



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:

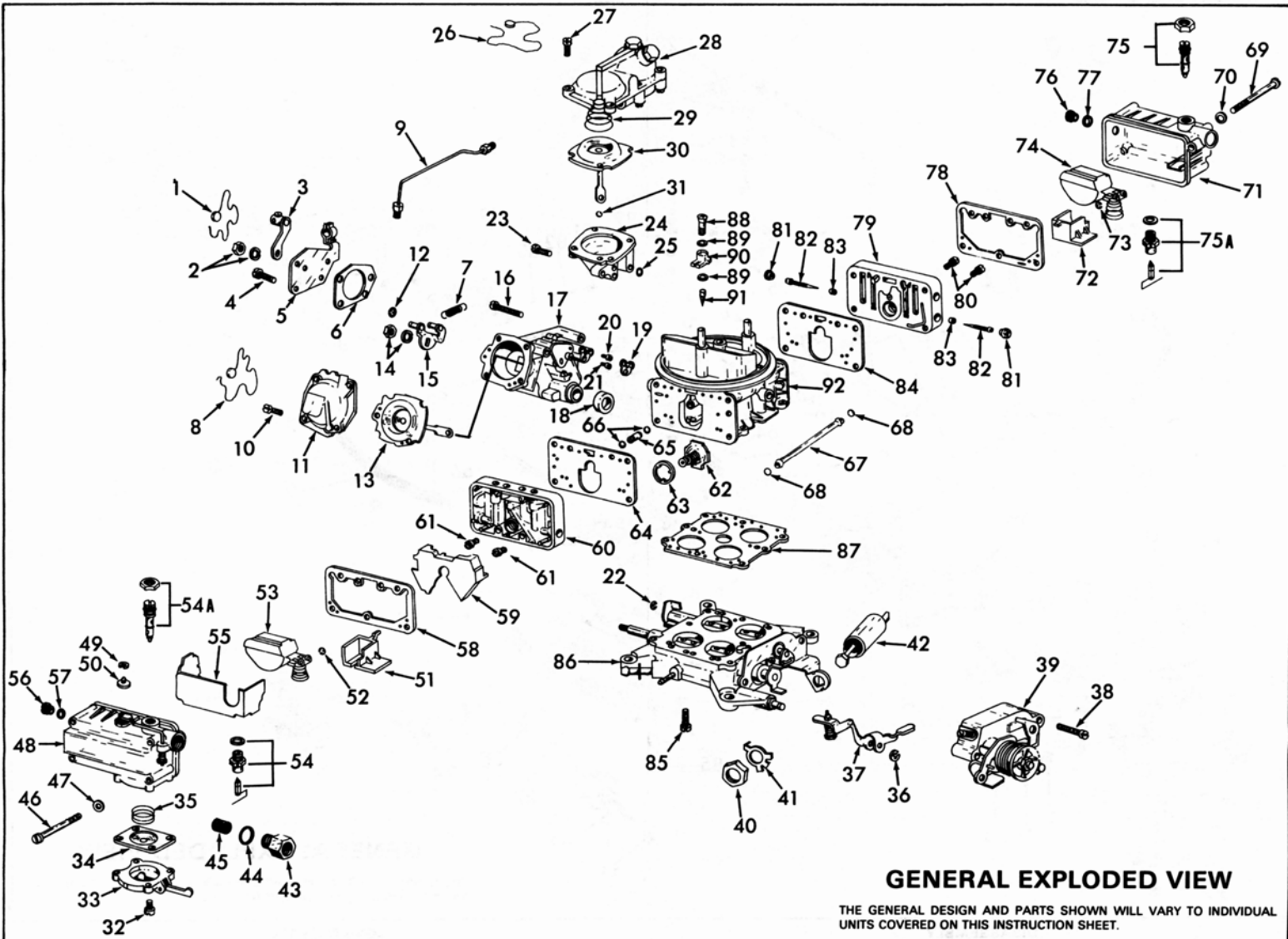
- Do NOT apply any gasket sealant on any of the gaskets. Gas will break sealant part and the particles will clog the small passages.
- Test your float.
 - Brass floats should be immersed into hot water. As the air inside expands any leak will be noticeable with air bubbles.
 - Plastic, or Nitrophyl floats 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 OFF VEHICLE CARBURETOR SERVICE HOLLEY MODEL - 4150G

50-573-3



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: ON SOME MODELS UNHOOK HEAVY SAFETY SPRING ON THROTTLE LEVER ASSEMBLY (39) FOR EASIER ACCESS TO SCREWS (38) HOLDING ASSEMBLY TO CARBURETOR. RECORD JET SIZES AND THEIR LOCATION FOR REASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SEAL & WIRE— COVER	28. COVER & VALVE ASSY.— SEC. DIAPHRAGM.
2. NUT & LOCKWASHER—LEVER	29. SPRING— SEC. DIAPHRAGM.
3. LEVER— CHOKE.	30. DIAPHRAGM— SECONDARY.
4. SCREW & LOCKWASHER	31. BALL— SEC. DIAPHRAGM CHECK (SOME MODELS)
5. COVER—GOVERNOR HOUSING	32. SCREW & LOCKWASHER (4)—COVER
6. GASKET — GOVERNOR HOUSING	33. COVER ASSY.— PUMP.
7. SPRING— GOVERNOR.	34. DIAPHRAGM— PUMP.
8. SEAL & WIRE— DIAPHRAGM COVER.	35. SPRING— PUMP DIAPHRAGM.
9. PIPE— GOV. TO SEC. DIAPHRAGM COVER.	36. E-CLIP — LEVER.
10. SCREW & LOCKWASHER (4)— DIAPHRAGM COVER.	37. LEVER ASSY.— PUMP.
11. COVER— GOV. DIAPHRAGM.	38. SCREW & LOCKWASHER (2)— THROTTLE OPERATING SHAFT HOUSING.
12. E-CLIP— DIAPHRAGM STEM RETAINER.	39. HOUSING ASSY.— THROTTLE OPERATING LEVER.
13. DIAPHRAGM ASSEMBLY.	40. NUT— SOLENOID.
14. NUT & LOCKWASHER— GOV. LEVER.	41. LOCKTAB WASHER— SOLENOID
15. LEVER— GOV.	42. SOLENOID— THROTTLE
16. SCREW & LOCKWASHER (3)— GOV. HOUSING.	43. FITTING— FUEL INLET
17. GOV. HOUSING ASSEMBLY.	44. GASKET— FITTING
18. SEAL— GOV. HOUSING.	45. SCREEN— FUEL INLET
19. GASKET— GOV. HOUSING.	46. SCREW (4)— PRI. FUEL BOWL
20. JET "A" — GOV. HOUSING.	47. GASKET (4)— PRI FUEL BOWL SCREW.
21. JET "B" —GOV. HOUSING.	48. BOWL— PRI. FUEL
22. E-CLIP— SEC. DIAPHRAGM. STEM.	49. RETAINER— VENT VALVE
23. SCREW & LOCKWASHER (3)— SEC. DIAPH. HOUSING.	50. VALVE— VENT (SOME MODELS)
24. SECONDARY DIAPHRAGM HOUSING.	51. BAFFLE PLATE
25. GASKET— SEC. DIAPH. HOUSING.	52. E-CLIP — FLOAT
26. SEAL & WIRE— COVER.	
27. SCREW & LOCKWASHER (4)— COVER.	

REF. NO.	REF. NO.
53. FLOAT & SPRING ASSY.—PRI.	73. E-CLIP— FLOAT
54. NEEDLE & SEAT ASSY.—PRI.	74. FLOAT & SPRING ASSY.— SEC.
54A. NEEDLE & SEAT ASSY.—PRI. ADJUSTABLE (SOME MODELS)	75. NEEDLE & SEAT ASSY.— SEC. ADJUSTABLE (SOME MODELS)
55. BOWL FILLER— PRI. (SOME MODELS)	75A. NEEDLE & SEAT ASSY.— SEC. ADJUSTABLE (SOME MODELS)
56. PLUG— FUEL LEVEL (SOME MODELS)	76. PLUG— FUEL LEVEL (SOME MODELS)
57. GASKET— PLUG (SOME MODELS)	77. GASKET— PLUG (SOME MODELS)
58. GASKET— PRI. FUEL BOWL	78. GASKET— SEC. FUEL BOWL
59. METER BODY FILLER— PRI. (SOME MODELS)	79. METERING BLOCK— SEC.
60. METERING BLOCK— PRI.	80. JET (2)— MAIN
61. JET (2)— PRI. MAIN	81. CAP (2)— IDLE LIMITER
62. VALVE— ENRICHMENT	82. NEEDLE (2)— IDLE ADJUSTING
63. GASKET— ENRICHMENT VALVE	83. GASKET (2)— IDLE ADJ. NEEDLE.
64. GASKET— PRI. METERING BLOCK.	84. GASKET— SEC. METERING BODY
65. TUBE— PUMP TRANSFER	85. SCREW & LOCKWASHER (8)— THROTTLE BODY.
66. O-RING (2)— TRANSFER TUBE	86. THROTTLE BODY ASSY.
67. TUBE— FUEL LINE	87. GASKET— THROTTLE BODY
68. O-RING (2)— FUEL LINE TUBE	88. SCREW— PUMP DISCHARGE NOZZLE.
69. SCREW (4)— SEC. FUEL BOWL	89. GASKET (2)— PUMP NOZZLE
70. GASKET (4)— SEC. FUEL BOWL SCREW	90. NOZZLE— PUMP DISC.
71. BOWL— SEC. FUEL	91. NEEDLE— PUMP DISC.
72. BAFFLE PLATE.	92. MAIN BODY ASSEMBLY.

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 SURE 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 FLOATS, SOLENOIDS OR PARTS CONTAINING RUBBER MATERIAL IN CLEANING SOLVENTS.

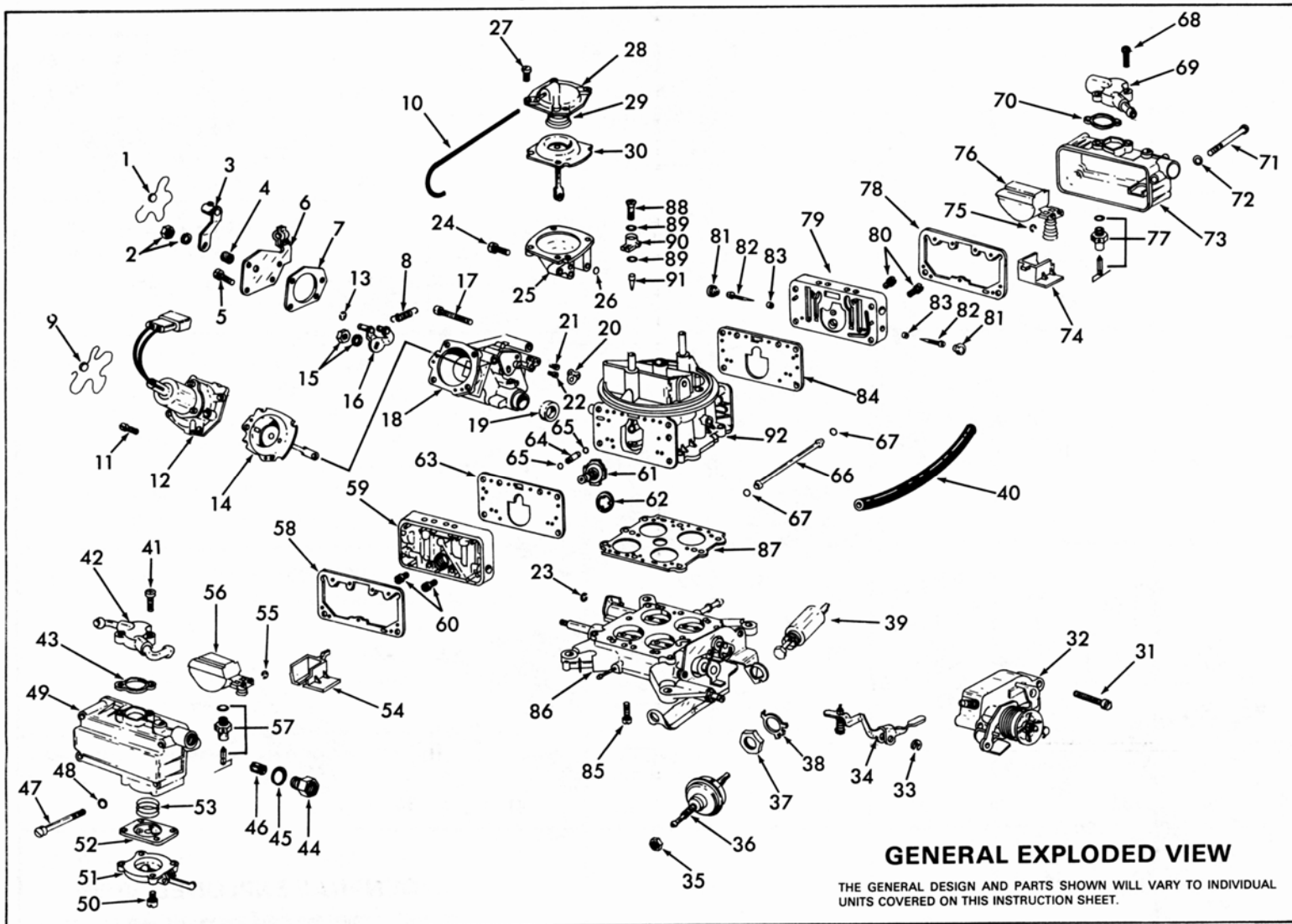
REASSEMBLE

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

INSTRUCTION SHEET

HOLLEY CARBURETOR MODEL 4150 EG

GM PRODUCTS



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: ON SOME MODELS UNHOOK HEAVY SAFETY SPRING ON THROTTLE LEVER ASSEMBLY (32) FOR EASIER ACCESS TO (31) HOLDING ASSEMBLY TO CARBURETOR. RECORD JET SIZES AND LOCATION FOR REASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SEAL & WIRE—COVER (WHEN USED)	28. COVER—SEC. DIAPHRAGM
2. NUT & LOCKWASHER—LEVER	29. SPRING—SEC. DIAPHRAGM
3. LEVER—CHOKE	30. DIAPHRAGM—SECONDARY
4. SEAL—DUST	31. SCREW & LOCKWASHER (2)—THROTTLE OPERATING SHAFT HOUSING
5. SCREW & LOCKWASHER (4)—COVER	32. HOUSING ASSY.—THROTTLE OPERATING LEVER
6. COVER—GOVERNOR HOUSING	33. E-CLIP—LEVER
7. GASKET—GOVERNOR COVER	34. LEVER ASSY.—PUMP
8. SPRING—GOVERNOR	35. NUT—MODULATOR
9. SEAL & WIRE—DIAPHRAGM COVER (WHEN USED)	36. MODULATOR—THROTTLE
10. HOSE—GOV. TO SEC. DIAPHRAGM COVER	37. NUT—SOLENOID
11. SCREW & LOCKWASHER (4)—DIAPHRAGM & SOLENOID COVER	38. LOCKTAB WASHER—SOLENOID
12. COVER ASSY.—DIAPHRAGM & SOLENOID	39. SOLENOID—THROTTLE
13. E-CLIP—DIAPHRAGM STEM RETAINER	40. HOSE—VENT CROSS OVER
14. DIAPHRAGM ASSEMBLY	41. SCREW & LOCKWASHER (2)—PRI. VENT COVER
15. NUT & LOCKWASHER—GOV. LEVER	42. VENT COVER—PRIMARY
16. LEVER—GOVERNOR	43. GASKET—VENT COVER
17. SCREW & LOCKWASHER (3)—GOVERNOR HOUSING	44. FITTING—FUEL INLET
18. GOV. HOUSING ASSEMBLY	45. GASKET—FITTING
19. SEAL—GOV. HOUSING	46. SCREEN—FUEL INLET
20. GASKET—GOV. HOUSING	47. SCREW (4)—PRI. FUEL BOWL
21. JET "A"—GOV. HOUSING	48. GASKET (4)—PRI. FUEL BOWL SCREW
22. JET "B"—GOV. HOUSING	49. BOWL—PRI. FUEL
23. E-CLIP—SEC. DIAPH. STEM	50. SCREW & LOCKWASHER (4)—COVER
24. SCREW & LOCKWASHER (3)—SEC. DIAPH. HOUSING	51. COVER ASSY.—PUMP DIAPHRAGM
25. SECONDARY DIAPHRAGM HOUSING	52. DIAPHRAGM ASSY.—PUMP
26. GASKET—SEC. DIAPH. HOUSING	53. SPRING—DIAPHRAGM
27. SCREW & LOCKWASHER (4)—COVER	54. BAFFLE PLATE
	55. E-CLIP—FLOAT
	56. FLOAT & SPRING ASSY.—PRI.
	57. NEEDLE & SEAT ASSY.—PRI.

NOMENCLATURE

REF. NO.	REF. NO.
58. GASKET—PRI. FUEL BOWL	76. FLOAT & SPRING ASSY.—SEC.
59. METERING BLOCK—PRI.	77. NEEDLE & SEAT ASSY.—SEC.
60. JET (2)—PRI. MAIN	78. GASKET—SEC. FUEL BOWL
61. VALVE—ENRICHMENT	79. METERING BLOCK—SEC.
62. GASKET—ENRICHMENT VALVE	80. JET (2)—SEC. MAIN
63. GASKET—PRI. METERING BLOCK	81. CAP (2)—IDLE LIMITER
64. TUBE—PUMP TRANSFER	82. NEEDLE (2)—IDLE ADJUSTING
65. O-RING (2)—TRANSFER TUBE	83. GASKET (2)—IDLE ADJUSTING NEEDLE
66. TUBE—FUEL LINE	84. GASKET—SEC. METERING BODY
67. O-RING (2)—FUEL LINE TUBE	85. SCREW & LOCKWASHER (8)—THROTTLE BODY
68. SCREW & LOCKWASHER (2)—SEC. VENT COVER	86. THROTTLE BODY ASSY.
69. VENT COVER—SECONDARY	87. GASKET—THROTTLE BODY
70. GASKET—VENT COVER	88. SCREW—PUMP DISC. NOZZLE
71. SCREW (4)—SEC. FUEL BOWL	89. GASKET (2)—PUMP NOZZLE
72. GASKET (4)—SEC. FUEL BOWL SCREW	90. NOZZLE—PUMP DISC.
73. BOWL—SEC. FUEL	91. NEEDLE—PUMP DISC.
74. BAFFLE PLATE	92. MAIN BODY ASSEMBLY
75. E-CLIP—FLOAT	

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 SURE 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 FLOATS: SOLENOIDS, OR PARTS CONTAINING RUBBER MATERIAL IN CLEANING SOLVENT.

REASSEMBLE

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

ADJUSTMENTS

SPECIAL INSTRUCTIONS

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

THROTTLE BODY GASKET (87) MAKE SURE HOLES ARE PROPERLY MATCHED TO THROTTLE BODY. TORQUE BODY SCREWS TO 50 INCH POUNDS.

IDLE ADJUSTING NEEDLES (82) TURN IN UNTIL LIGHTLY SEATED, THEN BACK OUT ONE TURN. (DO NOT INSTALL IDLE LIMITER CAPS AT THIS TIME.)

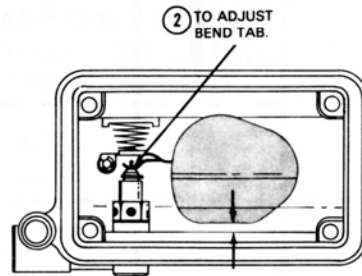
PRIMARY & SECONDARY FUEL BOWL (48)-(71) OR (49)-(73) BEFORE INSTALLING MAKE DRY FLOAT LEVEL ADJUSTMENT.

BOWL SCREW INSTALLATION (46)-(69) OR (47)-(71)-INSTALL GASKETS (47)-(70) OR (48)-(72) ON SCREWS BEFORE INSTALLING. THEN TORQUE EVENLY IN STAGES TO 40 INCH POUNDS.

FUEL LINE TUBE (67) OR (66) INSTALL O-RINGS (68) OR (67) ON THE EXTREME ENDS OF THE TUBE, THEY WILL ROLL ON THE TUBE WHEN INSTALLING THE FUEL BOWL.

ENRICHMENT VALVE (61)-(62) INSTALLATION- TORQUE TO 100 INCH POUNDS.

GOVERNOR DIAPHRAGM (13) OR (14)- INSTALLATION SEE FIGURE 7

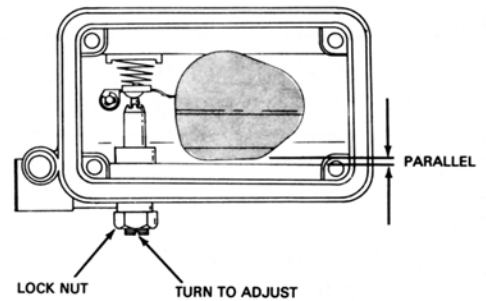


- ① FUEL BOWL INVERTED, WEIGHT OF FLOAT RESTING ON SEATED NEEDLE. MEASURE DISTANCE BETWEEN FLOAT AND INSIDE SURFACE OF FUEL BOWL.

PRIMARY & SECONDARY
FLOAT LEVEL
INTERNAL NEEDLE & SEAT

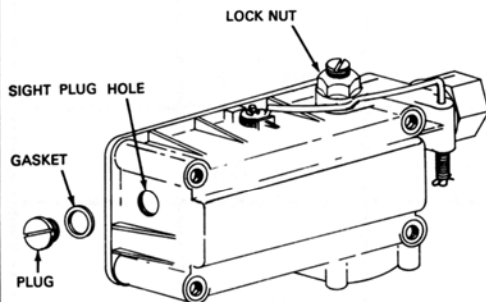
FIG. 1

FLOAT BOWL INVERTED, TURN NEEDLE SEAT ASSEMBLY UNTIL FLOAT SURFACE IS PARALLEL WITH THE SURFACE DIRECTLY BELOW THE FLOAT. TIGHTEN LOCK NUT.



PRIMARY & SECONDARY
DRY FLOAT LEVEL
ADJUSTABLE NEEDLE & SEAT

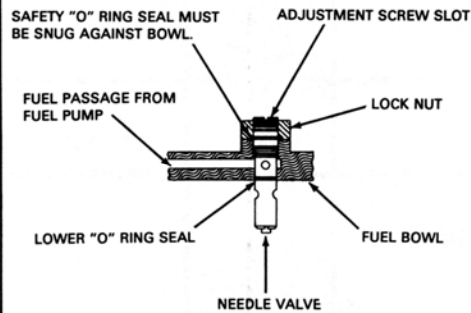
FIG. 2



1. VEHICLE SITTING ON LEVEL SURFACE AND ENGINE RUNNING.
2. REMOVE SIGHT LEVEL PLUG FROM HOLE.
3. ADJUST NEEDLE SEAT ASSEMBLY SO FUEL WILL BE AT BOTTOM EDGE OF SIGHT PLUG HOLE. (1/32" TOLERANCE.)
4. TIGHTEN LOCK NUT.

WET FLOAT LEVEL
ADJUSTABLE NEEDLE & SEAT

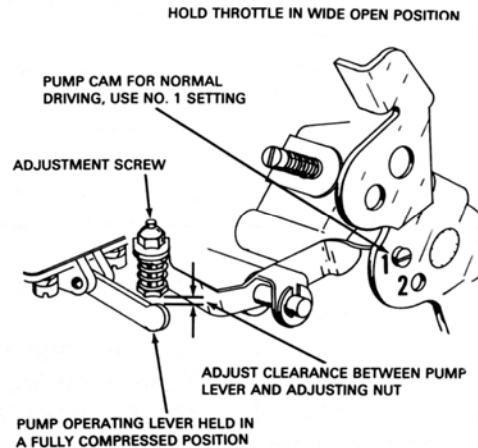
FIG. 3



THE EXCLUSIVE SEALING FEATURE OF THIS ASSEMBLY PROVIDE SAFE ADJUSTMENT OF FUEL LEVEL WHILE ENGINE IS RUNNING.

SAFETY SEAL ADJUSTABLE FUEL VALVE

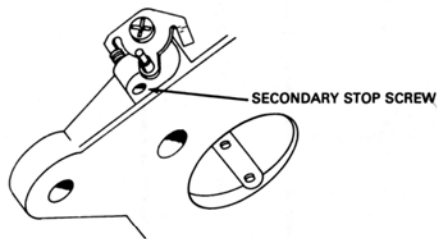
FIG. 4



PUMP ADJUSTMENT

FIG. 5

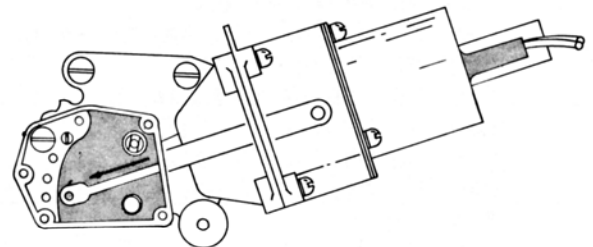
SECONDARY THROTTLE STOP SCREW, BACK OUT UNTIL SECONDARY PLATES ARE CLOSED. TURN SCREW IN UNTIL IT CONTACTS STOP. THEN TURN SCREW IN 1/2 TURN MORE.



SECONDARY THROTTLE STOP ADJUSTMENT

FIG. 6

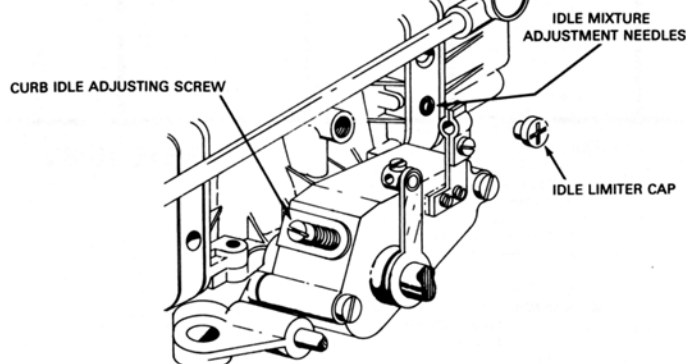
INSTALL COVER WITH THE SCREWS FINGER TIGHT, PULL THE DIAPHRAGM ROD AS FAR AS IT WILL GO AND THEN TIGHTEN SCREWS EVENLY WHILE MAINTAINING DIAPHRAGM STRETCHED IN THIS POSITION.



GOVERNOR DIAPHRAGM INSTALLATION

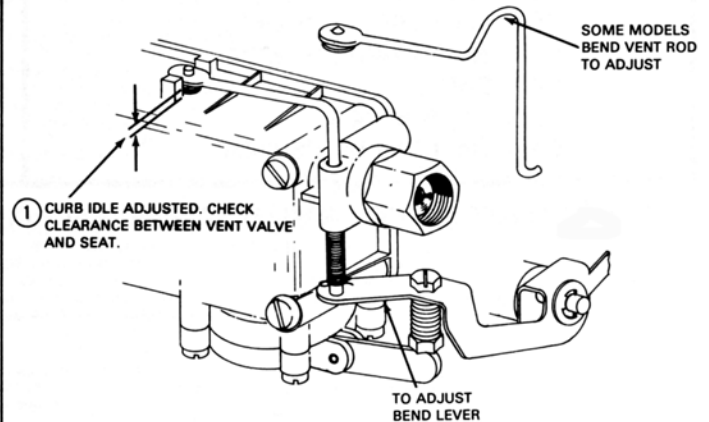
FIG. 7

ENGINE AT OPERATING TEMPERATURE, REFER TO ENGINE DECAL AND SERVICE MANUAL FOR PROPER IDLE ADJUSTING PROCEDURE & SPECIFICATIONS



SLOW IDLE ADJUSTMENT

FIG. 8



(ON TRUCK)
VENT VALVE ADJUSTMENT

FIG. 9

ADJUSTMENT DATA TABLE

YEAR	APPLICATION	PRIMARY FLOAT LEVEL	SECONDARY FLOAT LEVEL	PUMP CAM POSITION	VENT VALVE AT ENG. IDLE	GOVERNOR SPRING POST
1975	G.M. PRODUCTS 366", 427" ENG. Carb. No. R6928A, R6929A	3/16" 3/16"	5/32" 5/32"	No. 1 No. 1	.045-.075 .045-.075	2 3
1976-77	G.M. PRODUCTS 366", 427" ENG. CALIF. 427" ENG.	3/16" 3/16"	7/32" 7/32"	No. 1 No. 2	.045-.075 ---	2 2
1978-85	CHEV. & GMC TRUCK 366", 427" ENG. Carb. No. R7923A, R7924A, R7925A, .R7926A, R7927A, R7928A	*	*	No. 1	.045-.075	No. 4
1979	CHEVROLET & GMC TRUCK 366", 427" ENG. Carb. No. R8278A, R8279A, R8280A, R8281A, R8282A, R8283A	3/16"	7/32"	No. 1	.045-.075	---
1979	GMC TRUCK 454" ENG. Carb. No. R8443A, R8444A	3/16"	7/32"	No. 1	.045-.075	---
1980-85	GMC TRUCK 366" ENG. Carb. No. R8848A, R8849A, R8850A, R8851A 427" ENG. Carb. No. R8852A, R8853A, R8854A, R8855A, R8894A 454" ENG. R8856A, R8857A	* * *	* * *	--- --- ---	--- --- ---	--- --- ---
1982-85	CHEVROLET & GMC TRUCK 366", 427" ENG. R-9714A, R-9715A, R-9716A, R-9717A	3/16"	7/32"	No. 1	---	No.4
1969-80	IHC TRUCK 392" ENG. Carb. No. R4323A, -1A, -2A, -3A, -4A Carb. No. R4323-5A, 6A Carb. No. R4324A, -1A, -2A, -3A, -4A, -5A Carb. No. R4324-6A, -7A Carb. No. R6803A, 1A, 2A, 3A Carb. No. R7028A, R7579A Carb. No. R8105A, R8737A Carb. No. R8233A, 1A, R8243A, R9021A 404" ENG. Carb. No. R7215A Carb. No. R8246A, 8922A 446" ENG. Carb. No. R7251A Carb. No. R7997A, R8247A Carb. No. R8740A, R8923A 537" ENG. Carb. No. R-6974A Carb. No. R8139A, R8924A	* * * * * * * * * * * * * * * *	* * * * * * * * * * * * * * *	2 2 2 2 2 2 --- 2 2 2 2 --- 2 2 2 2	--- --- --- --- --- --- --- --- --- --- --- --- --- ---	2 1 2 1 1 3 --- 2 3 2 --- 3 2 3 3

* ADJUST FLOAT SO IT IS PARALLEL WITH SURFACE OF BOWL.

REV. 10/85