

FUEL SYSTEM

SERVICE INSTRUCTION WORKSHEET

TO REPAIR

GF4175-13

ROCHESTER CARBURETOR

2 BARREL---MODEL E2MC, E2ME, M2MC, M2ME

1. Carefully read the text in the following pages to become familiar with the contents of this worksheet before performing carburetor overhaul.
2. The exploded view is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.
3. Use the exploded view as a guide. The numerical sequence of the parts list may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.

4. Parts list shown DOES NOT reflect the contents of the kit.
5. Kit may contain extra parts intended for other carburetors within this group. Substitute identical replacement parts for original worn parts found in carburetor.

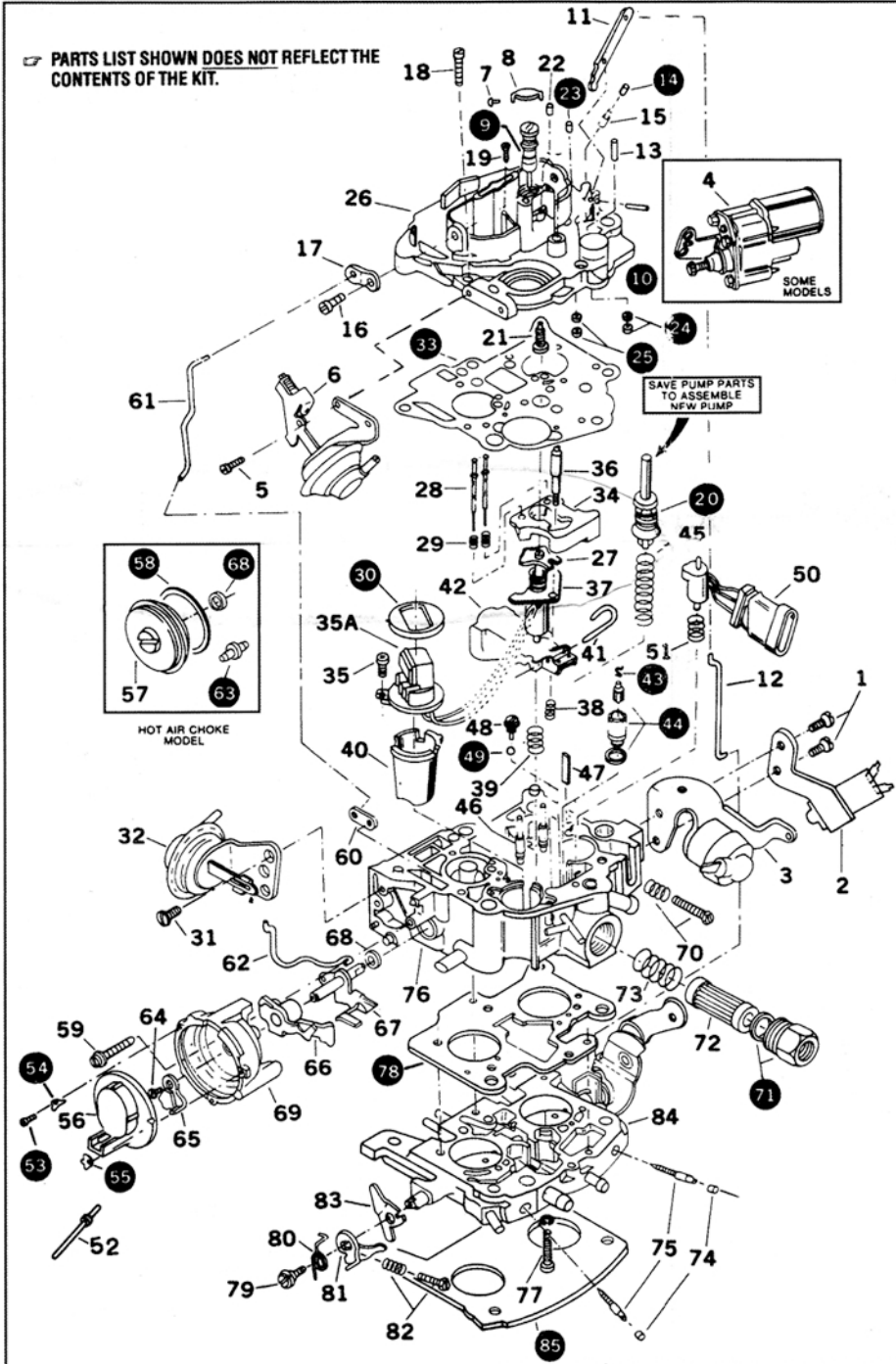
CLEANING

Cleaning must be done with carburetor disassembled. Soak or spray parts in cleaning solvent long enough to soften foreign matters. **Caution:** Do not soak or spray parts made of rubber, leather, plastic or electrical parts. Remove all loose particles and dirt using a stiff bristle brush. Do not use abrasives. Do not use a metal wire to clean out passageways and jets. Wash off in suitable solvent. Clear all passageways and jets with compressed air.

PARTS LIST

1. Screw, Bracket, W.O.T. Switch & Sol.*
2. Switch Assy., W.O.T. #
3. Solenoid Assy., Idle Speed
4. Idle Speed Control Assy. (I.S.C.)*
5. Screw, Vacuum Brake, Pri. (2)
6. Vacuum Break Assy., Pri. (Choke Pull-Off)
7. Rivet, Air Bleed Valve Cover (2)
8. Cover, Air Bleed Valve
9. Air Bleed Valve†† & "O" Ring Assy.
10. Pin, Pump Lever, Fulcrum
11. Lever, Pump
12. Rod, Pump
13. Rod, Actuator, T.P.S.
14. Plug, Adj. Screw, T.P.S.†
15. Screw, Adj., T.P.S.
16. Screw, Choke Lever
17. Lever, Choke Shaft
18. Screw, Air Horn (long - 7)
19. Screw, Air Horn (short - 2)
20. Pump Piston Assembly
21. Screw, Stop, Rich Mixture Adj.
22. Plug, Rich Mixture Stop Screw
23. Plug, Lean Mixture Screw
24. Retainer & Seal, T.P.S.
25. Retainer & Seal, Pump Rod
26. Air Horn Assembly
27. Plunger, Mixture Control Sol.
28. Rod, Metering (2)
29. Spring, Metering Rod (2)
30. Gasket, Electrical Connector
31. Screw, Vacuum Break, Aux. (3)
32. Vacuum Break Assy., Aux.
33. Gasket, Air Horn to Main Body
34. Insert, Plastic, Fuel Chamber
35. Screw, Electrical Connector
- 35A. Connector, Electrical
36. Screw, Adj., Lean Mixture
37. Solenoid Assy., Mixture Control
38. Spring, Screw Adj., Lean Mixture
39. Spring, Solenoid Assy. Mixture Control
40. Insert, Plastic, Aneroid Cavity
41. Hinge Pin, Float
42. Float
43. Lift Hook, Float Needle
44. Needle, Seat & Gasket Assy.
45. Spring, Pump Return
46. Jet, Main (2)
47. Baffle, Fuel Pump Well
48. Cover, Pump Discharge Ball
49. Ball, Pump Discharge
50. Throttle Position Sensor (T.P.S.)
51. Spring, T.P.S.
52. Rivet, Stat Cover (3)††
53. Screw, Stat Cover (3)
54. Retainer (2)
55. Retainer, Locating Tab
56. Stat Cover, Electric Choke
57. Stat Cover, Hot Air Choke*
58. Gasket, Stat Cover*
59. Screw, Choke Housing to Main Body
60. Lever Choke, Lower
61. Rod, Choke
62. Link, Connecting Aux. Vacuum Break
63. Seal, Choke Housing*
64. Screw, Lever, Stat Coil
65. Lever, Inter. Shaft, Stat Cover
66. Cam, Fast Idle
67. Choke Shaft & Lever Assy. Inter.
68. Seal, Intermediate Choke Shaft
69. Housing, Choke
70. Screw & Spring, Idle Speed
71. Fitting†† & Gasket, Fuel Inlet
72. Filter, Fuel
73. Spring, By-Pass, Fuel Filter
74. Plug (Hardened), Idle Mix. Screw (2)
75. Screw & Spring, Idle Mixture (2)
76. Main Body
77. Screw, Throttle Body to Main Body
78. Gasket, Throttle Body to Main Body
79. Screw, Lever, Throttle Shaft
80. Spring, Cam Follower
81. Lever Adj., Fast Idle
82. Screw & Spring, Fast Idle Adj.
83. Follower, Cam
84. Throttle Flange Assembly
85. Gasket, Throttle Flange

⚠ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT.



Some Models

† Do not remove unless required.

†† Not supplied in kit.

REMOVAL & INSTALLATION NOTES

- Cover opening on intake manifold after carburetor is removed.
- For removal and installation of choke cover, refer to Fig. 1.
- Air horn screws (19) are located inside the air horn. Do not remove brass tubes from air horn assy.
- Air bleed valve cover (8) may be riveted. Drill out rivets and discard cover. (not replaced).
- Before removing air bleed valve (9), turn clockwise until lightly seated counting number of turns. Record for proper installation. (If not known, turn back 4 turns).
- Main jets (46) can be removed with proper tool. See service manual.
- For removal of idle mixture screw plugs (74), refer to Fig. 2.
- Before removing idle mixture screws (75), turn clockwise until lightly seated counting number of turns. Record for proper installation. Also see spec. chart.
- Install parts in reverse order of removal.
- Refer to Fig. 3 for proper float installation.
- Make sure to install seals, (24) & (25), with lip facing upward. Lightly stake retainers in three places.
- For models with electrical choke do not install choke cover gasket.
- Refer to Fig. 4 for proper installation of air horn assy.
- If angle gauge tool is not available, use standard gauge (provided in kit) along with conversion table on page 6.
- Before removing T.P.S., (50), mark height location then remove staking around sensor. Lift out sensor but do not disturb the sealed adjusting screw. Refer to Fig. 13.
- Adjustments for idle air bleed valve and mixture control system require precise settings. Refer to service manual for these procedures.
- Model M2MC, E only. **Caution:** Do not remove or alter the metering rod adjusting screw. This screw sets the maximum travel of the metering rod.

ADJUSTMENT DATA

FIG. 1

REMOVAL & INSTALLATION OF CHOKE COVER

- CAREFULLY DRILL AND REMOVE ALL RIVET HEADS. USE #21 DRILL BIT.
- USE A SMALL DRIFT PUNCH AND HAMMER TO DRIVE REMAINDER OF RIVETS OUT.

NOTE: EXERCISE CARE IN DRILLING. DO NOT DAMAGE OR ENLARGE THE HOLES IN THE CHOKE HOUSING.

- WHEN INSTALLING CHOKE COVER, MAKE SURE THAT COIL PICK-UP LEVER IS IN COIL SPRING LOOP END. ALIGN NOTCH IN COVER WITH RETAINER TAB AND TIGHTEN NEW SCREWS (SELF TAPPING SCREWS ARE IN KIT) EVENLY AND SECURELY. NOTE: IN SOME APPLICATIONS, INSTALL COVER WITH NEW POP RIVETS.

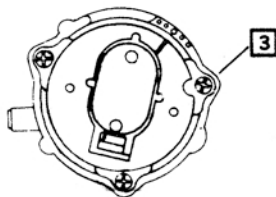
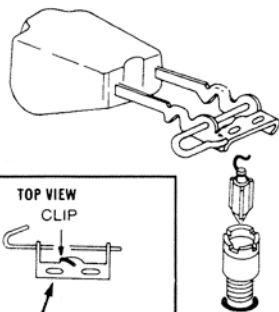


FIG. 3-A

FLOAT NEEDLE & CLIP LOCATION

NOTE: HOOK CLIP OVER EDGE OF FLAT ON FLOAT ARM IN OPPOSITE DIRECTION OF PONTOON (AS SHOWN).



TOP VIEW CLIP
CAUTION: DO NOT HOOK CLIP IN HOLE OF FLOAT ARM

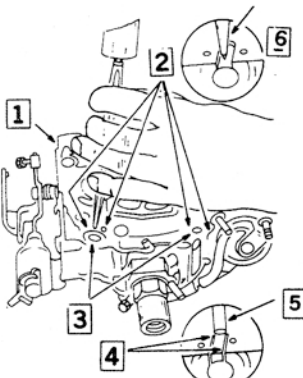
FIG. 2

REMOVAL OF SEALED MIXTURE SCREWS (IF REQUIRED)

- INVERT THROTTLE BODY AS SHOWN.
- PLACE PUNCH BETWEEN 2 LOCATION MARKS OVER ISLE MIXTURE NEEDLE PLUG.
- BREAK OUT THROTTLE BODY TO PROVIDE ACCESS TO HARDENED STEEL PLUG. NEXT, DRIVE OUT PLUG EXPOSING MIXTURE NEEDLE.

NOTE: BEFORE REMOVING MIXTURE NEEDLE, CAREFULLY MARK POSITION THEN, USING A SOCKET WRENCH, TURN NEEDLE IN COUNTING NUMBER OF TURNS TO LIGHTLY SEAT. NEXT, TURN OUT COUNTING NUMBER OF TURNS TO ORIGINAL INDEX MARK. RECORD SETTING & REMOVE NEEDLE REPEAT PROCEDURE FOR OTHER MIXTURE NEEDLE.

- LATE MODELS: CUT 2 PARALLEL SLOTS ON EITHER SIDE OF LOCATION MARKS USING A HACKSAW. SLOTS SHOULD NOT EXTEND BEYOND 1/8" OF LOCATION POINTS.
- POSITION A FLAT PUNCH AT A 45° ANGLE BETWEEN ENDS OF SAW MARKS IN THROTTLE



BODY: DRIVE PUNCH BETWEEN SLOTS CAUSING SLUG TO BREAK OFF.

- NEXT, HOLD CENTER PUNCH IN A VERTICAL POSITION & DRIVE IT INTO STEEL PLUG. RE-POSITION PUNCH TO 45° ANGLE & DRIVE PLUG OUT OF CASTING EXPOSING MIXTURE NEEDLE.
- REPEAT NOTE OF STEP 3 TO INDEX MIXTURE NEEDLES.

FIG. 3-B

KITS WITH PUMP CUP ONLY

REMOVE OLD CUP (WITH GARTER SPRING IF USED) FROM PUMP HEAD. INSTALL NEW CUP (WITH NEW GARTER SPRING, IF USED) IN SAME POSITION ON PUMP HEAD.

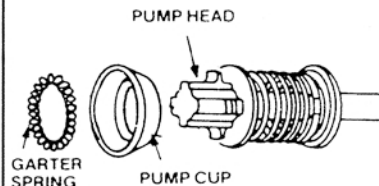
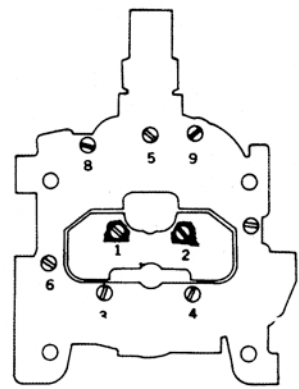


FIG. 4

SCREW TIGHTENING SEQUENCE - AIR HORN COVER

CAUTION: EXERCISE CARE WHEN INSTALLING AIR HORN ASSY. TO MAIN BODY. CHECK FOR PROPER ALIGNMENT OF T.P.S. (50) PLUNGER PIN WITH ACTIVATOR ROD (13). INCORRECT ALIGNMENT CAN CAUSE BREAKAGE OF PLUNGER PIN.



ADJUSTMENT DATA (Cont'd)

FIG. 5

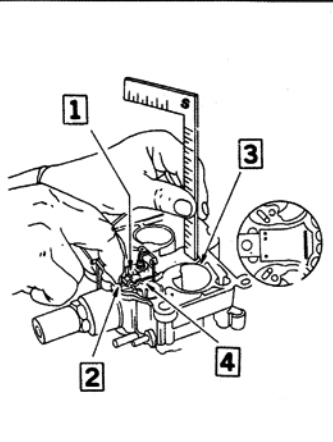
FLOAT LEVEL ADJUSTMENT

1. HOLD FLOAT RETAINER FIRMLY IN PLACE.
2. PUSH FLOAT HINGE DOWN LIGHTLY AGAINST NEEDLE.
3. MEASURE FROM TOP OF FLOAT TO TOP OF CASTING. NOTE: MEASURING POINT IS 3/16" BACK FROM TOE OF FLOAT.
4. TO ADJUST, BEND FLOAT ARM.

NOTE: ON CCC* CARBURETORS, IF FLOAT LEVEL VARIES $\pm 1/16"$ FROM SPECS., CORRECT HIGH LEVEL AS FOLLOWS: HOLD RETAINER, PUSH DOWN ON CENTER OF FLOAT PONTOON TO ADJUST.

CAUTION: DO NOT PRESS FLOAT NEEDLE INTO SEAT.

TO CORRECT LOW LEVEL, REMOVE METERING RODS & SOLENOID CONNECTOR SCREW. INDEX LEAN MIXTURE SCREW & TURN IN UNTIL IT LIGHTLY BOTTOMS. TURN OUT, COUNTING NUMBER OF TURNS TO INDEX MARK, RECORD & REMOVE. LIFT CONNECTOR & SOLENOID FROM MAIN BODY. NEXT, BEND FLOAT ARM UP TO ADJUST.



CHECK FLOAT ALIGNMENT AFTER ADJUSTMENT. RE-INSTALL PARTS IN REVERSE ORDER.

*COMPUTER COMMAND CONTROL

FIG. 6

CHOKO COIL LEVER ADJUSTMENT

NOTE: REMOVE THERMOSTATIC COVER & COIL ASSY. FROM CHOKO HOUSING, IF NECESSARY, DRILL OUT RIVETS USING #21 DRILL (.159") OR EQUIVALENT. AFTER ADJUSTMENT REASSEMBLE USING SIMILAR RIVETS OR SELF-TAPPING SCREWS.

1. PUSH UP ON CHOKO COIL LEVER UNTIL CHOKO VALVE IS CLOSED.
2. INSERT SPECIFIED GAUGE.
3. LOWER EDGE OF LEVER SHOULD JUST CONTACT SIDE OF GAUGE.
4. TO ADJUST, BEND CHOKO ROD.

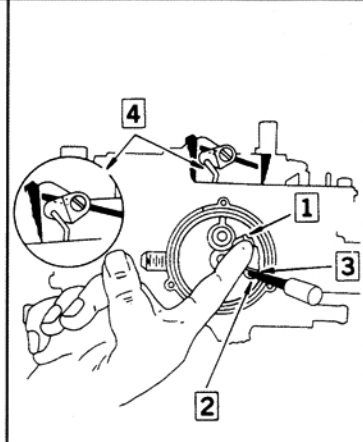


FIG. 7

FAST IDLE CAM (CHOKO ROD) ADJUSTMENT

NOTE: PLACE DEGREE SCALE ON CLOSED CHOKO VALVE AND CENTER LEVELING BUBBLE ON GAUGE.

MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.

2. PLACE CAM FOLLOWER ON SECOND STEP OF CAM (NEXT TO HIGH STEP).
3. CLOSE CHOKO BY PUSHING UPWARD ON CHOKO COIL LEVER.

NOTE: DO NOT REMOVE CHOKO COVER TO PERFORM THIS ADJUSTMENT. USE RUBBER BAND ON VACUUM BREAK LEVER TANG TO HOLD CHOKO VALVE CLOSED.

4. TO ADJUST, BEND TANG ON FAST IDLE CAM UNTIL BUBBLE IS CENTERED.

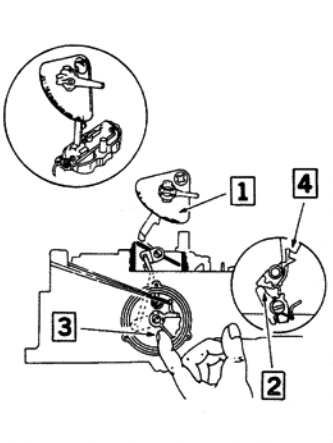


FIG. 8

FRONT VACUUM BREAK ADJUSTMENT

NOTE: PLACE DEGREE SCALE ON CLOSED CHOKO VALVE AND CENTER LEVELING BUBBLE ON GAUGE.

1. MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.
2. SEAT DIAPHRAGM BY APPLYING AN OUTSIDE VACUUM SOURCE. SOME MODELS (VIEW 1) LEAF BUCKING SPRING MUST BE SEATED AGAINST LEVER.

NOTE: ON DELAY MODELS, COVER AIR BLEED HOLE WITH A PIECE OF TAPE. REMOVE TAPE AFTER ADJUSTMENT.

3. TURN CHOKO VALVE TOWARD CLOSED POSITION BY ROTATING CHOKO COIL LEVER COUNTER-CLOCKWISE (HOLD WITH RUBBER BAND).
4. TO ADJUST, REMOVE VACUUM BREAK, THEN GRIND OFF WELD THAT HOLDS ADJUSTING SCREW COVER. REMOVE COVER & REPLACE VACUUM BREAK.
5. NEXT, TURN ADJUSTING SCREW UNTIL BUBBLE IS CENTERED.

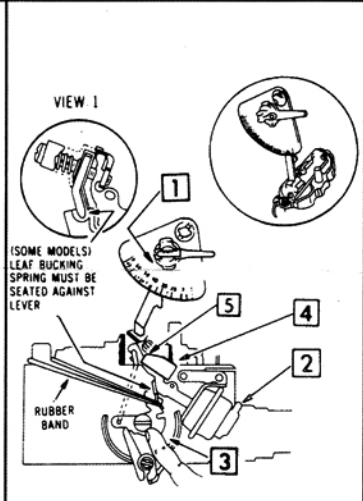


FIG. 9

REAR VACUUM BREAK ADJUSTMENT (SCREW ADJ. TYPE)

NOTE: PLACE DEGREE SCALE ON CLOSED CHOKO VALVE AND CENTER BUBBLE ON GAUGE.

1. MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.
2. SEAT DIAPHRAGM BY APPLYING AN OUTSIDE VACUUM SOURCE. SOME MODELS: PLUNGER BUCKING SPRING MUST BE COMPRESSED & SEATED.

NOTE: ON DELAY MODELS, PLUG END COVER THEN SEAT VACUUM DIAPHRAGM. UNPLUG END COVER AFTER ADJUSTMENT.

3. TURN CHOKO VALVE TOWARD CLOSED POSITION BY ROTATING CHOKO COIL LEVER COUNTER-CLOCKWISE. (HOLD WITH RUBBER BAND).
4. TO ADJUST, REMOVE VACUUM BREAK, THEN GRIND OFF ADJUSTING SCREW CAP. REPLACE VACUUM BREAK.
5. NEXT, TURN SCREW AT REAR COVER UNTIL BUBBLE IS CENTERED. APPLY SEALER TO SEAL SETTING.

SOME MODELS: ADJUST BY BENDING CHOKO CONNECTING LINK

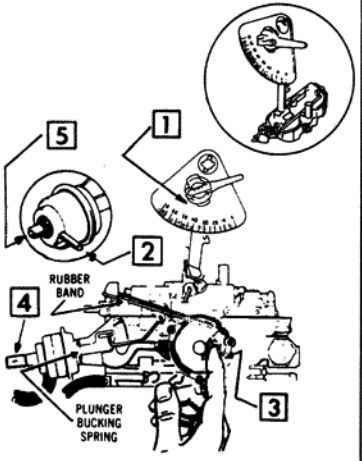


FIG. 10

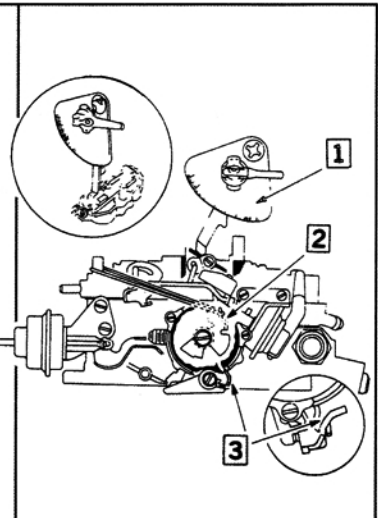
UNLOADER ADJUSTMENT

NOTE: PLACE DEGREE SCALE ON CLOSED VALVE AND CENTER LEVELING BUBBLE ON GAUGE.

1. MOVE DEGREE SCALE ONLY TO SPECIFIED ANGLE.

NOTE: INSTALL CHOKO COVER ASSY. IF REMOVED.

2. CLOSE CHOKO VALVE BY PUSHING UP ON TANG OF VACUUM BREAK LEVER. (HOLD WITH RUBBER BAND). NEXT, MAINTAIN THROTTLE VALVES IN WIDE OPEN POSITION.
3. IF ADJUSTMENT IS REQUIRED, BEND TANG UNTIL BUBBLE IS CENTERED.



ADJUSTMENT DATA (Cont'd)

FIG. 11

RICH MIXTURE STOP SCREW ADJUSTMENT
NOTE: THIS IS A BENCH ADJUSTMENT WITH LEAN MIXTURE SCREW SET PROPERLY AND AIR HORN REINSTALLED.

1. INSERT GAUGE INTO "D" SHAPED VENT HOLE TO CONTACT MIXTURE CONTROL SOLENOID PLUNGER.
2. MEASURE THE SOLENOID PLUNGER TRAVEL BY PRESSING DOWN ON GAUGE AND RELEASING. IT SHOULD BE AS SPECIFIED.
3. TO ADJUST, INSERT TOOL (# CT11 or PART # BT-7928) TO HOLE "A" AS SHOWN AND TURN IN OR OUT TO OBTAIN DIMENSION.
4. INSTALL NEW PLUGS TO HOLE "A" (RICH MIXTURE STOP SCREW) AND HOLE "B" (LEAN MIXTURE SCREW) TO RETAIN SETTINGS AND PREVENT FUEL VAPOR LOSS.

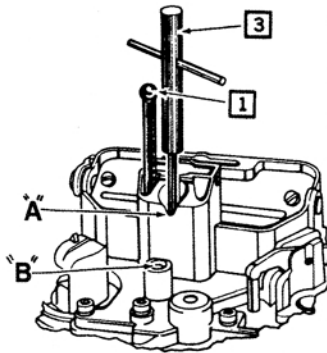


FIG. 12

PUMP ADJUSTMENT (Model M2MC, E Only)

1. PLACE PUMP LINKAGE IN SPECIFIED HOLE.
2. WITH FAST IDLE CAM OFF CAM FOLLOWER LEVER, TURN THROTTLE STOP SCREW OUT SO IT DOES NOT TOUCH THROTTLE LEVER.
3. MEASURE DIMENSION FROM TOP OF CHOKE VALVE WALL TO TOP OF PUMP ROD.
4. TO ADJUST, SUPPORT PUMP LEVER AT "A" AND BEND AT NOTCH.

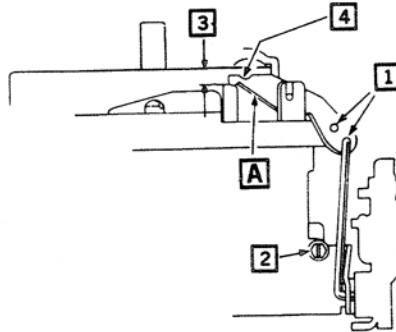


FIG. 13

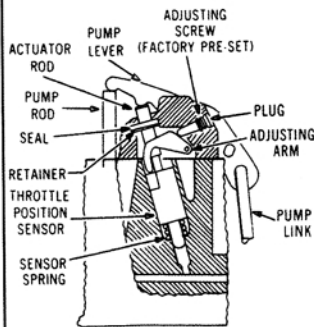
THROTTLE POSITION SENSOR ADJUSTMENT (ON CAR)

NOTE: DO NOT REMOVE SEAL PLUG UNLESS IN DIAGNOSIS. T.P.S. SENSOR IS ADJUSTED CORRECTLY. SINCE THIS IS A CRITICAL ADJUSTMENT, IT MUST BE PERFORMED VERY CAREFULLY & ACCURATELY TO ENSURE PROPER PERFORMANCE & COMPLIANCE WITH EXHAUST EMISSIONS.

1. IF ADJUSTMENT IS REQUIRED (SEE FIGS. 13-1, 13-2), REMOVE PLUG COVERING T.P.S. ADJUSTING SCREW BY DRILLING A 5/64" HOLE IN PLUG TO DEPTH OF 1/16" TO 1/8".
2. TURN IN NO. 8 x 1/2" SELF TAPPING SCREW, DEEP ENOUGH TO GET A GOOD THREAD BITE IN HOLE.
3. USING A SCREWDRIVER, PRY SCREW HEAD AGAINST CASTING TO REMOVE PLUG.
4. REMOVE ADJUSTING SCREW & CONNECT A 10 MEG OHM DIGITAL VOLTMETER WITH A 0-2 VOLT RANGE (3 DIGIT READ-OUT) ACROSS (USING JUMPER WIRES WITH TERMINALS ACCESS) CENTER & BOTTOM TERMINALS OF T.P.S. CONNECTOR.
5. WITH ENGINE STOPPED & IGNITION ON, REINSTALL T.P.S. ADJUSTING SCREW. TURN SCREW TO OBTAIN SPECIFIED VOLTAGE AT SPECIFIED THROTTLE POSITION WITH A/C OFF. REFER TO MANUFACTURER'S SERVICE MANUAL FOR VOLTAGE SPECIFICATION.

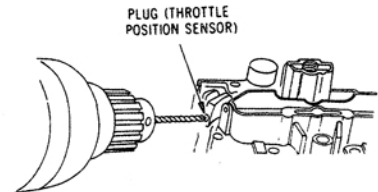
NOTE: NEW PLUG MUST BE INSTALLED TO MAINTAIN T.P.S. ADJUSTMENT SCREW SETTING.

FIG. 13-1



**LOCATION
THROTTLE POSITION SENSOR**

FIG. 13-2



**T.P.S.
SCREW PLUG—REMOVAL**

SPECIFICATIONS BY APPLICATION

Year	MODEL	Float Level Fig. 5	Choke Coil Lever Fig. 6	Fast Idle Cam Fig. 7	Vacuum Break Front Fig. 8	Vacuum Break Rear Fig. 9	Unloader Fig. 10	Rich Mixture Screw Fig. 11	Pump Adjustment Fig. 12	Idle ¹ Mixture Needle
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BUICK, CHEVROLET, OLDSMOBILE & PONTIAC SPECIFICATION I.D. A

1981-80	231 Eng. -U.S.	3/8	.120	18°	28°	24°	38°	1/8	—	2½ ²
	Carb. No. 17081190, 193	5/16	.120	24.5°	21°	31°	38°	1/8	—	4¾
	Carb. No. 17081191, 196	5/16	.120	24.5°	28°	24°	38°	1/8	—	2½ ³

GM TRUCKS SPECIFICATION I.D. A

1981	231 Eng.	3/8	.120	18°	28°	24°	38°	1/8	—	2¾
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CHEVROLET & PONTIAC SPECIFICATION I.D. B

1984-82	229 Eng. -U.S.	3/8	.120	20°	27°	—	38°	1/8	—	1¼
	1981 229 Eng. -U.S.	11/32	.120	20°	25°	—	38°	1/8	—	5
	1982-81 267 Eng. -U.S.	11/32	.120	20°	25°	—	40°	1/8	—	5

GM TRUCKS SPECIFICATION I.D. B

1983-82	229 Eng. -U.S.	3/8	.120	20°	27°	—	38°	1/8	—	1¼
	1981 229 Eng. -U.S.	11/32	.120	20°	25°	—	38°	1/8	—	5
	1982-81 267 Eng. -U.S.	11/32	.120	20°	25°	—	40°	1/8	—	5

BUICK, CHEVROLET, OLDSMOBILE & PONTIAC SPECIFICATION I.D. C

1987-85	231 Eng. -Can.	9/32	.120	17°	17°	19°	35°	—	Inner 9/32	—
	231 Eng. -U.S.	5/16	.120	18°	28°	24°	32°	—	—	3 ⁵
	1986-85 231 Eng. -Can.	9/32	.120	24.5°	17°	19°	38°	—	Inner 9/32	—
	1985 3.0L Eng.	11/32	.120	17°	27°	25°	35°	—	—	3 ⁵
	1984-81 231 Eng. -Can.	9/32	.120	24.5°	17°	19°	38°	—	Inner 1/4	—
	1984-82 231 Eng. -U.S.	5/16	.120	18°	28°	24°	32°	1/8	—	3 ⁵

GM TRUCKS SPECIFICATION I.D. C

1983-82	231 Eng. -Can.	9/32	.120	24.5°	17°	19°	38°	—	Inner 1/4	—
	-U.S.	5/16	.120	18°	28°	24°	32°	1/8	—	3 ⁵

OLDSMOBILE & PONTIAC SPECIFICATION I.D. D

1982-80	260 Eng.—Exc. Pontiac	13/32	.120	14°	24°	36°	35°	1/8	—	6½
	260 Eng.	13/32	.120	14°	24°	36°	35°	1/8	—	5¼
	260 Eng.	13/32	.120	14°	24°	34°	35°	1/8	—	4

BUICK, CHEVROLET, OLDSMOBILE & PONTIAC SPECIFICATION I.D. E

1985-82	3.0L Eng.	5/16	.120	17°	27°	25°	35°	1/8	—	3 ⁵
	-Carb No. 17110337	5/16	.120	17°	27°	25°	35°	1/8	—	3 ⁵
	-Carb Nos. 17084193, 195	5/16	.120	17°	23°	28°	27°	1/8	—	3 ⁵
	-Carb No. 17083193	5/16	.120	18°	21°	19°	27°	1/8	—	3 ⁵
	-Carb No. 17082196	5/16	.120	18°	21°	19°	27°	1/8	—	3 ⁵
	-Carb Nos. 17082183, 186	5/16	.120	18°	24°	28°	27°	1/8	—	3 ⁵
Carburetor numbers not shown, see footnote 6.										
1983-82	231 Eng. -U.S.	5/16	.120	18°	28°	24°	32°	1/8	—	3 ⁵
	1980 231 Eng. -Exc. Calif.	5/16	.120	24.5°	21°	30°	38°	1/8	—	4¼ ⁴
1979	w/Carb. Nos. 17080493, 495	5/16	.120	24.5°	21°	35°	38°	1/8	—	4½
	-Calif.	5/16	.120	24.5°	21°	30°	38°	—	Outer ¾	5

GM TRUCKS SPECIFICATION I.D. E

1983-82	231 Eng. -U.S.	5/16	.120	18°	28°	24°	32°	1/8	—	3 ⁵
	1980 231 Eng.	5/16	.120	24.5°	21°	30°	38°	1/8	—	4¼ ⁴
	1979 231-2 Eng. -Calif.	5/16	.120	24.5°	21°	30°	38°	—	Inner 5/16	—

BUICK & PONTIAC SPECIFICATION I.D. F

1981	4.3S Eng.	11/32	.120	14.5°	24°	37°	35°	—	—	4½
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FOOTNOTES:

- ¹ Number of Turns.
- ² Carb. No. 17081192, 198 set 3;
Carb. No. 17081194 set 2¾;
Carb. No. 17081197 set 3½.
- ³ Carb. No. 17081191 set 2¼.
- ⁴ Carb. No. 17080495 set 4.
- ⁵ Final adjustment on vehicle.
- ⁶ Follow information set forth in car service manual or engine compartment decal.

ABBREVIATIONS:

A/T	Automatic Transmission
Aux.	Auxiliary
Cal., Calif.	California
Can.	Canada
Inter.	Intermediate
I.S.C.	Idle Speed Control
Pri.	Primary
Sol.	Solenoid
T.P.S.	Throttle Position Sensor
W.O.T.	Wide Open Throttle

ANGLE DEGREE TO DECIMAL CONVERSION

THE RELATION BETWEEN DECIMAL AND ANGLE READINGS IS NOT EXACT DUE TO MANUFACTURING TOLERANCES. THIS CHART IS SUPPLIED FOR THOSE WHO HAVE ACCESS TO DRILL BITS OR PLUG GAUGES ONLY. **NOTE: BE SURE TO MEASURE BETWEEN UPPER EDGE OF CHOKE VALVE AND WALL OF AIR HORN.** GENERAL MOTORS RECOMMENDS USING AN ANGLE GAUGE FOR BEST OVERALL PERFORMANCE AND ACCURACY.

ANGLE DEGREES	DECIMAL EQUIV. TOP OF VALUE	ANGLE DEGREES	DECIMAL EQUIV. TOP OF VALUE
5	.023	33	.203
6	.028	34	.211
7	.033	35	.220
8	.038	36	.227
9	.043	37	.234
10	.049	38	.243
11	.054	39	.251
12	.060	40	.260
13	.066	41	.269
14	.071	42	.277
15	.077	43	.287
16	.083	44	.295
17	.090	45	.304
18	.095	46	.314
19	.103	47	.322
20	.110	48	.332
21	.117	49	.341
22	.123	50	.350
23	.129	51	.360
24	.136	52	.370
25	.142	53	.379
26	.149	54	.388
27	.157	55	.400
28	.164	56	.408
29	.171	57	.418
30	.179	58	.428
31	.187	59	.439
32	.195	60	.449