



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

50-575-4

GENERAL EXPLODED VIEW

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

(4 CYL. 161CID. ENG.)

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: MOST SCREWS HAVE SOME FORM OF LOCK TIGHT ON THEM. LINKAGE CONNECTED TO VACUUM BREAK UNIT NEED ONLY BE UNHOOKED AT VACUUM BREAK END. UNHOOK FAST IDLE CAM ROD WHEN REMOVING BOWL COVER. (FAST IDLE CAM AND SCREW OR NOT REMOVABLE.) TO REMOVE POWER PISTON ASSY. (34) LIGHTLY BOUNCE VACUUM PISTON TO WORK RETAINER OUT OF CASTING. PULL PLASTIC RETAINER (31) OUT, DO NOT PRY OUT THIS WILL DAMAGE SEALING BEADS ON BOWL CASTING. THE IDLE MIXTURE NEEDLE (50) IS SEALED WITH A HARDENED STEEL PLUG. IF NECESSARY TO REMOVE IDLE MIXTURE NEEDLE ON MAJOR OVERHAUL FOLLOW PROCEDURE IN FIG. 1 TO REMOVE STEEL PLUG. (IDLE MIXTURE NEEDLE HAS BEEN FACTORY ADJUSTED AND SEALED FOR EMISSION CONTROL.)

TAMPER - RESISTANT CHOKE COVER

USING #21 DRILL (.159"). 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	26. NEEDLE & SEAT ASSY.
2. SCREW - BRACKET	27. FILTER NUT - FUEL INLET
3. SCREW & LOCKWASHER - BRACKET	28. GASKET - FILTER NUT
4. VACUUM BREAK, SOLENOID & BRACKET ASSY.	29. FILTER - FUEL INLET
5. RETAINER (UPPER) - CHOKE ROD	30. SPRING - FUEL FILTER
6. BUSHING - CHOKE ROD	31. GUIDE - PUMP DISC. SPRING
7. SCREW - PUMP LEVER	32. SPRING - PUMP DISC. BALL
8. LEVER - PUMP	33. BALL - PUMP DISC
9. SPACER WASHER - PUMP LEVER SCREW	34. POWER PISTON ASSY.
10. ROD - PUMP LEVER	35. SPRING - POWER PISTON
11. SCREW (2) - IDLE COMPENSATOR	36. JET - PRIMARY
12. IDLE COMPENSATOR	37. SCREW (3) - CHOKE RETAINER
13. GASKET - IDLE COMPENSATOR	38. RETAINER (3) - CHOKE COVER
14. SCREW & LOCKWASHER (2) LONG - BOWL COVER	39. ELECTRIC CHOKE COVER ASSY.
15. VENT STACK	40. SCREW - CHOKE LEVER
16. SCREW & LOCKWASHER (1) - BOWL COVER	41. LEVER - CHOKE
17. SCREW & LOCKWASHER (3) - BOWL COVER	42. CHOKE SHAFT & ROD ASSY.
18. BOWL COVER ASSY.	43. SCREW & LOCKWASHER (2) - CHOKE HOUSING
19. ROD - FAST IDLE CAM	44. HOUSING - CHOKE
20. PUMP ASSY.	45. SCREW & LOCKWASHER (4) - THROTTLE BODY
21. SPRING - PUMP RETURN	46. BOWL ASSY.
22. GASKET - BOWL COVER	47. GASKET - THROTTLE BODY
23. INSERT - FLOAT BOWL	48. THROTTLE BODY ASSY.
24. FLOAT ASSY.	49. PLUG - IDLE NEEDLE SEAL (NOT REPLACED)
25. PIN - FLOAT HINGE	50. NEEDLE - IDLE ADJUSTING
	51. WASHER - IDLE NEEDLE
	52. 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. 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 DIAPHRAGM UNITS, SOLENOIDS, FLOAT, ELECTRIC CHOKE, PLASTIC FILLER BLOCK, OR PARTS CONTAINING RUBBER IN ANY TYPE OF CLEANING SOLVENTS. (PLASTIC BUSHINGS USED 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

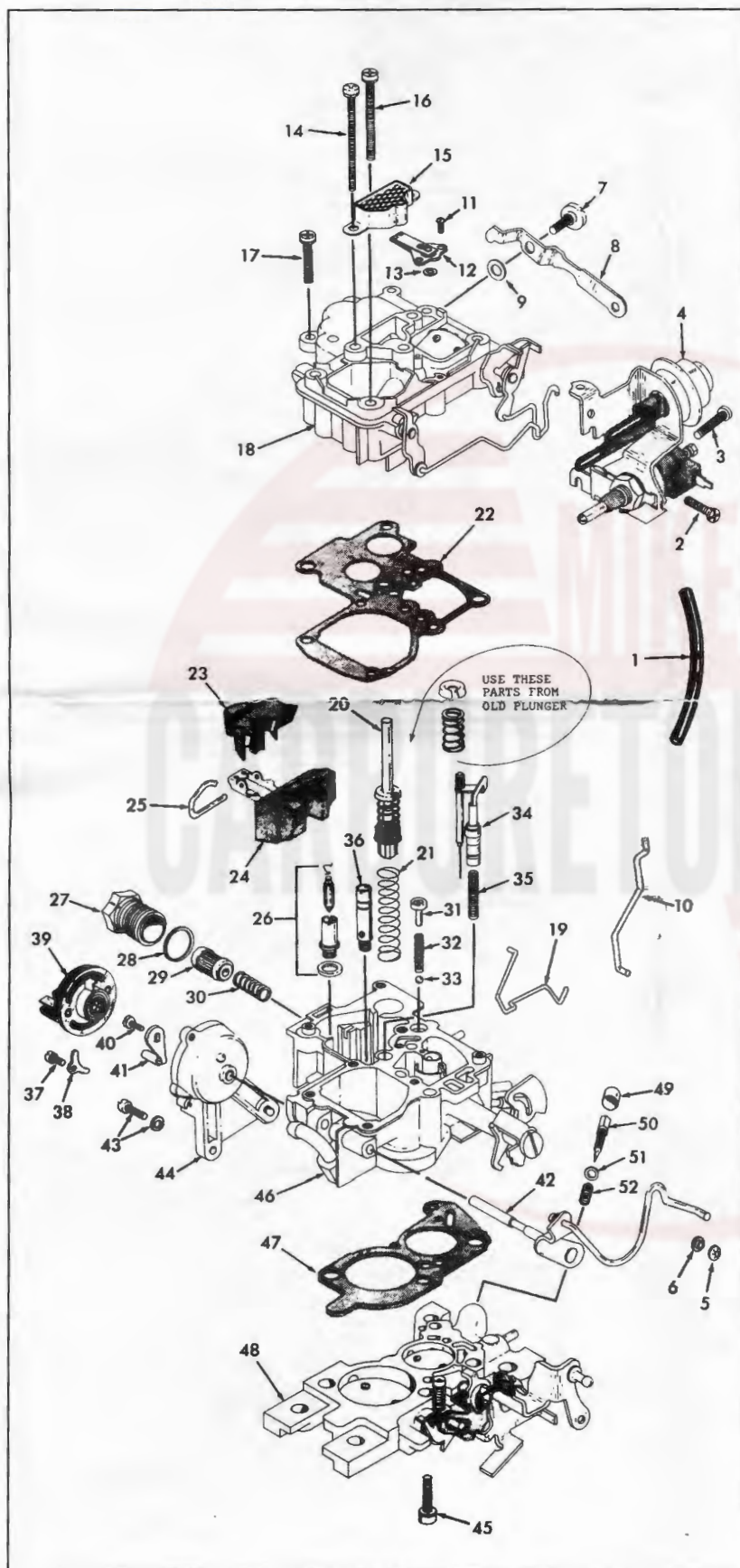
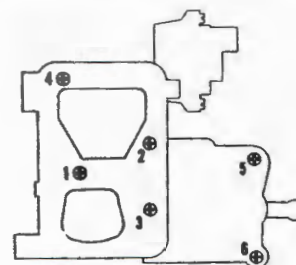
IDLE ADJUSTING NEEDLE (50) - TURN NEEDLE IN UNTIL LIGHTLY SEATED, THEN BACK OUT 3 TURNS.

POWER PISTON ASSY. (34) - PRESS DOWN FIRMLY ON PLASTIC POWER PISTON RETAINER TO MAKE SURE RETAINER IS SEATED IN RECESS OF FLOAT BOWL.

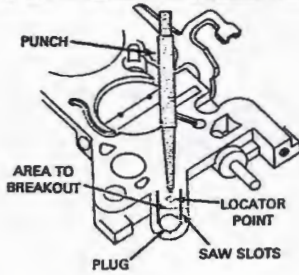
FUEL FILTER (29) - BE SURE TO USE FILTER WITH BUILT IN ROLL OVER CHECK VALVE AND WITH CHECK VALVE FACING OUT. TIGHTEN FILTER NUT (27) TO 18 FT. LBS.

NEEDLE & SEAT ASSY. (26) - 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 AS SHOWN.



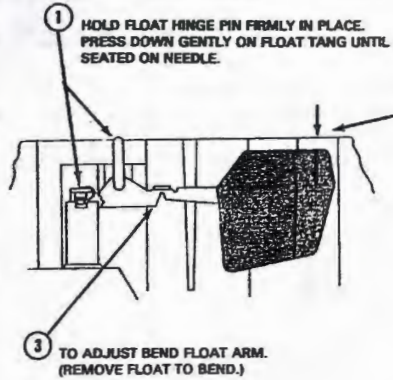
ADJUSTMENTS



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

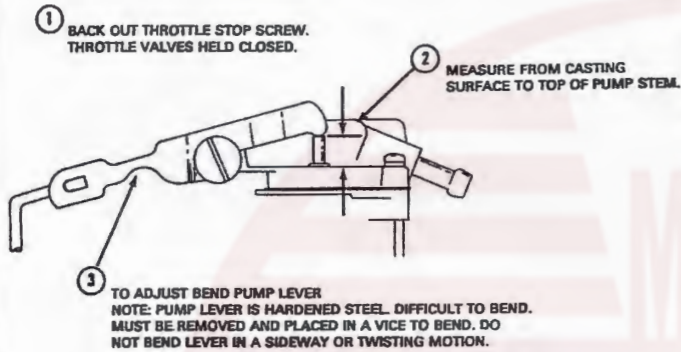
FIG. 1



CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.

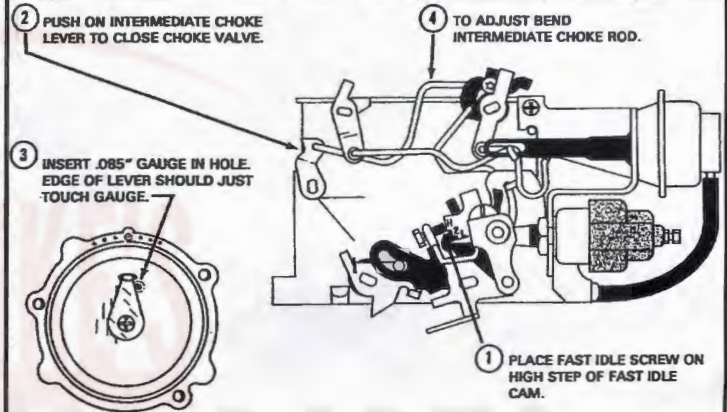
DRY FLOAT LEVEL ADJUSTMENT

FIG. 2



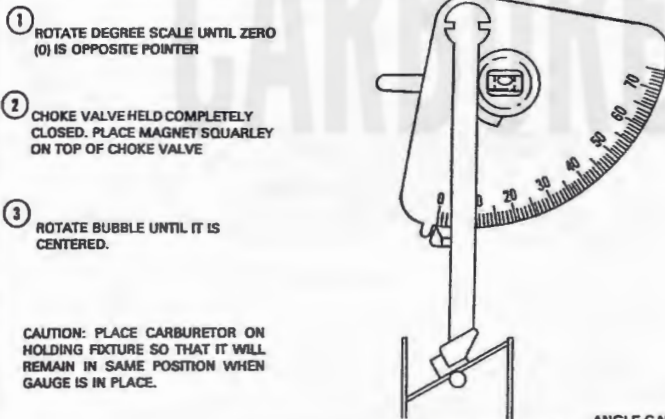
PUMP ROD ADJUSTMENT

FIG. 3



CHOKE COIL LEVER ADJUSTMENT

FIG. 4



ANGLE GAUGE. BASIC ADJUSTMENT
CONTINUE NUMERICAL OUTLINE IN EACH ADJUSTMENT USING DEGREE SETTING.

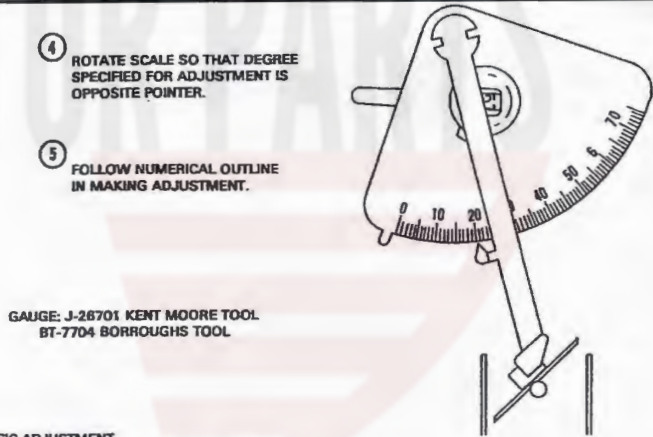
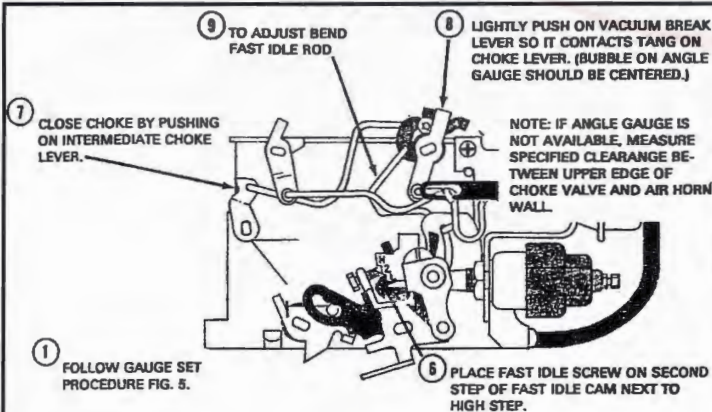
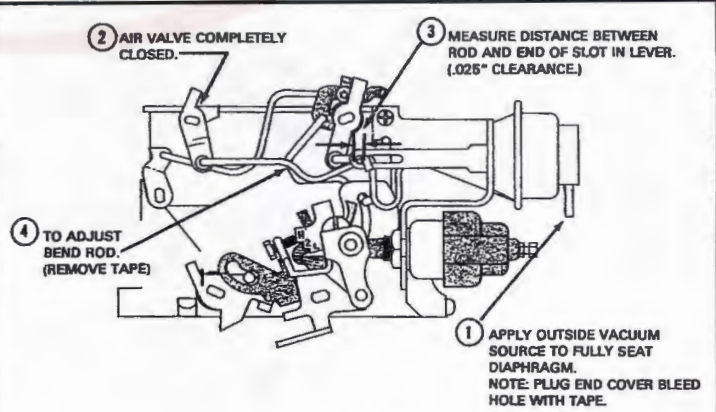


FIG. 5



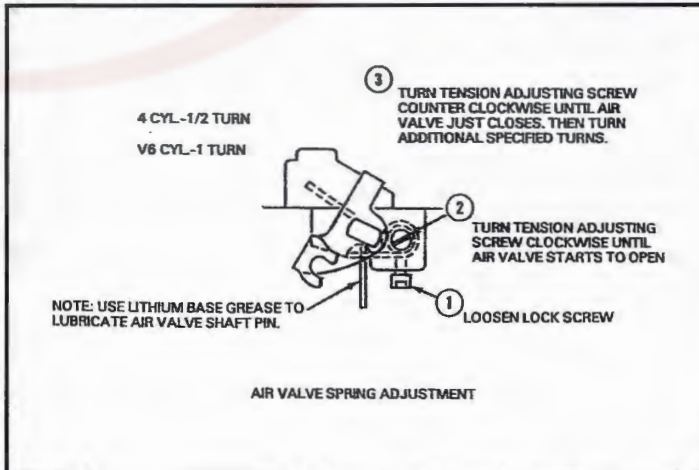
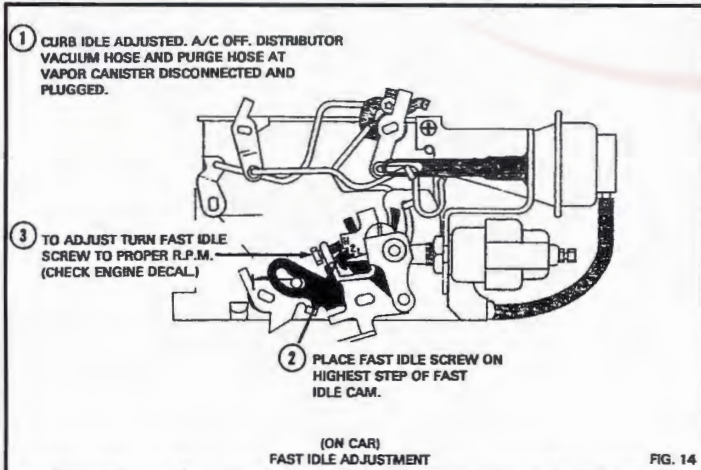
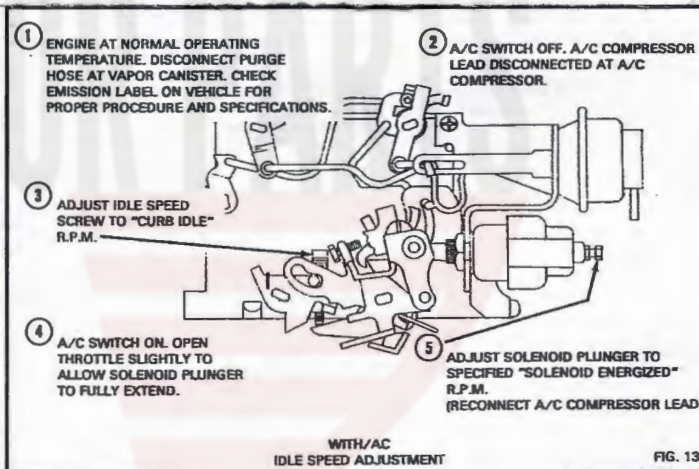
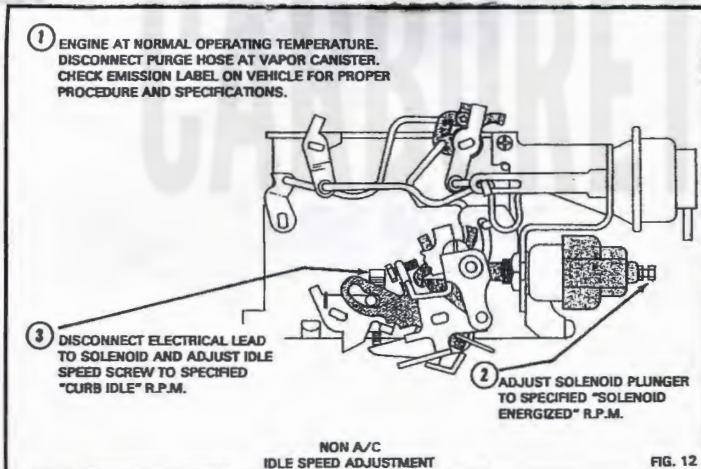
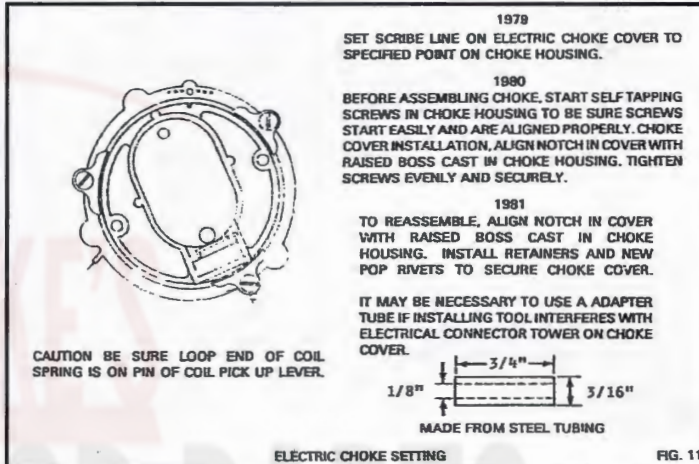
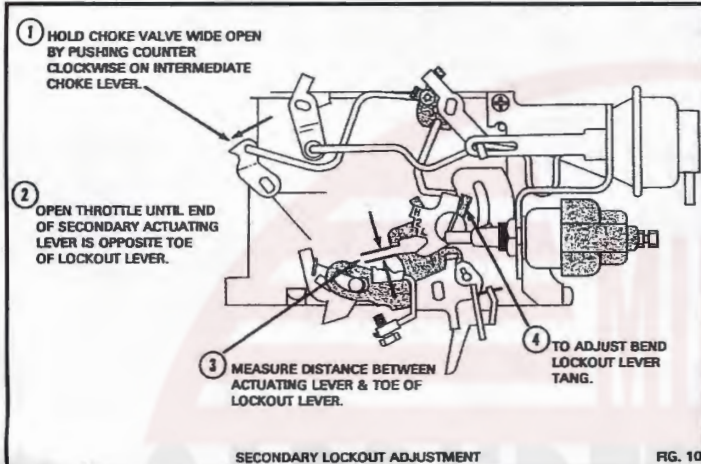
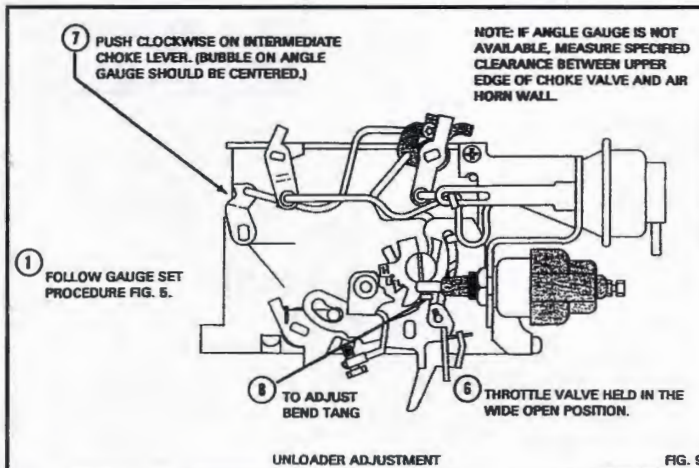
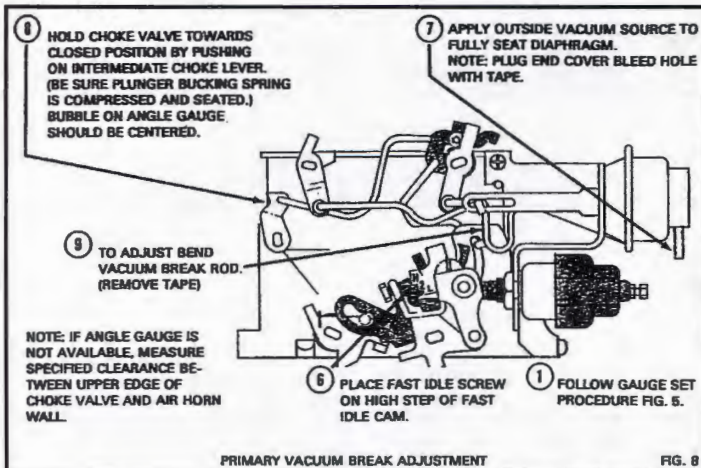
FAST IDLE CAM (CHOKE ROD) ADJUSTMENT

FIG. 6



AIR VALVE ROD ADJUSTMENT

FIG. 7



ADJUSTMENT DATA TABLE

Year	Application	Float Setting	Pump Rod	Fast Idle (Bench,	Choke Coil Lever	Fast Idle Cam Choke Rod	Air Valve Rod	Vacuum Break	Electric Choke Setting	Unloader	Secondary Lockout				
1979	GM PASS CAR 151" Eng.														
49S	M/T	3/16"	17/32"	3 TURNS	.085"	18°	.096"	2°	.025"	21°	.117"	1-RICH	32°	.195"	.025"
49S	A/T	3/16"	1/2"	3 TURNS	.085"	18°	.096"	2°	.025"	19°	.103"	2-RICH	32°	.195"	.025"
1980	AMC 151" Eng. 49S	All/T	3/16"	1/2"	3 TURNS	.085"	18°	.096"	1°	20°		N/A	32°	.195"	.025"
1981	AMC 151" Eng. 49S	All/T	7/32"	1/2"		.085"	25°		1°	19°	.103"	N/A	34°		.025"
1982	AMC 4 CYL. 151" ENG.														
1983	CARB. NOS. 17082382, 383,384, 385	7/32"	1/2"	--	--	18°		1°		21°		N/A	34°	--	--
	CARB. NO. 17082380	1/8"	--	--	.085"	18°	--	1°	--	21°	--	N/A	34°	--	--
1980-81	BUICK 151" Eng. 49S Early	M/T	3/16"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	3/16"	1/2"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	LATE CARB. NO. 17059623, 625	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
1982	BUICK 4 CYL. 151" ENG. (CAN.)														
	CARB. NOS. 17082460, 461, 462	1/4"	17/32"	--	--	18°	--	1°	--	21°	--	N/A	36°	--	--
	CARB. NO. 17082469	1/4"	--	--	.085"	18°	--	1°	--	16°	--	N/A	36°	--	--
1980-81	CHEVROLET 151" Eng. Carb. No.														
	17059615, 617, 619, 621	M/T	3/16"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	3/16"	1/2"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059614, 616, 618, 620	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059623, 625	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059622, 624	M/T	7/32"	1/2"	3 TURNS	.085"	18°	.096"	1°	21°	.117"	N/A	32°	.195"	.025"
	A/T	7/32"	1/2"	3 TURNS	.085"	18°	.096"	1°		19°	.103"	N/A	32°	.195"	.025"
1982	CHEVROLET 4 CYL. 151" ENG. (CAN.)														
	CARB. NOS. 17082464, 465, 466	1/8"	17/32"	--	--	18°	--	1°	--	21°	--	N/A	36°	--	--
	CARB. NO. 17082469	1/4"	--	--	.085"	18°	--	1°	--	16°	--	N/A	36°	--	--
1980	JEEP 151" Eng. CJ-5 49S	M/T	7/32"	1/2"	3 TURNS	.085"	18°	.096"	1°	20°		N/A	32°	.195"	.025"
1981	JEEP (AMC) 4 CYL. 151" ENG. CARB. NO. 17081790, 791, 799		7/32"	1/2"	--	--	25°		1°	21°		N/A	34°		
1982	JEEP (AMC) 4 CYL. 151" ENG.														
1983	CARB. NO. 17082380	1/8"	1/2"	--	--	18°	--	1°	--	21°	--	N/A	34°	--	--
	CARB. NOS. 17082382, 384	7/32"	--	--	.085"	18°	--	1°	--	21°	--	N/A	34°	--	--
1980	OLDSMOBILE 151" Eng. Carb. No.														
	17059615, 617, 619, 621	M/T	3/16"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	3/16"	1/2"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059614, 616, 618, 620	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059623, 625	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059622, 624	M/T	7/32"	1/2"	3 TURNS	.085"	18°	.096"	1°	21°	.117"	N/A	32°	.195"	.025"
	A/T	7/32"	1/2"	3 TURNS	.085"	18°		1°		19°	.103"	N/A	32°	.195"	.025"
1982	OLDSMOBILE 4 CYL. 151" Eng. (CAN.)														
	CARB. NOS. 17082460, 461, 462	1/4"	17/32"	--	--	18°	--	1°	--	21°	--	N/A	36°	--	--
	CARB. NO. 17082469	1/4"	--	--	.085"	18°	--	1°	--	16°	--	N/A	36°	--	--
1980	PONTIAC 151" Eng. Carb. No.														
	17059615, 617, 619, 621	M/T	3/16"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	3/16"	1/2"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059614, 616, 618, 620	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059623, 625	M/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°	19°	.103"	N/A	36°		.025"
	A/T	5/32"	17/32"	3 TURNS	.085"	18°	.096"	1°		17°		N/A	36°		.025"
	17059622, 624	M/T	7/32"	1/2"	3 TURNS	.085"	18°	.096"	1°	21°	.117"	N/A	32°	.195"	.025"
	A/T	7/32"	1/2"	3 TURNS	.085"	18°	.096"	1°		19°	.103"	N/A	32°	.195"	.025"
1982	PONTIAC 4 CYL. 151" ENG. (CAN.)														
	CARB. NO. 17082460, 461, 462	1/4"	17/32"	--	--	18°		1°		21°		N/A	36°		
1982	PONTIAC 4 CYL. 151" ENG. (CAN.)														
	CARB. NOS. 17082464, 465, 466	1/8"	17/32"	--	--	18°	--	1°	--	21°	--	N/A	36°	--	--
	CARB. NO. 17082469	1/4"	--	--	.085"	18°	--	1°	--	16°	--	N/A	36°	--	--

N/A=NON ADJUSTABLE

*DRILL GAUGE SIZE IF ANGLE GAUGE IS NOT AVAILABLE.

REFER TO LABEL IN ENGINE COMPARTMENT FOR CORRECT TUNE-UP PROCEDURE AND SPECIFICATIONS.