



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.

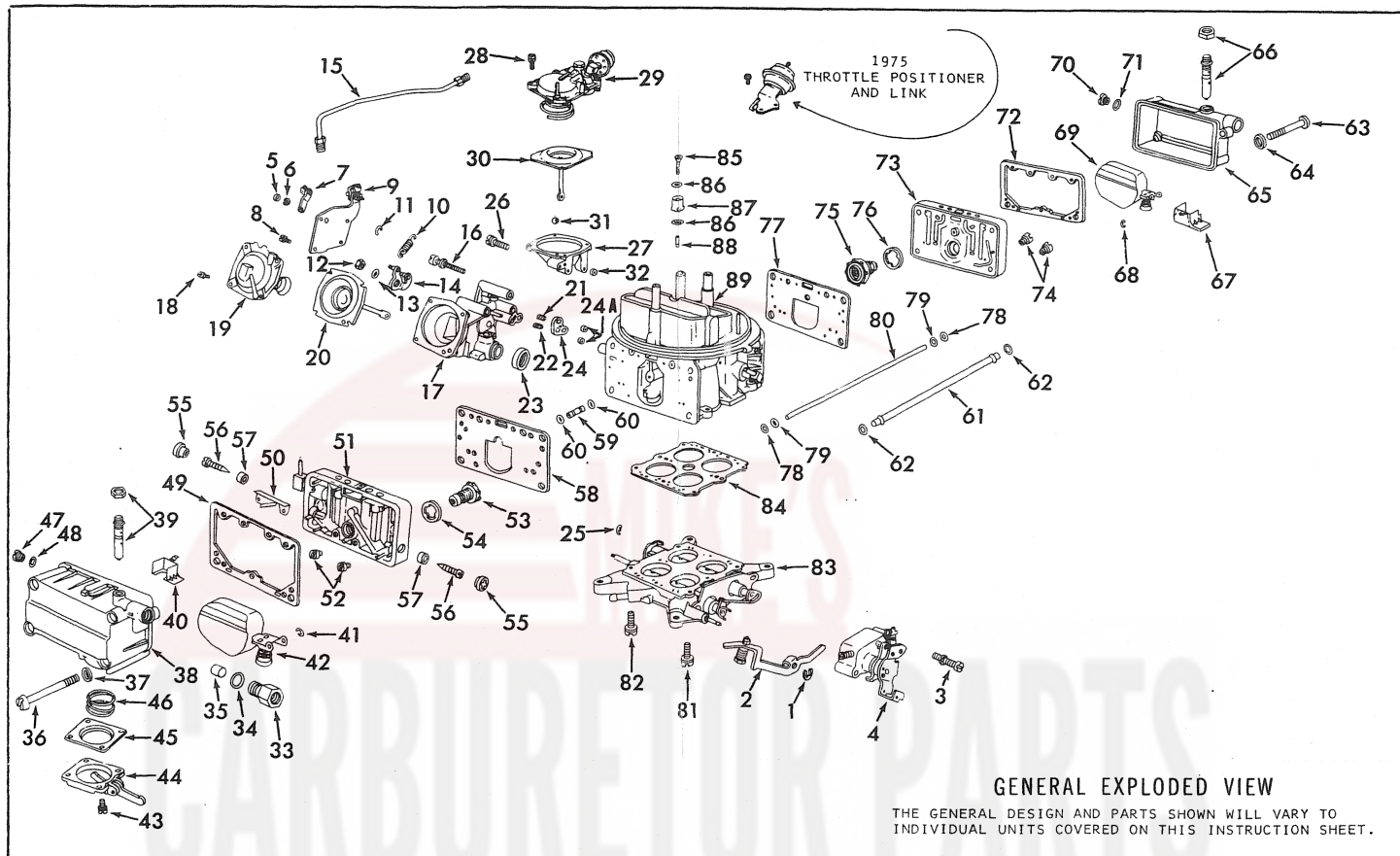
Accelerator Pumps:

- 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

HOLLEY CARBURETOR — MODEL 4150G, 4150MG

50-503



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: PRIMARY SIDE (CHOKE SIDE) AND SECONDARY SIDE PARTS ARE NOT ALWAYS IDENTICAL. BE SURE TO MARK PARTS REMOVED FROM PRIMARY SIDE. CARE MUST BE TAKEN WHEN REMOVING OR INSTALLING COVER SCREWS FROM THE GOVERNOR OR SECONDARY UNITS TO PREVENT DAMAGE TO THE DIAPHRAGMS. ALSO MARK DIAPHRAGMS AND SPRINGS FOR PROPER ASSEMBLY. CARBURETORS HAVING TWO GOVERNOR BYPASS JETS (21)(22) NOTE SIZES AND LOCATION. IDLE ADJUSTING NEEDLES (56) ARE SOMETIMES LOCATED IN THE SECONDARY METERING BODY (73). SECONDARY METERING BODY (73) WILL SOMETIMES BE BLANK OR HAVE AN ENRICHMENT OR OVERRUN VALVE (75).

CLEANING

CLEANING MUST BE DONE WITH CARBURETOR DISASSEMBLED. SOAK PARTS LONG ENOUGH TO SOFTEN AND REMOVE ALL FOREIGN MATERIAL. USE A CARBURETOR CLEANING SOLVENT. MAKE CERTAIN THE THROTTLE BORES ARE FREE OF ALL CARBON AND VARNISH DEPOSITS. RINSE OFF IN SUITABLE SOLVENT. BLOW OUT ALL PASSAGES IN CASTINGS WITH COMPRESSED AIR AND CHECK CAREFULLY TO INSURE THOROUGH CLEANING OF OBSCURE AREAS. CAUTION: DO NOT SOAK PARTS WITH ATTACHED PLASTIC PARTS FOR A LONG PERIOD OF TIME. DO NOT SOAK ANY PARTS CONTAINING RUBBER OR DIAPHRAGM ASSEMBLIES. (20)(29) (30)(42)(69)

REASSEMBLY

REASSEMBLE IN REVERSE ORDER OF DISASSEMBLY. NOTE SPECIAL INSTRUCTIONS AND FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENTS NECESSARY FOR CARBURETOR BEING SERVICED.

SPECIAL INSTRUCTIONS

SCREWS LISTED BELOW MUST BE TIGHTENED IN THREE STAGES CROSSWISE, TO ARRIVE AT THE CORRECT TORQUE.

THROTTLE BODY GASKET(84)—MAKE SURE HOLES ARE PROPERLY MATCHED TO THROTTLE BODY. TORQUE THROTTLE BODY SCREWS TO 50 INCH POUNDS.

BALANCE TUBE (80) INSTALLATION—SEE FIG. 1.

ENRICHMENT OR OVERRUN VALVE (75)(53) INSTALLATION—TORQUE TO 100 INCH POUNDS.

PRI. AND SEC. FUEL BOWL (65)(38)—BEFORE INSTALLING MAKE DRY FLOAT LEVEL ADJUSTMENT.

BOWL SCREW INSTALLATION (36)(63).—INSTALL GASKETS (37)(64) ON SCREWS BEFORE INSTALLING THEN TORQUE EVENLY IN STAGES TO 40 INCH LBS.

FUEL LINE TUBE (61)—INSTALL O-RINGS (62) ON THE EXTREME ENDS OF THE TUBE, THEY WILL ROLL ON THE TUBE WHEN INSTALLING THE FUEL BOWL.

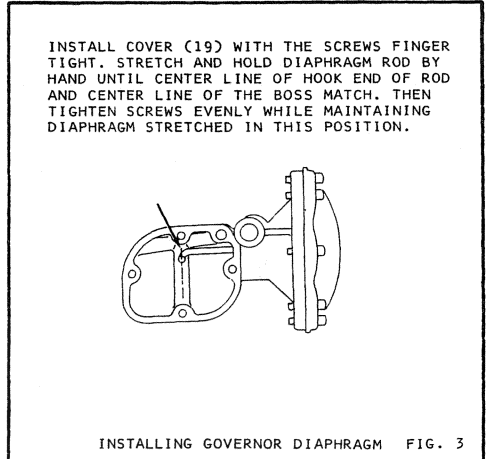
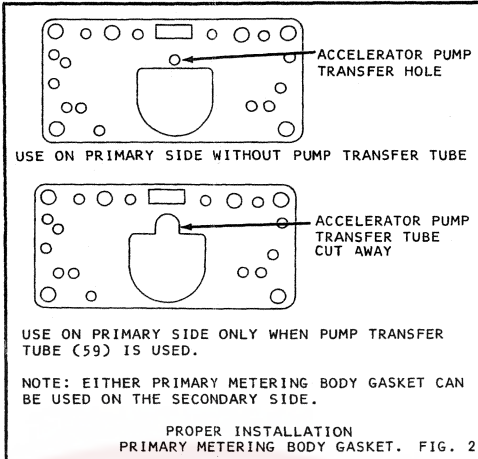
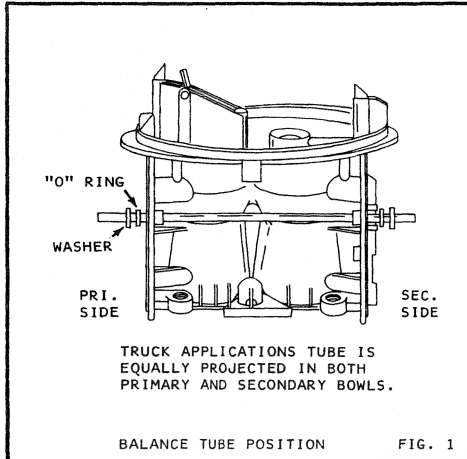
IDLE ADJUSTING NEEDLES (56)—TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT 1 TURN. (DO NOT INSTALL IDLE LIMITER CAPS AT THIS TIME WHERE USED.)

GOVERNOR DIAPHRAGM (20) INSTALLATION—SEE FIG. 3.

NOMENCLATURE

REF. NO.	REF. NO.
1. RETAINER-PUMP OPERATING LEVER	42. FLOAT & SPRING ASSY.—PRI.
2. LEVER-PUMP OPERATING	43. FLOAT & LOCKWASHER(4)—PUMP COVER
3. SCREW & LKWSHR(2)—THROTTLE OPERATING HOUSING ASSY.	44. COVER ASSY.—PUMP
4. THROTTLE OPERATING HSG. ASSY.	45. DIAPHRAGM-PUMP
5. NUT-CHOKE LEVER	46. SPRING-DIAPHRAGM
6. LOCKWASHER-CHOKE LEVER	47. PLUG-SIGHT LEVEL
7. LEVER-CHOKE CONTROL	48. GASKET-SIGHT LEVEL PLUG
8. SCREW & LKWSHR(4)—GOV. HSG. COVER	49. GASKET-PRI. FUEL BOWL
9. COVER-GOV. HSG.	50. VENT BAFFLE-PRI. METERING BODY
10. SPRING-GOV.	51. METERING BODY-PRI.
11. RETAINER-GOV. DIAPHRAGM LINK	52. JET(2)—PRI. MAIN
12. NUT-GOV. LEVER	53. VALVE-PRI. ENRICHMENT (POWER)
13. LOCKWASHER-GOV. LEVER	54. GASKET-PRI. ENRICHMENT VALVE
14. LEVER-GOV.	55. CAP(2)—IDLE LIMITER
15. VACUUM LINE-SEC. CONTROL VALVE (1975)	56. NEEDLE(2)—IDLE ADJUSTING
16. SCREW & LKWSHR(3)—GOV. HSG.	57. SEAL(2)—IDLE ADJ. NEEDLE
17. GOV. HSG. ASSY.	58. GASKET-PRI. METERING BLOCK
18. SCREW & LOCKWASHER(4)—GOV. DIAPHRAGM COVER	59. FUEL PIPE-CROSS OVER
19. COVER & SPRING-GOV. DIAPHRAGM	60. O-RING(2)—CROSS OVER FUEL PIPE
20. DIAPHRAGM ASSY.—GOV.	61. TUBE-FUEL LINE
21. JET-GOV. BYPASS (A)	62. O-RING(2)—FUEL LINE TUBE
22. JET-GOV. BYPASS (B)	63. SCREW(4)—SEC. FUEL BOWL
23. SEAL-GOV. HSG.	64. GASKET(4)—SEC. FUEL BOWL SCREW
24. GASKET-GOV. HSG.	65. BOWL-SEC. FUEL
24A. GASKET(2)—GOV. HSG. (SOME MODELS)	66. NEEDLE & SEAT ASSY.—SEC.
25. RETAINER-SEC. DIAPHRAGM LINK	67. BAFFLE PLATE-SEC. N/S
26. SCREW & LKWSHR(3)—SEC. DIAPHRAGM HOUSING	68. RETAINER-FLOAT
27. SEC. DIAPHRAGM HSG. ASSY.	69. FLOAT & SPRING ASSY.—SEC.
28. SCREW & LOCKWASHER(4)—SEC. DIAPHRAGM COVER	70. PLUG-SIGHT LEVEL
29. COVER & SPRING-SEC. DIAPHRAGM (1975 WITH ATTACHED SEC. CONTROL VALVE)	71. GASKET-SIGHT LEVEL PLUG
30. DIAPHRAGM ASSY.—SECONDARY	72. GASKET-SEC. FUEL BOWL
31. CHECK BALL-SEC. DIAPHRAGM HSG.	73. METERING BODY-SEC.
32. GASKET-SEC. DIAPHRAGM HSG.	74. JET(2)—SEC. MAIN
33. FITTING-FUEL INLET	75. VALVE-OVERRUN (SOME MODELS)
34. GASKET-FITTING	76. GASKET-OVERRUN VALVE
35. SCREEN-FUEL INLET	77. GASKET-SEC. METERING BODY
36. SCREW(4)—PRI. FUEL BOWL	78. WASHER(2)—BALANCE TUBE
37. GASKET(4)—PRI. FUEL BOWL	79. O-RING(2)—BALANCE TUBE
38. BOWL-PRI. FUEL	80. TUBE-BALANCE
39. NEEDLE & SEAT ASSY.—PRI.	81. SCREW & FLATWSHR(7)—THROTTLE BODY
40. BAFFLE PLATE-PRI. N/S	82. SCREW & LKWSHR(7)—THROTTLE BODY
41. RETAINER-FLOAT	83. THROTTLE BODY ASSY.
	84. GASKET-THROTTLE BODY
	85. SCREW-PUMP DISC. NOZZLE
	86. GASKET(2)—PUMP NOZZLE
	87. NOZZLE-PUMP DISC.
	88. NEEDLE VALVE-PUMP DISC.
	89. MAIN BODY ASSY.

SPECIAL INSTRUCTIONS



ADJUSTMENTS

