



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.

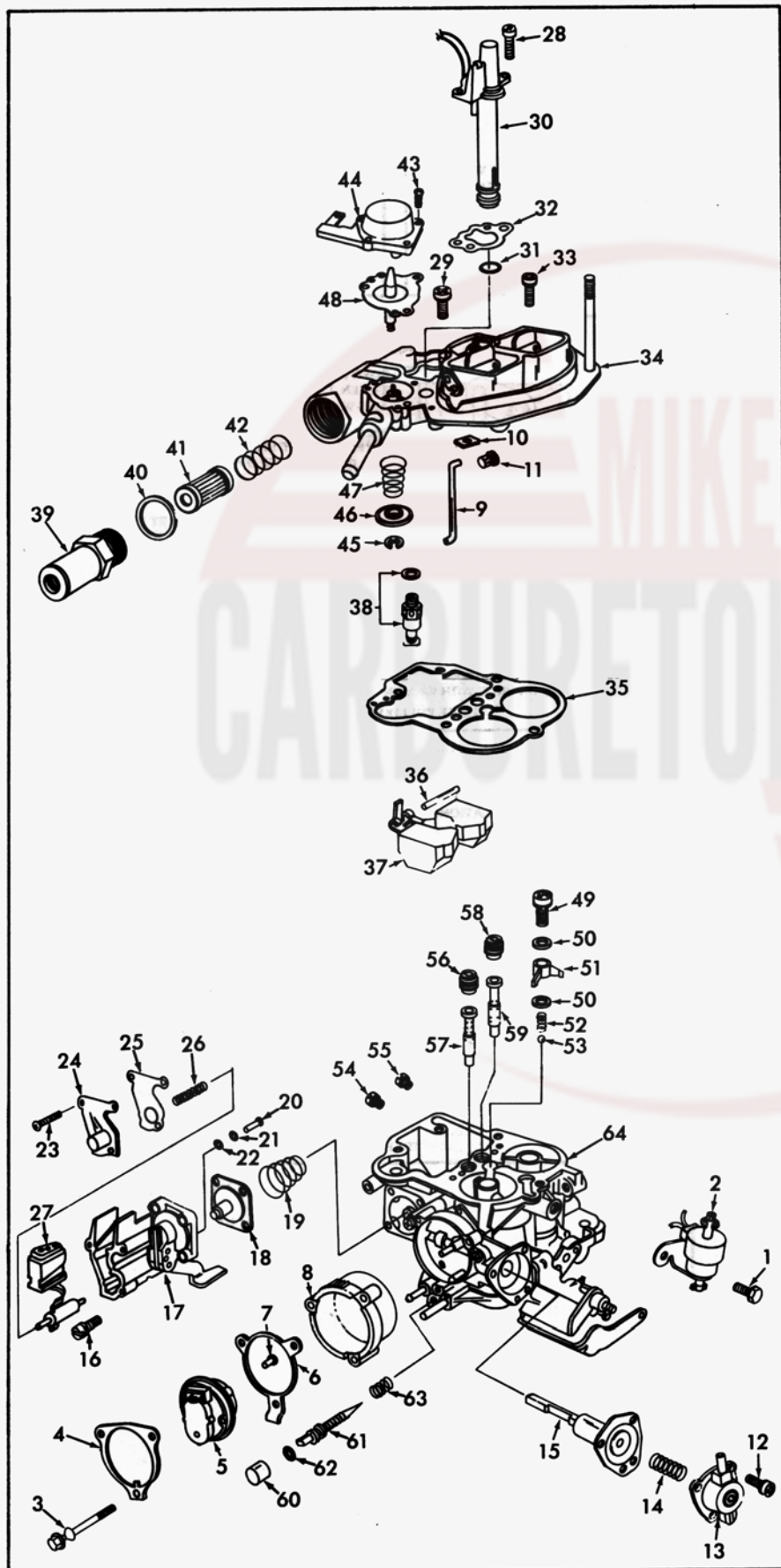
INSTRUCTION SHEET OFF VEHICLE CARBURETOR SERVICE HOLLEY-MODEL 6510-C

50-594-2

(WITH MIXTURE CONTROL SOLENOID)

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. TO REMOVE TAMPER RESISTANT CHOKE RETAINING SCREWS (3), USE A FILE OR SUITABLE GRINDER TO REMOVE REMAINING PORTION OF SCREW HEADS. REMOVE CHOKE COMPONENTS THEN BACK OUT REMAINING PORTION OF SCREWS WITH A PLIERS. NOTE SIZES OF JETS AND MAIN WELL TUBES AND THEIR LOCATION FOR PROPER ASSEMBLY (RECORD SIZES BELOW). TO REMOVE IDLE MIXTURE NEEDLE PLUG (60) POSITION A PUNCH IN LOCATOR POINT OF THROTTLE BODY, BENEATH IDLE MIXTURE NEEDLE PLUG (MANIFOLD SIDE). DRIVE OUT HARDENED STEEL PLUG. MOST SCREWS AND THREADS ARE METRIC. DO NOT SUBSTITUTE WITH U. S. THREADED SCREWS.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW & LKWSHR. (2) - SOLENOID	32. GASKET - SOLENOID MOUNTING
2. SOLENOID - IDLE STOP	33. SCREW & LKWSHR. (4) - BOWL COVER
3. SCREW (3) - CHOKE RETAINER	34. BOWL COVER ASSY.
4. RETAINER - CHOKE COVER	35. GASKET - BOWL COVER
5. CHOKE COVER & COIL ASSY. - ELECTRIC	36. PIN - FLOAT
6. RING - CHOKE GROUND	37. FLOAT ASSY.
7. BUSHING - CHOKE SPRING LOOP	38. NEEDLE, SEAT & GASKET ASSY
8. HOUSING - CHOKE COIL ASSY.	39. NUT - FUEL INLET
9. ROD - CHOKE	40. GASKET - INLET NUT
10. SEAL - CHOKE ROD	41. FILTER - FUEL
11. RETAINER (2) - CHOKE ROD (PLASTIC)	42. SPRING - FUEL FILTER
12. SCREW & LKWSHR. (3) - COVER	43. SCREW & LKWSHR. (3) - SOLENOID
13. COVER ASSY. - DIAPHRAGM	44. SOLENOID ASSY. - BOWL VENT
14. SPRING - DIAPHRAGM	45. E CLIP - VENT VALVE
15. DIAPHRAGM ASSY. - CHOKE PULLDOWN	46. VALVE - VENT
16. SCREW & LKWSHR. (4) - PUMP COVER ASSY.	47. SPRING - DIAPHRAGM RETURN
17. PUMP COVER & SENSOR ASSY.	48. DIAPHRAGM ASSY. - VENT VALVE
18. DIAPHRAGM ASSY. - PUMP	49. SCREW - PUMP DISC. NOZZLE
19. SPRING - DIAPHRAGM	50. GASKET (2) - PUMP NOZZLE
20. PLUNGER - SENSOR	51. NOZZLE - PUMP DISC.
21. RETAINER - PLUNGER SEAL*	52. SPRING - DISC. BALL
22. SEAL - PLUNGER *	53. BALL - DISC. CHECK
23. SCREW & LKWSHR. (3) - COVER	54. JET - PRI. MAIN
24. COVER - SENSOR	55. JET - SEC. MAIN
25. GASKET - COVER	56. JET - PRI. HIGH SPEED BLEED
26. SPRING - SENSOR	57. TUBE - PRI. MAIN WELL
27. SENSOR ASSY. - THROTTLE	58. JET - SEC. HIGH SPEED BLEED
28. SCREW & LKWSHR. (2) - SOLENOID	59. TUBE - SEC. MAIN WELL
29. SCREW & LKWSHR. - WIRE CLAMP	60. PLUG - IDLE ADJ. NEEDLE (NOT REPL.)
30. SOLENOID ASSY. - MIXTURE CONTROL	61. NEEDLE - IDLE ADJUSTING
31. O-RING - SOLENOID	62. O-RING - IDLE ADJ. NEEDLE
	63. SPRING - IDLE ADJ. NEEDLE
	64. MAIN BODY ASSY.

*RETAIN FOR REASSEMBLY.

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 PLASTIC FLOAT, ELECTRIC CHOKE, SOLENOIDS OR PARTS CONTAINING RUBBER MATERIALS IN CARBURETOR CLEANING SOLVENTS.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

IDLE ADJUSTING NEEDLE (61) - INSTALL O-RING (62) ON NEEDLE BEFORE INSTALLING IN HOUSING TURN NEEDLE IN UNTIL LIGHTLY SEATED THEN BACK OUT 1/2 TURNS CHECK EMISSION CONTROL LABEL (UNDER HOOD) AND CAR SHOP MANUAL TO COMPLETE IDLE MIXTURE ADJUSTMENT.

FUEL FILTER (4) - BE SURE TO USE A FILTER WITH BUILT IN ROLL OVER CHECK VALVE AND WITH CHECK VALVE FACING OUT. TIGHTEN SECURELY.

PUMP RETURN SPRING (19) - INSTALL WITH SMALL DIAMETER AGAINST CARBURETOR BOWL.

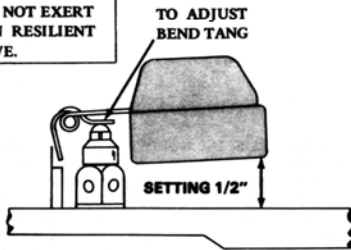
CHOKE ROD (9) & RETAINER (11) - LOOSEN CHOKE HOUSING SCREWS FOR EASIER INSTALLATION.

CHOKE COVER & COIL ASSY. (5) - INSTALL COIL SPRING LOOP ON PIN OF LEVER. (BE SURE BUSHING (7) IS ON PIN.) NO GASKET USED ON ELECTRIC CHOKE COVER. CHOKE COVER IS NONE ADJUSTABLE. INSTALL NEW BREAK AWAY SCREWS. TIGHTEN EVENLY UNTIL SCREW HEADS BREAK OFF. (PRE TORQUED).

FOLLOW VEHICLE SERVICE MANUAL INSTRUCTIONS TO MAKE FINAL ADJUSTMENTS ON CAR.

ADJUSTMENTS

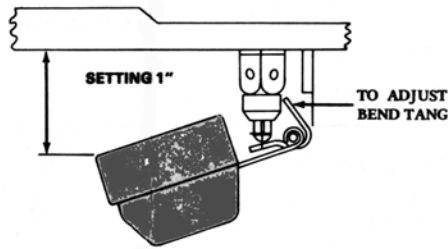
CAUTION: DO NOT EXERT PRESSURE ON RESILIENT NEEDLE VALVE.



BOWL COVER INVERTED (BOWL COVER GASKET REMOVED). FLOAT RESTING ON NEEDLE VALVE OF ITS OWN WEIGHT. (DO NOT COMPRESS SPRING). MEASURE DISTANCE FROM FLOAT AT TOE END TO CASTING SURFACE.
(CHECK BOTH FLOATS)

DRY FLOAT LEVEL ADJUSTMENT

Fig. 1

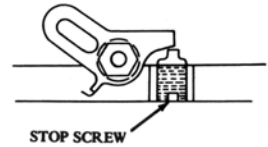


BOWL COVER HELD IN NORMAL POSITION WITH FLOAT HANGING FREELY. MEASURE DISTANCE FROM BOWL COVER GASKET SURFACE TO TOP TOE OF FLOAT.

FLOAT DROP ADJUSTMENT

Fig. 2

BACK OUT STOP SCREW UNTIL SECONDARY THROTTLE VALVE SEATS IN BORE. TURN SCREW IN UNTIL IT TOUCHES SECONDARY THROTTLE LEVER, THEN TURN IN AN ADDITIONAL 1/4 TURN.

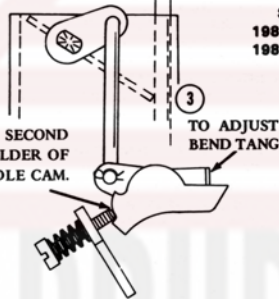


SECONDARY THROTTLE STOP ADJUSTMENT

Fig. 3

- ② HOLD CHOKE VALVE TOWARD CLOSED POSITION AND MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE PLATE AND AIR HORN WALL.

- ① HOLD FAST IDLE SCREW ON SECOND STEP AND AGAINST THE SHOULDER OF THE FIRST STEP OF FAST IDLE CAM.



FAST IDLE CAM INDEX ADJUSTMENT

Fig. 4

- ③ HOLD CHOKE VALVE TOWARD CLOSED POSITION AND MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE PLATE AND WALL OF AIR HORN

- ① PLACE FAST IDLE SCREW ON HIGH STEP OF CAM.

SETTING
1980-M/T .275"
1980-A/T .300"
1981-ALL .300"
1982-ALL .270"
1983-M/T .300"
1983-A/T .270"
1984-ALL .270"
1985-A/T .270"
1985-M/T .300"
1986-A/T .270"
1986-M/T .300"

- ② APPLY OUTSIDE VACUUM SOURCE TO SEAT DIAPHRAGM ON UNITS WITH VACUUM PICK UP ON DIAPHRAGM COVER.

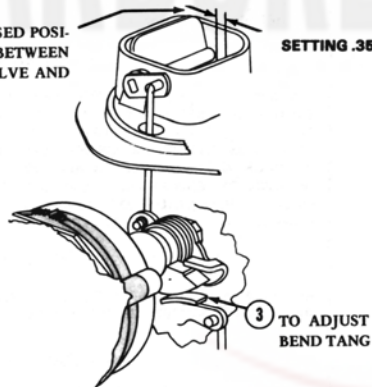
- ④ TO ADJUST TURN ALLEN SCREW

CHOKE PULLDOWN ADJUSTMENT

Fig. 5

- ② CHOKE HELD TOWARD CLOSED POSITION. MEASURE DISTANCE BETWEEN LOWER EDGE OF CHOKE VALVE AND AIR HORN WALL.

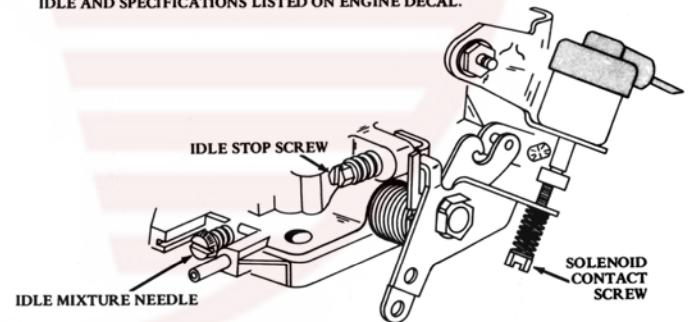
- ① THROTTLE HELD IN WIDE OPEN POSITION.



UNLOADER ADJUSTMENT

Fig. 6

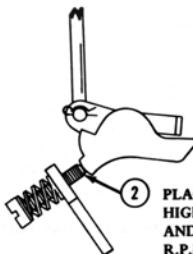
USE FACTORY CAR MANUAL PROCEDURE FOR SETTING SLOW IDLE AND SPECIFICATIONS LISTED ON ENGINE DECAL.



IDLE ADJUSTMENT

Fig. 7

- ① CURB IDLE SPEED ADJUSTED. DISCONNECT AND PLUG EGR PORT.



- ② PLACE FAST IDLE SCREW ON HIGH STEP OF FAST IDLE CAM AND ADJUST TO SPECIFIED R.P.M.

CHECK ENGINE COMPARTMENT DECAL FOR SPECIFIED R. P. M.

FAST IDLE ADJUSTMENT

Fig. 8

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