



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.

**REPLACEMENT
STYLE UNIT**



**ORIGINAL
STYLE UNIT**



NEW DESIGN POWER VALVE

THE REPLACEMENT POWER VALVE INCLUDED IN THIS PACKAGE MAY DIFFER IN APPEARANCE FROM THE ORIGINAL STYLE UNIT DUE TO CHANGES IN MANUFACTURING MATERIALS AND TECHNIQUES. IT MEETS OR EXCEEDS ALL QUALITY, PERFORMANCE, AND ECONOMY REQUIREMENTS WHILE EXTENDING SERVICE LIFE.

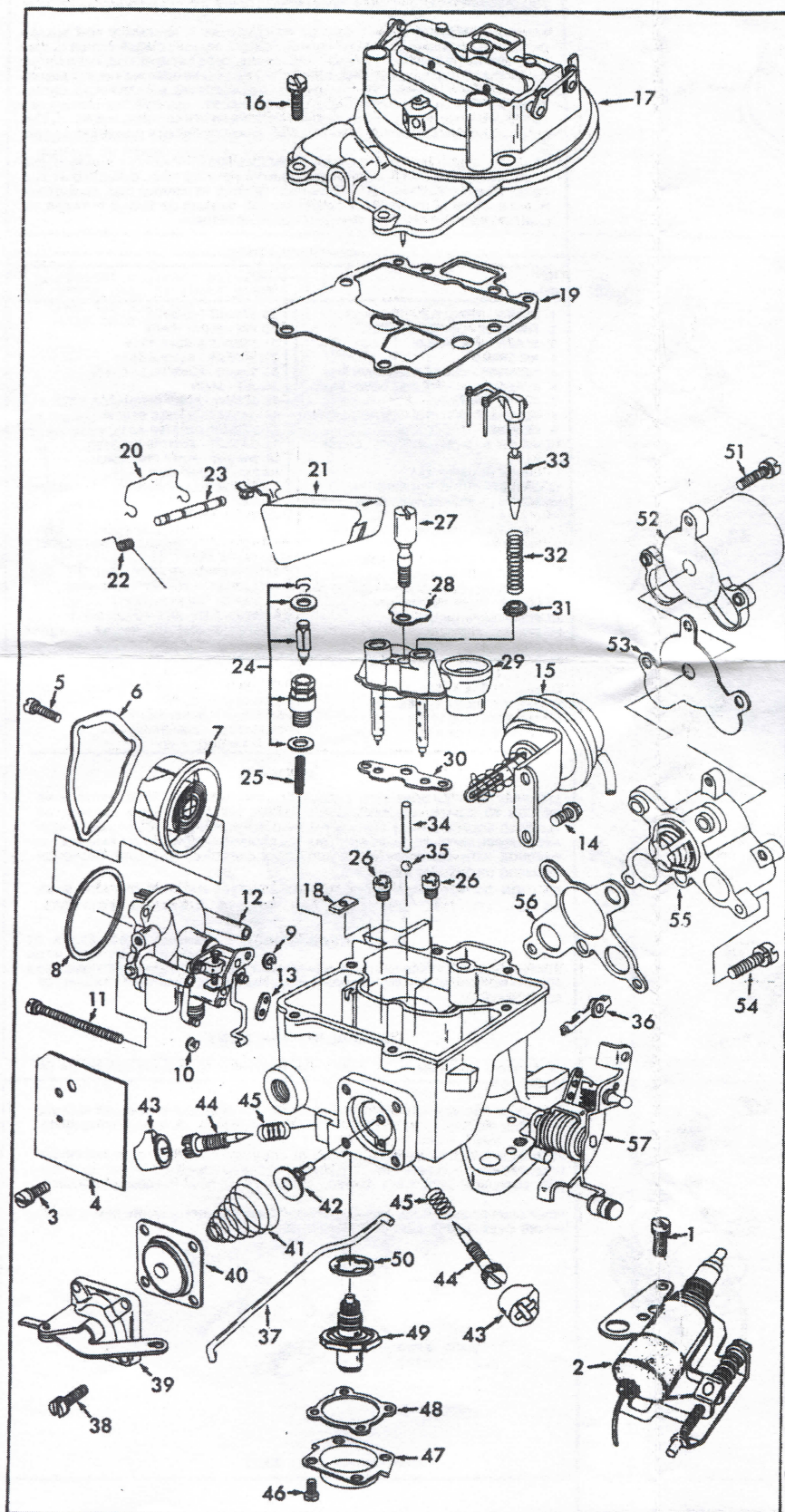


INSTRUCTION SHEET OFF VEHICLE CARBURETOR SERVICE AMERICAN MOTORS — MODEL 2150

50-537-7

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: WHEN REMOVING PUMP
ROD RETAINER (36) MARK ROD HOLE POSITION ON LEVER FOR
PROPER ASSEMBLY. TO REMOVE PLASTIC LIMITER CAPS (43)
INSTALL A SHEET METAL SCREW IN THE CENTER OF THE CAP AND
TURN CLOCKWISE.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW & LOCKWASHER- THROTTLE POSITIONER	33. GASKET- VENTURI CLUSTER
2. THROTTLE POSITIONER ASSY.	34. RETAINER- AIR METERING ROD SPRING
3. SCREW- AIR SHIELD	35. SPRING- AIR METERING ROD RETURN
4. AIR SHIELD	36. AIR METERING ROD ASSY.
5. SCREW (3)- CHOKE COVER CLAMP	37. GASKET- VENTURI CLUSTER CHECK
6. CLAMP- CHOKE COVER	38. RETAINER- PUMP ROD
7. CHOKE COVER & SPRING ASSY.	39. ROD- PUMP
8. GASKET- CHOKE COVER	40. SCREW (4)- PUMP DIAPHRAGM COVER
9. RETAINER- CHOKE ROD	41. COVER- PUMP DIAPHRAGM
10. RETAINER- FAST IDLE CAM ROD (LOWER)	42. PUMP DIAPHRAGM ASSY.
11. SCREW & LOCKWASHER (3)- CHOKE HOUSING	43. SPRING- PUMP DIAPHRAGM RETURN
12. CHOKE HOUSING ASSY.	44. VALVE- PUMP INLET CHECK
13. GASKET- CHOKE HOUSING	45. CAP (2)- IDLE LIMITER
14. SCREW (2)- CHOKE PULLDOWN ASSY.	46. NEEDLE (2)- IDLE ADJUSTING
15. CHOKE PULLDOWN MOTOR & HOSE ASSY.	47. SPRING (2)- IDLE ADJ. NEEDLE
16. SCREW & LOCKWASHER (6)- BOWL COVER	48. SCREW & LOCKWASHER (4)- ENRICHMENT VALVE COVER
17. BOWL COVER ASSY.	49. COVER- ENRICHMENT VALVE
18. SEAL- CHOKE ROD	50. GASKET- COVER
19. GASKET- BOWL COVER	51. VALVE- ENRICHMENT
20. RETAINER- FLOAT PIN	52. GASKET- ENRICHMENT VALVE
21. FLOAT & LEVER ASSY.	53. SCREW & LOCKWASHER (3)- ANERIOD ASSY.
22. SPRING- DAMPER (WHERE USED)	54. ANERIOD ASSY.
23. PIN- FLOAT HINGE	55. GASKET- ANERIOD ASSY.
24. NEEDLE & SEAT ASSY.	56. SCREW & LOCKWASHER (4)- POPPET VALVE ASSY.
25. SCREEN- NEEDLE SEAT	57. POPPET VALVE ASSY.- ALT
26. JET (2)- MAIN METERING	58. GASKET- POPPET VALVE HOUSING
27. SCREW- PUMP DISCHARGE NOZZLE	59. MAIN BODY ASSY.
28. GASKET- PUMP DISC. SCREW	
29. VENTURI CLUSTER ASSY.	

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 CON-
TAINING RUBBER MATERIALS OR PARTS SUCH AS (2)(7)(15)(21)(49)
(52)(55) IN CLEANING SOLVENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

ENRICHMENT VALVE (49)- USE CARE WHEN TIGHTENING TO PREVENT
DISTORTION OF GASKET (50)

IDLE ADJUSTING NEEDLES (44)- TURN IN UNTIL SEATED, THEN BACK
OUT 1 1/2-2 TURNS. (DO NOT INSTALL LIMITER CAPS AT THIS TIME)

PUMP INLET CHECK VALVE (42)- INSTALLATION.- LUBRICATE TIP OF
NEW VALVE AND INSERT IN CENTER HOLE OF PUMP CAVITY. USE
NEEDLE NOSE PLIERS AND PULL THRU FROM FUEL BOWL SIDE UNTIL
FULLY SEATED. CUT OFF VALVE TIP AT RETAINING SHOULDER.

PUMP DIAPHRAGM RETURN SPRING (41)- INSTALLATION.- INSTALL
LARGE OPEN END OF SPRING OVER RUBBER INLET CHECK VALVE (42).

CHOKE COVER (7)- INSTALLATION- BE SURE TO INSTALL BI-METAL
SPRING HOOK IN SLOT OF LEVER.

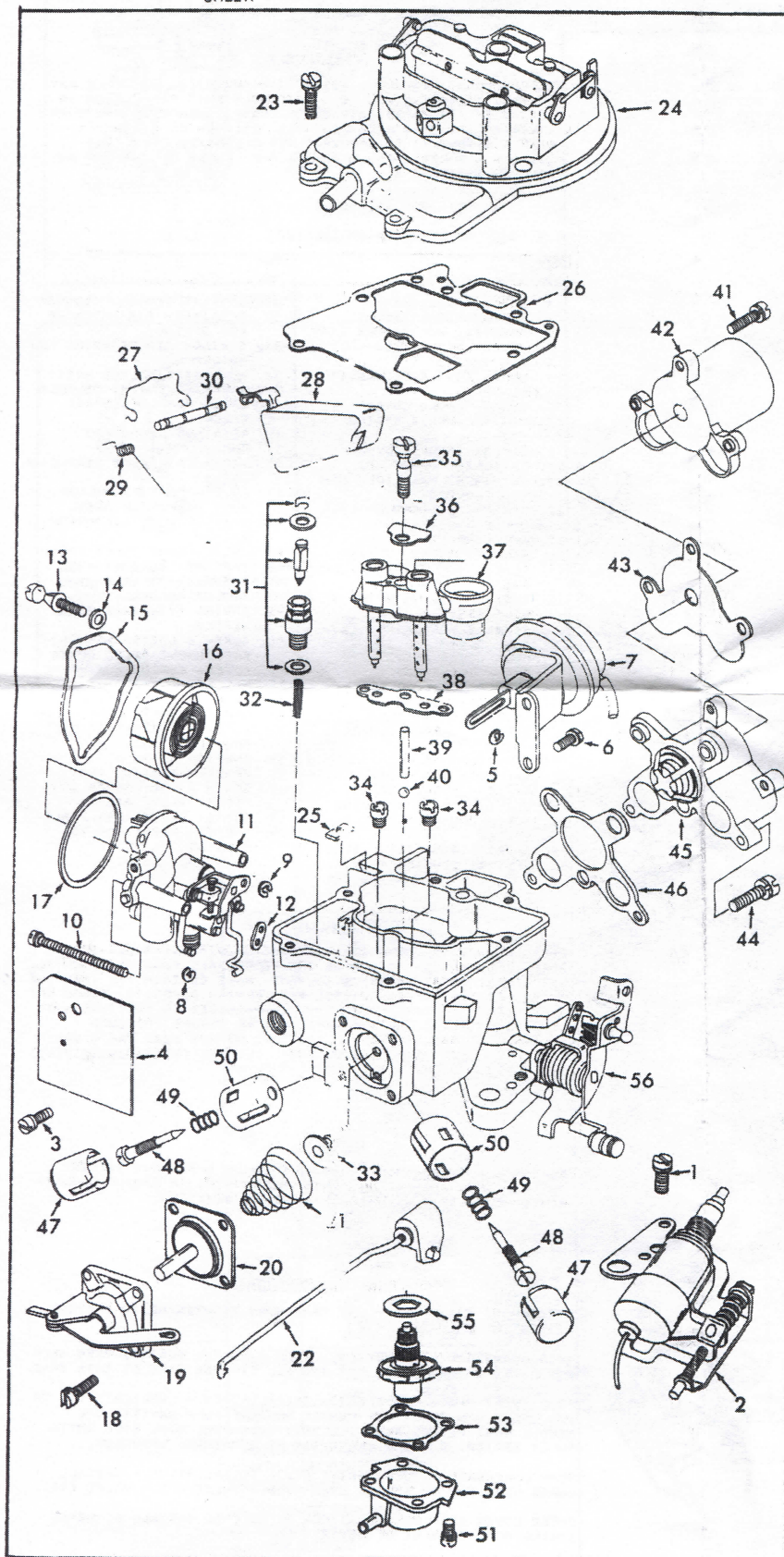
INSTRUCTION SHEET

OFF VEHICLE CARBURETOR SERVICE

AMERICAN MOTORS — MODEL 2150

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.

TAMPER RESISTANT CHOKE CAN BE REMOVED AS A ASSEMBLY FOR MAJOR OVERHAUL. IF NECESSARY TO OVERHAUL CHOKE REMOVE CHOKE COVER CLAMP TAMPER PROOF SCREWS BY CENTER PUNCHING THE SCREW HEADS, THEN USING A 1/4" DRILL. DRILL THE SCREW HEAD DEEP ENOUGH TO REMOVE THE RETAINING RING. CAREFULLY REMOVE THE CAP (16) BY INSERTING A SHARP FLAT CHISEL BETWEEN THE LAYERS OF THE CHOKE CAP GASKET. REMOVE THE REMAINING PORTION OF THE CHOKE CAP RETAINING SCREWS WITH A LOCKING PLIERS. CLEAN ANY REMAINING EPOXY FROM THE MATING SURFACES WITH A GASKET SCRAPER.

TO REMOVE CAP (46) AND CUP (49) FROM IDLE MIXTURE NEEDLE SUPPORT THE AREA UNDER THE LIMITER PLUG AND USING A POINTED TOOL DIRECTED AT THE TONG. LIGHTLY TAP THE PLUG FORWARD. BEFORE REMOVING IDLE ADJUSTING NEEDLE, TURN IN CLOCKWISE COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT THE NEEDLE. RECORD FOR REASSEMBLY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW - THROTTLE POSITIONER	29. SPRING - DAMPER
2. THROTTLE POSITIONER ASSY.	30. PIN - FLOAT HINGE
3. SCREW - AIR SHIELD	31. NEEDLE & SEAT ASSY.
4. AIR SHIELD	32. SCREEN - NEEDLE SEAT
5. RETAINER - CHOKE PULDOWN ROD	33. VALVE - PUMP INLET CHECK
6. SCREW (2) - CHOKE PULDOWN ASSY.	34. JET - MAIN
7. CHOKE PULDOWN ASSY.	35. SCREW - PUMP DISCHARGE NOZZLE
8. RETAINER - FAST IDLE CAM ROD (LOWER)	36. GASKET - NOZZLE SCREW
9. RETAINER - CHOKE ROD	37. VENTURI CLUSTER ASSY.
10. SCREW & LOCKWASHER (3) - CHOKE ASSY.	38. GASKET - VENTURI CLUSTER
11. CHOKE HOUSING ASSY.	39. WEIGHT - PUMP DISC. BALL
12. GASKET - CHOKE HOUSING	40. BALL - PUMP DISC.
13. SCREW (3) BREAKAWAY - CHOKE COVER CLAMP	41. SCREW & LOCKWASHER (3) - ANEROID ASSY.
14. WASHER (7) - BREAKAWAY SCREW	42. ANEROID ASSY.
15. RETAINER - CHOKE COVER	43. GASKET - ANEROID ASSY.
16. CHOKE COVER & SPRING ASSY.	44. SCREW & LOCKWASHER (4) - POPPET VALVE ASSY.
17. GASKET - CHOKE COVER	45. POPPET VALVE ASSY. - ALT.
18. SCREW (4) - PUMP DIAPHRAGM COVER	46. GASKET - POPPET VALVE ASSY.
19. COVER - PUMP DIAPHRAGM	47. CAP (2) - IDLE LIMITER
20. PUMP DIAPHRAGM ASSY.	48. NEEDLE (2) - IDLE ADJUSTING
21. SPRING - PUMP DIAPHRAGM	49. SPRING - IDLE ADJ. NEEDLE
22. ROD - PUMP	50. CUP (2) - IDLE LIMITER
23. SCREW & LOCKWASHER (6) - BOWL COVER	51. SCREW & LOCKWASHER (4) - ENRICHMENT VALVE COVER
24. BOWL COVER ASSY.	52. COVER - ENRICHMENT VALVE
25. SEAL - CHOKE ROD	53. GASKET - COVER
26. GASKET - BOWL COVER	54. VALVE - ENRICHMENT
27. RETAINER - FLOAT PIN	55. GASKET - ENRICHMENT VALVE
28. FLOAT & LEVER ASSY.	56. MAIN BODY ASSY.

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 CONTAINING RUBBER MATERIAL OR PARTS SUCH AS (2), (7), (16), (28), (42), (45), (54) IN CLEANING SOLVENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

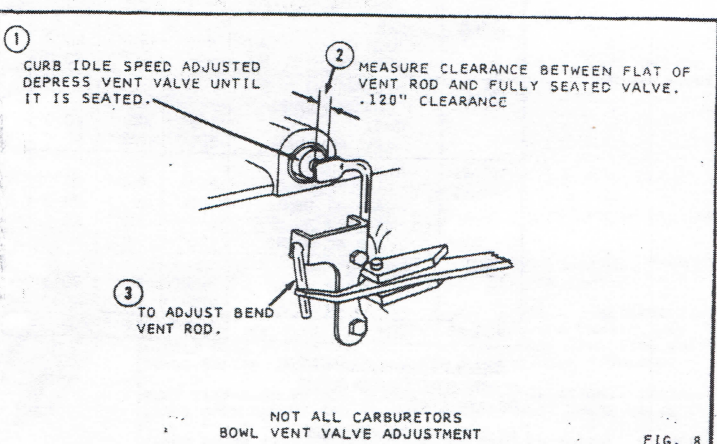
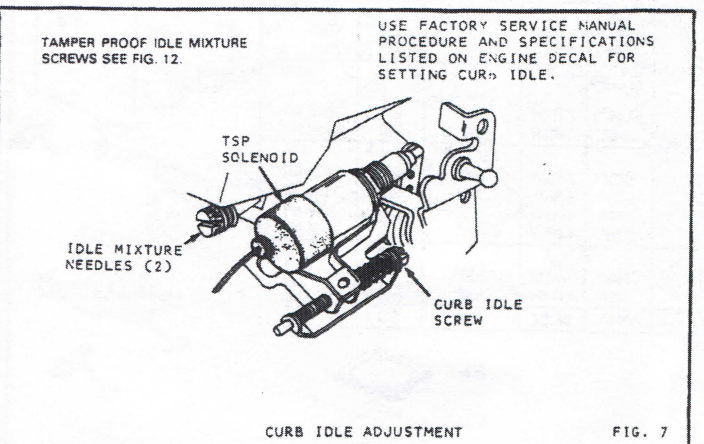
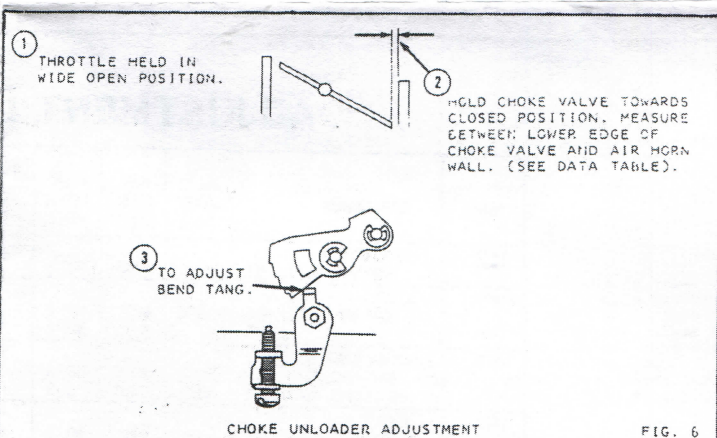
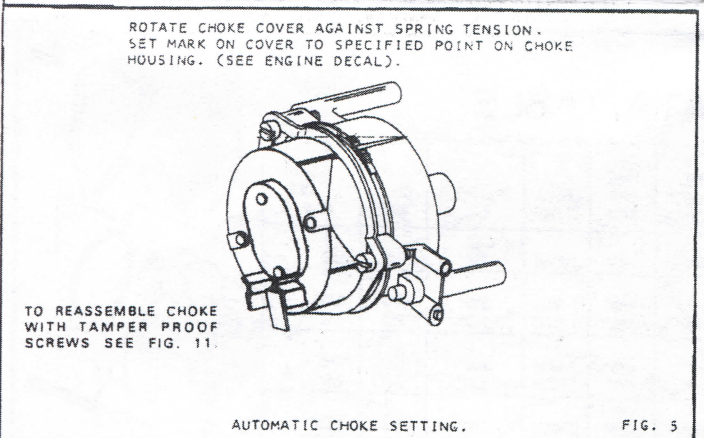
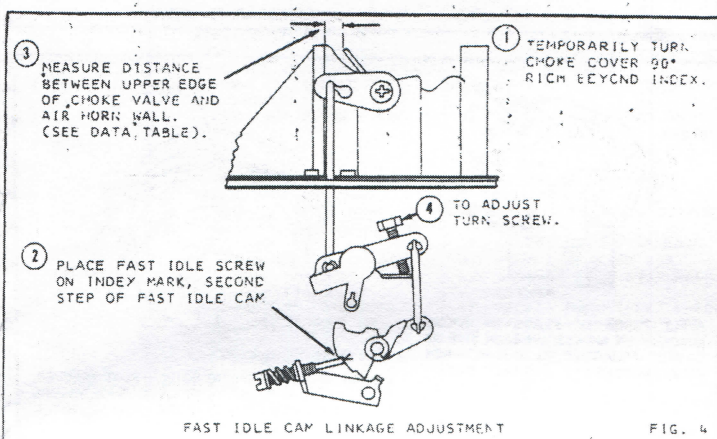
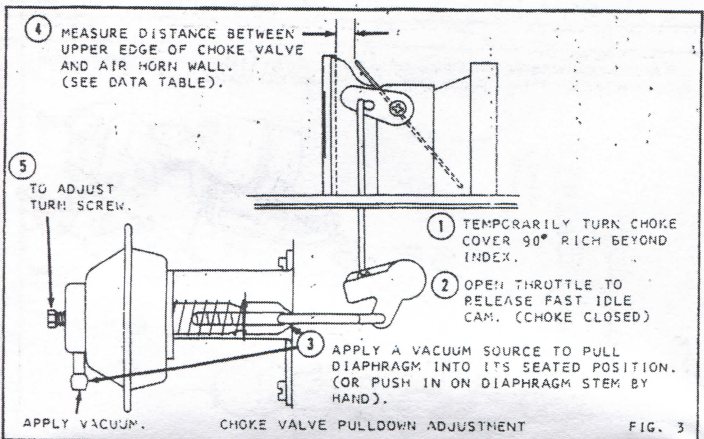
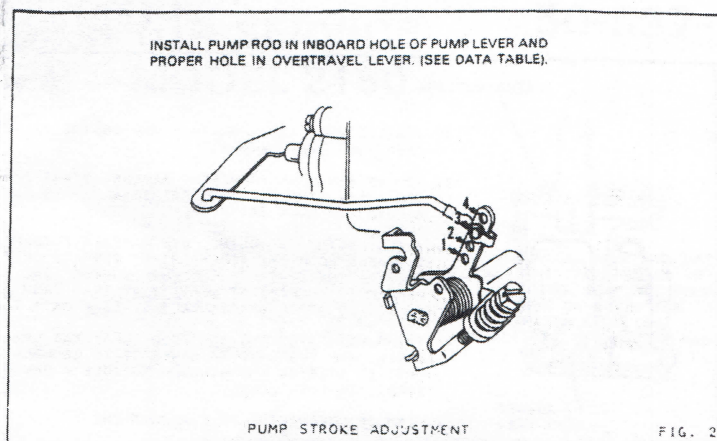
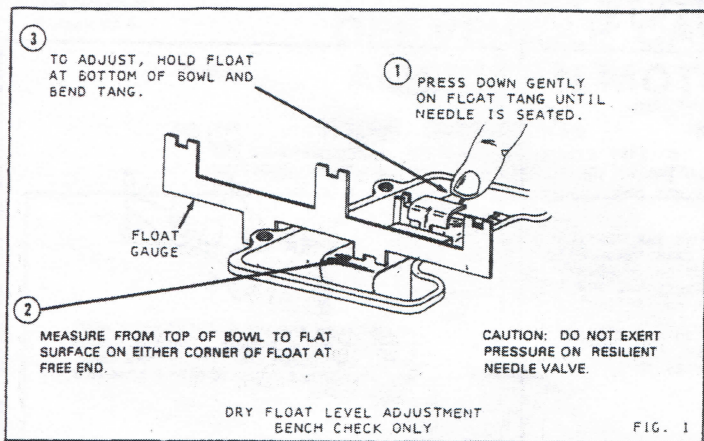
ENRICHMENT VALVE (54) - USE CARE WHEN TIGHTENING TO PREVENT DISTORTION OF GASKET (55).

IDLE ADJUSTING NEEDLES (48) - TURN IN UNTIL LIGHTLY SEATED THEN BACK OUT NUMBER OF TURNS RECORDED ON DISASSEMBLY. (DO NOT INSTALL CAPS (47) AT THIS TIME).

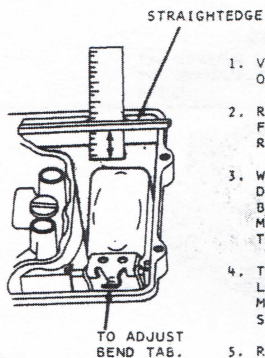
PUMP INLET CHECK VALVE INSTALLATION (33) - LUBRICATE TIP OF NEW VALVE AND INSERT IN CENTER HOLE OF PUMP CAVITY. USE A NEEDLE NOSE PLIERS AND PULL THROUGH FROM FUEL BOWL SIDE UNTIL FULLY SEATED. CUT OFF VALVE TIP AT RETAINING SHOULDER.

PUMP DIAPHRAGM RETURN SPRING INSTALLATION (21) - INSTALL LARGE OPEN END OF SPRING OVER RUBBER INLET CHECK VALVE (33).

ADJUSTMENTS



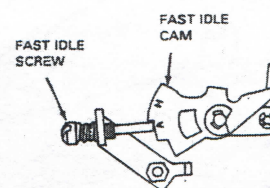
ADJUSTMENTS



1. VEHICLE ON A LEVEL SURFACE AND ENGINE AT NORMAL OPERATING TEMPERATURE.
2. REMOVE AIR HORN ATTACHING SCREWS. START AND LET ENGINE IDLE FOR A FEW MINUTES, THEN ROTATE AIR HORN OUT OF WAY AND REMOVE AIR HORN GASKET.
3. WHILE ENGINE IS IDLING, USE A T-SCALE TO MEASURE THE VERTICAL DISTANCE FROM THE TOP MACHINED SURFACE OF THE CARBURETOR MAIN BODY TO THE LEVEL OF THE FUEL IN THE BOWL. CAUTION: MEASUREMENT MUST BE MADE AT LEAST 1/4" AWAY FROM ANY VERTICAL SURFACE TO ASSURE AN ACCURATE READING. (SEE DATA TABLE FOR SETTING.)
4. TO ADJUST. STOP ENGINE. BEND FLOAT TAB UPWARD TO RAISE FUEL LEVEL, AND DOWNWARD TO LOWER IT. TO RECHECK LEVEL ENGINE MUST BE STARTED AND ALLOWED TO IDLE A FEW MINUTES TO STABILIZE FUEL LEVEL.
5. RECHECK CARBURETOR IDLE ADJUSTMENT.

WET FLOAT ADJUSTMENT

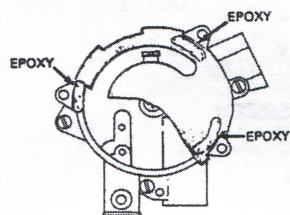
FIG. 9



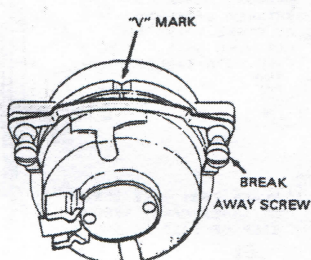
ADJUST CURB AND OFF IDLE. EGR VALVE HOSE DISCONNECTED & PLUGGED. PLACE FAST IDLE SCREW ON PROPER STEP OF FAST IDLE CAM. ADJUST FAST IDLE SCREW TO PROPER R.P.M. (SEE ENGINE DECAL).

FAST IDLE ADJUSTMENT

FIG. 10



APPLY THREE 1/2" BEADS OF EPOXY (SMOOTH ON MT-13) ON EACH SIDE OF GASKET ADJACENT TO THE RETAINER SCREW BOSSES.

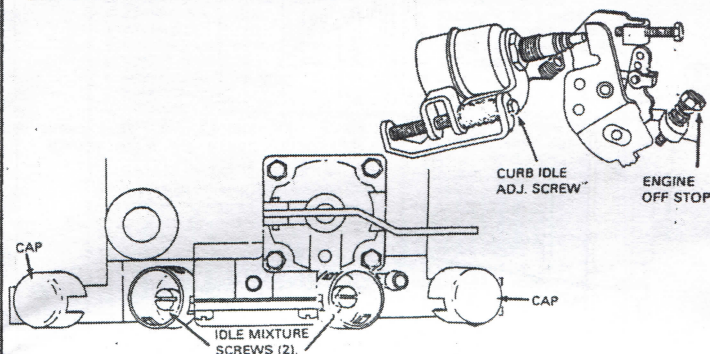


INSTALL BI-METAL SPRING HOOK IN SLOT OF LEVER. SET COVER TO "V" MARK ON CHOKE HOUSING. SECURE RETAINING RING WITH NEW BREAK AWAY SCREWS.

AUTOMATIC CHOKE SETTING

FIG. 11

USE FACTORY CAR MANUAL PROCEDURE FOR SETTING SLOW (CURB IDLE). (SPECIFICATIONS LISTED ON ENGINE DECAL.) INSTALL LIMITER CAPS AFTER SETTING IDLE MIXTURE.



CURB IDLE ADJUSTMENT (BRACKET ADJUST SOLENOID)

FIG. 1

ADJUSTMENT DATA TABLE

YEAR	APPLICATION	FLOAT LEVEL (DRY)	FUEL LEVEL (WET)*	PUMP LEVER HOLE	CHOKE INITIAL CLEARANCE (PULL DOWN)	FAST IDLE CAM	AUTO CHOKE	UNLOADER	CURB IDLE	FAST IDLE R. P. M.
1977	PASS CARS 360" ENG. ALT. A/T	13/32"	.780	NO. 2	.104"	.089"	1-RICH	.290"	E/D	E/D
1977	JEEP 304" ENG. ALT. M/T 304" ENG. ALT. A/T	13/32" 13/32"	.930** .930**	NO. 2 NO. 2	.110" .104"	.089" .089"	2-RICH 1-RICH	.290" .290"	E/D E/D	E/D E/D
1978	PASS CARS 304" ENG. ALT. A/T 360" ENG. ALT. A/T	9/16" 9/16"	.930** .780	NO. 3 NO. 3	.049" .069"	.078" .078"	2-RICH 2-RICH	.290" .290"	E/D E/D	E/D E/D
1978	JEEP 304" ENG. ALT. A/T 304" ENG. ALT. M/T	9/16" 9/16"	.930** .930**	NO. 3 NO. 3	.089" .093"	.078" .078"	2-RICH 2-RICH	.290" .290"	E/D E/D	1600 1600
1979-80	JEEP 360" ENG. A/T 360" ENG. M/T	9/16" 9/16"	.930** .930**	NO. 3 NO. 3	.113" .104"	.093" .086"	2-RICH 2-RICH	.350" .348"	E/D E/D	1600 1500
1981	JEEP 304" ENG. CARB. NO. 1DM2J, 1DA2J CARB. NO. 1DM2A	21/64" 21/64"	.930** .930**	NO. 3 NO. 3	.073" .073"	.046" .046"	2-RICH 1-RICH	.350" .350"	E/D E/D	1600 A/T 1500 M/T
1981-83	JEEP 360" ENG. CARB. NO. 1RHA2 CARB. NO. 1RHM2 CARB. NO. 2RHA2 CARB. NO. 2RHM2	21/64" 21/64" 21/64" 21/64"	.930** .930** .930** .930**	NO. 3 NO. 3 NO. 3 NO. 3	.113" .104" .116" .116"	.086" .081" .076" .076"	2-RICH 2-RICH 1-RICH 1-RICH	.350" .350" .420" .350"	E/D E/D E/D E/D	1600 A/T 1500 M/T 1800 A/T 1500 M/T
1984-85	JEEP 360" ENG. CARB. NO. 4RHA2 CARB. NO. 5RHA2	21/64" 21/64"	.930** .930**	NO. 3 NO. 3	.113" .113"	.086" .086"	2-RICH 2-RICH	.350" .350"	E/D E/D	E/D E/D
1986-89	JEEP ALL	21/64"	.930**	NO. 3	.118"	.076"	INDEX	.420"	E/D	E/D

* - REFER TO CAR SERVICE MANUAL

** - WITH FLOAT DAMPER SPRING

E/D - ENGINE DECAL

A/T - AUTOMATIC TRANSMISSION

M/T - MANUAL TRANSMISSION

ALT. - HIGH ALTITUDE