

INSTRUCTION SHEET

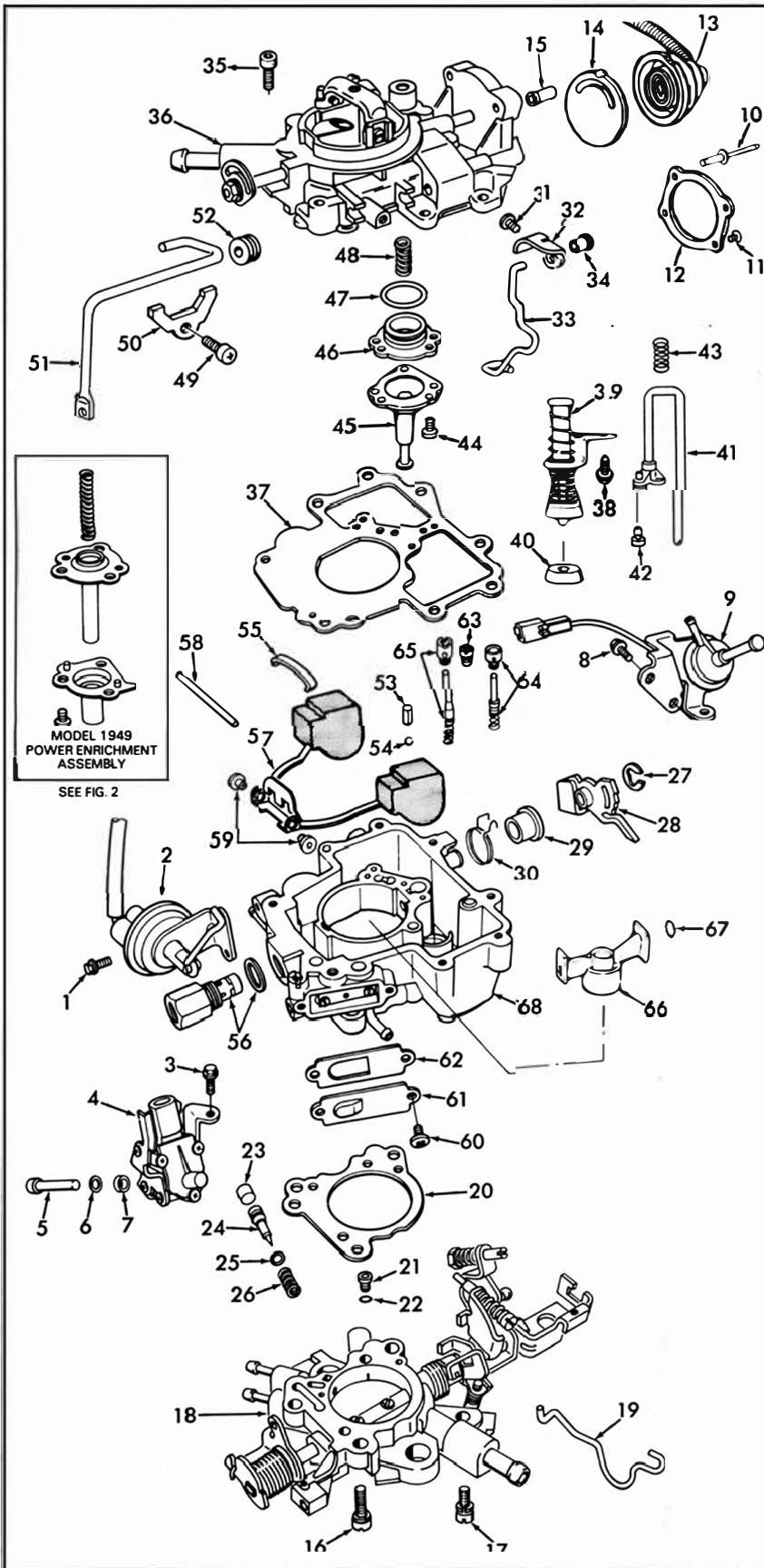
OFF VEHICLE CARBURETOR SERVICE

HOLLEY MODELS-6149/1949

50-645-3

GENERAL EXPLODED VIEW

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



DISASSEMBLY

USE THE EXPLODED VIEW AS A GUIDE. THE NUMERICAL SEQUENCE MAY GENERALLY
BE FOLLOWED TO DISASSEMBLE UNIT FAR ENOUGH TO PERMIT CLEANING AND
INSPECTION.

TO REMOVE POP RIVETS (10) FROM CHOKE COVER RETAINER. DRILL RIVET HEAD JUST
ENOUGH TO COME LOOSE FROM RIVET BODY. USING A SMALL PUNCH, DRIVE REMAIN-
ING RIVET OUT OF HOLE.

TO REMOVE IDLE CHANNEL RESTRICTOR BUSHING (21) AND O-RING (22) TAKE A
PAPERCLIP (.031" DIAMETER) BEND THE END AT A RIGHT ANGLE .045" LONG. INSERT
THE PAPERCLIP THROUGH THE RESTRICTOR AND HOOK IT UNDER THE BOTTOM EDGE.
GENTLY PULL THE RESTRICTOR AND O-RING FROM THE THROTTLE BODY.

TO REMOVE TAMPER RESISTANT IDLE MIXTURE PLUG (23). CENTER PUNCH AND DRILL
A 3/32" DIA. HOLE THROUGH THE HARDENED STEEL PLUG. INSTALL AN EASY OUT
INTO THE HOLE AND REMOVE PLUG. BEFORE REMOVING IDLE ADJUSTING NEEDLE.
TURN IDLE NEEDLE IN COUNTING THE NUMBER OF TURNS IT TAKES TO LIGHTLY SEAT
THE NEEDLE (RECORD FOR REASSEMBLY).

H. I. C.-HOT IDLE COMPENSATOR IS NOT REMOVABLE.

POWER VALVE ASSY'S. (64) & (65)-DO NOT MIX UP PARTS. KEEP SEPARATE.

BOOSTER VENTURI (66)-TO REMOVE LIGHTLY TAP FROM THE BOTTOM SIDE UNTIL
FREE OF MAIN BODY.

NOMENCLATURE

REF. NO.	REF. NO.
1. SCREW (2)-CHOKE PULLOFF	35. SCREW (8)-BOWL COVER
2. CHOKEPULLOFF ASSEMBLY	36. BOWL COVER ASSEMBLY
3. SCREW (3)-SENSOR ASSEMBLY	37. GASKET-BOWL COVER
4. SENSOR ASSY.-THROTTLE POSITIONER	38. SCREW & LKWSHR.-PUMP ASSY.
5. PIN-PLUNGER	39. PUMP ASSEMBLY
6. RETAINER-SEAL	40. CUP-PUMP
7. SEAL-DUST (FELT)	41. ROD-POWER VALVE (MECHANICAL)
8. SCREW (3)-THROTTLE SOLENOID	42. PUCK-AUX. MAIN JET
9. SOLENOID ASSY.-THROTTLE	43. SPRING-POWER VALVE ROD
10. POP RIVET (2)-CHOKE COVER RETAINER	44. SCREW & LKWSHR.(3)- DIAPHRAGM ACTUATOR ASSY.
11. SCREW (2)-CHOKE COVER RETAINER	45. DIAPHRAGM ACTUATOR ASSY. -POWER VALVE (6149)
12. RETAINER-CHOKE COVER	46. DIAPHRAGM SEAT (6149)
13. ELECTRIC CHOKE COVER ASSY.	47. O-RING-DIAPHRAGM SEAT (6149)
14. SPACER-CHOKE INDEX	48. SPRING-DIAPHRAGM ACTUATOR (6149)
15. BUSHING-CHOKE COIL LEVER	49. SCREW-RETAINING CLAMP
16. SCREW (3)-THROTTLE BODY (I)	50. CLAMP-OPERATING ROD RETAIN- ING
17. SCREW (1)-THROTTLE BODY (S)	51. ROD-PUMP OPERATING
18. THROTTLE BODY ASSEMBLY	52. GROMMET-PUMP OPERATING ROD
19. LINK-PUMP	53. WEIGHT-PUMP DISC. BALL
20. GASKET-THROTTLE BODY	54. BALL-PUMP DISC.
21. RESTRICTOR BUSHING-IDLE CHANNEL	55. RETAINER-FLOAT PIN
22. O-RING-RESTRICTOR BUSHING	56. NEEDLE & SEAT ASSY.
23. PLUG-IDLE ADJ. NEEDLE	57. FLOAT ASSEMBLY
24. NEEDLE-IDLE ADJUSTING	58. PIN-FLOAT HINGE
25. O-RING-IDLE ADJ. NEEDLE	59. BUSHING (2)-FLOAT PIN
26. SPRING-IDLE ADJ. NEEDLE	60. SCREW & LKWSHR. (2)- H.I.C. COVER
27. E-CLIP-FAST IDLE CAM	61. COVER-HOT IDLE COMPENSATOR
28. CAM-FAST IDLE	62. GASKET-H.I.C. COVER
29. BUSHING-SPRING (NYLON)	63. JET-MAIN
30. SPRING-F.I.C. ANTI-ENTRAPMENT	64. ENRICHMENT VALVE ASSY.-W.O.T.
31. SCREW & LKWSHR.-FAST IDLE LINK LEVER	65. ENRICHMENT VALVE ASSY.-MAIN
32. LEVER-FAST IDLE LINK	66. VENTURI-BOOSTER
33. LINK-FAST IDLE	67. O-RING-BOOSTER VENTURI
34. RETAINER-FAST IDLE LINK	68. BOWL ASSEMBLY

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 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 ASSEMBLY'S
SUCH AS (2), (4), (9), (13), or (57) OR PARTS MADE OF RUBBER OR DIAPHRAGM
ASSYS. IN ANY TYPE OF CLEANING SOLVENT.

REASSEMBLY

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

SPECIAL INSTRUCTIONS

SEE FIG. 14 FOR COMPLETE TORQUE SPECIFICATIONS.

O-RINGS-LIGHTLY COAT WITH OIL BEFORE INSTALLING.

BOOSTER VENTURI AND O-RING INSTALLATION-CAREFULLY FOLLOW INSTRUCTIONS
TO PREVENT DAMAGE TO O-RING (ALSO SEE FIG. 1).

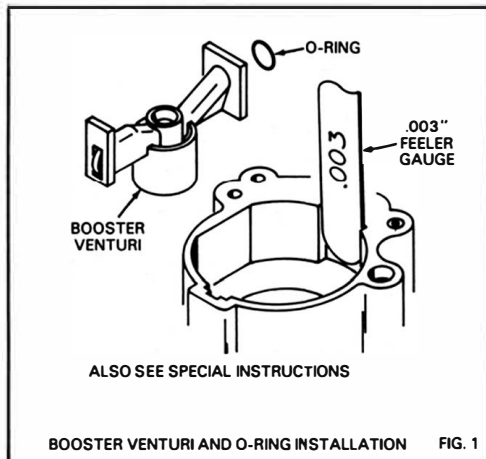
1. COAT O-RING LIGHTLY WITH OIL AND SET IN PLACE ON VENTURI.
2. INSERT .003" FEELER GAUGE IN VENTURI SLOT OF MAIN BODY.
3. PLACE VENTURI AND O-RING IN PLACE AND PRESS DOWN EVENLY UNTIL VENTURI
IS COMPLETELY SEATED IN MAIN BODY.
4. HOLD VENTURI IN PLACE AND SLOWLY PULL FEELER GAUGE FROM MAIN BODY.

IDLE ADJUSTING NEEDLE (24)-TURN IN UNTIL LIGHTLY SEATED. THEN BACK OUT
NUMBER OF TURNS RECORDED ON DISASSEMBLY. (INSTALL PLUG (23) AFTER
COMPLETING ALL RUNNING IDLE ADJUSTMENTS ON VEHICLE).

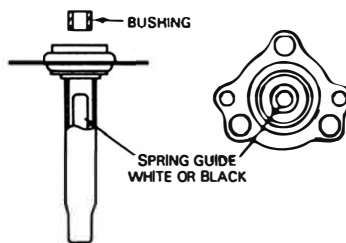
IDLE CHANNEL RESTRICTOR BUSHING AND O-RING-GENTLY PRESS IN WITH A FLAT
END PUNCH UNTIL FLUSH WITH TOP OF THROTTLE BODY CASTING.

ELECTRIC CHOKE COIL ASSY. (13)-HAS A FIXED SETTING. IS NOT ADJUSTABLE. IN-
STALL POP RIVETS IN PROPER HOLES.

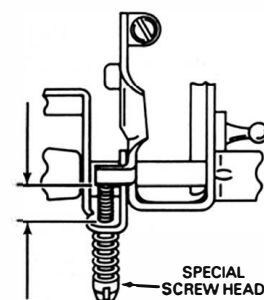
ADJUSTMENTS



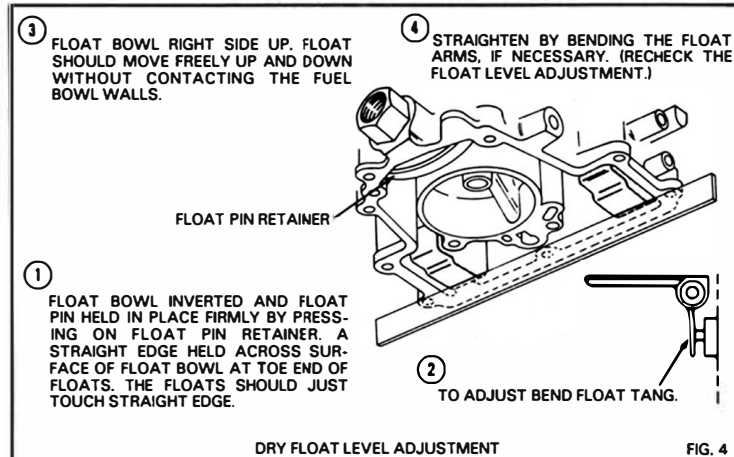
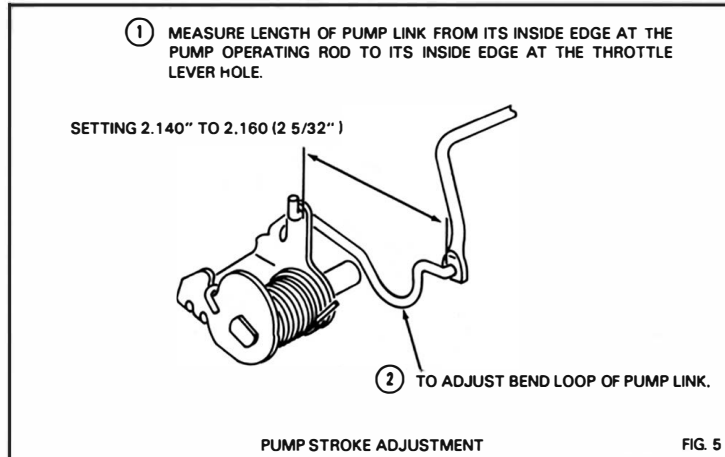
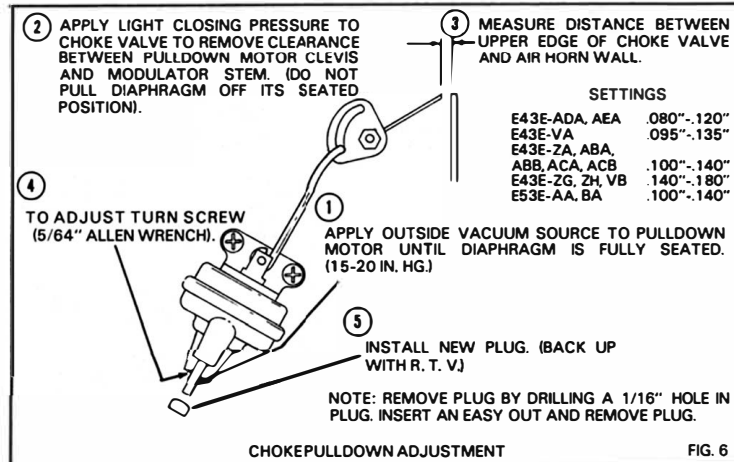
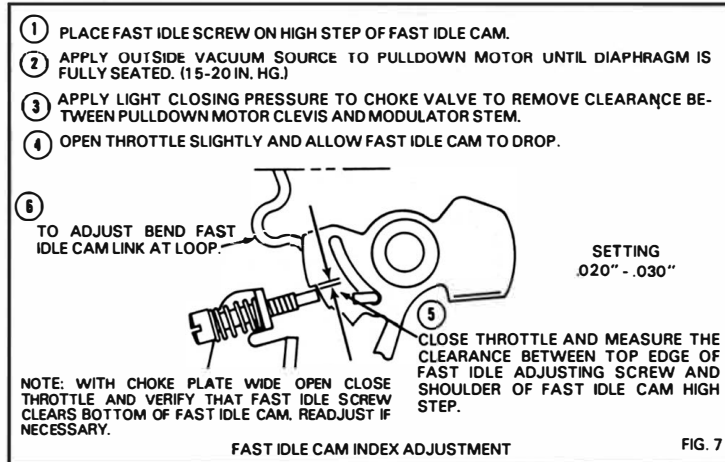
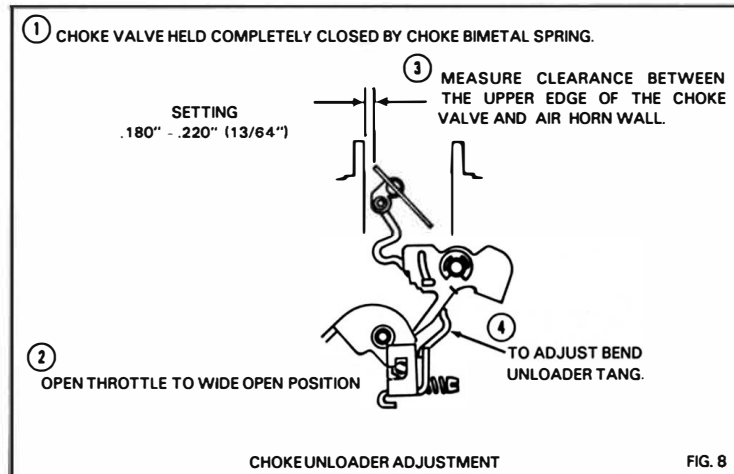
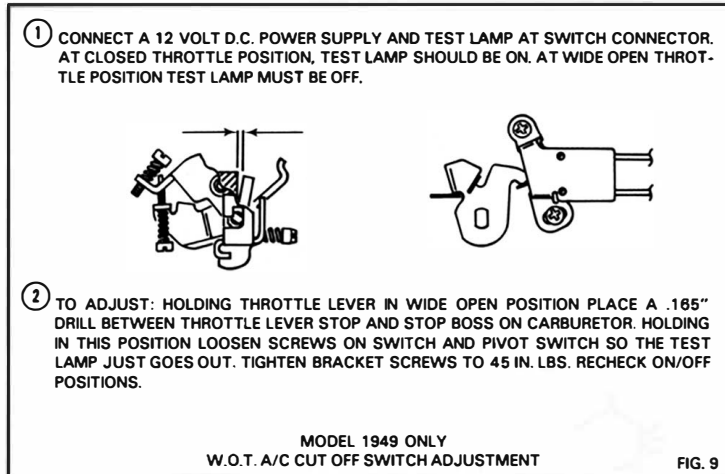
WHEN ASSEMBLY REMOVED FROM CARBURETOR HAS A WHITE SPRING GUIDE AND REPLACEMENT PART IN KIT HAS A BLACK SPRING GUIDE, INSTALL SMALL BUSHING ON BLACK GUIDE. (WHEN REPLACING BLACK GUIDE WITH BLACK NO BUSHING IS USED.) (DO NOT REPLACE BLACK GUIDE WITH WHITE AS IT WILL NOT WORK PROPERLY.)



AUXILIARY MAIN JET/PULLOVER ADJUSTING SCREW SHOULD PROTRUDE THROUGH ITS LEVER

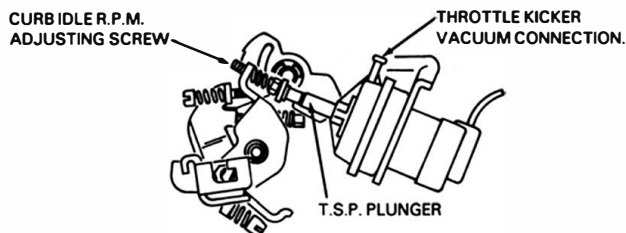


CARB. NO. SETTING
E43E-VA, ZA, ABA, ACA, ADA, AEA, ABB, ACB .345" +/- .010"
E43E-VB, ZE, ZF, ZG, ZH .310" +/- .010"
E53E-AA, BA .310" +/- .010"



NOTE: "A/C-ON RPM" IS NON-ADJUSTABLE. VERIFY THAT TSP PLUNGER EXTENDS WITH IGNITION ON.

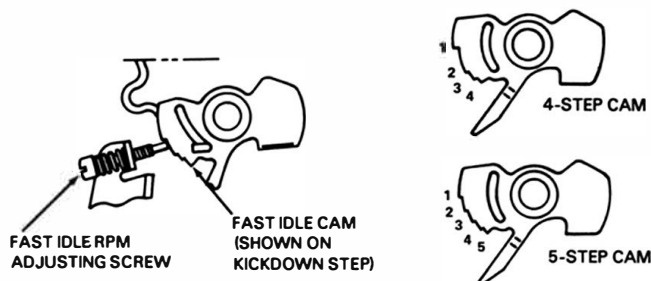
1. PLACE THE TRANSMISSION IN NEUTRAL OR PARK (PARKING BRAKE ON.)
2. DISCONNECT THROTTLE KICKER VACUUM LINE AND PLUG.
3. BRING ENGINE TO NORMAL OPERATING TEMPERATURE (COOLING FAN SHOULD CYCLE.)
4. PLACE A/C SELECTOR IN THE OFF POSITION.
5. PLACE TRANSMISSION IN SPECIFIED POSITION. (SEE ENGINE DECAL.)
6. ACTIVATE COOLING FAN BY GROUNDING CONTROL WIRE WITH JUMPER.
7. CHECK/ADJUST CURB IDLE RPM. IF ADJUSTMENT IS REQUIRED, TURN CURB IDLE ADJUSTING SCREW.
8. PLACE THE TRANSMISSION IN NEUTRAL OR PARK. REV THE ENGINE MOMENTARILY. PLACE TRANSMISSION IN SPECIFIED POSITION AND RECHECK CURB IDLE RPM. READJUST IF REQUIRED.
9. RECONNECT COOLING FAN CONTROL WIRE.
10. TURN THE IGNITION KEY TO THE OFF POSITION.
11. RECONNECT VACUUM LINE TO THROTTLE KICKER.



CURB IDLE RPM SPEED ADJUSTMENT

FIG. 10

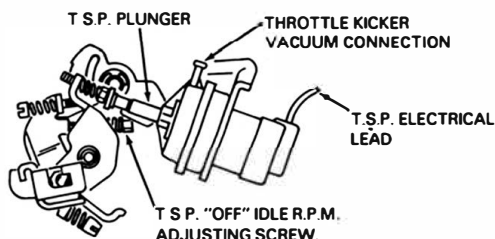
1. PLACE TRANSMISSION IN NEUTRAL OR PARK (PARKING BRAKE ON.)
2. BRING ENGINE TO NORMAL OPERATING TEMPERATURE.
3. TURN ENGINE KEY TO THE OFF POSITION.
4. PUT A/C SELECTOR IN THE OFF POSITION.
5. DISCONNECT VACUUM HOSE AT THE EGR VALVE AND PLUG.
6. PLACE THE FAST IDLE ADJUSTING SCREW ON THE SPECIFIED STEP OF THE FAST IDLE CAM (SEE ENGINE DECAL.)
7. START ENGINE WITHOUT TOUCHING THE ACCELERATOR PEDAL: CHECK/ADJUST FAST IDLE RPM TO SPECIFICATION. (SEE ENGINE DECAL.)
8. REV THE ENGINE MOMENTARILY, ALLOWING ENGINE TO RETURN TO IDLE. TURN IGNITION KEY TO OFF POSITION.
9. REMOVE PLUG FROM THE EGR VACUUM HOSE AND RECONNECT.



FAST IDLE RPM SPEED ADJUSTMENT

FIG. 11

1. PLACE THE TRANSMISSION IN NEUTRAL OR PARK (PARKING BRAKE ON.)
2. BRING ENGINE TO NORMAL OPERATING TEMPERATURE
3. DISCONNECT THROTTLE KICKER VACUUM LINE AND PLUG.
4. PLACE A/C SELECTOR TO OFF POSITION
5. DISCONNECT THE ELECTRICAL LEAD TO THE TSP AND VERIFY THAT PLUNGER COLLAPSES. CHECK ENGINE RPM TO SPECIFICATION (600 rpm.)
6. ADJUST TSP-OFF RPM TO SPECIFICATION.
7. SHUT ENGINE OFF, RECONNECT TSP ELECTRICAL LEAD AND THROTTLE KICKER VACUUM LINE.



"TSP OFF" RPM SPEED ADJUSTMENT

FIG. 12

THIS ADJUSTMENT SHOULD ONLY BE CHECKED/ADJUSTED IF THE THROTTLE POSITION SENSOR, ACTUATING PIN, OR SENSOR, HOUSING AND ACTUATING PIN ASSEMBLY MUST BE REPLACED DUE TO DAMAGE OR MALFUNCTION. IF THIS ADJUSTMENT BECOMES NECESSARY, IT MUST BE PERFORMED WITH CARBURETOR INSTALLED ON THE ENGINE AND ONLY AFTER CURB IDLE SPEED HAS BEEN SET TO SPECIFICATIONS.

1. INSTALL EEC-IV COMPUTER "BREAKOUT BOX" (ROTUNDA PART NUMBER TB3L-50 -EEC-IV) BETWEEN THE EEC-IV COMPUTER 60 PIN TERMINAL AND THE 60 PIN TERMINAL AND THE 60 PIN VEHICLE WIRING HARNESS CONNECTOR.
2. SECURE CARBURETOR CHOKE PLATE IN THE WIDE-OPEN POSITION
3. TURN IGNITION KEY TO THE ON POSITION TO ACTIVATE THE T.S.P. (DO NOT START ENGINE) OPEN THROTTLE SO THAT THE T.S.P. PLUNGER EXTENDS.
4. VERIFY THAT THE THROTTLE IS IN THE CURB IDLE POSITION (CONTACTING THE T.S.P. PLUNGER.)
5. CONNECT A.D.C. VOLTMETER ACROSS TERMINAL NUMBERS 46 AND 47 OF THE BREAKOUT BOX.
6. THROTTLE POSITION SENSOR VOLTAGE (ACROSS TERMINALS 46 AND 47 OF BREAKOUT BOX) SHOULD BE WITHIN SPECIFICATION (0.80 TO 0.90 VOLTS D.C.)
7. IF OUT OF SPECIFICATION, TURN ADJUSTMENT SCREW CLOCKWISE (AS VIEWED FROM ABOVE) TO INCREASE OR COUNTERCLOCKWISE (AS VIEWED FROM ABOVE) TO DECREASE THE OUTPUT VOLTAGE.
8. DISCONNECT D.C. VOLTMETER FROM "BREAKOUT BOX" AND "BREAKOUT BOX" FROM VEHICLE WIRING HARNESS.

THROTTLE POSITION SENSOR ADJUSTMENT (MODEL 6149 ONLY)

FIG. 13

TORQUE SPECIFICATIONS

REF NO.	DESCRIPTION	TORQUE SPEC.
65	ENRICHMENT VALVE SEAT-MAIN	20 INCH LB.
64	ENRICHMENT VALVE SEAT-W. O. T.	20 INCH LB.
63	MAINJET	15 INCH LB.
60	H. I. C. COVER SCREWS	20 INCH LB.
56	NEEDLE & SEAT ASSEMBLY	150 INCH LB.
49	PUMP ROD RETAINING CLAMP SCREW	20 INCH LB.
44	P. V. DIAPHRAGM ACTUATOR ASSY. SCREWS (MOOEL 1949)	20 INCH LB.
44	FEEDBACK DIAPHRAGM ACTUATOR ASSY. SCREWS (MOOEL 6149)	4-5 INCH LB.
38	PUMP ASSEMBLY SCREW	20 INCH LB.
35	BOWL COVER SCREWS	45 INCH LB.
31	FAST IDLE LINK LEVER SCREW	10 INCH LB.
17	THROTTLE BODY SCREW (1 SHORT BLUE)-NEAR PCV TUBE	45 INCH LB.
16	THROTTLE BODY SCREWS (3 LONG-BLACK)	95 INCH LB.
11	CHOKE COVER RETAINER SCREWS	10 INCH LB.
8	THROTTLE SOLENOID SCREW	95 INCH LB.
3	SENSOR ASSEMBLY SCREWS	45 INCH LB.
1	CHOKE PULLOFF ASSEMBLY SCREWS	45 INCH LB.
0	CHOKE SHAFT NUT	18 INCH LB.

FIG. 14

NOTICE

THE INFORMATION AND SPECIFICATIONS CONTAINED HEREIN ARE BASED ON LATEST PRODUCT INFORMATION AVAILABLE AT THE TIME OF PUBLICATION. THE RIGHT IS RESERVED TO MAKE CHANGES AT ANY TIME WITHOUT NOTICE.

PLEASE REFER TO THE ENGINE DECAL, SERVICE SPECIFICATIONS AND TECHNICAL BULLETINS FOR REVISIONS TO THIS INFORMATION.