# Carburetor and Air Cleaner

102.04

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#### AIR CLEANER

## REMOVAL AND INSTALLATION (Vehicles With Carburetor)

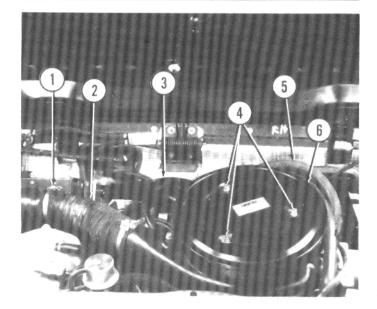
Loosen clamp (1) holding fresh air duct (2) to fan.

Disconnect hoses (5) from side of air cleaner (3). Remove three nuts (4) and washers holding cover (6) on air cleaner. Remove filter element.

Remove four nuts holding air cleaner on carburetor. Lift air cleaner and disconnect hose from bottom. Remove air cleaner with fresh air duct attached.

Installation is reverse of removal. Make sure metal bushings are installed in rubber spacer.

1. Clamp 2. Duct 3. Air cleaner 4. Nut 5. Hose 6. Cover



# REMOVAL AND INSTALLATION (Vehicles With Fuel Injection)

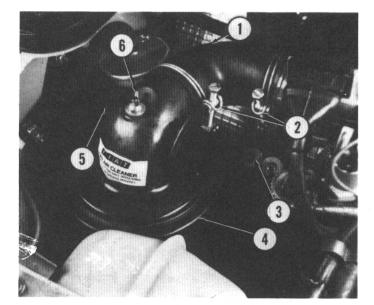
Loosen clamps (2) and remove air supply hose (1).

To remove filter element, remove wing nut (6) and top of air cleaner.

Remove two nuts (3 and 5) holding air cleaner assembly (4) to body and firewall. Remove air cleaner assembly.

Installation is reverse of removal.

Air supply hose 2. Clamps 3. Nut 4. Air cleaner assembly
Nut 6. Wing nut



# CARBURETOR COOLING FAN REMOVAL AND INSTALLATION

Remove four screws (3 and 5) holding fan duct to fan mounting plate.

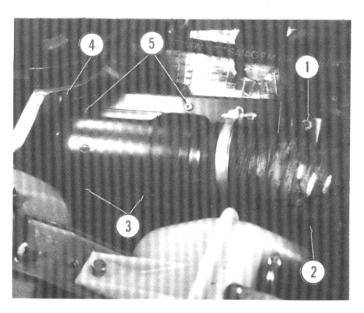
Separate duct from mounting plate with duct hose (2) attached and set to one side.

Disconnect wire at connector.

Remove four nuts (1 and 4) holding mounting plate to body and remove fan assembly.

Install in reverse order. Make sure ground wire is installed under mounting nut.

1. Nut 2. Duct hose 3. Screws 4. Nut 5. Screws



### **CARBURETOR**

#### REMOVAL AND INSTALLATION

NOTE: Mark lines, hoses, and wires prior to removal to identify for installation.

Remove air cleaner.

From carburetor, disconnect fuel inlet and return hoses (4), charcoal canister hose (2), and all remaining vacuum and coolant hoses.

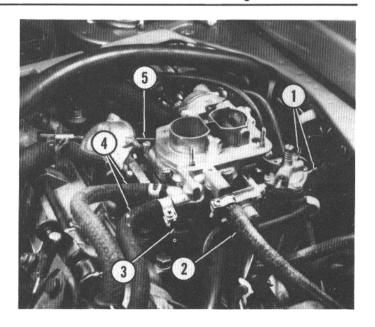
Disconnect three electrical connectors (1) from carburetor.

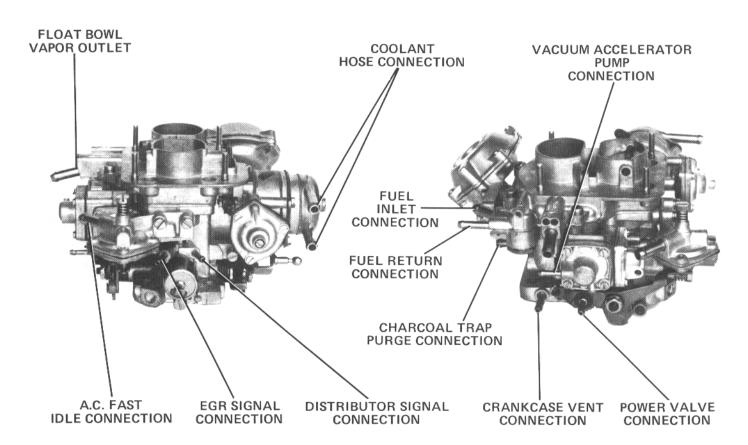
Disconnect throttle linkage (5) at carburetor.

Remove four nuts (3) holding carburetor. Remove carburetor and spacer.

Installation is reverse of removal. Connect vacuum, fuel and water lines to connections as shown below.

- 1. Electrical connectors 2. Hose 3. Nut 4. Fuel hose
- 5. Throttle linkage





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### **AUTOMATIC CHOKE**

#### **CHECK AND ADJUSTMENT**

Remove carburetor from vehicle. Remove three screws holding automatic choke cover and gasket.

#### Choke Fast Idle

Set fast idle screw (2) on second step of cam (1). Check that primary throttle opening (gap A) is 0.033 to 0.037 in. (0.85 to 0.95 mm). If gap A is not correct, adjust screw (2).

- 1. Fast idle cam 2. Fast idle adjustment screw
- 3. Primary throttle plate



Pull fast idle linkage (2) back. Close choke plate (1). Release linkage (2). Measure gap B between lever (4) and shoulder of bushing (3). A spark plug gap gage of the bent wire type can be used.

Gap should be 0.012 to 0.039 in. (0.3 to 1.0 mm). If gap is not correct, carefully bend tang (4).

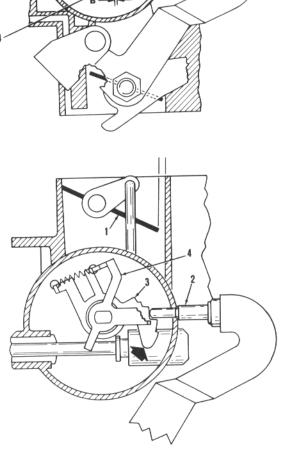
1. Choke plate 2. Fast idle linkage 3. Spring 4. Tang

### Fast Idle Cam Intermediate Setting

Set screw (2) on third step of cam (3). Make sure screw is in proper contact with third step. If necessary, move cam (3) in direction of arrow.

Check that gap C is 0.098 to 0.118 in. (2.5 to 3.0 mm). If gap C is not correct, bend lever (4).

1. Choke plate 2. Fast idle screw 3. Fast idle cam 4. Lever



### **Choke Unloader Minimum Opening**

With linkage (3) on second step of cam (2), position tool No. 4460 on rod (7). Push tool to left until rod contacts stop screw (6). Hold it there.

**NOTE:** Make sure tool is not touching bushing (5) in housing. This would restrict travel of rod (7).

Measure gap D. Gap should be 0.128 to 0.147 in. (3.25 to 3.75 mm). If gap is not correct, adjust travel of rod (7) by turning screw (6). Clockwise to decrease gap-counterclockwise to increase gap.

- 1. Choke plate 2. Fast idle cam 3. Fast idle linkage
- 4. Tool No. 4460 5. Bushing 6. Stop screw 7. Rod

#### FLOAT LEVEL ADJUSTMENT

Remove six screws holding carburetor top cover. Carefully remove cover/float assembly and gasket.

Check that needle valve seat (2) is tight in cover. Check that float (9) is free of dents or punctures. Check that float can move freely on hinges.

Hold dual float assembly in vertical position with needle valve lightly seated. Measure distance A between each float and cover gasket. Distance should be .266 to .285 in. (6.75 to 7.25 mm). Make sure floats are same distance from gasket. If not, bend float arm (8). Then if float assembly is not at specified distance, carefully bend tang (7) to obtain adjustment.

To obtain float drop distance B of 0.354 in. (9 mm), bend lug (3).

Carefully replace cover/float assembly and secure with six screws.

- 1. Caburetor cover 2. Needle valve seat 3. Float drop lug
- 4 Needle valve 5. Return hook 6. Damper ball 7. Float tank
- 8. Float arm 9. Float 10. Gasket

### CARBURETOR ADJUSTMENT

**NOTE**: For proper specifications, always refer to EPA Conformity Tag in engine compartment.

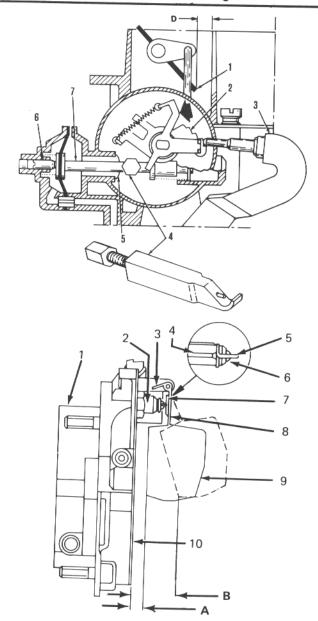
Apply hand brake. Start engine and allow warm up. Insert CO tester probe in tailpipe. Connect a tachometer.

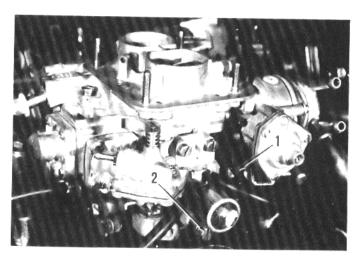
On vehicles without air pump, pinch off the supply line to reed valve. On vehicles with air pump, pinch off air injection supply line upstream of check valve.

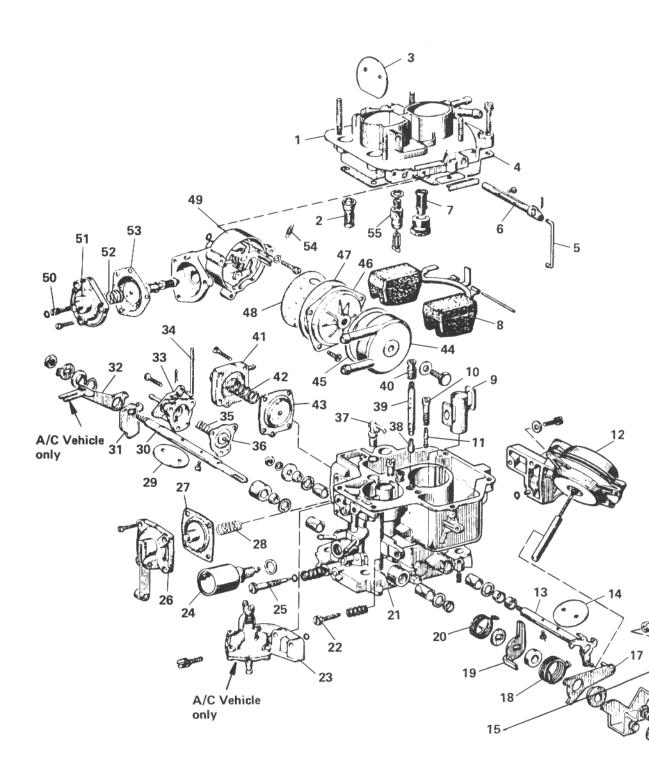
Adjust carburetor idle speed adjusting screw (1) to set engine speed to 800 to 900 rpm.

Adjust idle mixture adjusting screw (2) to set CO to 2.0%. Turn screw clockwise to decrease CO or counter-clockwise to increase CO.

Recheck idle speed and if necessary, repeat adjusting idle speed and mixture to obtain both the proper idle speed and CO reading. Shut engine off. Remove tool used to pinch off air injection hose or supply line.







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- 1. Carburetor cover
- 2. Breather valve
- 3. Choke plate
- 4. Gasket
- 5. Choke linkage
- 6. Choke plate shaft
- 7. Filter
- 8. Float assy
- 9. Center venturi
- 10. Idle jet housing
- 11. Idle jet
- 12. Secondary throttle vacuum diaphragm assy
- 13. Secondary throttle shaft
- 14. Secondary throttle plate
- 15. Throttle actuating lever assembly
- 16. Choke fast idle screw
- 17. Progressive throttle linkage
- 18. Return spring
- 19. Stop lever, Primary shaft
- 20. Return spring
- 21. Carburetor body assy
- 22. Idle speed screw
- 23. Fast idle diaphragm assy (A/C only)
- 24. Idle shut off solenoid
- 25. Idle mixture screw
- 26. Accelerator pump cover
- 27. Pump diaphragm
- 28. Diaphragm return spring

- 29. Primary throttle plate
- 30. Primary throttle shaft
- 31. Accelerator pump actuating cam
- 32. Fast idle control lever (A/C only)
- 33. Power valve cover
- 34. Bowl vent valve rod
- 35. Power valve return spring
- 36. Power valve diaphragm
- 37. Accelerator pump jet
- 38. Main fuel jet
- 39. Main emulsion tube
- 40. Main air jet
- 41. Vacuum accelerator pump cover
- 42. Vacuum accelerator pump return spring
- 43. Vacuum accelerator pump diaphragm
- 44. Automatic choke hot water cover
- 45. Gasket
- 46. Automatic choke hot water backing plate
- 47. Bimetallic spring case
- 48. Gasket
- 49. Automatic choke assy
- 50. Choke unloader adjustment screw
- 51. Choke unloader cover
- 52. Choke unloader return spring
- 53. Choke unloader diaphragm54. Fast idle cam return spring
- 55. Needle valve assy

	Specifications (mm)					
Carburetor Model	7/179	7/279	10/179	10/279	7/180	7/280
Primary throat	21	21	21	21	21	21
Secondary throat	22	22	22	22	22	22
Primary venturi	4.00	4.00	4.00	4.00	4.00	4.00
Secondary venturi	4.00	4.00	4.00	4.00	4.00	4.00
Main fuel jet (primary)	1.05	1.05	1.10	1.10	1.05	1.05
Main fuel jet (secondary)	1.10	1.10	1.05	1.05	1.05	1.05
Idle jet (primary)	0.50	0.50	0.50	0.50	0.50	0.50
Idle jet (secondary)	0.05	0.50	0.50	0.50	0.50	0.50
Accelerator pump jet	0.50	0.50	0.50	0.50	0.50	0.50
Air jet (primary)	2.50	2.50	2.40	2.40	2.30	2.30
Air jet (secondary)	1.75	1.75	1.70	1.70	1.80	1.80
Emulsion tube (primary)	F25	F25	F25	F25	F25	F25
Emulsion tube (secondary)	F30	F30	F30	F30	F30	F30
Needle valve	1.75	1.75	1.75	1.75	1.75	1.75

