

# FUEL SYSTEM

## SERVICE INSTRUCTION WORKSHEET

TO REPAIR

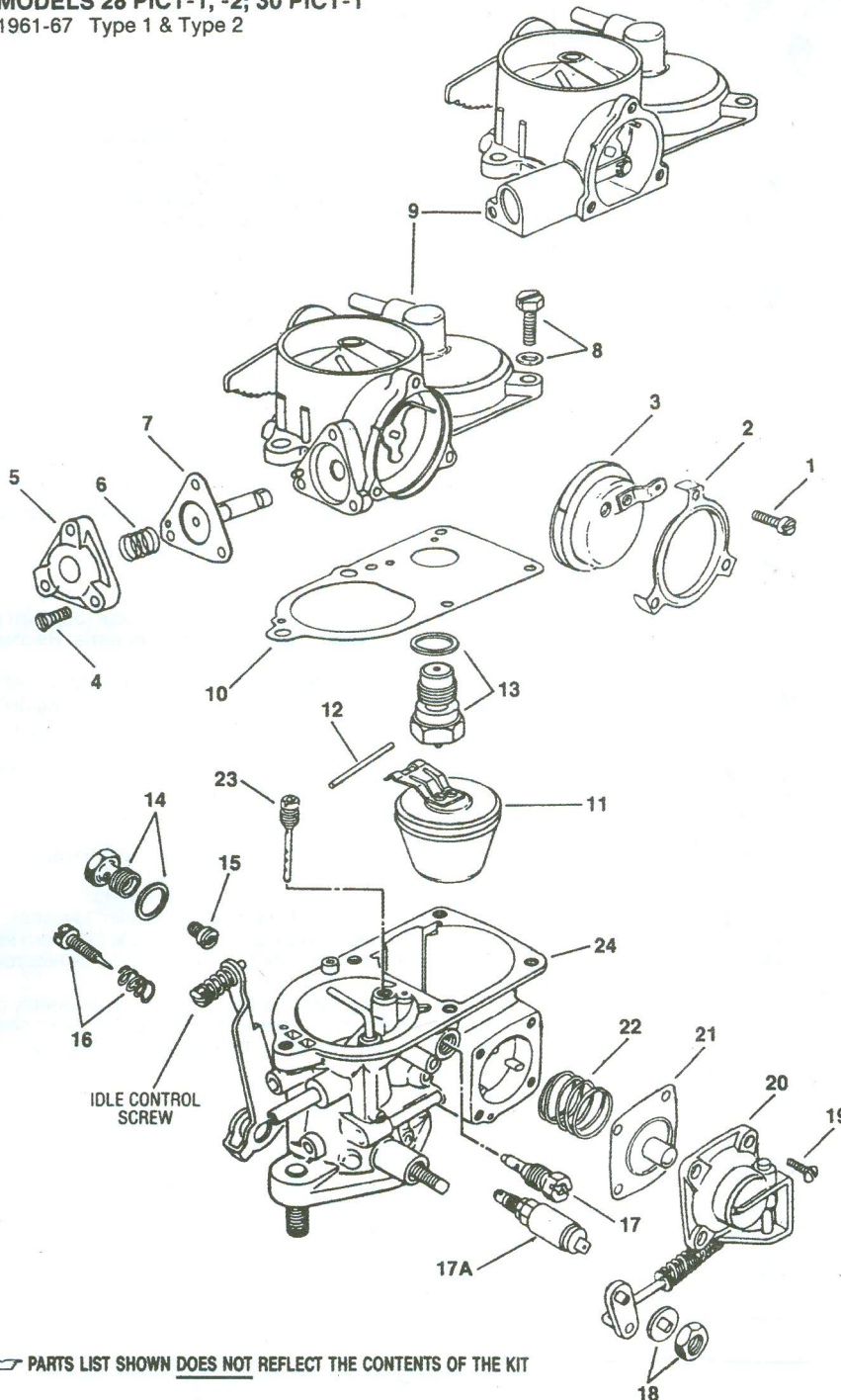
GF3303V-7

SOLEX CARBURETOR

1 BARREL

1. Carefully read the text on this page 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.

MODELS 28 PICT-1, -2; 30 PICT-1  
1961-67 Type 1 & Type 2



### 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. Screw, retainer (3)
2. Retainer, cover
3. Thermostatic coil & cover assembly
4. Screw, cover (3)
5. Cover, vacuum diaphragm
6. Spring, diaphragm return
7. Vacuum diaphragm assembly
8. Screw, air horn (5)
9. Air horn assembly
10. Gasket, air horn
11. Float assembly
12. Pin, float hinge
13. Needle & seat assembly
14. Plug & washer, main jet
15. Jet, main
16. Needle & spring, idle mixture adjusting
17. Jet, pilot
- 17A. Valve, idling cut-off \*
18. Nut & washer, throttle shaft lever
19. Screw, cover (4)
20. Cover assy., pump diaphragm
21. Diaphragm, pump
22. Spring, diaphragm return
23. Jet, air correction
24. Main body assembly

\* Some models.

### REMOVAL & INSTALLATION NOTES

1. Cover opening on intake manifold after carburetor is removed.
2. **CAUTION:** Brass type jets are not removable.
3. Do not remove choke or throttle shaft unless replacement is required.
4. Before removing idle mixture adjusting needle (16), turn in until lightly seated counting number of turns. Record for proper installation.
5. Install parts & components in reverse order of removal.
6. When installing pump diaphragm (21) & spring (22), make sure small end of spring is toward diaphragm, and that diaphragm stem is toward cover (20).
7. Check if float hinge is worn where it contacts the needle valve. If so, replace float assembly.
8. Use proper washer thickness under seat to maintain correct fuel level. Models 28 PICT-1, 2 & 30 PICT-1 use 1.0mm (.040") washer.
9. When installing idle mixture needle (16), turn in until lightly seated, then back out number of turns recorded earlier.
10. When installing thermostatic coil & cover assy. (3), be sure hook on coil is connected to lever on choke shaft. Rotate assembly against spring tension and align index marks.

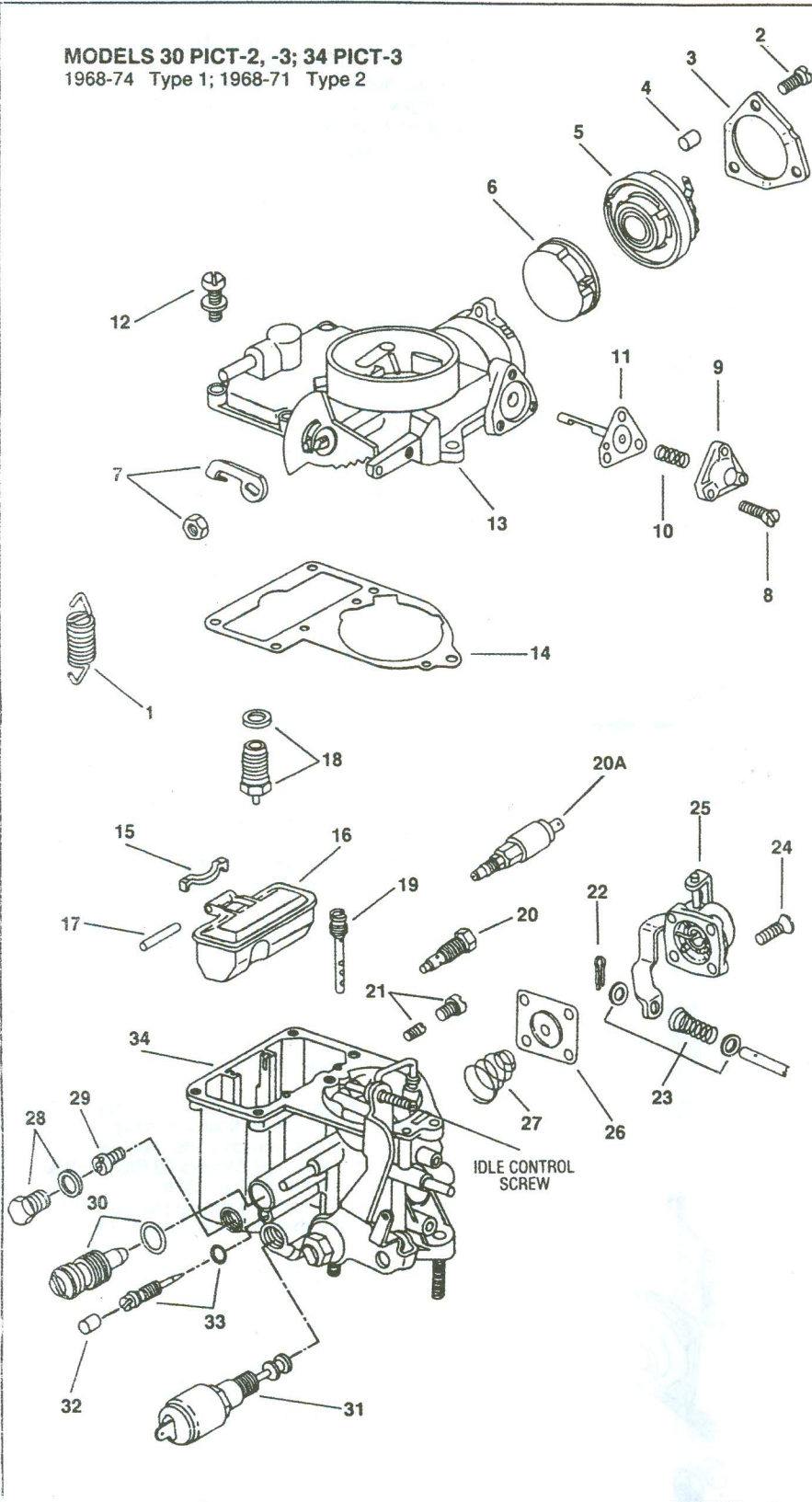
### IDLE ADJUSTMENT

28 PICT-1, 2; 30 PICT-1, -2

1. Bring engine to normal operating temperature. Check that choke valve is fully open.
2. Connect a tachometer and set idle speed to 850 RPM using idle control screw.
3. Turn idle mixture adjusting needle clockwise until speed starts to drop. Then, turn counter clockwise until speed increases.
4. If necessary, regulate engine idle (800-900 RPM) again, with the idle control screw.

1. Carefully read the text on this page 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.

**MODELS 30 PICT-2, -3; 34 PICT-3**  
1968-74 Type 1; 1968-71 Type 2



**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, throttle return
2. Screw, retainer (3)
3. Retainer, cover assembly
4. Spacer, retainer
5. Thermostatic coil & cover assembly
6. Cap, plastic
7. Lever & nut, fast idle cam
8. Screw, cover (3)
9. Cover, vacuum diaphragm
10. Spring, diaphragm return
11. Vacuum diaphragm, choke
12. Screw, air horn (5)
13. Air horn assembly
14. Gasket, air horn
15. Lug, float pin
16. Float assembly
17. Pin, float hinge
18. Needle & seat assembly
19. Jet, air correction
20. Jet, auxiliary idle speed fuel
- 20A. Valve, idle cut off
21. Plug & jet, auxiliary fuel
22. Cotter pin, connector rod
23. Spring & washers, rod
24. Screw, cover (4)
25. Cover & lever assembly
26. Diaphragm assembly, pump
27. Spring, diaphragm return
28. Plug & washer, main jet
29. Jet, main
30. Air screw, bypass
31. Valve, bypass air cut-off
32. Plug, mixture adj. needle
33. Needle & o-ring, mixture adj.
34. Main body assembly

**REMOVAL & INSTALLATION NOTES**

1. Cover opening on intake manifold after carburetor is removed.
2. Do not remove choke or throttle shaft unless replacement is required.  
**CAUTION:** Brass tube type jets are not removable.
3. Before removing mixture adjusting needle (33), turn in until lightly seated, counting number of turns. Record for proper installation.
4. Install parts and components in reverse order of removal.
5. When installing pump diaphragm (26) and spring (27), make sure small end of spring is toward diaphragm and that diaphragm stem is toward cover (25).
6. Check if float hinge is worn where it contacts the needle valve. If so, replace float assembly.
7. Use proper washer thickness under seat to maintain correct fuel level.  
Model 30 PICT-2 use 1.0 mm (.040") washer.  
Model 30 PICT-3 use 1.5 mm (.060") combine 1.0 & 0.5 mm washers.  
Model 34 PICT-3 use 0.5 mm (.020") washer.
8. When installing mixture adjusting needle (33), turn in until lightly seated, then back out number of turns recorded earlier.
9. When installing thermostatic coil & cover assembly (5), be sure hook on coil is connected to lever on choke shaft. Rotate assembly against spring tension and align index marks.

**IDLE ADJUSTMENT**

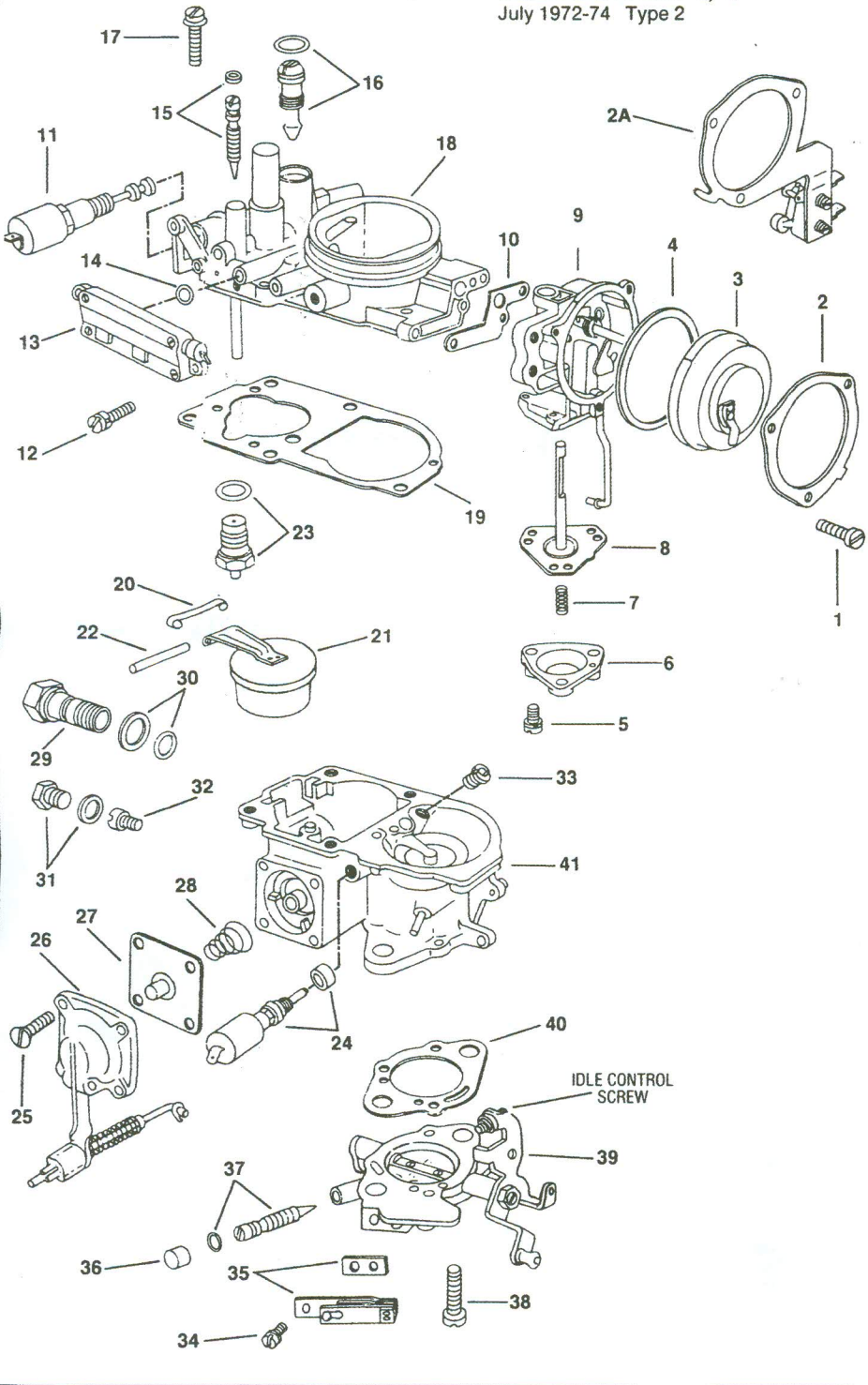
30 PICT-3; 34 PICT-3  
(Model 30 PICT-2 use procedure on page 1.)

1. Bring engine to normal operating temperature. Check that choke valve is fully open.
2. Turn idle control screw out until there is clearance between screw tip and fast idle cam. Then, turn screw in until it just touches fast idle cam. At this point, turn screw 1/4 of a turn more.
3. Turn mixture adjusting needle (33) in slowly until it comes to a stop. Then, turn it back 2-1/2 to 3 turns.
4. Start engine, connect a tachometer and set idle speed (900 RPM) by turning the bypass screw (30).
5. Turn mixture adjusting needle (33) to set the highest idle speed, then turn in until speed drops by 20-30 RPM. If reset of idle speed is needed, turn bypass screw (30).

☞ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT

1. Carefully read the text on this page 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.

**MODELS 34 PDSIT-2, -3**  
July 1972-74 Type 2



**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. Screw, retainer (3)                          | 21. Float assembly                    |
| 2. Retainer, cover                              | 22. Pin, float hinge                  |
| 2A. Retainer & micro switch assy. (right carb.) | 23. Needle & seat assembly            |
| 3. Thermostatic coil & cover assy.              | 24. Valve & seal, idle cut-off        |
| 4. Gasket, cover                                | 25. Screw, cover (4)                  |
| 5. Screw, cover (3)                             | 26. Cover & lever assembly            |
| 6. Cover, vacuum diaphragm                      | 27. Diaphragm assembly, pump          |
| 7. Spring, diaphragm return                     | 28. Spring, diaphragm return          |
| 8. Vacuum diaphragm assy., choke                | 29. Plug, fuel bowl *                 |
| 9. Choke housing assembly                       | 30. Washer & O ring, plug *           |
| 10. Gasket, housing                             | 31. Plug & washer, jet                |
| 11. Valve, bypass air cut-off                   | 32. Jet, main                         |
| 12. Screw, valve (2)                            | 33. Jet, air correction               |
| 13. Valve, thermo cut-off                       | 34. Screw, hot idle valve             |
| 14. O-ring, valve                               | 35. Valve & washer, hot idle          |
| 15. Screw & o-ring, control                     | 36. Plug, idle mix. adj. needle       |
| 16. Screw & o-ring, bypass air                  | 37. Idle mixture adj. needle & O ring |
| 17. Screw, air horn (5)                         | 38. Screw, throttle body (2)          |
| 18. Air horn assembly                           | 39. Throttle body assembly            |
| 19. Gasket, air horn                            | 40. Gasket, throttle body             |
| 20. Spring, float pin                           | 41. Main body assembly                |
- \* Some models.

**REMOVAL & INSTALLATION NOTES**

1. Cover opening on intake manifold after carburetor is removed.
2. Do not remove choke or throttle shaft unless replacement is required. **CAUTION:** Brass tube type jets are not removable.
3. Before removing mixture adjusting needle (37), turn in until lightly seated, counting number of turns. Record for proper installation.
4. Install parts and components in reverse order of removal.
5. When installing pump diaphragm (27) and spring (28), make sure small end of spring is toward diaphragm and that diaphragm stem is toward cover (26).
6. Check if float hinge is worn where it contacts the needle valve. If so, replace float assembly.
7. When installing mixture adjusting needle (37), turn in until lightly seated, then back out number of turns recorded earlier.
8. When installing thermostatic coil & cover assembly (3), be sure hook on coil is connected to lever on choke shaft. Rotate assembly against spring tension and align index marks.

**IDLE ADJUSTMENT**

1. Bring engine to normal operating temperature. Automatic choke should be fully open.
2. Connect a tachometer and set idle speed by turning bypass air screw (16). Manual trans. set 850-900 RPM; auto. trans. set 900-1000 RPM.
3. Turn control screw (15) out until engine speed increases. Then, turn in slowly until speed starts to drop and then turn out again 1/2 to 1 turn until engine runs smoothly. At this point turn control screw in until speed drops approx. 20-30 RPM to create a lean mixture.
4. If the engine no longer runs smoothly (mixture too lean), turn control screw (15) out again very slightly until engine continues to run smoothly. Make sure engine speed is in the range given above.

**SYNCHRONIZATION OF CARBURETORS**  
(Models 34 PDSIT-2, -3)

1. With engine warmed up but not running, disconnect operating rod of throttle valve shaft on right carburetor. Pull hose off rear chamber of vacuum unit on distributor. Pull left hose off air pump and seal the hose.
2. Disconnect elec. wire from cut-off valve (11) on central idling system. Turn idle mixture adjusting needle (37) on both carburetors in until lightly seated. Do not force needles. Then, turn back 2-1/2 turns.
3. Start engine, connect a tachometer and set idle speed to 500-700 RPM and CO value to 3-5% by turning both adjusting needles (37) uniformly.
4. Disconnect elec. wire from one idle cut-off valve (24) and note the decrease in speed. The decrease must be the same when the procedure is repeated on the other carburetor. If not, regulate the mixture by adjusting needles (37).
5. Connect operating rod of throttle valve shaft. Be careful not to change the position of the throttle valve. Connect elec. wire to valve (11) and hoses to vacuum unit and air pump.
6. Increase speed momentarily and then set idle speed with idle control screws to approximately 950 RPM.

☞ PARTS LIST SHOWN DOES NOT REFLECT THE CONTENTS OF THE KIT