in front of baffle plates (28) in fuel bowl.
5. Install open end of "S" link (14) toward choke valve. Link should read "S" from front of carb.
6. When installing bowl cover (20), guide brass bleed tubes on primary venturi through the bowl cover.
7. Apply a light film of lubricant to cup of plunger assembly (25) before installing.
8. After completion of all adjustments, be sure throttle valves move freely from wide open to closed position.

GENERAL EXPLODED VIEW



NOMENCLATURE

1. Cover plate screw (2)	22. Float (2)	43. Idle mixture screw (2)
2. Cover plate (2)	23. Needle and seat assembly (2)	44. Idle mixture screw spring (2)
3. Step-up rod (2)	24. Bowl cover gasket (2)	45. Coil housing retainer screw (3)
4. Step-up rod retainer spring (2)	25. Plunger assembly (2)	46. Coil housing retainer (3)
5. Step-up piston (2)	26. Lower plunger spring (2)	47. Choke ground wire (black)
6. Vacuum piston spring (2)	27. Vent valve (2)	48. Coil housing
7. Pin spring (2)	28. Float bowl baffle (2)	49. Coil housing gasket
8. Pump connector rod (4)	29. Secondary venturi assy. screw (2)	50. Baffle plate
9. Fast idle cam connector rod (2)	30. Secondary venturi assembly (2)	51. 1/4" Compression nut
10. Countershaft lever (2)	31. Secondary venturi assy. gasket (2)	52. 1/4" Fresh air choke tube
11. Choke connector rod (4)	32. Auxiliary valves and shaft (2)	53. 1/4" Compression ferrule
12. Pump lever screw (2)	33. Primary venturi assembly screw (2)	54. Piston housing attaching screw (3)
13. Pump lever (2)	34. Primary venturi assembly (2)	55. Piston housing
14. Pump "S" link (2)	35. Primary venturi assembly gasket (2)	56. Piston housing gasket
15. Fuel inlet fitting (2)	36. Pump jet housing screw (2)	57. Throttle body casting
16. Fuel inlet fitting gasket (2)	37. Pump jet housing (2)	
17. 3/16" Fresh air choke hose (2)	38. Pump jet gasket (2)	
18. Bowl cover screw (8)	39. Pump discharge check needle (2)	
19. Bowl cover screw (2)	40. Primary metering jet (2)	
20. Bowl cover (2)	41. Secondary metering jet (2)	
21. Float pin (2)	42. Pump intake check jet (2)	

ADJUSTMENTS

FLOAT LEVEL (FIG. 1)

With bowl cover inverted, bowl cover gasket in place, and weight of float seating needle, there should be $5/16$ inch between top of each float and bowl cover gasket (at outer end.) The sides of floats should be parallel to the outer edge of the bowl cover. To adjust bend float lever. **CAUTION! DO NOT PRESS NEEDLE INTO SEAT WHEN ADJUSTING FLOAT LEVER.**

FLOAT DROP (FIG. 2)

With bowl cover held in upright position adjust stop tab on float brackets to obtain $15/16$ inch between outer end of each float and air horn gasket. To adjust bend tab on float lever.

PUMP (FIG. 3)

Back out throttle speed screw to allow throttle valves to seat in bores. Install connector rod in bottom hole of pump lever. Adjust rod to obtain $15/32$ inch (Except 9637 use $13/32$), from top of bowl cover to top of plunger stem as shown.

CHOKE PISTON LINKAGE (FIG. 4)

Open the choke valve and insert a .026 wire (bend 90° $1/8''$ from end) between top of slot in choke piston cylinder and bottom of the slot in the piston. Hold wire in position and close choke valve by pressing on piston lever (A) until resistance is felt. The dimension (C) should be (9400— $3/64$) (9500, 9501, 9510, 9511, 9625, 9635— $7/64$) (9626, 9636— $3/32$) (9627, 9637— $1/16$) inch between the top edge of choke valve and wall of air horn. To adjust, move clamp lever (B—early models) or bend link (D—late models).

FAST IDLE LINKAGE (FIG. 5)

Place fast idle screw (A) on second step of cam. Move choke valve toward the closed position as far as possible without forcing. The dimension (C) should be $3/64$ inch (9510, 9635— $1/16$) (9626, 9637— $5/64$) between the upper edge of choke valve and wall of air horn. To adjust bend rod (D).

SECONDARY THROTTLE LOCK OUT (FIG. 6)

Crack throttle valves and manually open and close the choke valve. Tang on secondary throttle should freely engage in notch of lock out dog. To adjust bend tang on secondary throttle lever.

SECONDARY THROTTLE VALVE OPENING (FIG. 7)

Secondary throttle valves should just start to open when there is $11/32$ inch between primary throttle valve and bore of carburetor as shown to adjust bend rod. (A). With primary throttle valves wide open adjust stop tang (B) until secondary valves are 5° before full vertical position.

SECONDARY THROTTLE VALVE CLOSING (FIG. 8)

With primary and secondary throttle valves tightly closed, there should be .020 clearance between levers as shown. To adjust bend shoe on lever (A).

UNLOADER (FIG. 9)

With throttle valves open, close choke valve as far as possible without forcing. The dimension (C) between top edge of choke valve and inner wall of air horn should be $1/4$ inch. To adjust, bend tang (D) on throttle lever.

ELECTRIC CHOKE SETTING (FIG. 10)

Rotate cover against spring tension until mark on thermostat cover is aligned with index mark on housing. Turn clockwise an additional two notches rich (9627, 9637—3 notches rich) for proper setting.

BOWL VENT (FIG. 11)

Remove plug (A) from hole in airhorn and insert a narrow ruler. Allow ruler to rest lightly on top of valve. With throttle valves closed and choke open, the dimension from the top of the valve to top of hole in casting should be $3/4$ inch. To adjust bend valve operating lever (B).

NEEDLE AND SEAT ASSEMBLY (FIG. 12)

Early AFB's use rubber-tipped needles with solid bodies and a screen at the inlet fitting. Later AFB's use spring-loaded needles and screens fitted to the seat body. Both types are in this kit. Use the one duplicating original parts. Float setting for both styles is $5/16''$ (+/- $1/64''$).

