

SERVICE PROCEDURE

WA-1 CLIMATIC CONTROL CARBURETER

A fast, simple, Circuit method of servicing Carter WA-1 Climatic Control Carbureters. Use Carter tool kit.
BE ACCURATE.



1.
Remove fast idle cam and pin assembly.



2.
Remove air horn and climatic control assembly.
Lift off air horn gasket.



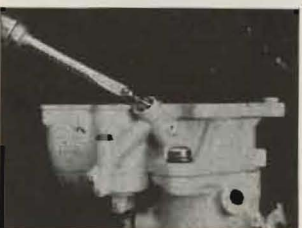
3.
Disconnect throttle connector rod; then remove bowl cover with all parts attached. Remove throttle shaft arm assembly.
Check throttle connector rod for wear at both ends, and hole in pump arm. Remove bowl cover gasket and pump spring.



4.
Remove metering rod jet and gasket assembly.



5.
Remove low speed jet assembly.



6.
Remove pump jet plug and gasket assembly and pump jet.

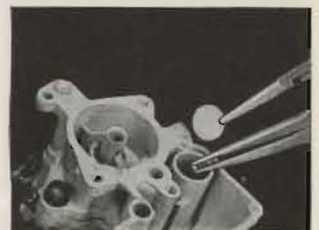
7.
Remove pump discharge ball retainer and gasket, and check ball.



8.
Remove nozzle passage plug, nozzle retainer plug and nozzle.
Be sure to remove small nozzle gasket from casting.



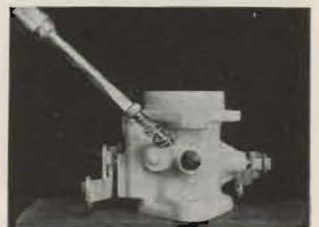
9.
Remove pump strainer, and pump intake check ball.



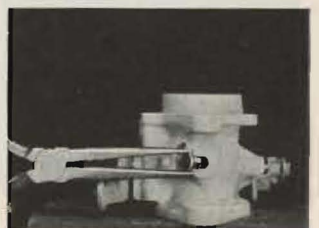
10.
Separate body from flange assembly.
Remove body flange gasket.

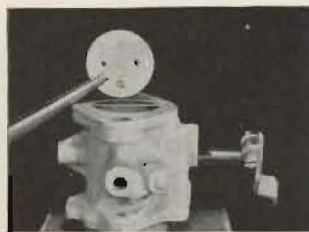


11.
Remove idle adjustment screw and spring.
Check for groove on seating surface.



12.
Remove idle port rivet plug.

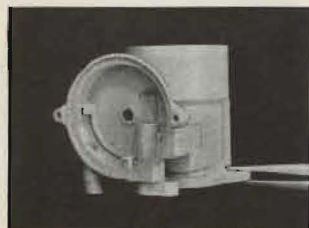




13.

Remove throttle valve screws, valve and throttle shaft and lever assembly.

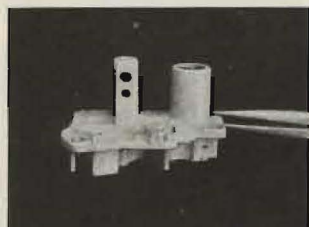
Do not remove baffle plate from carburetor casting. Check shaft for wear, loose lever and throttle rod hole in lever for wear.



14.

Remove all parts from air horn.

Do not remove piston housing attached to air horn with rivet.



15.

Remove all parts from bowl cover.

TO REASSEMBLE

(See note at bottom of page)

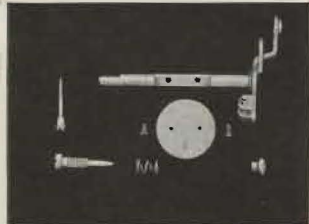
16.

Group parts controlling float circuit.



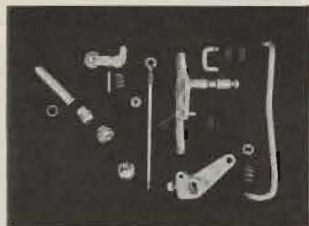
17.

Group parts controlling low speed circuit.



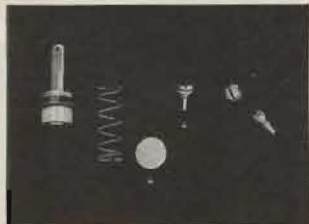
18.

Group parts controlling high speed circuit.



19.

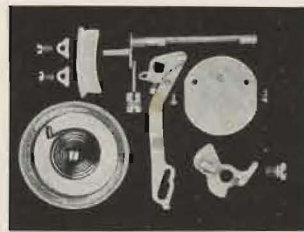
Group parts controlling pump circuit.



20.

Group parts for choke circuit.

Examine each part in the five groups and replace any part that shows wear, or does not meet specifications.



21.

Install strainer and strainer nut and gasket assembly.

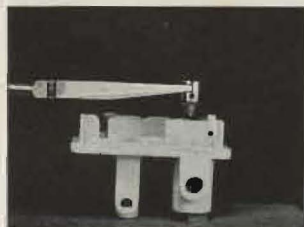
Use new gasket.



22.

Install needle seat and gasket assembly.

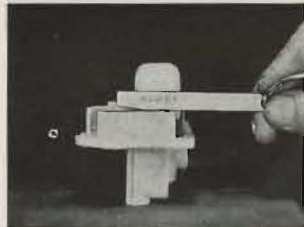
Check for wear. If either needle or seat shows wear, replace both.



23.

Install needle, float and lever assembly, float lever pin.

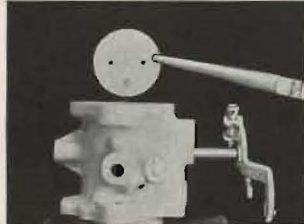
Check float for dents and wear on lip, and float pin for wear. Check bowl cover for wear in countershaft hole. Set float level to specifications by bending lip, not float. Measure distance from projection on bowl cover to soldered seam of float, as shown.



24.

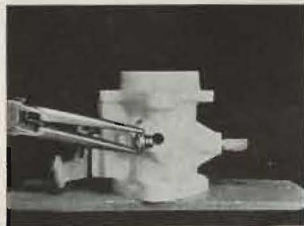
Install throttle shaft and lever assembly and throttle valve.

Small "c" in circle should be toward idle port facing manifold side of flange. Center valve by tapping lightly before tightening screws. Use new screws. Back out throttle lever adjusting screw before installing.



25.

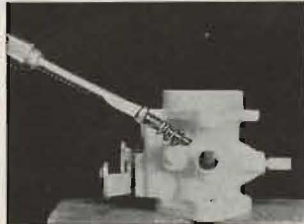
Install idle port rivet plug.



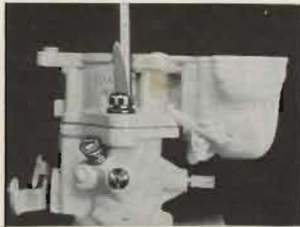
26.

Install idle adjustment screw and spring.

Back out from seated position to specifications.



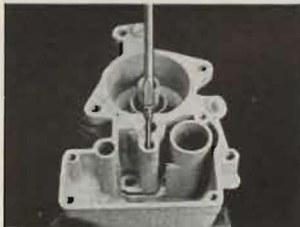
Note: Clean casting and all parts thoroughly, except cork pieces and coil and housing assembly, with clean gasoline. Paint outside of body casting with Carter Special Body Finish. Be sure Finish does not restrict passages.



27.

Assemble body and body flange assembly.

Use new gasket. Pull screws down evenly. Don't forget lock washers.



28.

Install low speed jet assembly.

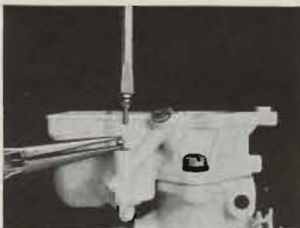
Be sure jet seats firmly in casting.



29.

Install pump jet and pump jet passage plug and gasket assembly.

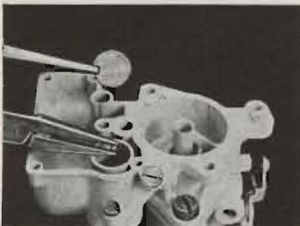
Be sure jet is clear of all restrictions and seats properly. Use new gasket on passage plug.



30.

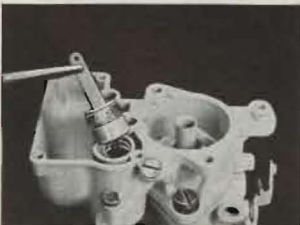
Install pump check ball and pump discharge ball retainer and gasket.

Use new gasket.



31.

Install pump intake check ball and pump strainer.



32.

Install pump spring and pump plunger and rod assembly.

Examine leather for damage. If not in good condition, replace entire assembly.



33.

Install metering rod jet and gasket assembly.

Examine for wear. If jet is worn, replace both metering rod and jet. Use new gasket.

34.

Install bowl cover assembly.

Use new gasket. Pull screws down evenly. Install idle passage plug and gasket assembly (center of bowl cover).



35.

Install anti-percolator cap and rocker arm assembly and spring.

Make certain that leather is in good condition and that pin is not worn.



36.

Install pump arm and countershaft assembly.

Install connector link on pump shaft and in proper hole in pump arm.



37.

Install throttle shaft arm and screw assembly and throttle connector rod.

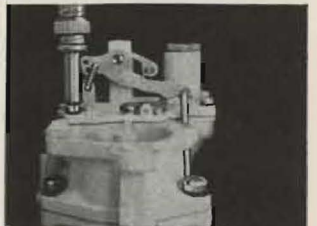
Check throttle shaft arm for wear.



38.

With throttle connector rod in place, adjust pump stroke.

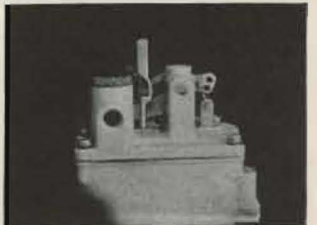
With connector link in proper pump arm hole, stroke can be measured by using universal pump stroke gauge T109-1175. Place gauge on ridged portion of bowl cover with indicator ear on top of pump shaft and measure distance between closed and wide open throttle. Adjustment is made by bending throttle connector rod at lower angle (see specification page).



39.

Adjust metering rod.

See footnote at bottom of page.



Metering Rod Adjustment: Adjust metering rod after pump adjustment is made. Insert metering rod gauge in place of metering rod, seating tapered end in jet. With throttle valve seated, there should be less than .005" clearance between metering rod pin and shoulder of notch in gauge. Adjustment can be made by bending metering rod pin portion of pump arm up or down as shown in illustration No. 40. (See page 4 for metering rod adjustment for vacuum carburetors.) Remove gauge, install rod and disc, and connect spring.

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40.

Metering rod adjustment.

See footnote at bottom of page 3.



41.

Adjust anti-percolator.

Crack throttle valve specified distance by placing gauge between valve and bore of carburetor (side opposite port). (See specification sheet.)



42.

Anti-percolator adjustment.

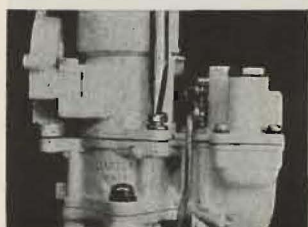
Bend anti-percolator rocker arm until there is a clearance of .005" to .015" between rocker arm and pump arm.



43.

Install nozzle, nozzle retainer plug and nozzle passage plug and gasket assembly.

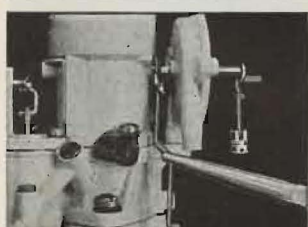
Use new gasket on nozzle and nozzle passage plug.



44.

Install air horn and piston housing assembly.

Use new gasket. Tighten screws evenly. Don't forget lock washers.



45.

With choke lever, screw and link assembly in place, install choke shaft and piston assembly.

Check for loose lever on shaft.

46.

Install choker valve.

Use new screws when installing valve. Center choke valve by tapping lightly. Hold in place with finger before tightening screws.



47.

Install piston housing strainer and thermostatic coil and housing assembly.

Install coil housing assembly with indicator marks at bottom. Then revolve housing counter clockwise and set as specified.



48.

Hold choker valve wide open, then tighten choker lever screw as shown.

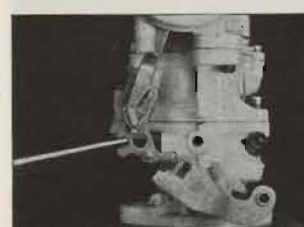
Be sure that linkage does not bind in any position. Fast idle, unloader and lockout adjustments must be made as specified.



49.

Install fast idle cam and pin assembly.

Carburetor is now ready for installation. Protect your work with a Carter Ceramic or Airdome Fuel Filter.



Always use complete new gasket assortment when servicing a Carter Carburetor.

NO CARBURETOR CAN DELIVER GOOD MILEAGE OR PERFORMANCE UNLESS COMPRESSION IS NORMAL AND THE MOTOR IS PROPERLY TUNED.

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Metering Rod Adjustment: (Vacumeter carburetors.) Adjust metering rod after pump adjustment is made. Insert metering rod gauge in place of metering rod, seating tapered end in jet. With throttle valve **seated**, press down lightly on piston link directly over piston. There should be less than .005" clearance between metering rod pin and shoulder of notch in gauge. Gauge must not drag on pin. Adjustment can be made by bending lip on piston link so that it contacts hump on pump arm. Remove gauge, install rod and disc, and connect spring.