Autolite 4100 Carburetor Manual

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 passageway 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 toothbrush 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:

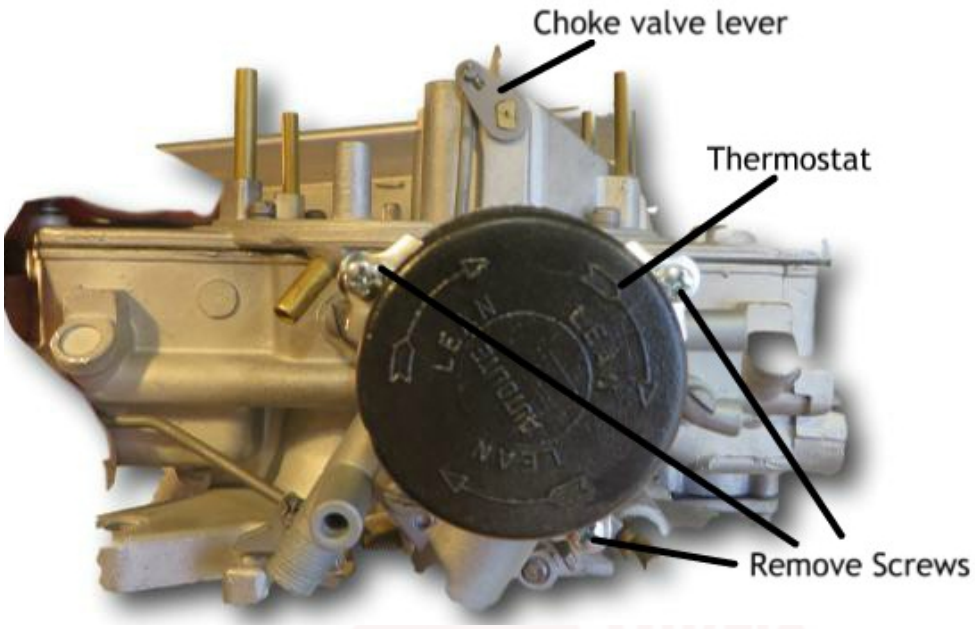
- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
    - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
    - Plastic, or Nitrophyl 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.

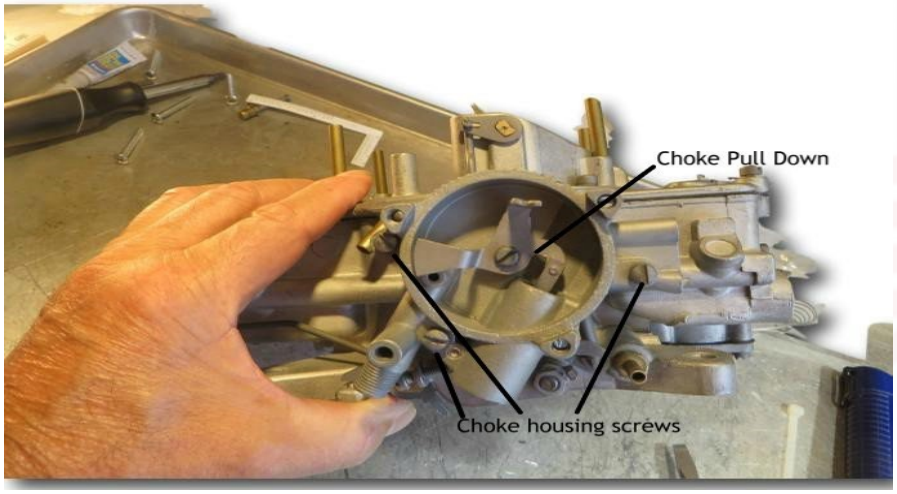
Accelerator Pumps:

- 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.

Rebuild Steps



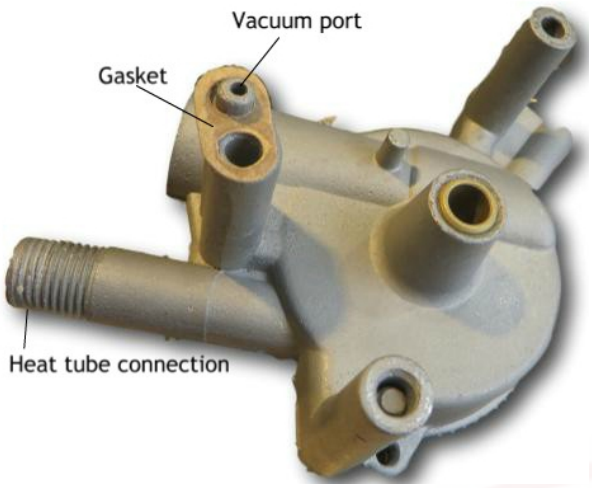
Remove the 3 screws that hold the thermostat cap.



The choke pull-down is connected to the fast idle & choke linkage so the screw in the middle of the thermostat housing needs to come out.

Twist the lever counterclockwise to bring the pull-down piston out.

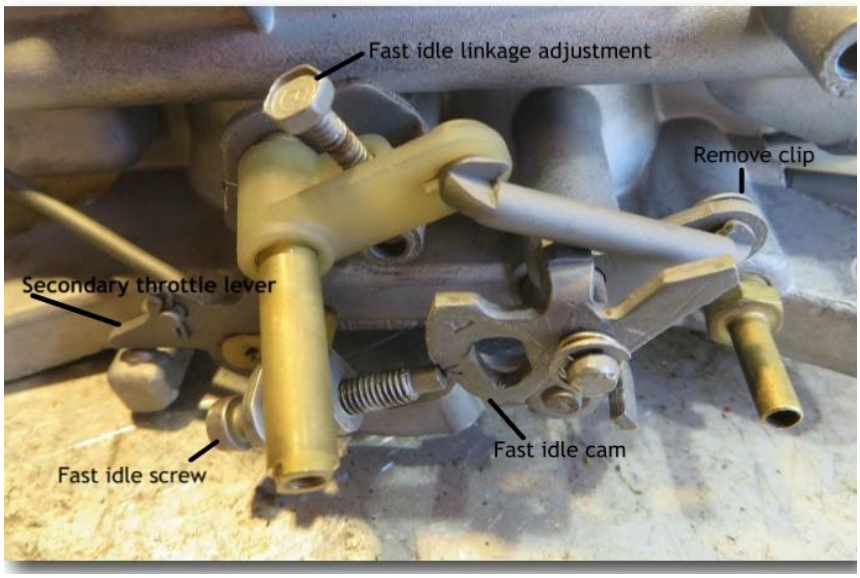
To clean the piston, buff with a wire wheel. There is no seal and the pull-down piston needs to move freely. Any corrosion in the pull down well will need to be removed. Do not oil, but spraying silicon spray lubricant is OK.



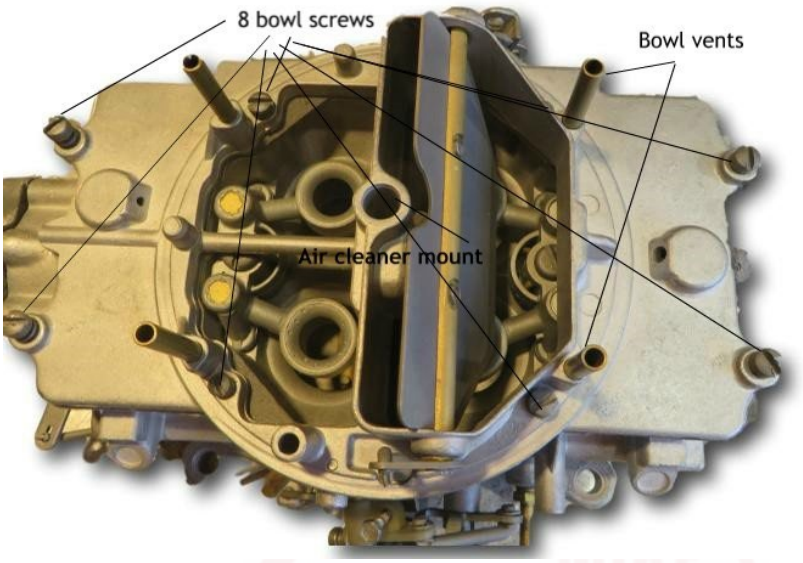
When installing the choke housing back on the carburetor, be sure to replace the gasket that goes around the vacuum port.

If you are replacing the thermostat with one of our electric conversion kits, cap off, or leave open the heat tube connection.

This is what you see once you pull off the thermostat housing. This will become important when you put the carburetor back together.



Remove the clip as illustrated and pull the fast idle linkage lever off.



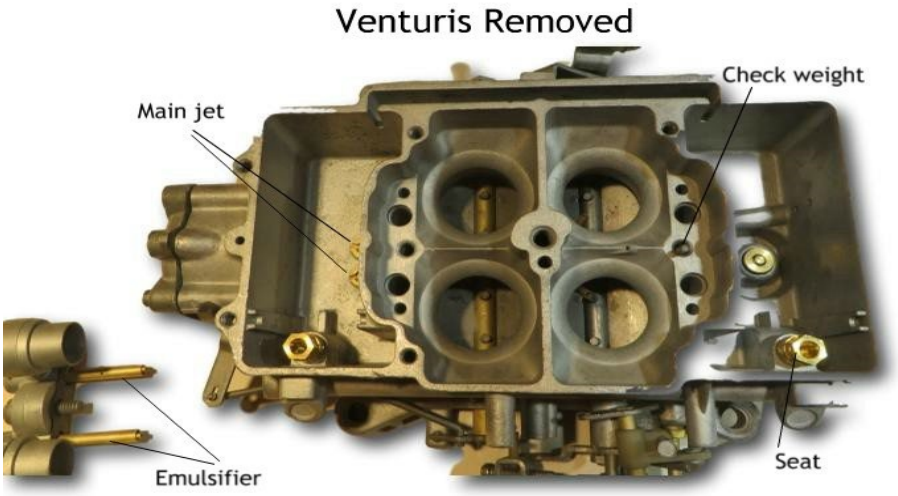
Remove the 8 bowl screws.

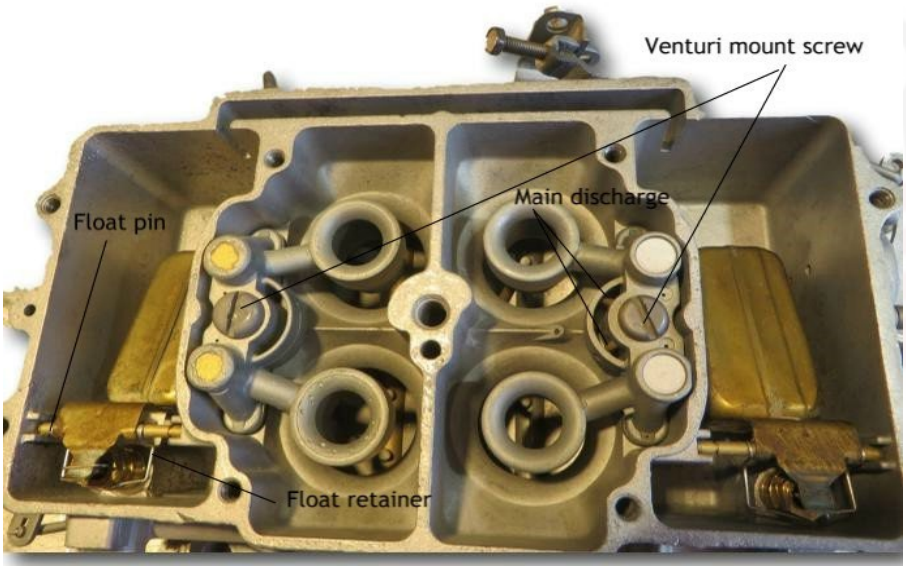
If the air cleaner mount stud is still on the carburetor, remove it also.

NOTE: not all 4100's has the 4 bowl vents as this one shows.

If you haven't done so yet, disconnect the choke lever rod (at the bottom).

The top can now be removed. The top can be loosened (if needed) by banging on the edge of the float bowl top with a rubber hammer. Old baked gaskets can cause the top to stick. Do not pry the top off, it will be damaged.





Next, we remove the floats, float pins & retainers.

IMPORTANT: Notice the float pin grooves and how the clips attach. The short side of the pin is positioned towards the outside of the carburetor. Not doing so will cause the floats to rub.

Also notice how the retainer clips, clip over the needle & seat.

One other thing to notice is how the float to needle clip is connected. What is important with this clip is that the needle is pulled out straight.

Remove the venturi mount screws. The primary (right side) screw is hollow and accommodates the check weight.

Inspect the emulsifiers. They should not be split. If they are, find another venturi.

When installing the venturis be sure the gasket sits down flat. They sometimes need to be trimmed.

Remove the check weight.

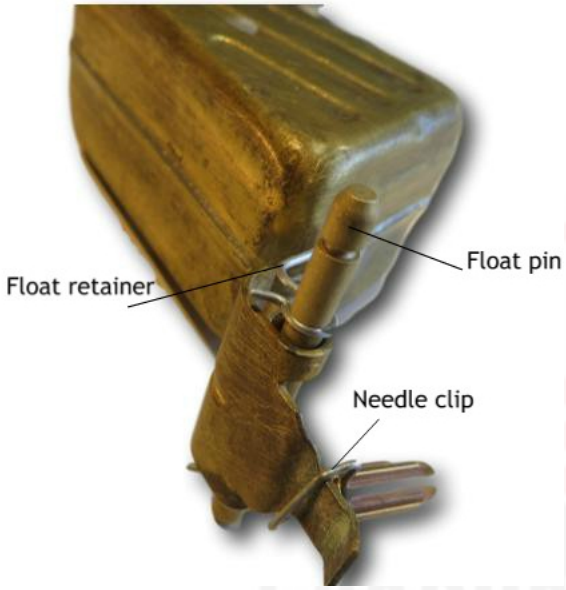
There is a check ball below the check weight.

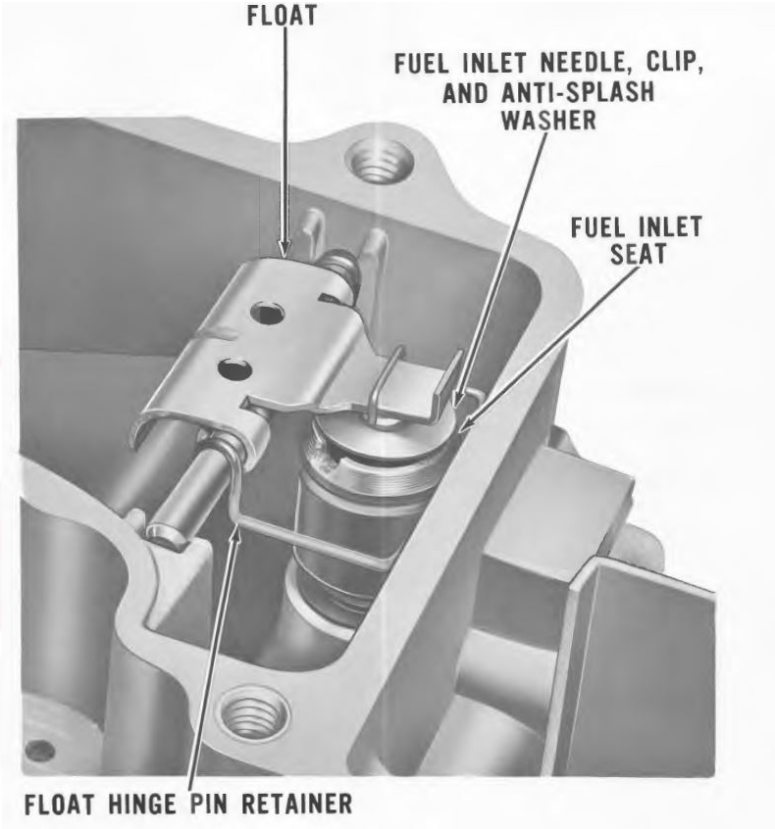
Remove the 2 seats.

Remove the main jets. There are 2 on the primary side and 2 on the secondary side. Do not get these mixed up. While the sizes are different between primary and secondary, the set of 2 for each side are the same size. Put each set in a sandwich bag and mark primary, or secondary.

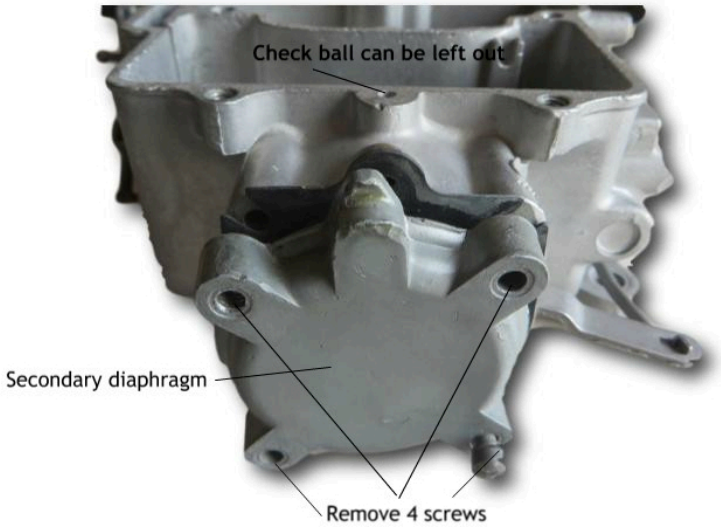
NOTE: Jet sizes are different for each application and hi-altitude. Moving to high altitude (over 5000) requires primary jets be reduced by .002.

Test your jet size by watching your spark plugs. You want them to burn tan, or gray. White indicates too lean, black indicates too rich. Reduce or increase jet size by .002 each time.

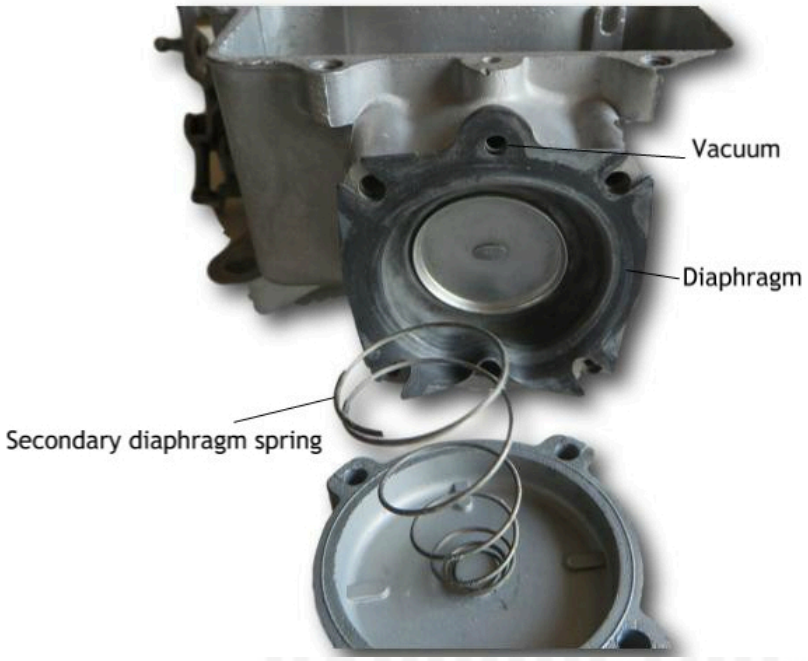




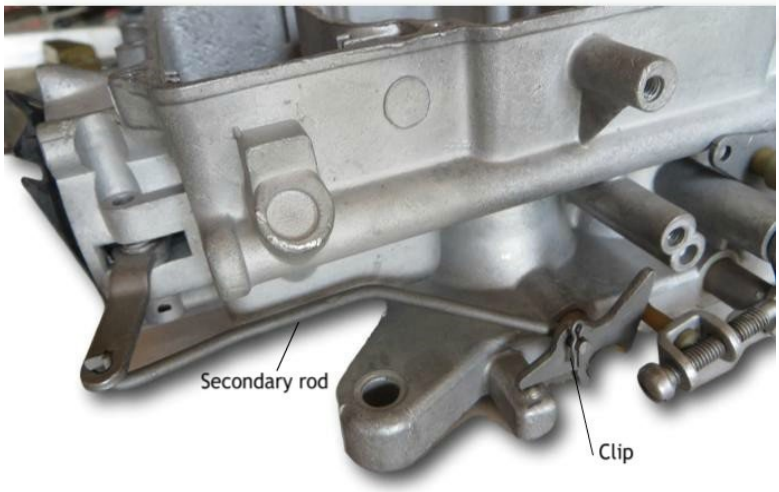
Illustrates the float, retainer, pin & the needle clip. This one is the secondary float because the short end of the pin is to the left (toward the outside of carb)



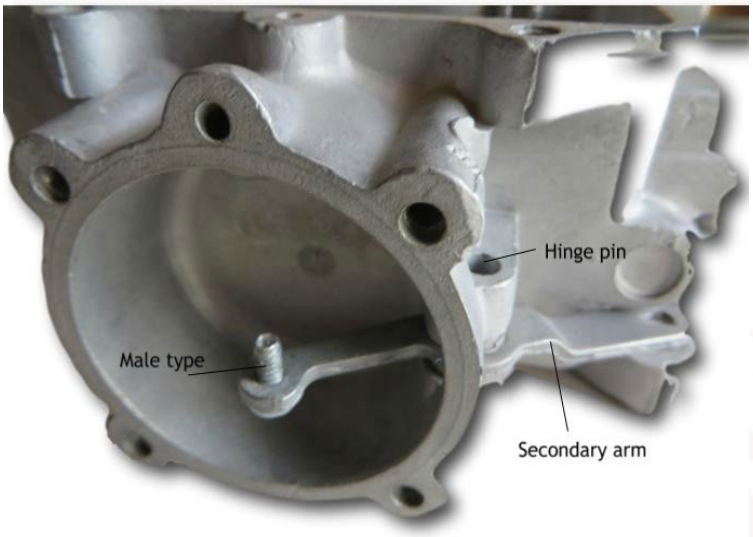
This is the secondary diaphragm housing. Remove the 4 screws as shown. Some models might have a small check ball in the top small hole. Leave it out. 4100 carburetors are now adjusted to where they don't need it.



Top of secondary diaphragm cover removed. Notice how the spring fits. Big end towards the diaphragm. Make sure nothing is in the vacuum hole. If there is a check ball, remove it. For check balls that are stuck, heat the outside while tapping the end of the carburetor on the work bench.

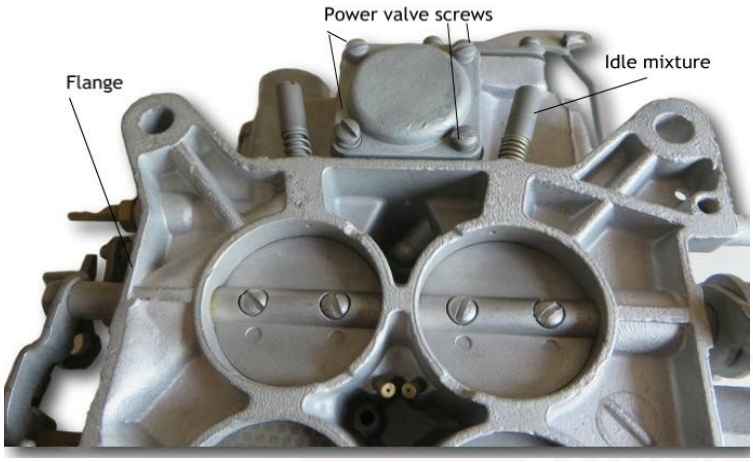


Remove the secondary rod but removing the clip, then turn the rod until it comes out of the secondary arm.

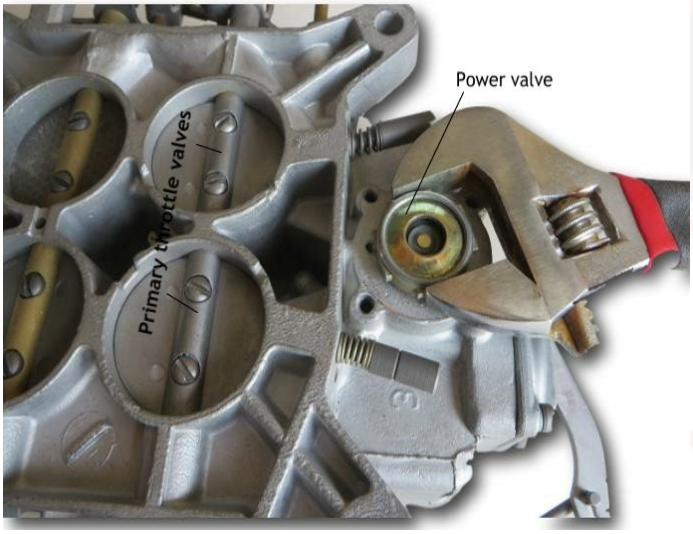


Shows with diaphragm removed. This one happens to use a diaphragm with the female connection. We sell only the female type of diaphragm along with a plastic secondary arm. We also provide a gasket.
Many secondary diaphragm covers are warped. The new gasket will help seal.

To remove the arm, beat the hinge pin out with a drift punch. Some heat will help if it doesn't come out easily. Use something behind the arm so you don't bend it.



Remove the power valve cover by removing the 4 screws.



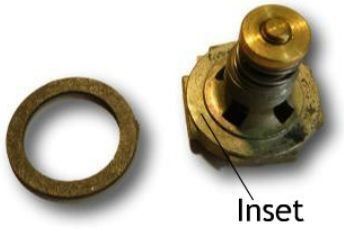
Remove the power valve by turning the valve counter clockwise.

Run a flat file over the flange to make sure it is flat. This carburetor warps easily and can cause a vacuum leak at the mounting gasket. Remove the 2 idle mixture screws along with the springs.

We do not recommend removing the throttle valves unless they are sticking or corroded. There is too much of a chance of damaging or breaking. If you do

remove them grind down the threaded end so they will come out easy. The screw will probably be staked.

The new power valve may not look exactly like this one. Some older valves use a longer nose compared to the new valve.



The gasket shown on the left fits the inset of the power valve.

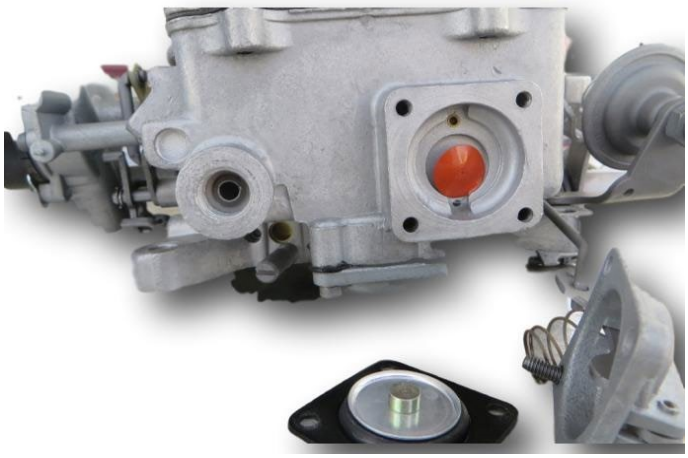
Remove the pump cover (4 screws).

Remove the umbrella check valve. Simply pull is out. When installing the new one put a little water on the stem so that it pulls through easier. Use a pliers to pull the valve stem through the hole and into the float bowl. Cut the stem off so that it doesn't hit the float.

NOTE: Some models may have this check valve inside on the float bowl wall.

The large end of the spring goes toward the umbrella check valve.

The flat side of the diaphragm goes toward the check valve.



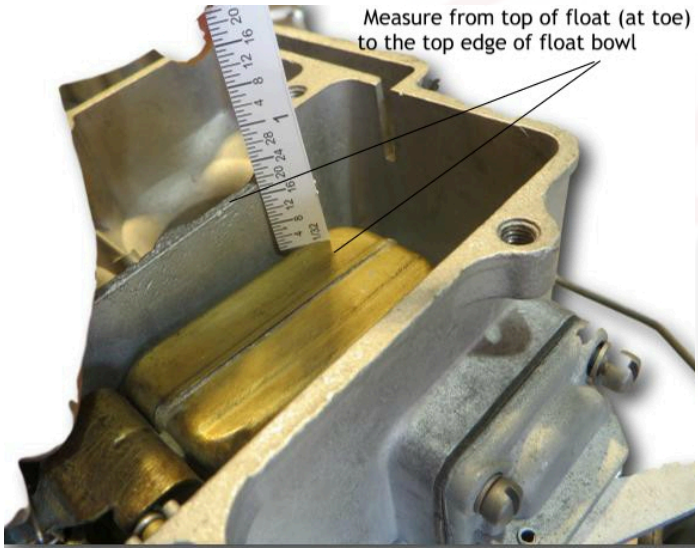
Re-Assembly

Reverse the dis assembly order to assemble the carburetor.

Watch a video about rebuilding the 4100

Adjustments

Float Adjustment – See the instruction sheet below for other adjustments.



The float height will vary depending on the application. See the spec sheet below. If your application isn't listed, then pick the closest engine size to what you have and go with that.

Hold down the hinge on the needle gently (it's easy to damage the viton tip). To adjust, bend the tab that sits on the needle. Again don't put pressure on the needle.

There is no float drop adjustment necessary. The float level takes care of that.

Secondary Throttle Plate Adjustment

Hold the secondary throttle plates closed and turn the secondary throttle shaft

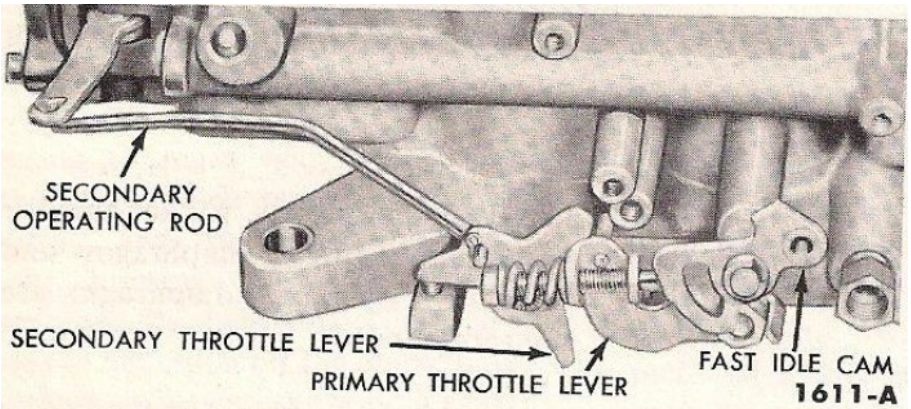
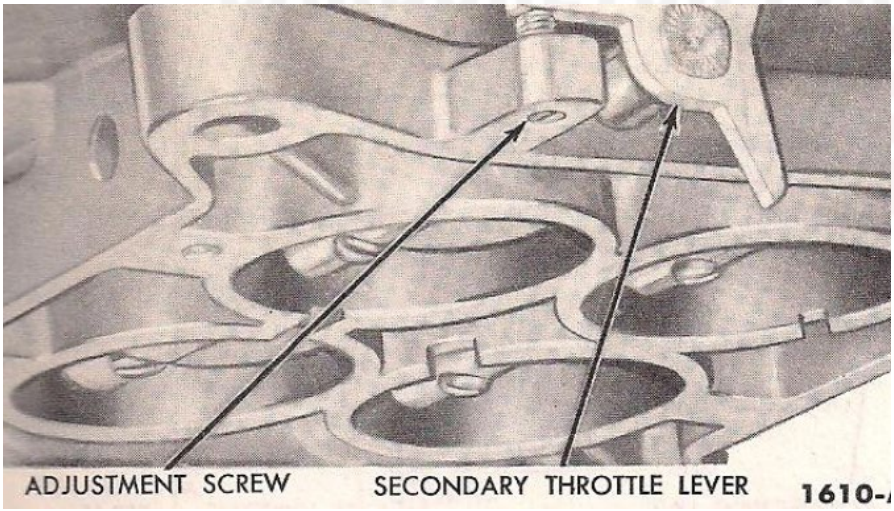


FIG. 20 —Primary and Secondary Throttle Levers and Fast Idle Cam Installed

lever adjusting screw out until the secondary throttle plates stick in the throttle bores and there is .005 inch clearance between the screw and the secondary throttle lever, then turn the screw in one full turn.



Checking Power Valve

Remove the power valve and blow through one side. There should be no leaks. Even better would be to put a vacuum tester on it once you find a way to cover one side of the valve.

Choke Housing Linkage Installation

Fast Idle Cam and Bellcrank Lever

With the choke plate fully closed, adjust the bellcrank lever so that the fast idle adjusting screw seats on the next to the highest step on the fast idle cam.

Test the Fuel Pump

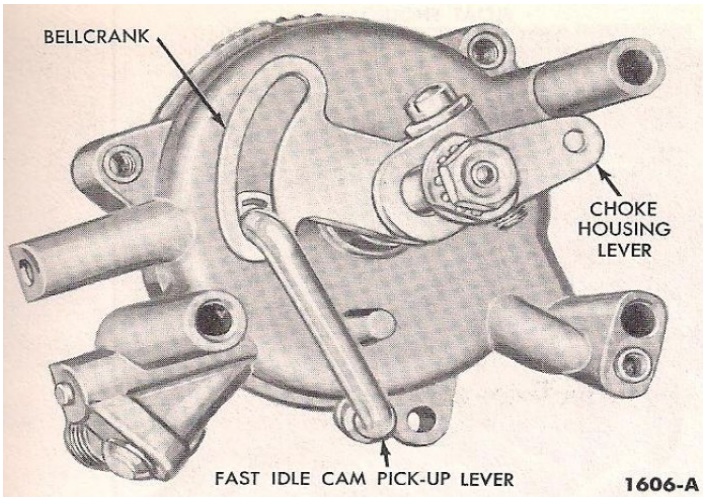
Disconnect the fuel line at the carburetor. Install a pressure gauge and a T type fitting with a petcock between the gauge and the carburetor fuel inlet fitting. Vent the system, by opening the petcock momentarily, prior to taking a pressure reading. Operate the engine at 500 rpm. After pressure has stabilized, it should be 4.5-6.5 psi.

Capacity Test.

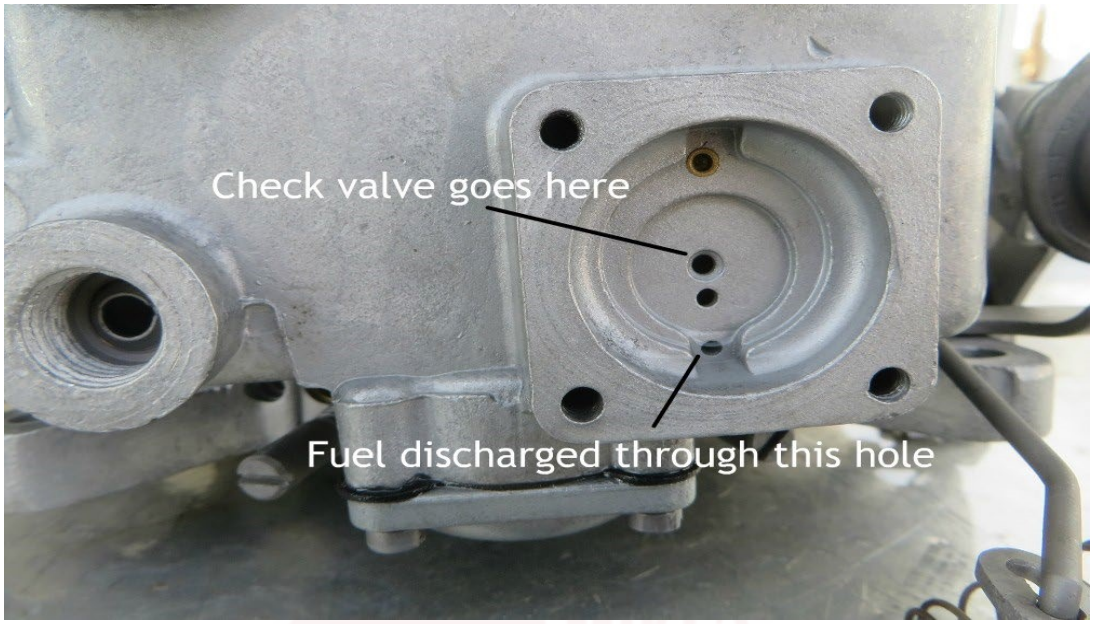
Be sure the fuel filter is clean and there are no kinks in the fuel line. Perform this test only when the pressure test is within specifications. Open the petcock, and expel the fuel into a suitable container. Operate the engine at 500 rpm and observe the time required to expel on pint. It should be 20 seconds or less.

Extra Stuff

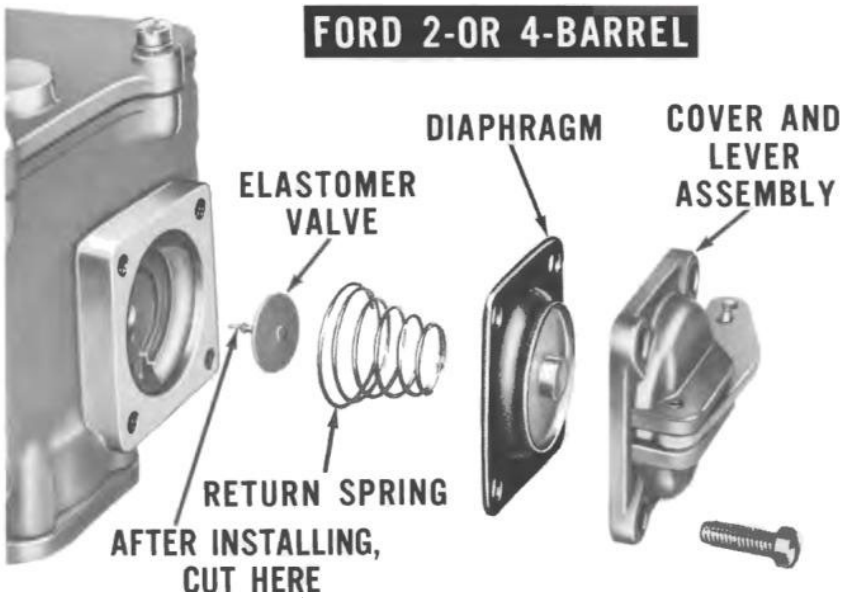
How the accelerator pump works.



1964 & later



How the accelerator pump circuit works:

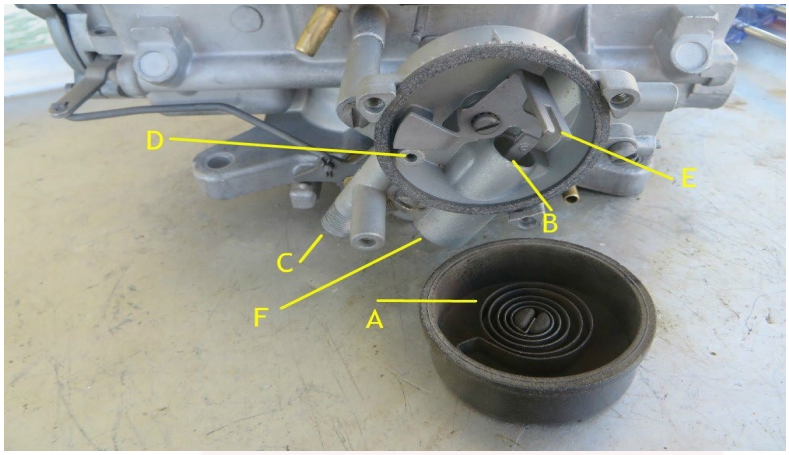


The Elastomer Valve (or as we call it Umbrella Check is used to control gas intake to the diaphragm and the discharge.

When the throttle is let up, the diaphragm creates a sort of suction which pulls open the Elastomer valve and allows the diaphragm reservoir to fill up.

When you press on the throttle the diaphragm is pushed towards the carburetor which pressures the Elastomer valve closed. The gas is then forced through the discharge hole in the carburetor body housing and up through the venturi and main discharge.

As you let up on the throttle, the return spring presses the diaphragm forward and again opens the Elastomer valve.



A- Thermostat coil. The tab on the spring fits into the slot at E. When the choke is closed (engine cold), the coil is coiled tighter. As the engine warms up the coil expands and assists in opening the choke valve. When the engine is at operating temperature, the choke valve should be open all the way.

B- Pull down piston. This is used to open the choke slightly when the choke valve is closed (engine cold) and the throttle is opened up. Without this, the choke valve would choke the engine causing it to die. The piston is moved by vacuum only so be sure it move freely. Clean it by spraying silicon spray lubricant into the hole. If frozen, then remove the clean out plug at F. Tap the piston to move it and clean out the hole thoroughly. Be gentle, the piston connects to the arm with a small pin, which will break (pin, or arm) easily.

C- Hot air tube connects here. Vacuum in the choke housing via the carburetor, pulls the hot air into the housing via the hole at D.

1964 & Later Carburetors

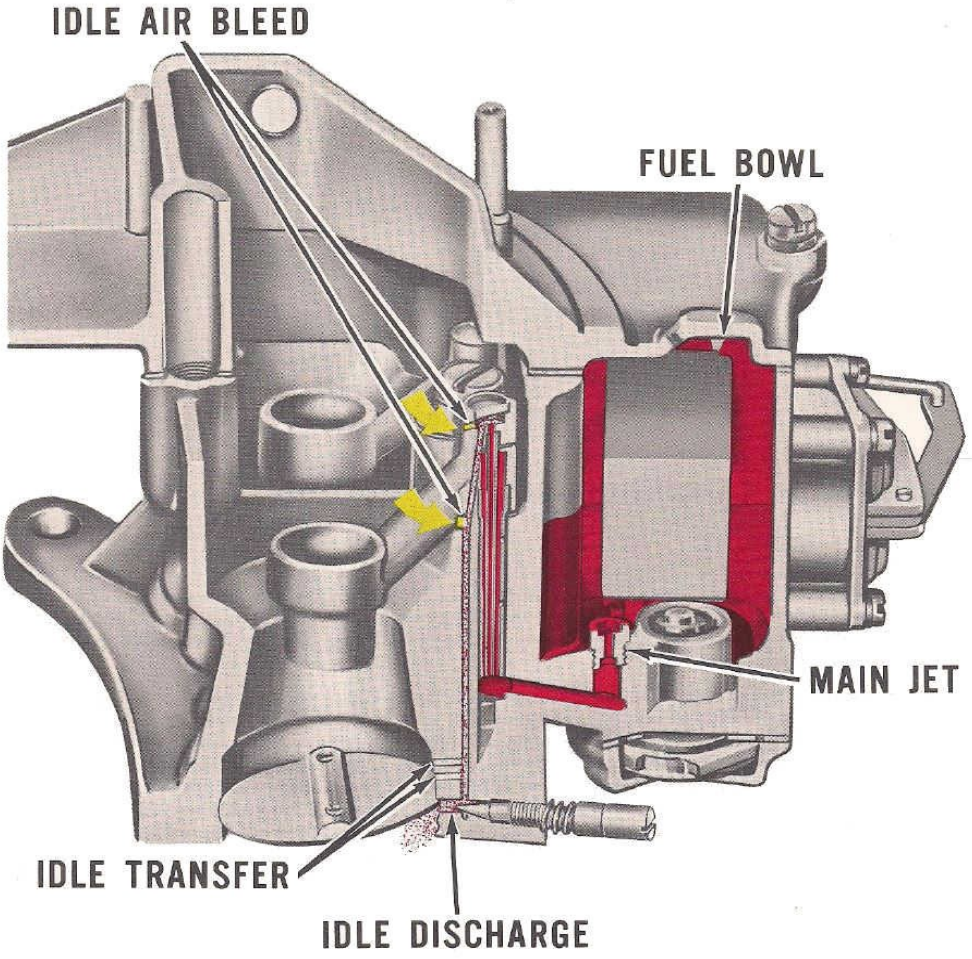
On some 1963 & earlier 4100 carburetors the center of the choke (C) has a spring loaded lever. Our thermostats do not fit these types.

Remove B to clean out the choke piston. Replace with our 85D48 aluminum plug. Insert the plug then hit the center with a hammer to expand it. This is enough to seal and you will not need to add any epoxy, but it won't hurt if you do.

A - This hot air inlet often will have worn threads. You can try this fitting to repair it. May not work on all depending on how worn it is.

Eliminate the hot air tube by using our electric choke conversion kit.

Idle Circuit



Fuel flows from the float bowl through the main jet up through the idle tube and through a short diagonal passage in the venturi assembly and into the idle passage in the main body. Make sure the small passages in the venturi are clear. Carburetor cleaners may not get it done and you may have to clean them out with thin wire.

Air enter through the idle air bleed and is mixed with the fuel. This air bleed is also a vent to prevent siphoning at off-idle or high speeds and when the engine is stopped. The mixture of air and fuel pass down a diagonal passage in the venturi and through a calibrated restrictor. Additional air is bled into the system through an air bleed located at the bottom of the diagonal passage where teh fuel enters the idle passage in the main body.

Fuel flows down the idle passage in the main body past 2 idle transfer holes. The idle transfer holes act as additional air bleeds at curb idle. The fuel then flows past the pointed tip of the adjusting needle which controls the idle fuel discharge in the primary stage. From the adjusting needle chamber the fuel flows through a short horizontal passage and is discharged below the primary throttle plates.

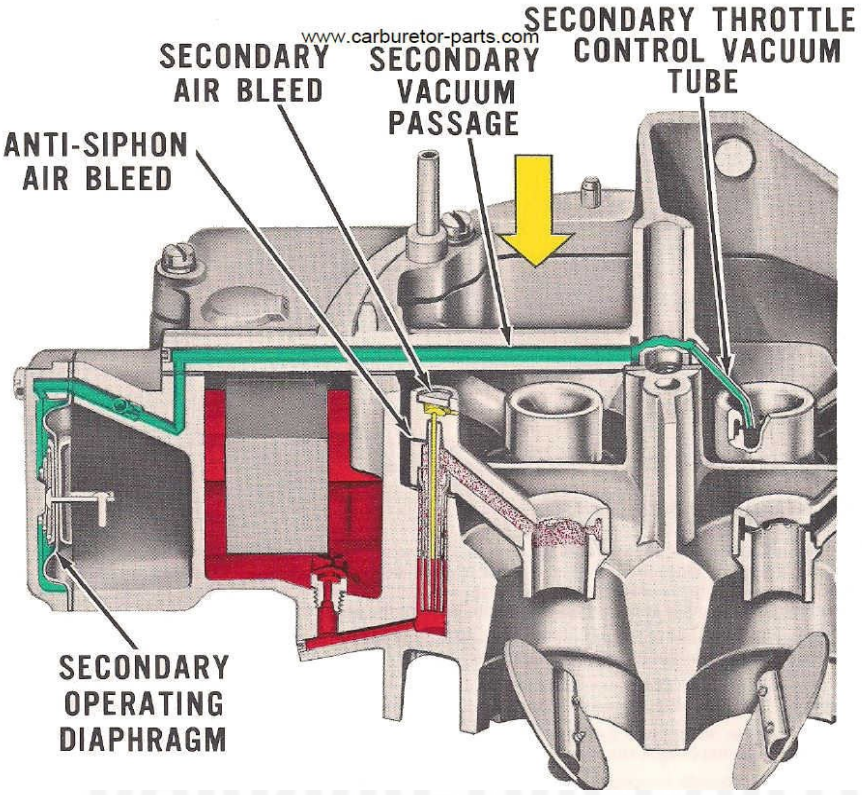
As you can see it is important to make sure all of these small passages are clear.

You can re-used your old idle mixture screws as long as there is no scoring on the tapered end.

Adjusting your idle mixture

- Get the engine to operating temperature.
- Connect a vacuum gauge to the carburetor, or manifold vacuum port.
- Adjust the idle to manufactures specification.
- Taking turns with each screw, turn them in 1/4 of a turn, wait a second, then do it again. Do this until the RPM starts to drop.
- Turn the screws back out 1/4 of a turn.

Secondary Circuit



The secondary throttle plates are operated by the secondary diaphragm using vacuum.

As the primary throttle valves are opened the vacuum at the venturi increases. When vacuum reaches a certain point the secondary operating diaphragm kicks in.

There is a check ball located in the secondary vacuum passage which controls the rate at which the secondary valves are opened. Note that this check ball is often missing and some carburetor people don't think it is necessary. At minimum check to make sure if you have this check ball that it is loose. They do get corroded and stuck. When stuck, apply heat to the outside of the housing while tapping the carburetor on the bench. The ball will eventually fall out.

As the secondary plate begin to open fuel flows from the secondary fuel bowl through the secondary jets, up the main well tube where it is mixed with air and out the secondary venturi.

Be sure the secondary air bleed and the anti-siphon air bleed is clear. Gas leaking into the secondary venturi while the secondary valves are closed could be caused by these tubes being plugged.

A warped 4100 main body could affect the secondary vacuum passage and gas can enter the venturi area from the fuel well.

Here is a question about a 1957:
On the 4100 Autolite carburetor that when the engine is off, you can move the secondary linkage real easy. When the engine is running the secondary linkage is hard to move. I put a paper clip on the link to test it to see if the secondary's opened up and I drove it down the road and the paper clip never moved. Which, I take it, that the secondaries are not opening,

Ford 4100 secondaries are vacuum-operated via a diaphragm. If the secondary positive closing tang (which is a flimsy nylon pin IIRC) is broken off, then yes, they can be opened easily when the engine is off.

When the engine is running, they may indeed be harder to move due to the increased low-pressure area below them; I can't really say for certain, but it seems logical.

If they are not opening at all when the car is warmed-up and the primaries are opened wide and held there, then he probably has a bad secondary diaphragm and/or a warped diaphragm cover.

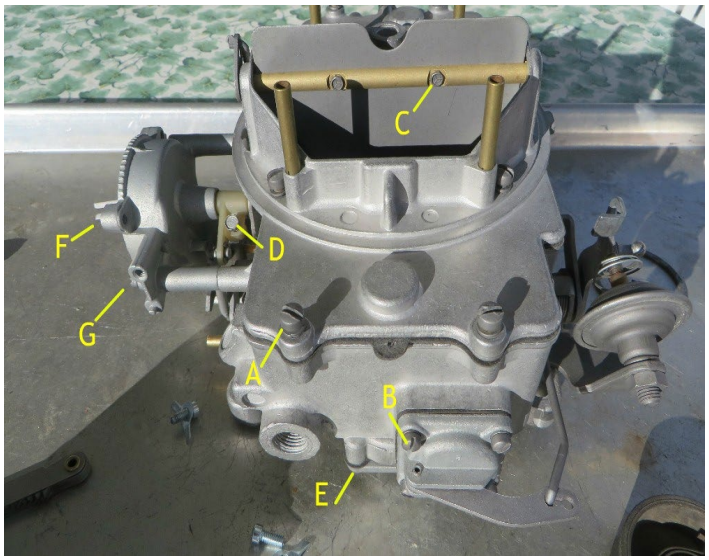
The secondary diaphragm is mounted at the rear/back of the main body. It has a conical spring mounted in front of the diaphragm with the small end of the spring toward the cover. You must take care when mounting the lever to the back side of the diaphragm or it will not open! I use contact cement

when installing a new diaphragm, so the edges of the diaphragm stay aligned with the screw holes and the vacuum port.

The diaphragm gets it vacuum signal from a "small" brass tube mounted in the air horn that points downward into the main body primary opening and is close to the air cleaner Bolt. The vacuum signal then travels through the long-drilled port in the air horn, across the Secondary opening to the top of the diaphragm housing. The air horn gasket can be installed incorrectly blocking the vacuum signal. Check the small brass tube for being clogged. If the Diaphragm has not been replaced, I would, because the get stiff when old.

Check for correct alignment of the Secondary Link. If it's bent, it will not work correctly with the vacuum signal If all above is good it has to work!

Autolite 4100 Screw Sizes



Length measurement measures the threads only. Do not include the head.

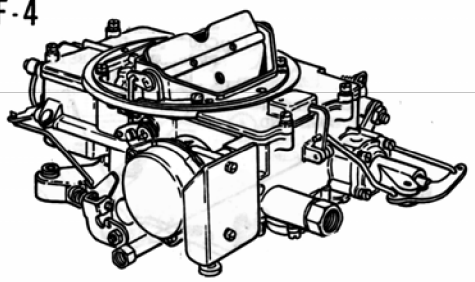
A- Bowl cover screw 10 x 32 x 5/8” 80-83
B- Pump diaphragm screw (4) 8 x 32 x 1/2 80-45
C- Choke Valve (2) S104
D- Fast idle (1) 6 x 32 x 5/8”
E- Power valve cover (4) 6 x 32 x 1/2” 80-45

F- Thermostat cover (3) 8 x 32 x 3/8 80-43
G- Choke housing (3)

1968 TECHLIT CO.
Printed in U.S.A.

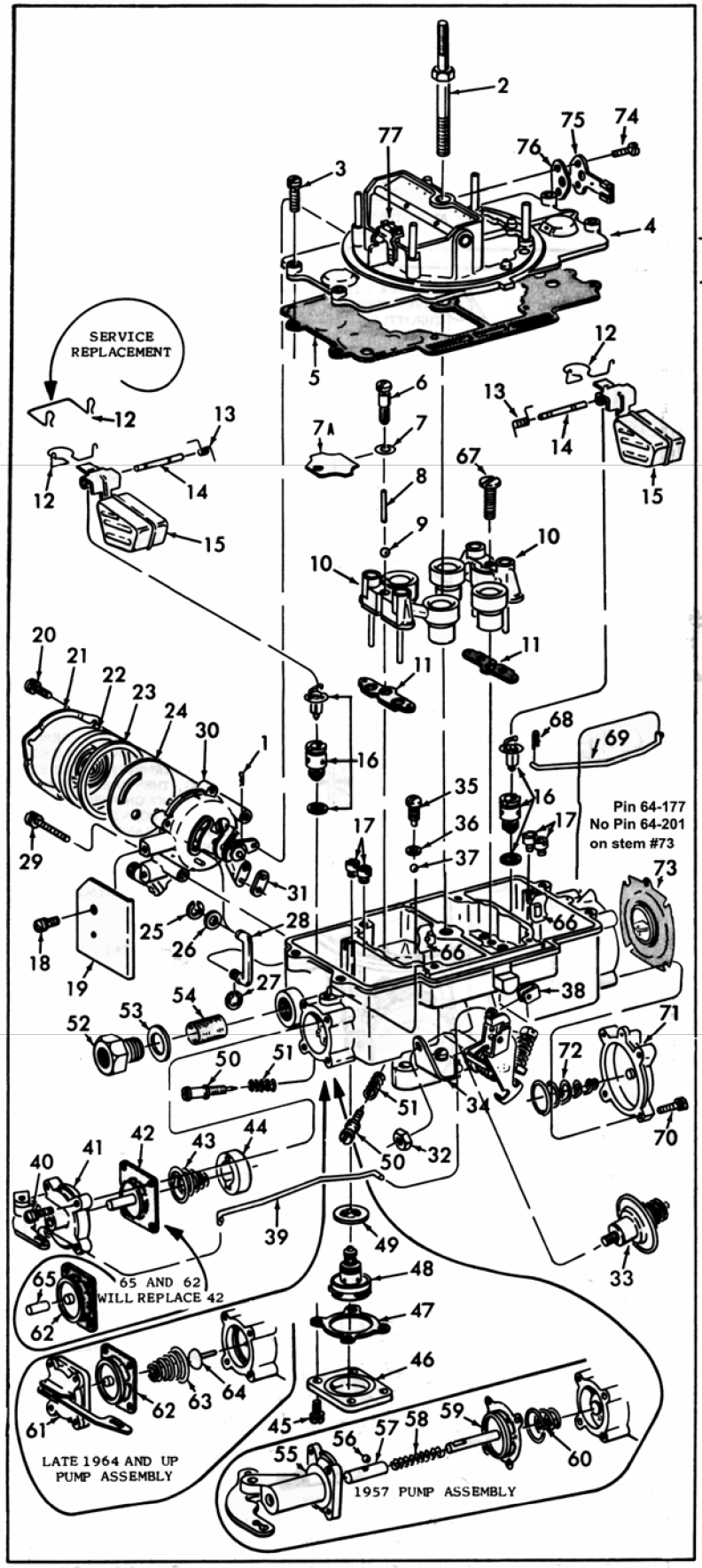
INSTRUCTION SHEET
FORD CARBURETOR—MODEL F-4

50-369



GENERAL EXPLODED VIEW

THE GENERAL DESIGN AND PARTS SHOWN WILL VARY TO INDIVIDUAL UNITS COVERED ON THIS INSTRUCTION SHEET



DISASSEMBLY

USE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: TO REMOVE SLEEVE (57) FROM STEM OF DIAPHRAGM (59) ON 1957 MODELS, APPLY PRESSURE ON END OF SLEEVE TO DROP OUT THE BALL. WHEN REMOVING FLOATS, MARK EACH FLOAT FOR THE BOWL FROM WHICH IT IS REMOVED. PRIMARY BOWL CARRIES THE PUMP CIRCUIT. ON REMOVING MAIN METERING JETS (17), NOTE SIZE AND WHICH BOWL THEY ARE REMOVED FROM. THE MAIN JETS MUST BE INSTALLED IN PAIRS.

NOMENCLATURE

REF. NO.	
1.	RETAINER-CHOKE ROD LOWER
2.	STUD-AIR CLEANER
3.	SCREW-BOWL COVER
4.	BOWL COVER ASSY.
5.	GASKET-BOWL COVER
6.	SCREW-PUMP DISCHARGE NOZZLE
7.	GASKET-PUMP DISCHARGE NOZZLE SCREW
7A	PLATE (AIR DISTRIBUTION)-PUMP DISCHARGE NOZZLE. LATE 1964 & 1965 PARTIAL PRODUCTION
8.	WEIGHT-DISCHARGE CHECK BALL
9.	BALL-DISCHARGE CHECK
10.	VENTURI CLUSTER ASSY. PRI. & SEC.
11.	GASKET-VENTURI CLUSTER ASSY.
12.	RETAINER-FLOAT PIN
13.	SPRING-FLOAT DAMPNER
14.	PIN-FLOAT HINGE
15.	FLOAT & LEVER ASSY. PRI. & SEC.
16.	NEEDLE, SEAT & GASKET ASSY.
17.	JETS-MAIN METERING. PRI. & SEC.
18.	SCREW & LOCKWASHER-AIR SHIELD
19.	AIR-SHIELD
20.	SCREW & LOCKWASHER-STAT CLAMP
21.	CLAMP-STAT COVER
22.	STAT COVER & SPRING ASSY.
23.	GASKET-STAT COVER
24.	PLATE-CHOKE BAFFLE
25.	RETAINER-FAST IDLE ROD UPPER
26.	WASHER-FAST IDLE ROD UPPER
27.	RETAINER-FAST IDLE ROD LOWER
28.	FAST IDLE ROD
29.	SCREW & LOCKWASHER-CHOKE HSG.
30.	CHOKE HOUSING ASSY.
31.	GASKET-CHOKE HOUSING ASSY.
32.	LOCKNUT-DASHPOT
33.	DASHPOT
34.	BRACKET-DASHPOT
35.	SCREW-INLET CHECK BALL RETAINER
36.	GASKET-INLET CHECK BALL SCREW
37.	BALL-PUMP INLET CHECK
38.	RETAINER-PUMP ROD
39.	PUMP ROD
40.	SCREW & LOCKWASHER-PUMP COVER
41.	PUMP COVER & LEVER ASSY.
42.	PUMP DIAPHRAGM ASSY.
43.	SPRING-PUMP DIAPHRAGM RETURN
44.	CAVITY FILLER-PUMP
45.	SCREW & LOCKWASHER-ECONOMIZER VALVE COVER
46.	COVER-ECONOMIZER VALVE
47.	GASKET-ECONOMIZER VALVE COVER
48.	VALVE-ECONOMIZER
49.	GASKET-ECONOMIZER VALVE
50.	NEEDLES-IDLE ADJUSTING
51.	SPRINGS-IDLE ADJUSTING NEEDLE
52.	FITTING-FUEL INLET
53.	GASKET-FUEL INLET FITTING
54.	SCREEN-FUEL INLET FILTER
55.	PUMP COVER & LEVER ASSY.-1957
56.	BALL-PUMP PUSH ROD SLEEVE-1957
57.	SLEEVE-PUMP PUSH ROD-1957
58.	SPRING-PUMP PUSH ROD-1957
59.	PUMP DIAPHRAGM ASSY.-1957
60.	SPRING-PUMP DIAPHRAGM RETURN-1957
61.	PUMP COVER & LEVER ASSY.
62.	PUMP DIAPHRAGM ASSY.
63.	SPRING-PUMP DIAPHRAGM RETURN
64.	VALVE-PUMP INLET CHECK
65.	PUSH ROD-PUMP DIAPHRAGM
66.	EQUALIZER PASSAGE BAFFLE PRI. & SEC.
67.	SCREW-SECONDARY CLUSTER
68.	RETAINER-SECONDARY THROTTLE ROD
69.	ROD-SECONDARY THROTTLE
70.	SCREW-SECONDARY DIAPHRAGM COVER
71.	COVER-SECONDARY DIAPHRAGM
72.	SPRING-SECONDARY DIAPHRAGM
73.	SECONDARY DIAPHRAGM
74.	SCREW-HOT IDLE COMPENSATOR VALVE
75.	VALVE-HOT IDLE COMPENSATOR
76.	GASKET-HOT IDLE COMPENSATOR VALVE
77.	MAGNET AND BRACKET

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE (1) A CARBURETOR CLEANING SOLVENT, (2) LACQUER THINNER OR (3) DENATURED ALCOHOL. MAKE CERTAIN THE THROTTLE BODY IS FREE OF ALL HARD CARBON DEPOSITS. RINSE OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTING WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS.
CAUTION: DO NOT SOAK RUBBER, LEATHER OR PLASTIC PARTS IN SOLVENT.

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS. SEE OTHER SIDE.

SPECIAL INSTRUCTIONS

WHEN INSTALLING IDLE MIXTURE ADJUSTING NEEDLES (50), LIGHTLY BOTTOM THEN BACK OUT 1 1/2 TURNS.

ECONOMIZER VALVE (48), USE CARE WHEN TIGHTENING TO PREVENT DISTORTION OF GASKET (49).

VENTURI CLUSTER (10) INSTALLATION. THE PRIMARY CLUSTER CONTAINS THE PUMP DISCHARGE NOZZLES, AND MUST BE INSTALLED ON SIDE WITH THE DIAPHRAGM PUMP WELL.

1960 AND LATER MODELS HAVE A WEIGHT (8) ON TOP OF THE DISCHARGE PUMP CHECK BALL (9) LOCATED UNDER PUMP DISCHARGE NOZZLE SCREW (6).

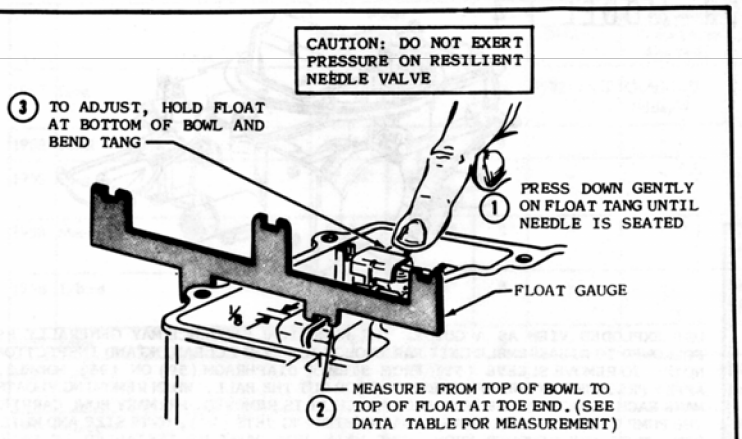
PUMP DIAPHRAGM ASSEMBLY, 1957 MODELS. SLIDE SPRING (58) AND SLEEVE (57) ON THE STEM. ROTATE SLEEVE UNTIL HOLE IS ALIGNED WITH NOTCH IN STEM, THEN DROP BALL INTO HOLE AND GENTLY RELEASE PRESSURE ON SLEEVE.

STAT COVER (22) INSTALLATION. BE SURE SPRING LOOP IS HOOKED ONTO TANG OF CHOKE LEVER OR IN SLOT OF LEVER ON SOME MODELS.

PUMP INLET CHECK VALVE (64) INSTALLATION. LUBRICATE TIP OF NEW VALVE AND INSERT IN CENTER HOLE OF PUMP CAVITY. USE NEEDLE NOSE PLIERS AND PULL THRU FROM FUEL BOWL SIDE UNTIL FULLY SEATED. CUT OFF VALVE TIP AT RETAINING SHOULDER.

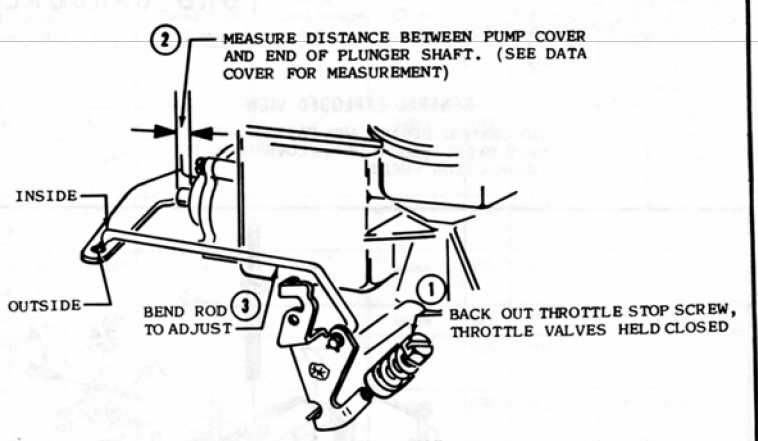
PUMP DIAPHRAGM RETURN SPRING (63) INSTALLATION. INSTALL LARGE OPEN END OF SPRING OVER RUBBER INLET CHECK VALVE. (64)

ADJUSTMENTS



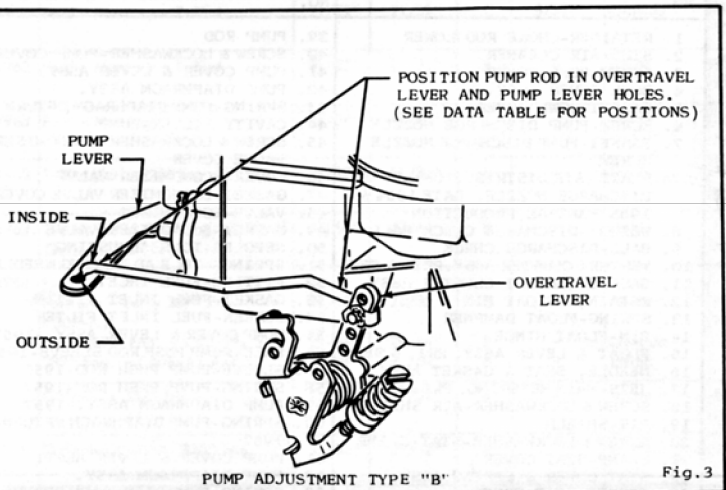
FLOAT LEVEL ADJUSTMENT
PRIMARY AND SECONDARY

Fig.1



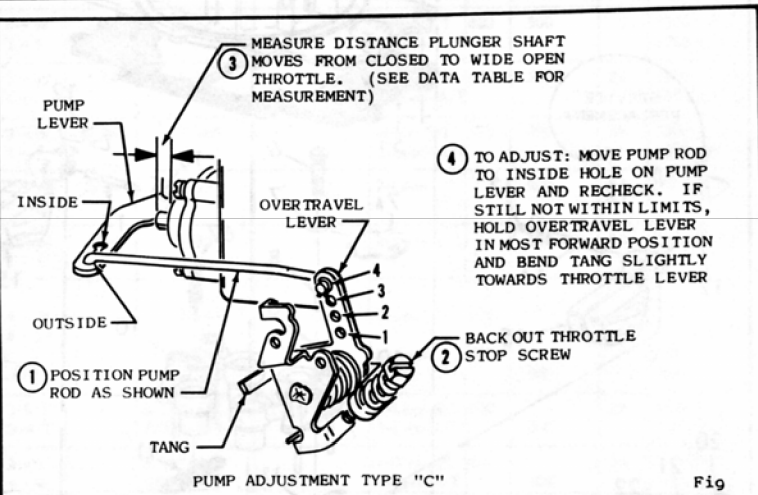
PUMP ADJUSTMENT TYPE "A"

Fig.2



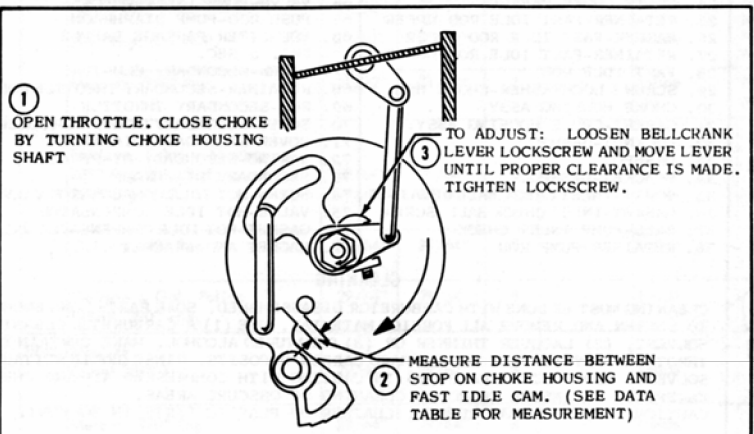
PUMP ADJUSTMENT TYPE "B"

Fig.3



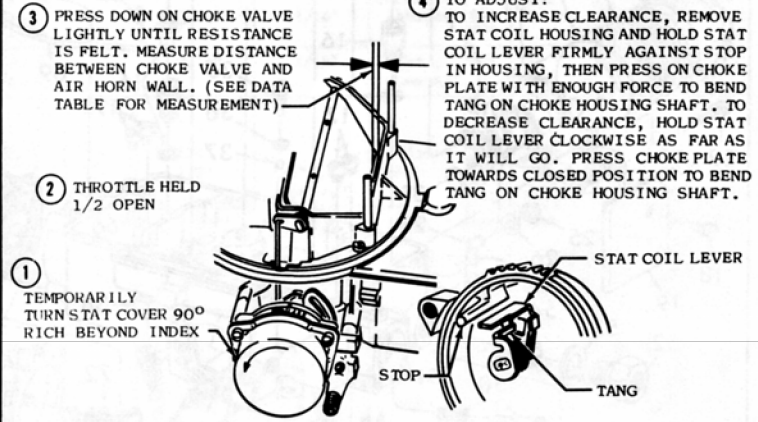
PUMP ADJUSTMENT TYPE "C"

Fig



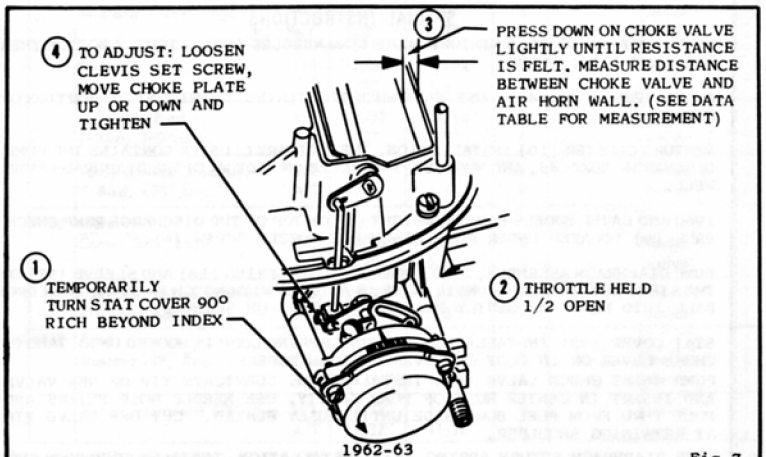
BELLCRANK ADJUSTMENT

Fig.5



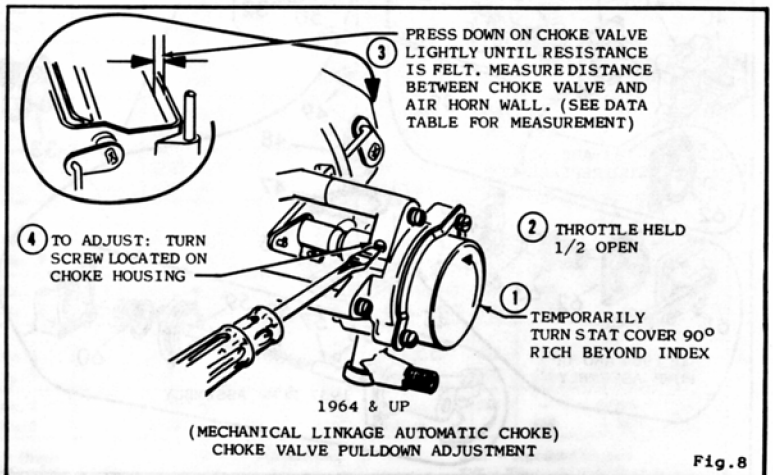
1960-61
CHOKE VALVE PULLDOWN ADJUSTMENT

Fig.6



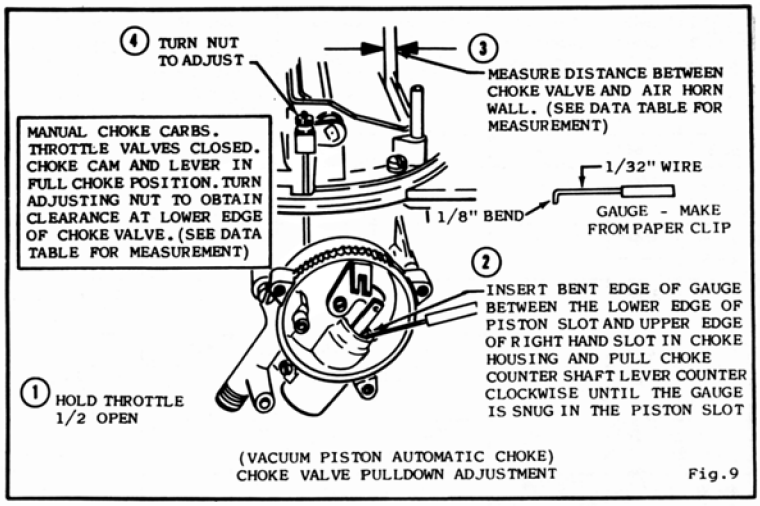
1962-63
CHOKE VALVE PULLDOWN ADJUSTMENT

Fig.7

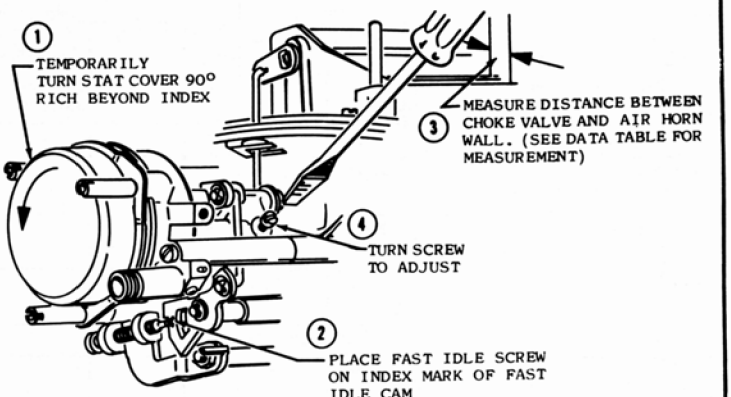


1964 & UP
(MECHANICAL LINKAGE AUTOMATIC CHOKE)
CHOKE VALVE PULLDOWN ADJUSTMENT

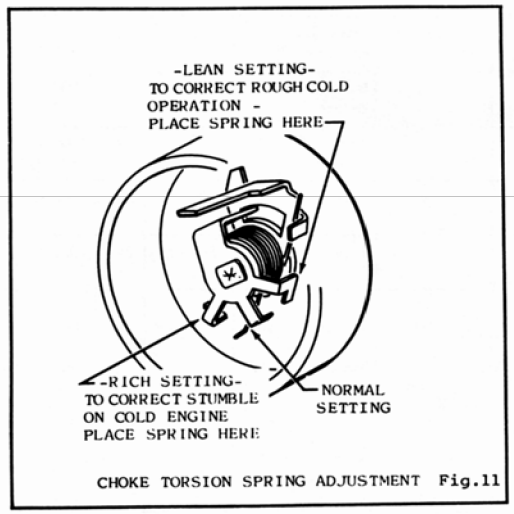
Fig.8



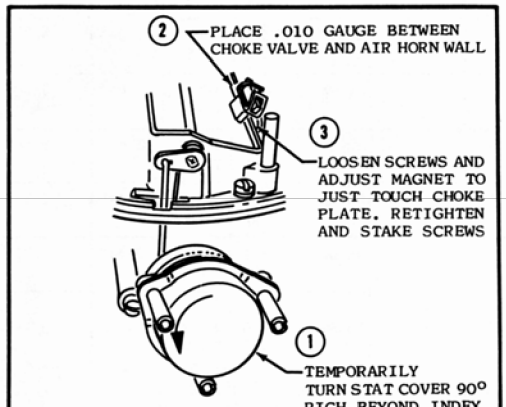
(VACUUM PISTON AUTOMATIC CHOKE)
CHOKE VALVE PULLDOWN ADJUSTMENT Fig.9



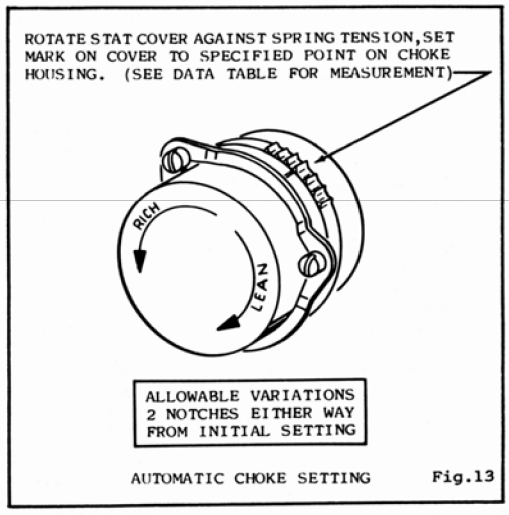
FAST IDLE CAM LINKAGE ADJUSTMENT Fig.10



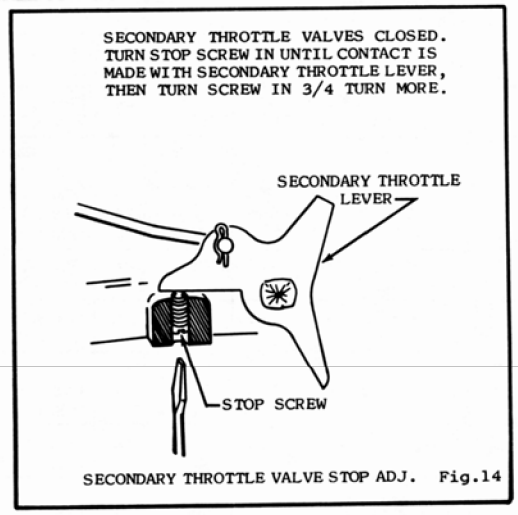
CHOKE TORSION SPRING ADJUSTMENT Fig.11



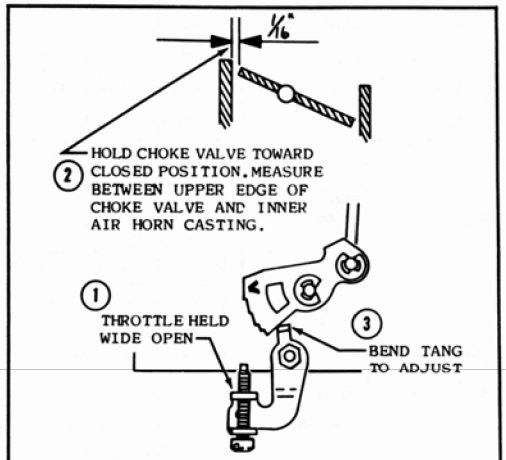
CHOKE MAGNET & BRACKET ADJ. Fig.12



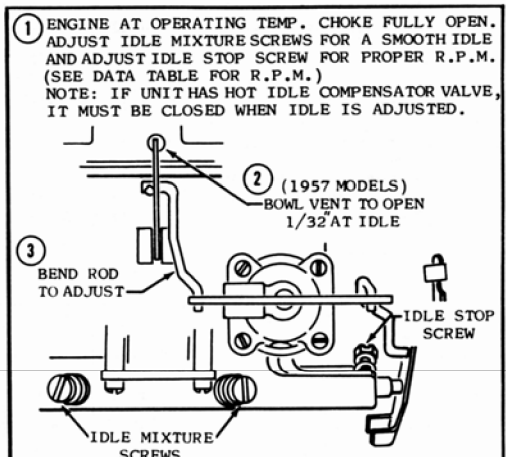
AUTOMATIC CHOKE SETTING Fig.13



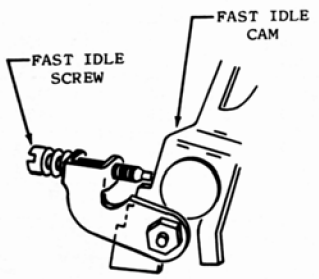
SECONDARY THROTTLE VALVE STOP ADJ. Fig.14



CHOKE UNLOADER ADJUSTMENT Fig.15

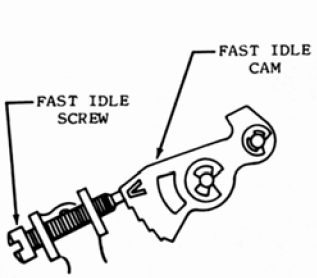


SLOW IDLE AND 1957 IDLE VENT ADJ. Fig.16



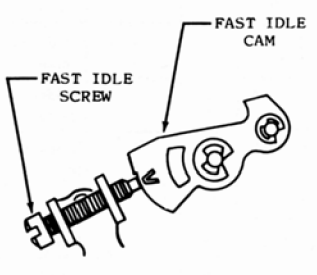
ADJUST SLOW IDLE
TURN FAST IDLE SCREW IN TO TOUCH CAM (LOW STEP) THEN BACK OUT -(SEE DATA TABLE)

TYPE 1
FAST IDLE ADJUSTMENT Fig.17



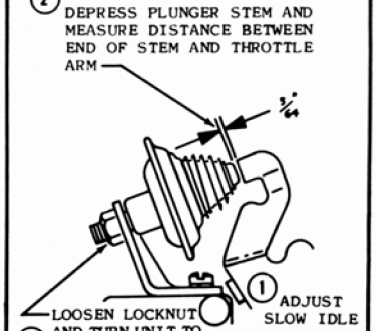
ADJUST SLOW IDLE, THEN PLACE FAST IDLE SCREW ON HIGH STEP OF CAM AND ADJUST TO PROPER R.P.M.
(SEE DATA TABLE FOR R.P.M.)

TYPE 2
FAST IDLE ADJUSTMENT Fig.18



ADJUST SLOW IDLE, THEN PLACE FAST IDLE SCREW ON NEXT TO HIGHEST STEP OF CAM AND ADJUST TO PROPER R.P.M.
(SEE DATA TABLE FOR R.P.M.)

TYPE 2A
FAST IDLE ADJUSTMENT Fig.19



(DASHPOT)
SLOW CLOSING THROTTLE ADJ.
Fig.20

ADJUSTMENT DATA TABLE

Year	Make	Float Level Pri.	Float Level Sec.	Pump Adjustment Type	Pump Adjustment Dimen.	Pump Adjustment Pump Lever Arm Hole	Pump Adjustment Overtravel Lever Hole	Bell Crank Adj.	Automatic Choke Plate Pulldown	Fast Idle Cam Linkage Adj.	Automatic Choke Setting	Slow Idle R.P.M. S/T	Slow Idle R.P.M. A/T In Dr.	Fast Idle R.P.M. Type	Fast Idle R.P.M. R.P.M.
1957	Ford	9/16"	9/16"	A	7/32"1-/4"	Outside/S Inside/W	-	-	-	-	Index	-	500	1	Just Touch
1958	Edsel	29/64"	29/64"	B	-	-	No. 3	3/64"	-	-	Index	500	500	1	1/2 Turn
1958	Ford	29/64"	29/64"	B	-	- -	No. 3 - W No. 2 - S	3/64"	-	-	Index	500	500	1	1/2 Turn
1958	Mercury	29/64"	29/64"	B	-	-	No. 3 - W No. 2 - S	3/64"	-	-	4-Rich	500	500	1	1/2 Turn
1958	T/Bird	29/64"	29/64"	B	-	-	No. 3 - W No. 2 - S	3/64"	-	-	Index	550	500	1	1/2 Turn
1959	Edsel	29/64"	29/64"	B	-	-	No. 4	3/64"	-	-	Index	525	500	2	2000
1959	Ford	29/64"	29/64"	B	-	-	No. 3 - W No. 2 - S	3/64"	-	-	Index	500	500	2	2000
1959	Mercury - T-Bird	29/64"	29/64"	B	-	-	No. 4 - W No. 3 - S	3/64"	-	-	Index	500	500	2	2000
1960	Edsel - Ford - T-Bird	29/64"	29/64"	C	5/32"	Outside	No. 4 - W No. 2 - S	1/32"	5/32"	-	3-Lean	525	500	2	1800
1961	Ford - Mercury - T-Bird	21/32"	21/32"	C	5/32"	Outside	No. 4 - W No. 2 - S	3/64"	5/32"	-	Index-S/T 2-Lean-A/T	600	500	2	1500 S/T 1700 A/T
1962	Ford - Mercury - T-Bird	21/32"	21/32"	B	-	Inside	No. 3 - W No. 1-S	3/64"	3/16"	-	Index-S/T 2-Lean-A/T	600	500	2A	1200 S/T 1500 A/T
1963	Ford - Mercury	47/64"	47/64"	B	-	Inside	No. 3 - W No. 1 - S	3/64"	3/16"	-	Index-S/T 2-Lean-A/T	575	500	2A	1200 S/T 1500 A/T
1963	T-Bird (Early 390" Eng. C2SF-B)	21/32"	21/32"	B	-	Inside	No. 3 - W No. 1 - S	3/64"	5/32"	-	2-Lean		500	2A	1500 A/T
1963	T-Bird (Late) 390" Eng. C3SF-A) Galaxie 352" Eng.	47/64"	47/64"	B	-	Inside	No. 3 - W No. 1 - S	3/64"	5/32"	-	2-Lean		500	2A	1500 A/T
1964	Ford														
	Fairlane - Early 289" Eng. C30F-AJ	21/32"	21/32"	B	-	Inside	No. 4 - W No. 3 - S	-	3/16"	1/16"	3-Lean	800		-	1800
	Late-289" Eng. - C40F-AL S/T	29/64"	29/64"	B	-	Outside	No. 3	-	7/32"	-	Manual	700			1800
	289" Eng. - C40F-AT A/T	29/64"	29/64"	B	-	Inside	No. 2	-	7/32"	-	-		500		1800
	Galaxie - 352" Eng.	21/32"	21/32"	B	-	Inside	No. 2-S/T No. 3-A/T	- -	3/16"-S/T 5/32"-A/T	1/16"	1-Lean S/T 3-LeanA/T	600	500	2A	1300 S/T 1500 A/T
	Galaxie,-T-Bird, 390" Eng.	21/32"	21/32"	B	-	Inside	No. 3 - S No. 4 - W	-	3/16"-S/T 5/32"-A/T	1/16"	1-Rich S/T 1-Lean A/T	600	500	2A	1300 S/T 1500 A/T
1964	Mercury														
	Comet 289" Eng. 210 H.P.	21/32"	21/32"	B	-	Inside	No. 3 - S No. 4 - W	-	5/32"	1/16"	1-Lean S/T 3-Lean A/T	600	500	2A	1300 S/T 1500 A/T
	289" Eng. 271 H.P.	21/32"	21/32"	B	-	Inside	No. 3 - S No. 4 - W	- -	3/16"	1/16"	Manual	800 800		-	1800
	Mercury 390" Eng.	21/32"	21/32"	B	-	Inside	No. 3 - S No. 4 - W	-	3/16"	1/16"	1-Rich S/T 1-Lean A/T	600	500	2A	1300 S/T 1500 A/T
1965	Ford														
	Fairlane, Falcon, Mustang, 289" Eng. Hi. Perf.	29/64"	29/64"	B	-	Inside	No. 3	-	1/4"	-	Manual	700	500	-	1800
	289" Eng. Std.	29/64"	29/64"	B	-	Inside	No. 3	-	1/8"	1/8" S/T 7/64" A/T	2-Rich	600	500	2A	1400 S/T 1600 A/T
	Galaxie 352" Eng.	29/64"	29/64"	B	-	Inside	No. 3	-	5/32"	1/8"	Index	600	500	2A	1300 S/T 1500 A/T
	Galaxie & Gal. Police T-Bird 390" Eng.	29/64"	29/64"	B	-	Inside	No. 3	-	5/32"	1/8"	Index	600	500	2A	1300 S/T 1500 A/T
1965	Mercury														
	Comet 289" Eng.	29/64"	29/64"	B	-	Inside	No. 3	-	1/8"	1/8" S/T 7/64" A/T	2-Rich	600	500	2A	1300 S/T 1500 A/T
	Mercury 390" Eng.	29/64"	29/64"	B	-	Inside	No. 3	-	5/32"	1/8"	Index	600	500	2A	1300 S/T 1500 A/T
1966	Ford														
	Falcon, Fairlane, Std.	17/32"	17/32"	B	-	Inside	No. 3	-	1/8"	1/8"	2-Rich	575	500	2A	1400 S/T
	Mustang - 289" Eng. T/E	1/2"	5/8"	B	-	Inside	No. 3	-	1/8"	1/8"	2-Rich	600	550		1600 A/T
	Hi. Perf.	1/2"	5/8"	B	-	Inside	No. 3	-	1/4"	-	Manual	750			
	Ford 352" Eng. Std.	17/32"	17/32"	B	-	Inside	No. 3	-	9/64"	1/8"	Index	-	500	2A	1500 A/T
	T/E	1/2"	5/8"	B	-	Inside	No. 3	-	1/8"	1/8"	1-Rich	-	550	2A	1500 A/T
	Fairlane, Ford Std.	17/32"	11/16"	B	-	Inside	No. 3	-	5/32" S/T	1/8"	1-Rich	600	500	2A	1200 S/T
	T-Bird, 390" Eng. T/E	1/2"	5/8"	B	-	Inside	No. 3	-	1/8" A/T	1/8"	1-Rich	625	550		1300 A/T
	Ford, (Police Special), S/T	17/32"	11/16"	B	-	Inside	No. 3	-	5/32" S/T	1/8"	1-Rich	600	575	2A	1300 S/T
	T-Bird, 428" Eng. A/T	1/2"	5/8"	B	-	Inside	No. 3	-	1/8" A/T	1/8"	1-Rich	625	550		1500 A/T
1966	Mercury														
	Comet 390" Eng. Std.	17/32"	11/16"	B	-	Inside	No. 3	-	5/32" S/T	1/8"	2-Rich S/T	600	500	2A	1300 S/T
	T/E	1/2"	5/8"	B	-	Inside	No. 3	-	9/64" A/T	1/8"	1-Rich A/T	625	550		1500 A/T
	Mercury, Police Special Std.	17/32"	11/16"	B	-	Inside	No. 3	-	5/32" S/T	1/8"	2-Rich S/T	600	500	2A	1300 S/T
	410" and 428" Eng. T/E	1/2"	5/8"	B	-	Inside	No. 3	-	1/8" A/T	1/8"	1-Rich A/T	625	550		1500 A/T
1967	Ford														
	Mustang 289'' Eng. Std.	1/2''	17/32''	B	-	Inside	No. 3	-	1/4''	-	Manual	750	650	2A	1400
	T/E	17/32''	11/16''	B	-	Inside	No. 3	-	1/4''	-	Manual	750	650	2A	1500
	Police Intercepter 428'' Eng. S/T	17/32''	11/16''	B	-	Inside	No. 3	-	5/32''	1/8''	1-Rich	600	-	2A	1300
	A/T	17/32''	11/16''	B	-	Inside	No. 3	-	9/64''	1/8''	1-Rich	-	600	2A	1500

ABBREVIATIONS: S/T = Standard Transmission
A/T = Automatic Transmission
S = Summer
W = Winter
Dr. = Drive
Eng. = Engine
H.P. = Horsepower
Std. = Standard Engine
T/E = Thermactor Exhaust Emission