

# FUEL SYSTEM

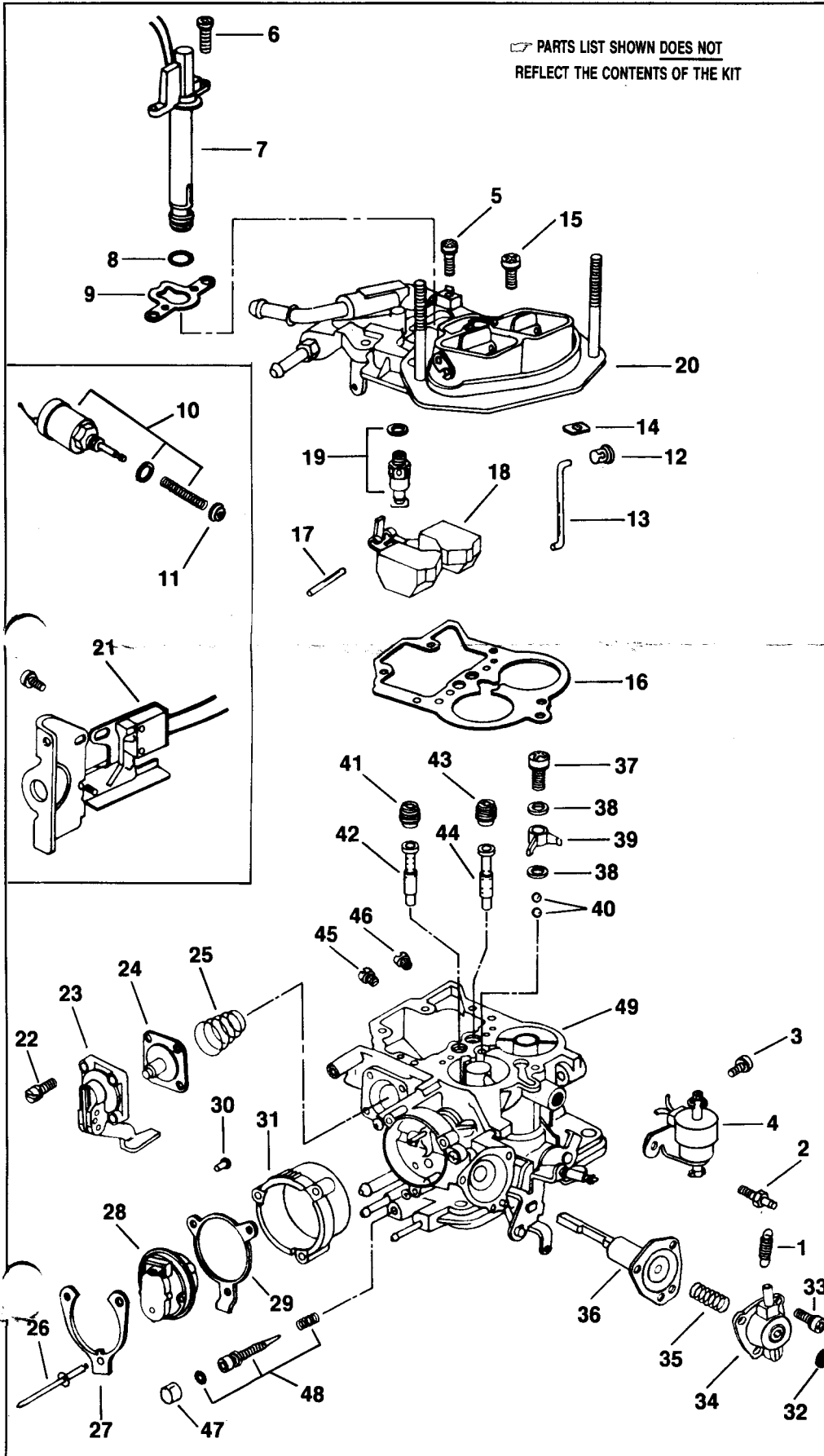
## SERVICE INSTRUCTION WORKSHEET

GF4182-7

### TO REPAIR

HOLLEY CARBURETOR

2 BARREL—MODEL 6520



1. Carefully read the text in the following pages to become familiar with the contents of this worksheet before performing carburetor overhaul.
2. The exploded view is typical of the model carburetor this kit will service. The view may differ slightly from the actual carburetor being overhauled.
3. Use the exploded view as a guide. The numerical sequence of the parts list may generally be followed to disassemble the carburetor far enough to permit cleaning and inspection.
4. Parts list shown DOES NOT reflect the contents of the kit.
5. Kit may contain extra parts intended for other carburetors within this group. Substitute identical replacement parts for original worn parts found in carburetor.

#### CLEANING

Cleaning must be done with carburetor disassembled. Use spray cleaner and a stiff bristle brush to remove dirt and carbon deposits. Do not use abrasives and wires to clean parts and passageways. Wash off in suitable solvent, and clear all passageways with compressed air. **Caution:** When cleaning with solvent do not soak or spray parts containing rubber, leather, plastic and electrical components.

#### PARTS LIST

1. Spring, secondary return
2. Stud, secondary spring
3. Screw, throttle solenoid
4. Throttle solenoid assembly
5. Screw, wire clamp
6. Screw, solenoid (2)
7. Mixture control solenoid assembly
8. O-ring, solenoid
9. Gasket, solenoid
10. Vent valve solenoid assembly \*
11. Vent valve
12. Retainer, choke rod (2)
13. Rod, choke operating
14. Seal, choke rod
15. Screw, air horn (5)
16. Gasket, air horn
17. Pin, float hinge
18. Float assembly
19. Needle & seat assembly
20. Air horn assembly
21. Switch, wide open throttle cut-out \*
22. Screw, cover (4)
23. Cover, pump diaphragm
24. Pump diaphragm. assembly
25. Spring, diaphragm return
26. Pop rivet, retainer \* (3)
27. Retainer, cover
28. Thermostatic coil & cover assembly
29. Ring, choke ground
30. Bushing, coil spring loop
31. Housing, thermostatic coil
32. Plug, adjustment screw
33. Screw, cover (3)
34. Cover assembly
35. Spring, diaphragm return
36. Choke diaphragm assembly
37. Screw, pump discharge nozzle
38. Washer, nozzle (2)
39. Nozzle, pump discharge
40. Ball, pump discharge (2)
41. Jet, primary
42. Tube, primary main well
43. Jet, secondary
44. Tube, secondary main well
45. Jet, primary main
46. Jet, secondary main
47. Plug, idle mixture needle
48. Idle mixture needle, o-ring & spring
49. Main body assembly

\* Some Models.

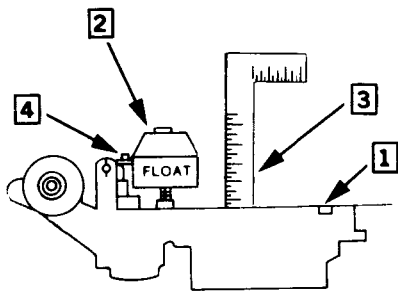
## REMOVAL & INSTALLATION NOTES

- Cover opening on intake manifold after carburetor is removed.
- To remove thermostatic coil & cover assembly (28), drill pop rivet heads off, then pull remainder of rivets from housing. On some models, cover assembly (28) is retained by snap-off head screws. To remove, grind head or file a slot for a screwdriver.
- To remove idle mixture needle plug (47), refer to Fig. 1. To remove adjusting screw plug (32), carefully drill a 1/8" hole, then pull plugs using an *Easy Out* tool.
- Record sizes of jets and main well tubes and their location for proper installation.
- Install parts and components in reverse order of removal.
- Two balls (40) are used for pump discharge. One is used as weight.
- When installing air horn screws (15), tighten evenly in stages to 30 in.-lbs.
- When installing idle adjusting needle (48), turn in until lightly seated, then back out two turns. Install plug after final adjustment on car.
- Install pump return spring with small diameter towards carburetor.
- Install bushing (30) in loop end of thermostatic coil before installing cover onto pin of lever. Make sure tab on ring (29) fits in notch of choke cover.

## ADJUSTMENT DATA

**FIG. A  
FLOAT LEVEL  
ADJUSTMENT**

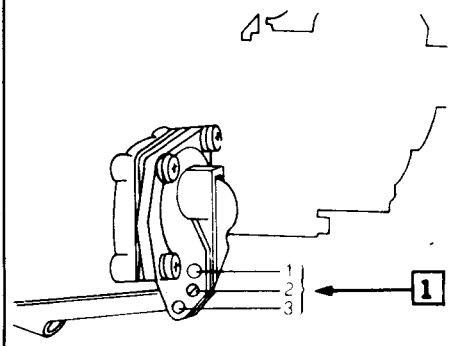
- INVERT AIR HORN WITHOUT GASKET.
  - ALLOW WEIGHT OF FLOAT TO PRESS DOWN AGAINST FLOAT NEEDLE.
  - MEASURE CLEARANCE AS SPECIFIED BETWEEN TOP OF FLOAT AND AIR HORN CASTING SURFACE.
  - TO ADJUST, BEND FLOAT ARM TANG THAT TOUCHES FLOAT NEEDLE (See Fig. C).
- NOTE: TO AVOID DAMAGING FLOAT NEEDLE, DO NOT PRESS INTO SEAT.



**FIG. D  
PUMP HOLE  
LOCATION**

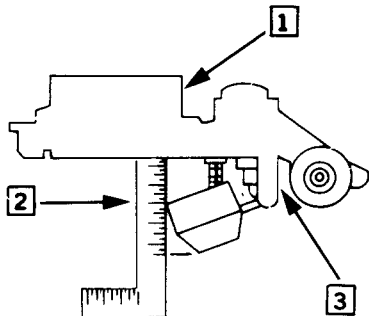
NOTE: THIS ADJUSTMENT HAS 3 HOLE LOCATIONS TO CONTROL LENGTH OF PUMP STROKE.

- PLACE PIN IN CORRECT HOLE AS SPECIFIED:
  - SHORT STROKE
  - MEDIUM STROKE
  - LONG STROKE



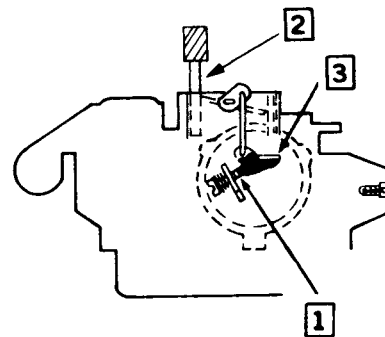
**FIG. B  
FLOAT DROP  
ADJUSTMENT**

- POSITION AIR HORN ASSEMBLY RIGHT SIDE UP WITHOUT GASKET.
- WITH FLOAT HANGING, MEASURE SPECIFIED DISTANCE FROM AIR HORN CASTING SURFACE TO BOTTOM OF FLOAT.
- IF ADJUSTMENT IS REQUIRED, BEND FLOAT DROP TANG (See Fig. C) THAT CONTACTS INLET NEEDLE SEAT BOSS.



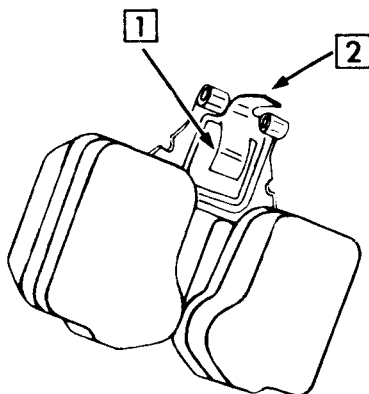
**FIG. E  
FAST IDLE CAM  
ADJUSTMENT**

- PLACE FAST IDLE SCREW ON SECOND STEP OF FAST IDLE CAM.
- INSERT GAUGE OR DRILL & APPLY LIGHT CLOSING PRESSURE TO CHOKE VALVE. MEASURE CLEARANCE AS SPECIFIED BETWEEN WALL OF AIR HORN & UPPER EDGE OF CHOKE VALVE.
- WHEN CLEARANCE IS CORRECT, THE CHOKE LEVER TANG SHOULD JUST CONTACT LEVER ON FAST IDLE CAM. IF ADJUSTMENT IS REQUIRED, BEND TANG ON CHOKE LEVER.



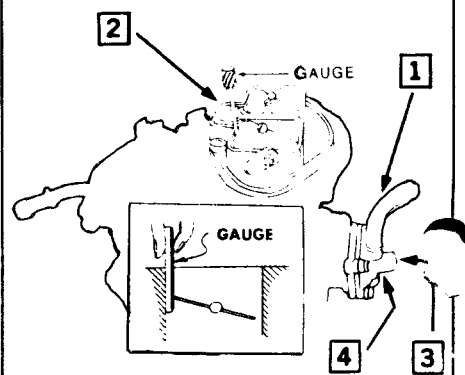
**FIG. C  
FLOAT ASSEMBLY  
DETAIL VIEW**

- BEND THIS TANG TO ADJUST FLOAT LEVEL.
- BEND THIS TANG TO ADJUST FLOAT DROP.



**FIG. F  
VACUUM KICK  
ADJUSTMENT**

- MOVE THROTTLE WIDE OPEN ALLOWING CHOKE TO CLOSE. CLOSE THROTTLE. NEXT, CONNECT AN OUTSIDE VACUUM SOURCE (15 INCH MINIMUM) TO CHOKE DIAPHRAGM.
- INSERT GAUGE OR DRILL & APPLY LIGHT CLOSING PRESSURE TO CHOKE VALVE. MEASURE CLEARANCE AS SPECIFIED BETWEEN WALL OF AIR HORN & UPPER EDGE OF CHOKE VALVE.
- IF ADJUSTMENT IS REQUIRED, TURN SCREW AS NEEDED.
- AFTER ADJUSTMENT IS COMPLETED, INSTALL NEW CHOKE SCREW PLUG.



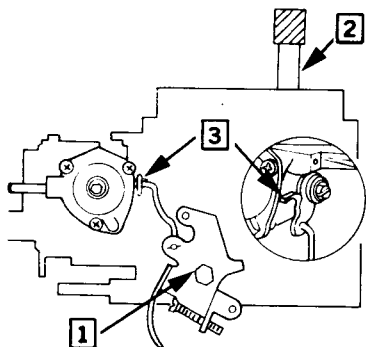
## ADJUSTMENT DATA (cont'd)

**FIG. G  
CHOKE UNLOADER  
ADJUSTMENT**

1. POSITION THROTTLE VALVES  
BE OPEN.

2. ASSURE CLEARANCE AS  
SPECIFIED BETWEEN WALL  
OF AIR HORN & UPPER EDGE  
OF CHOKE VALVE.

3. IF ADJUSTMENT IS RE-  
QUIRED, BEND UNLOADER  
TANG.



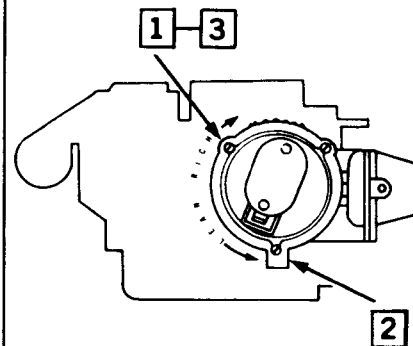
**FIG. H  
AUTO CHOKE  
ADJUSTMENT**

NOTE: SOME MODELS — THE  
CHOKE ASSY. HAS A  
LOCATING TAB & CANNOT BE  
ADJUSTED. REMOVE ONLY IF  
REQUIRED.

1. TO REMOVE, DRILL OUT RIV-  
ET HEADS USING A 3/16"  
DRILL & DRIVE OUT RE-  
MAINING PORTION USING A  
DRIVE PIN PUNCH.

2. WHEN RE-INSTALLING CHOKE  
COVER, BE SURE TO ENGAGE  
CHOKE COIL LOOP WITH  
CHOKE LEVER TANG IN  
HOUSING, ALSO THE CHOKE  
ASSY. MOUNTS WITH A  
LOCATER TAB & CANNOT BE  
ADJUSTED.

3. INSTALL NEW POP RIVETS.

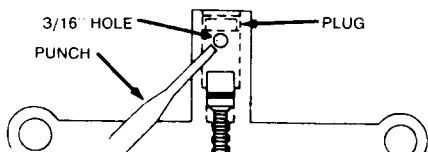


**FIG. 1  
IDLE MIXTURE NEEDLE PLUG  
REMOVAL**

1. CENTER PUNCH A MARK ON  
BOTTOM SURFACE OF  
CARBURETOR FUEL EXTENSION  
HOUSING 1/4" - 9/32" FROM  
THE EDGE

2. DRILL A 3/16" HOLE THROUGH  
THE CASTING INTO THE SPACE  
BETWEEN IDLE MIXTURE NEEDLE  
AND PLUG.

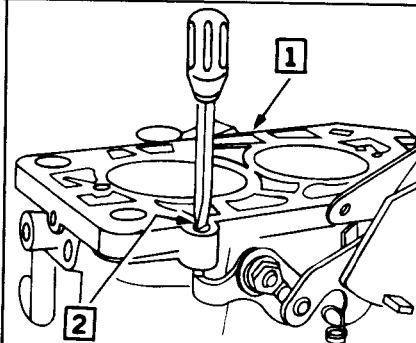
3. USE A 3/32" DIAMETER PUNCH  
AND TAP PLUG OUT OF HOUSING.



**FIG. I  
SECONDARY THROTTLE  
STOP SCREW ADJUSTMENT**

1. WITH CARBURETOR INVERT-  
ED, TURN OUT SECONDARY  
THROTTLE STOP SCREW UN-  
TIL SECONDARY VALVE  
SEATS IN BORE.

2. ADJUST BY TURNING SCREW  
IN UNTIL IT TOUCHES TAB ON  
SECONDARY THROTTLE LEV-  
ER. THEN TURN SCREW AN  
ADDITIONAL 1/4 TURN  
CLOCKWISE.



## SPECIFICATIONS BY APPLICATION

Year	MODEL	Float Level		Float Drop		Pump Hole Location		Fast Idle Cam Adj.		Choke Vacuum Kick		Choke Unloader		Auto Choke	
		Fig.	Fig.	Fig.	Fig.	Fig.	Fig.	Fig.	Fig.	Fig.	Fig.	Fig.	Fig.		
<b>CHRYSLER — SPECIFICATION I.D.-A</b>															
1983	1.6 litre Eng.	31/64"	A	1-7/8"	B	—	—	—	—	—	—	—	—	2	H
	1.7 litre Eng. -M/T	31/64"	A	1-7/8"	B	#2	D	—	—	3/64"	F	—	—	2	H
	2.2 litre Eng. -M/T	31/64"	A	1-7/8"	B	#3	D	—	—	1/16"	F	—	—	2	H
1982	1.7 litre Eng. -A/T	31/64"	A	1-7/8"	B	#2	D	—	—	1/16"	F	—	—	2	H
	—M/T	31/64"	A	1-7/8"	B	#2	D	—	—	5/64"	F	—	—	2	H
	2.2 litre Eng.	31/64"	A	1-7/8"	B	#3	D	—	—	5/64" <sup>1</sup>	F	—	—	2	H
1981	1.7 litre Eng. -Fed. -M/T	31/64"	A	1-7/8"	B	#2	D	—	—	1/16"	F	—	—	2	H
	—A/T	31/64"	A	1-7/8"	B	#2	D	—	—	3/64"	F	—	—	2	H
	2.2 litre Eng. -M/T	31/64"	A	1-7/8"	B	#3	D	5/64"	E	1/32"	F	5/64" <sup>3</sup>	G	2	H
1980	1.7 litre Eng. -Cal. -M/T	31/64"	A	1-7/8"	B	#2	D	3/64"	E	1/16"	F	—	—	2	H
	—A/T	31/64"	A	1-7/8"	B	#2	D	1/32"	E	1/32"	F	5/32"	G	2	H
	—w/A.C.	31/64"	A	1-7/8"	B	#2	D	1/32"	E	1/32"	F	1/8"	G	2	H

### CHRYSLER — SPECIFICATION I.D.-B

1987	2.2 litre Eng. Carb. Nos. R40299, 40301, 40302	31/64"	A	1-7/8"	B	—	—	—	—	5/64"	F	—	—	2	H
1986	1.6 litre Eng. -Carb. No. 40058-1	31/64"	A	1-7/8"	B	—	—	—	—	1/16"	F	—	—	2	H
1985	1.6 litre Eng. -Carb. No. 40058-1	31/64"	A	1-7/8"	B	#2	D	—	—	1/16"	F	—	—	2	H
	2.2 litre Eng. -Carb. Nos. 40134, 40135, 40138, 40139	31/64"	A	1-7/8"	B	#3	D	—	—	5/64"	F	—	—	2	H
	-Carb. Nos. 40136, 40137, 40140, 40141	31/64"	A	1-7/8"	B	5	—	—	—	5	—	—	—	2	H
1984	1.6 litre Eng. -Carb. No. 40058-1	31/64"	A	1-7/8"	B	#2	D	—	—	1/16"	F	—	—	2	H
	2.2 litre Eng. Exc. -Carb. Nos. 40107-1	31/64"	A	1-7/8"	B	#2 <sup>6</sup>	D	—	—	5/64"	F	—	—	2	H
		31/64"	A	1-7/8"	B	#2	D	—	—	3/64"	F	—	—	2	H
1983	1.7 litre Eng.	31/64"	A	1-7/8"	B	#2	D	—	—	3/64"	F	—	—	2	H
	2.2 litre Eng. Exc. -Carb. Nos. 40003-1, 40008-2, 40012-2	31/64"	A	1-7/8"	B	#3	D	—	—	5/64"	F	—	—	2	H
		31/64"	A	1-7/8"	B	#3	D	—	—	1/16"	F	—	—	2	H

**FOOTNOTES:**

<sup>1</sup> Carb. Nos. R9505, 9752, 53; R9942, 43A set 3/32".

<sup>2</sup> No adjustment required.

<sup>3</sup> Carb. No. R9127A set 5/32".

<sup>4</sup> Carb. No. R9128A set 1/8".

<sup>5</sup> Specification Data not available.

<sup>6</sup> Carb. No. 40064-1, 40065-1, 40071 set # 3 hole.

**ABBREVIATIONS:**

A/T -Automatic Transmission

A.C. -Air Conditioning

Cal. -California

Exc. -Except

Fed. -Federal

M/T -Manual Transmission