



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

ROCHESTER—MODEL 2SE

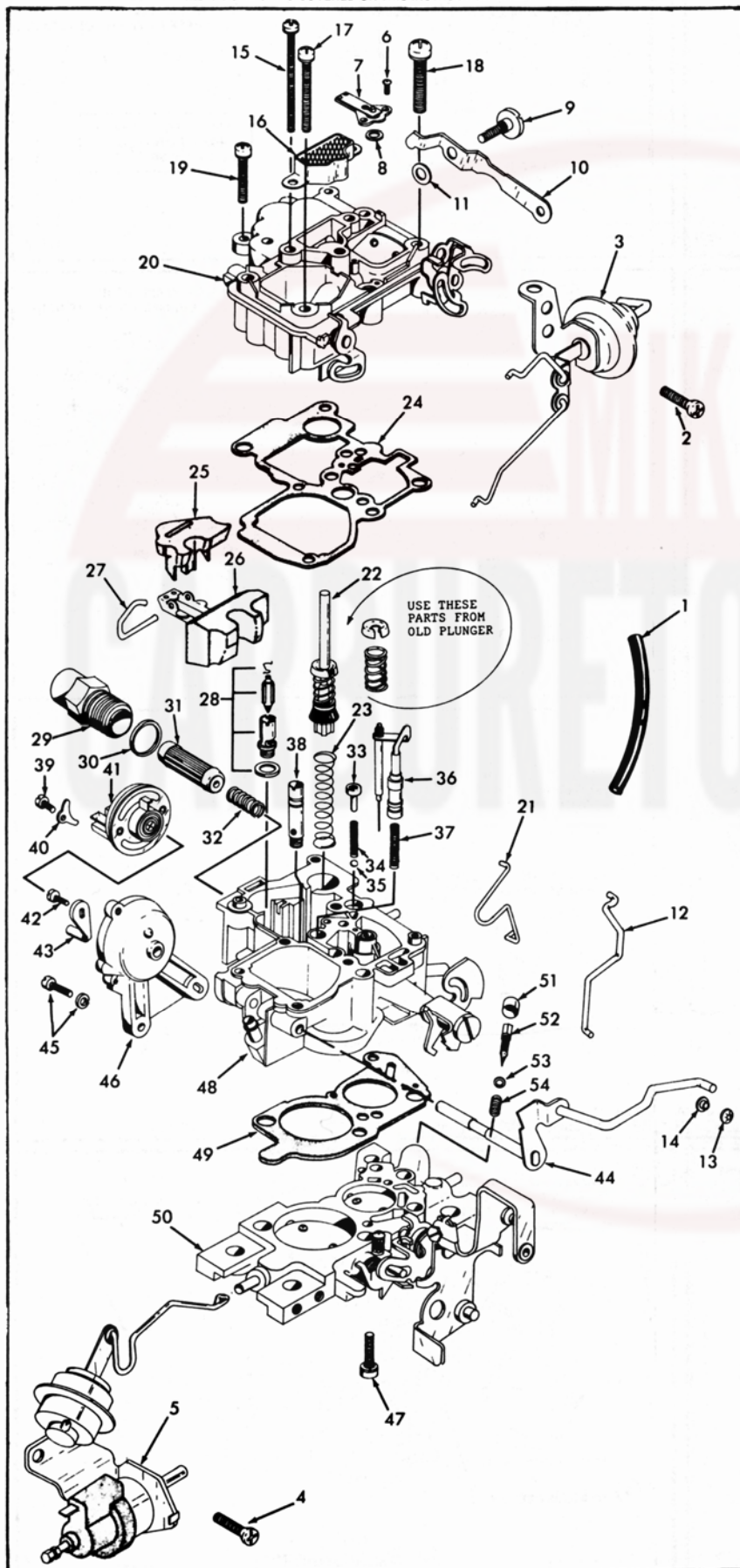
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PRI. & SEC. VACUUM BREAK

DISASSEMBLY

GENERAL EXPLODED VIEW

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



USE THE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND INSPECTION. NOTE: MOST SCREWS HAVE SOME FORM OF LOCK TIGHT ON THEM. LINKAGE CONNECTED TO VACUUM BREAK UNITS CAN BE UNHOOKED AT ONE END ONLY. UNHOOK FAST IDLE ROD (21) WHEN REMOVING BOWL COVER. (FAST IDLE CAM AND SCREW ARE NOT REMOVABLE). TO REMOVE POWER PISTON ASSEMBLY (36) LIGHTLY BOUNCE VACUUM PISTON TO WORK RETAINER OUT OF CASTING. PULL PLASTIC RETAINER (33) OUT. DO NOT PRY OUT. THIS WILL DAMAGE THE SEALING BEADS ON THE BOWL CASTING. THE IDLE MIXTURE NEEDLE (52) IS SEALED WITH A HARDENED STEEL PLUG. IF NECESSARY, TO REMOVE IDLE MIXTURE NEEDLE ON A MAJOR OVERHAUL, FOLLOW PROCEDURE IN FIG. 1 TO REMOVE STEEL PLUG. (THE IDLE MIXTURE NEEDLE HAS BEEN FACTORY ADJUSTED AND SEALED FOR EMISSION CONTROL).

TAMPER - RESISTANT CHOKE COVER

USING #21 DRILL (1/59") DRILL POP RIVET HEAD ENOUGH TO REMOVE HEAD. AFTER HEADS ARE REMOVED USE A DRIFT PUNCH AND SMALL HAMMER TO DRIVE THE REMAINDER OF THE RIVETS OUT OF THE CHOKE HOUSING. REMOVE CHOKE COMPONENTS. REPLACEMENT RETAINERS AND SELF TAPPING SCREWS OR POP RIVETS ARE FOUND IN REPAIR KIT

NOMENCLATURE

REF. NO.	REF. NO.
1. HOSE-VACUUM BREAK	27. PIN-FLOAT HINGE
2. SCREW (2)-VAC. BREAK BRACKET	28. NEEDLE & SEAT ASSEMBLY
3. PRI. VAC. BREAK, LINKAGE & BRACKET ASSY.	29. FILTER NUT-FUEL INLET
4. SCREW (2)-SEC VAC. BREAK BRACKET	30. GASKET-FILTER NUT
5. SEC. VAC. BREAK, LINK, SOLENOID & BRACKET ASSEMBLY.	31. FILTER-FUEL INLET
6. SCREW (2)-IDLE COMPENSATOR	32. SPRING-FILTER
7. IDLE COMPENSATOR	33. GUIDE-PUMP DISC SPRING
8. GASKET-IDLE COMPENSATOR	34. SPRING-PUMP DISC
9. SCREW-PUMP LEVER	35. BALL-PUMP DISC
10. LEVER-PUMP	36. POWER PISTON ASSEMBLY
11. SPACE WASHER-PUMP LEVER SCREW	37. SPRING-POWER PISTON
12. ROD-PUMP	38. JET-PRIMARY
13. RETAINER (UPPER)-CHOKE ROD	39. SCREW (3)-CHOKE RETAINER
14. BUSHING-CHOKE ROD	40. RETAINER (3)-CHOKE COVER
15. SCREW & LOCKWASHER (2) LONG-BOWL COVER	41. ELECTRIC CHOKE COVER ASSEMBLY
16. VENT STACK	42. SCREW-CHOKE LEVER
17. SCREW & LOCKWASHER (1)-BOWL COVER.	43. LEVER-CHOKE
18. SCREW & LOCKWASHER (1)-LARGE-BOWL COVER	44. CHOKE SHAFT & ROD ASSEMBLY
19. SCREW & LOCKWASHER (3)-BOWL COVER.	45. SCREW & LOCKWASHER (2)-CHOKE HOUSING
20. BOWL COVER ASSEMBLY	46. HOUSING-CHOKE
21. ROD-FAST IDLE CAM	47. SCREW & LOCKWASHER (4)-THROTTLE BODY
22. PUMP ASSEMBLY	48. BOWL ASSEMBLY
23. SPRING-PUMP RETURN	49. GASKET-THROTTLE BODY
24. GASKET-BOWL COVER	50. THROTTLE BODY ASSEMBLY
25. INSERT-FLOAT BOWL	51. PLUG-IDLE NEEDLE SEAL (NOT REPLACED)
26. FLOAT ASSEMBLY	52. NEEDLE-IDLE ADJUSTING
	53. WASHER-IDLE NEEDLE
	54. SPRING-IDLE NEEDLE

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 DEPOSITS. CAUTION: THE SECONDARY THROTTLE BORE & VALVE IS COATED WITH A SPECIAL GRAPHITE COMPOUND. CARE SHOULD BE TAKEN DURING CLEANING AS NOT TO DISTURB THESE COATINGS. RINSE OFF IN A 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 DIAPHRAGM UNITS, SOLENOIDS, FLOAT, ELECTRIC CHOKE, PLASTIC FILLER BLOCK, OR PARTS CONTAINING RUBBER IN CLEANING SOLVENTS. (PLASTIC BUSHINGS ON ROD ENDS WILL WITHSTAND NORMAL CLEANING IN CARBURETOR CLEANER).

REASSEMBLY

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

SPECIAL INSTRUCTIONS

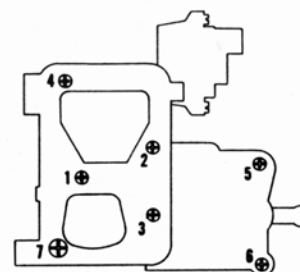
IDLE ADJUSTING NEEDLE (52) TURN NEEDLE IN UNTIL LIGHTLY SEATED, THEN BACK OUT 3 TURNS

POWER PISTON ASSEMBLY (36)-PRESS DOWN FIRMLY ON PLASTIC POWER PISTON RETAINER TO MAKE SURE RETAINER IS SEATED IN RECESS OF FLOAT BOWL.

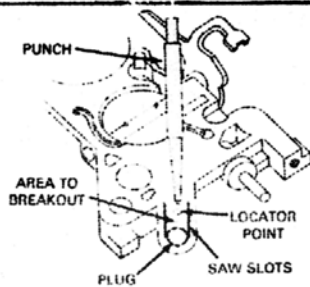
FUEL FILTER (31)-BE SURE TO USE FILTER WITH BUILT IN ROLL OVER CHECK VALVE AND WITH CHECK VALVE FACING OUT. TIGHTEN FILTER NUT (29) TO 18 FT. LBS.

NEEDLE & SEAT ASSY. (28)-WHEN INSTALLING FLOAT BE SURE TO HOOK NEEDLE PULL CLIP OVER EDGE OF FLAT ON FLOAT ARM FACING FLOAT PONTON. CAUTION: DO NOT HOOK PULL CLIP IN HOLES OF FLOAT ARM.

BOWL COVER INSTALLATION-TIGHTEN BOWL COVER SCREWS IN SEQUENCE SHOWN



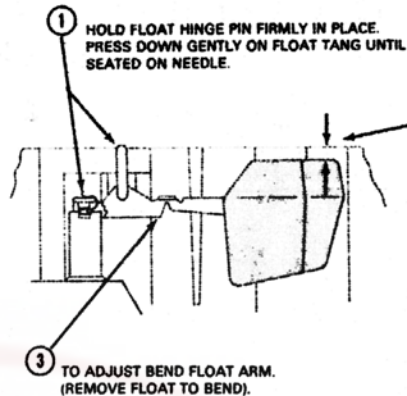
ADJUSTMENTS



SAW 2 SLOTS AS SHOWN (DO NOT EXTEND MORE THAN 1/8" BEYOND LOCATOR POINT). SUPPORT THROTTLE BODY, THEN PLACE A PUNCH IN THE LOCATOR POINT OF THE THROTTLE BODY, HOLDING PUNCH AT A 45° ANGLE. BREAKOUT THROTTLE BODY CASTING TO GAIN ACCESS TO THE HARDENED STEEL PLUG. HOLD A CENTER PUNCH VERTICAL DRIVE IT INTO THE STEEL PLUG (HARDENED PLUG WILL BREAK). REMOVE PIECES TO GAIN ACCESS TO IDLE MIXTURE NEEDLE.

IDLE MIXTURE NEEDLE PLUG REMOVAL

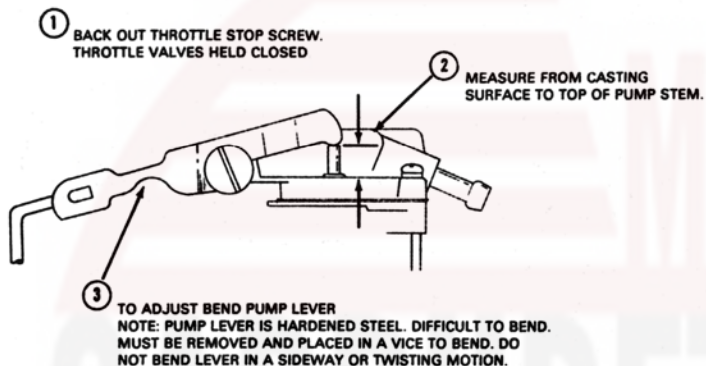
FIG. 1



CAUTION. DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE

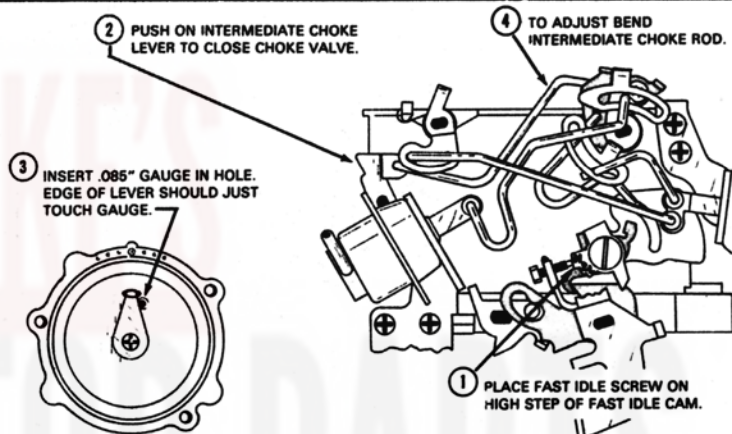
DRY FLOAT LEVEL ADJUSTMENT

FIG. 2



PUMP ROD ADJUSTMENT

FIG. 3

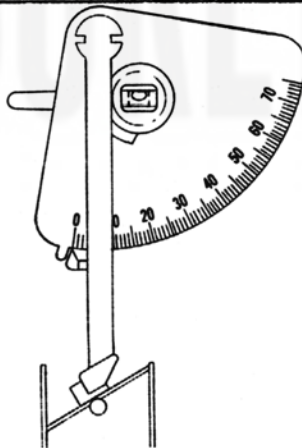


CHOKE COIL LEVER ADJUSTMENT

FIG. 4

- 1 ROTATE DEGREE SCALE UNTIL ZERO (0) IS OPPOSITE POINTER.
- 2 CHOKE VALVE HELD COMPLETELY CLOSED. PLACE MAGNET SQUARELY ON TOP OF CHOKE VALVE.
- 3 ROTATE BUBBLE UNTIL IT IS CENTERED.

CAUTION: PLACE CARBURETOR ON HOLDING FIXTURE SO THAT IT WILL REMAIN IN SAME POSITION. WHEN GAUGE IS IN PLACE.



ANGLE GAUGE BASIC ADJUSTMENT

CONTINUE NUMERICAL OUTLINE IN EACH ADJUSTMENT USING DEGREE SETTING.

- 4 ROTATE SCALE SO THAT DEGREE SPECIFIED FOR ADJUSTMENT IS OPPOSITE POINTER.
- 5 FOLLOW NUMERICAL OUTLINE IN MAKING ADJUSTMENT.

GAUGE: J-28701 KENT MOORE TOOL
BT-7704 BORRHOUGH'S TOOL

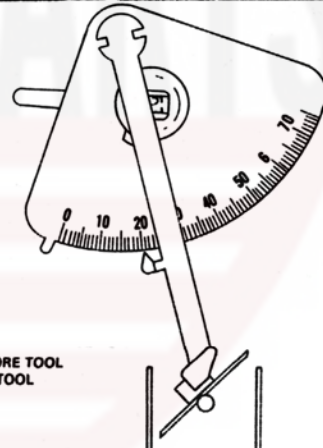
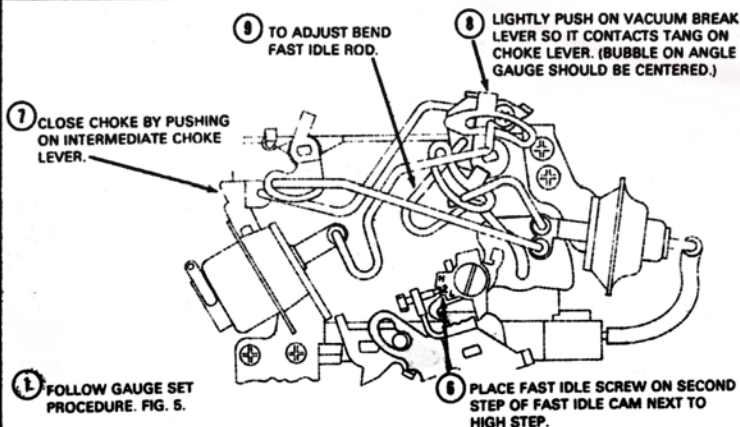
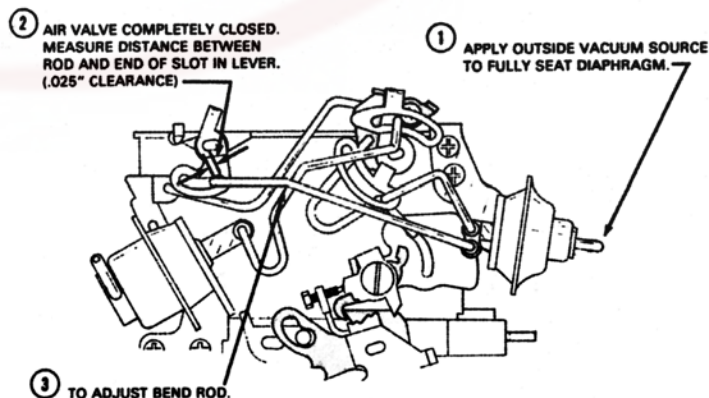


FIG. 5



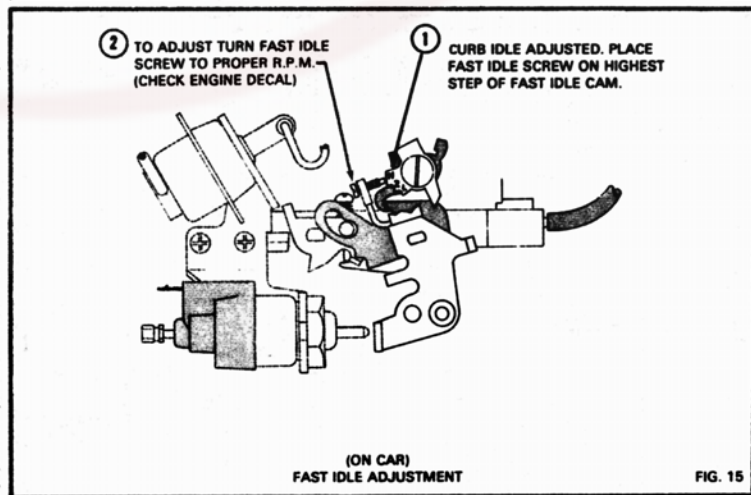
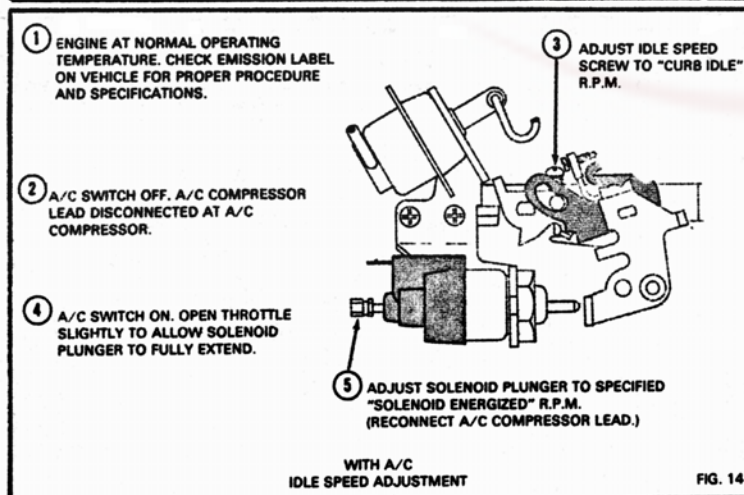
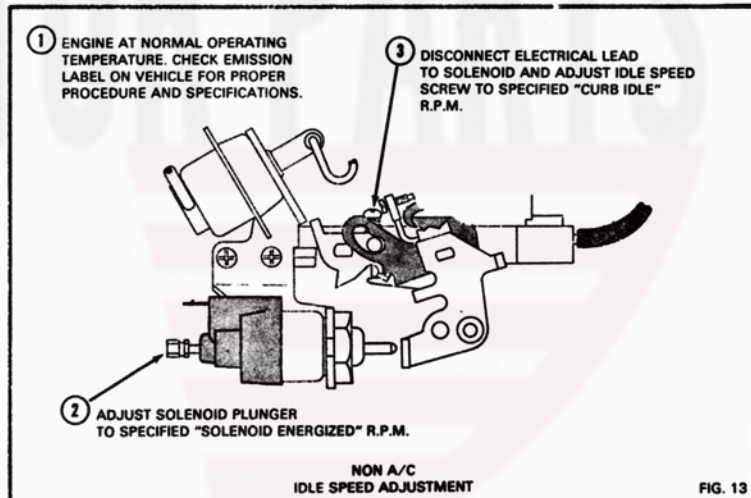
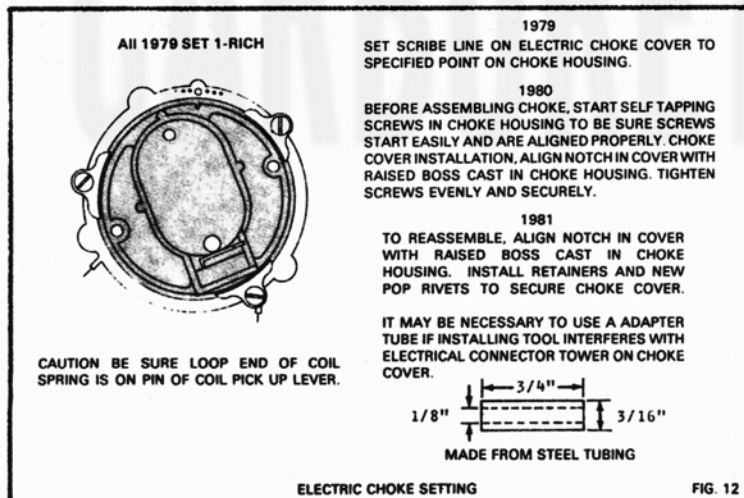
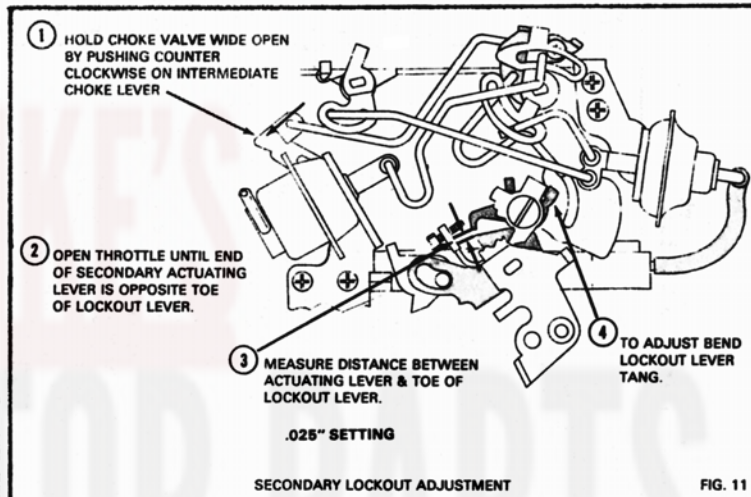
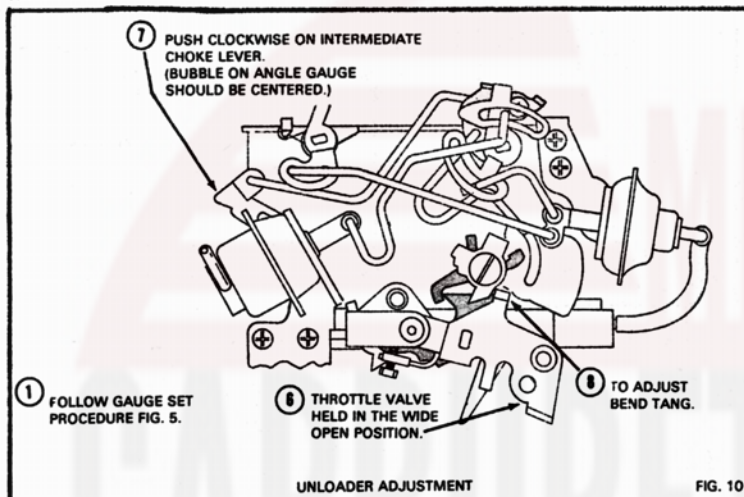
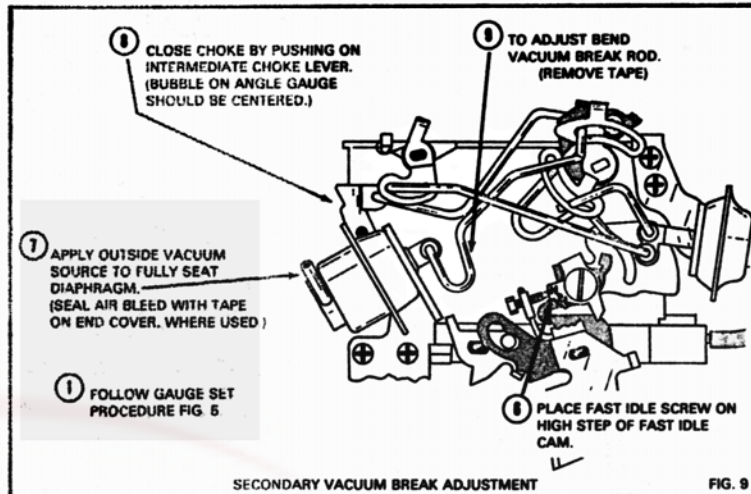
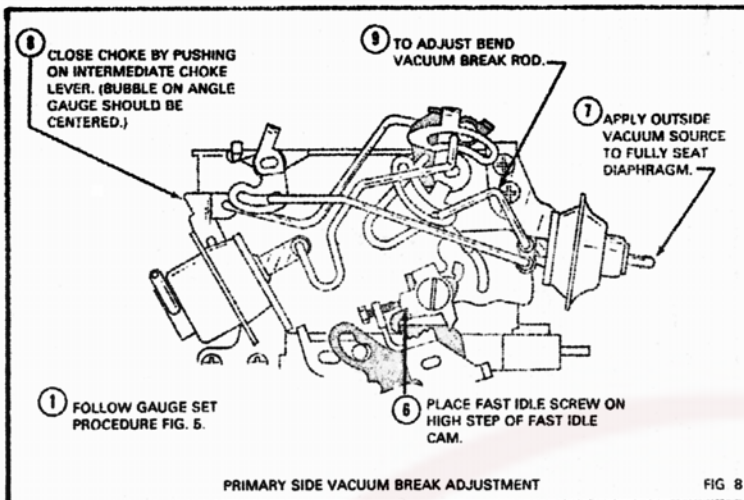
FAST IDLE CAM (CHOKE ROD) ADJUSTMENT

FIG. 6



AIR VALVE ROD ADJUSTMENT

FIG. 7



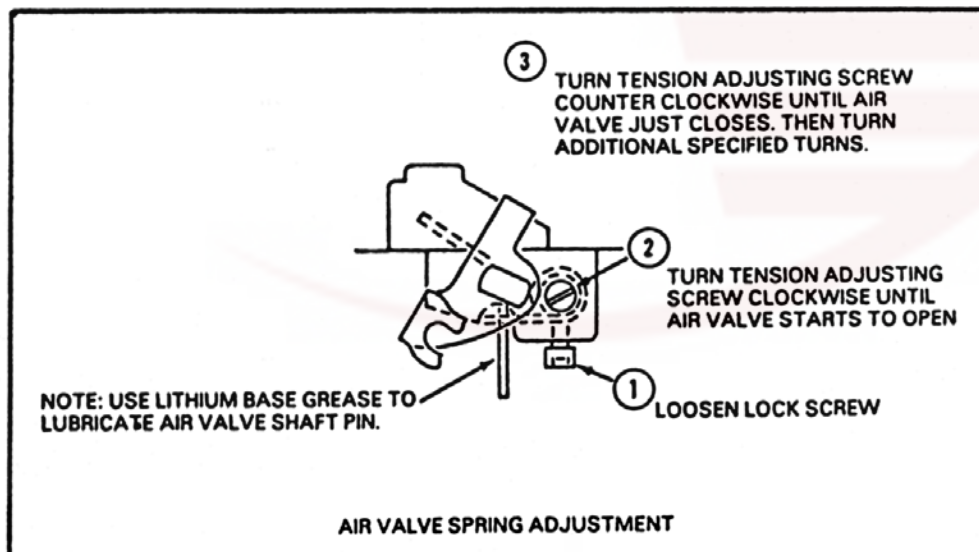
Adjustment Data Table

YEAR	APPLICATION	FLOAT LEVEL	PUMP SETTING	FAST IDLE CAM (CHOKE ROD)	VACUUM BREAK PRIMARY	VACUUM BREAK SECONDARY	UNLOADER	AIR VALVE (TURNS)
1984	(AMC) JEEP V6 173" ENG (2.8L) CARB NOS 17084580, 581, 582, 583 CARB NOS 17084620, 621, 622, 623	5/32" 7/16"	-- --	22° 24°	26° 26°	32° 32°	40° 45°	1 1 1/4
1985-86	(AMC) JEEP V6 173" ENG. (2.8L) CARB. NOS. 17085380, 381, 382, 383	5/32"	--	22°	26°	32°	40°	1
1980-81	BUICK, CHEVROLET, OLDSMOBILE, PONTIAC 173" ENG. V6 (2.8L) CARB NOS 17059750, 751, 752, 753 17059651, 653 17059650, 652 17059660, 662 17059666, 667	5/32" 1/4" 1/4" 1/4" 1/4"	17/32" 17/32" 17/32" 17/32" 17/32"	24° 24° 24° 24° 24°	30° 30° 30° 30° 26°	38° 37° 38° 32° 32°	30° 30° 30° 30° 30°	1 1 1 1 1
1982	BUICK, CHEVROLET, OLDSMOBILE, PONTIAC 112" ENG. 4 CYL. (1.8L) CARB NOS 17082310, 312, 314 17082311, 315 17082401, 402, 404, 405	5/16" 5/16" 5/16"	-- -- --	29° 23° 24°	17° 20° 20°	22° 24° 24°	35° 35° 35°	1/2 1/2 1/2
1982	173" ENG. V6 (2.8L) CARB NOS 17082440, 441, 442, 443 17082620, 621, 622, 623	1/4" 7/16"	-- --	24° 24°	30° 30°	32° 32°	45° 45°	1 1
1983	BUICK, CHEVROLET, OLDSMOBILE, PONTIAC 121" ENG. 4 CYL. (2.0L) CARB NOS 17083311, 401 17083314	5/16" 5/16"	-- --	24° 24°	18° 16°	20° 20°	35° 35°	1/2 1/2
1983	151" ENG. 4 CYL. (2.5L) CARB NOS 17083460, 462 17083461 17083464, 466 17083465	1/4" 1/4" 1/8" 1/8"	-- -- -- --	18° 18° 18° 18°	19° 18° 19° 20°	-- -- -- --	36° 36° 36° 36°	1 2 1 2 1 2 1/2
1983	173" ENG. V6 (2.8L) CARB NOS 17083440, 441, 442, 443 17083444, 445 17083620, 622 17083621, 623	1/4" 1/4" 7/16" 7/16"	-- -- -- --	24° 24° 24° 24°	28° 28° 28° 28°	32° 32° 32° 32°	40° 40° 40° 40°	1 1 1/4 1 1 1/4
1984	BUICK, CHEVROLET, OLDSMOBILE, PONTIAC 121" ENG 4 CYL (2.0L) CARB NO 17084312 CARB NO 17084314	5/16" 5/16"	-- --	24° 29°	18° 16°	20° 20°	35° 30°	1/2 1/2
1984	173" ENG V6 (2.8L) CARB NOS 17084480, 481, 482, 483, 484, 485 CARB NOS 17084620, 621, 622, 623	1/4" 7/16"	-- --	24° 24°	28° 26°	32° 32°	45° 45°	1 1/4 1 1/4
1984-86	BUICK, CHEVROLET, OLDSMOBILE, PONTIAC 173" Eng V6 (2.8L) CANADA CARB NOS 17085484, 485 CARB NOS 17084486, 487-17085486, 487 CARB NOS 17086486, 487	3/8" 1/8" 1/8"	-- -- --	24° 24° 24°	28° 28° 28°	32° 32° 32°	45° 45° 45°	1 1/4 1 1/4 1 1/4
1983	CADILLAC 121" ENG. 4 CYL. (2.0L) CARB NO 17083314	5/16"	--	24°	16°	20°	35°	1/2
1984	CADILLAC 121" ENG 4 CYL (2.0L) CARB NO 17084314	5/16"	--	29°	16°	20°	30°	1/2
1979	CHEVROLET & GMC TRUCK 250" ENG. 6 CYL. (4.1L) 50 STATES M/T 50 STATES A/T	1/8" 1/8"	9/16" 9/16"	17° 17°	23 1/2° 20°	37° 37°	49° 49°	-- --
1980	CHEVROLET & GMC TRUCK 250" ENG. 6 CYL. (4.1L) 49 STATES (FED) ALL/T CALIF A/T CALIF M/T	3/16" 3/16" 3/16"	9/16" 9/16" 9/16"	17° 17° 17°	22° 20° 23 1/2°	35° 35° 35°	41° 41° 41°	-- -- --
1981	CHEVROLET & GMC TRUCK 250" ENG. 6 CYL. (4.1L) 49 STATES (FED) ALL/T CALIF ALL/T CARB NO 17081629	3/16" 3/16" 3/16"	5/8" 5/8" 5/8"	15° 15° 15°	26° 30° 24°	38° 37° 34°	38° 41° 41°	-- -- --
1982	CHEVROLET & GMC TRUCK 173" ENG. V6 (2.8L) CARB NOS 17082348, 349, 350, 351 17082353, 355	7/16" 7/16"	-- --	22° 22°	30° 26°	35° 38°	40° 42°	1 1
1982	250" ENG. 6 CYL. (4.1L) CARB NOS 17082334, 335, 337, 338, 339, 480, 481, 483, 484, 485 17082336, 482, 500, 502 17082341, 342, 344, 345 17082431 17082486, 487, 488, 489	3/16" 3/16" 3/16" 3/16" 3/16"	-- -- -- -- --	15° 15° 15° 15° 15°	26° 23° 30° 24° 28°	38° 38° 37° 38° 38°	42° 42° 42° 42° 42°	-- -- -- -- --

Adjustment Data Table (cont.)

YEAR	APPLICATION	FLOAT LEVEL	PUMP SETTING	FAST IDLE CAM (CHOKE ROD)	VACUUM BREAK PRIMARY	VACUUM BREAK SECONDARY	UNLOADER	AIR VALVE (TURNS)
1983	CHEVROLET & GMC TRUCK 121" ENG. 4 CYL. (1.8L) CARB NOS 17083390, 391, 392, 393, 394, 395, 396, 397	13/32"	--	28°	30°	35°	38°	1 1/4
1983	173" ENG. V6 (2.8L) CARB. NOS 17083348, 349, 350, 351 17083352, 353, 354, 355	7/16" 7/16"	-- --	22° 22°	30° 30°	32° 35°	40° 40°	1 1
1983	250" ENG. 6 CYL. (4.1L) CARB. NOS. 17083410, 412, 414, 416 17083411, 413, 415, 417, 419, 421, 425, 427 17083423, 429, 560, 562, 565, 569	3/16" 3/16" 3/16"	-- -- --	15° 15° 15°	23° 26° 28°	38° 38° 38°	42° 42° 42°	-- -- --
1984	CHEVROLET & GMC TRUCK 121" ENG 4 CYL. (2.0L) CARB NOS 17084390, 391, 392, 393	7/16"	--	28°	30°	38°	38°	1 1/2
1984	173" ENG V6 (2.8L) CARB NOS 17084348, 349, 350, 351 CARB NOS 17084352, 353, 354, 355 CARB NOS. 17084360, 362 CARB NOS 17084364, 366	11/32" 11/32" 5/32" 5/32"	-- -- -- --	22° 22° 22° 22°	30° 30° 30° 30°	32° 35° 32° 35°	40° 40° 40° 40°	1 1 1 1
1984	250" ENG 6 CYL (4.1L) CARB NOS 17084410, 412 CARB NOS 17084425, 427 CARB NOS 17084560, 562, 569	11/32" 11/32" 11/32"	-- -- --	15° 15° 15°	23° 26° 24°	38° 36° 34°	42° 40° 38°	N/A N/A N/A
1985	CHEVROLET & GMC TRUCK 173" ENG. V6 (2.8L) CARB. NOS 17085348, 350, 360, 362 CARB. NOS. 17085352, 354, 364, 366 CARB. NOS. 17085372, 374 CARB. NOS 17085351, 363 CARB. NOS. 17085355, 367	5/32" 5/32" 5/32" 11/32" 11/32"	-- -- -- -- --	22° 22° 22° 22° 22°	32° 30° 32° 32° 30°	36° 34° 36° 36° 34°	40° 40° 40° 40° 40°	1 1 3/4 1 1

REV. 2/87



PUMP CUP INSTALLATION INSTRUCTIONS

A new pump plunger cup, garter spring (when needed), and an assembly tool is included in this repair kit. Replacing the old pump cup and garter spring with new fuel resistant components and reusing the original pump plunger stem and delayer spring ensures proper height adjustment. Follow the illustrated instructions carefully. **Note: A complete pump plunger assembly may be purchased from your supplier if you prefer, or you have broken button tabs and cannot repair your existing pump plunger assembly.**

Caution:

