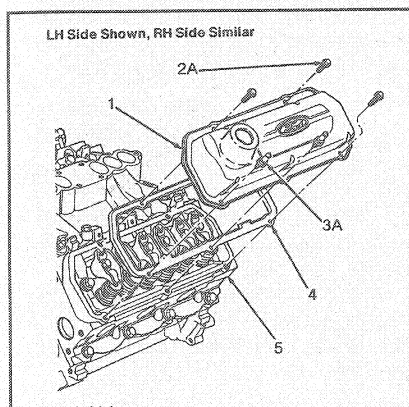


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Fig. 18 Remove the rocker cover to expose the upper valve train; removing the oil filler cap is not necessary



LH Side Shown, RH Side Similar

- 1 Valve cover
- 2 Bolt (3 req'd)
- 3 Stud (2 req'd)
- 4 Valve cover gasket
- 5 Cylinder head
- A Tighten to 9-12 Nm (80-106 lb.in.)

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Fig. 19 Rocker arm/valve cover—3.8L engine shown

12. If the right cover is being installed, install the PCV valve, then the air cleaner.

13. Install the ignition wire separators, then connect the ignition wires to the spark plugs as tagged during removal.

14. Connect the negative battery cable, then start the engine, and check for oil leaks.

4.6L Engine

▶ See Figure 20

1. Disconnect the negative battery cable.
2. Remove the right valve cover as follows:
 - a. Disconnect the positive battery cable at the battery and at the power distribution box. Remove the retaining bolt from the positive battery cable bracket located on the side of the right cylinder head.
 - b. Disconnect the crankshaft position sensor, air conditioning compressor clutch and canister purge solenoid connectors. Position the harness out of the way.
 - c. Disconnect the vent hose from the purge solenoid and position the positive battery cable out of the way.
 - d. Disconnect the spark plug wires from the spark plugs. Remove the spark plug wire brackets from the camshaft cover studs and position the wires out of the way.

ets from the camshaft cover studs and position the wires out of the way.

e. Remove the PCV valve from the valve cover grommet and position out of the way.

f. Remove the bolts and stud bolts (note their positions for reassembly) and remove the valve cover.

3. Remove the left valve cover as follows:

a. Remove the air inlet tube. Relieve the fuel system pressure and disconnect the fuel lines; refer to Section 5.

b. Raise and safely support the vehicle.

c. Disconnect the Electronic Variable Orifice (EVO) sensor and oil pressure-sending unit and position the harness out of the way. Lower the vehicle.

d. Remove the 42-pin engine harness connector from the retaining bracket on the brake vacuum booster. Disconnect and position out of the way.

e. Remove the windshield wiper module.

f. Disconnect the spark plug wires from the spark plugs. Remove the spark plug wire brackets from the studs and position the wires out of the way.

g. Remove the bolts and stud bolts (noting their position for reassembly) and remove the valve cover.

To install:

4. Clean the sealing surfaces of the valve covers and cylinder heads. Apply silicone sealer to the places where the front engine cover meets the cylinder head.

5. Attach new gaskets to the valve covers, using suitable sealant. Install the covers with the bolts and stud bolts and tighten to 6.0–8.8 ft. lbs. (8–12 Nm).

6. When installing the right valve cover, proceed as follows:

a. Install the PCV into the valve cover grommet.

b. Install the spark plug wire brackets on the studs and connect the wires to the spark plugs.

c. Position the harness and connect the canister purge solenoid, air conditioning compressor clutch and crankshaft position sensor.

d. Position the positive battery cable harness on the right cylinder head. Install the bolt retaining the cable bracket to the cylinder head.

e. Connect the positive battery cable at the power distribution box and the battery.

7. When installing the left valve cover, proceed as follows:

a. Install the spark plug wire brackets on the studs and connect the wires to the spark plugs.

b. Install the windshield wiper module.

c. Connect the 42-pin connector and transmission harness connector. Install the connector on the retaining bracket.

d. Raise and safely support the vehicle. Position and connect the EVO sensor and oil pressure sending unit harness.

e. Lower the vehicle. Connect the fuel lines.

8. Connect the negative battery cable. Start the engine and check for leaks.

5.0L Engine

1. Disconnect the negative battery cable.

2. Before removing the right rocker arm cover, disconnect the PCV closure tube from the oil fill standpipe at the rocker cover.

3. Remove the thermostator bypass valve and air supply hoses as necessary to provide clearance.

4. Disconnect the spark plug wires from the spark plugs. Remove the wires and bracket assembly from the rocker arm cover attaching stud and position the wires out of the way.

5. Remove the upper intake manifold as follows:

a. Tag and disconnect the electrical connectors at the air bypass valve, throttle position sensor, and EGR position sensor.

b. Disconnect the throttle and transmission linkage at the throttle body. Remove the cable bracket from the intake manifold and position the bracket and cables aside.

c. Tag and disconnect the vacuum lines from the vacuum tree, EGR valve, fuel pressure regulator, and evaporative canister.

d. Disconnect the PCV hose from the fitting on the rear of the upper manifold and disconnect the PCV vent closure tube at the throttle body.

e. Remove the 2 EGR coolant lines from the EGR spacer.

f. Remove the upper intake manifold cover plate.

g. Remove the 6 retaining bolts and remove the upper intake manifold.

6. Remove the attaching bolts and remove the rocker arm covers.

To install:

7. Clean all gasket mating surfaces of the rocker arm covers and cylinder heads.

8. Attach new rocker arm cover gaskets to the rocker arm covers, using suitable sealant. Install the rocker arm covers and tighten the bolts to 10–13 ft. lbs. (14–18 Nm), wait 2 minutes and tighten again to the same specification.

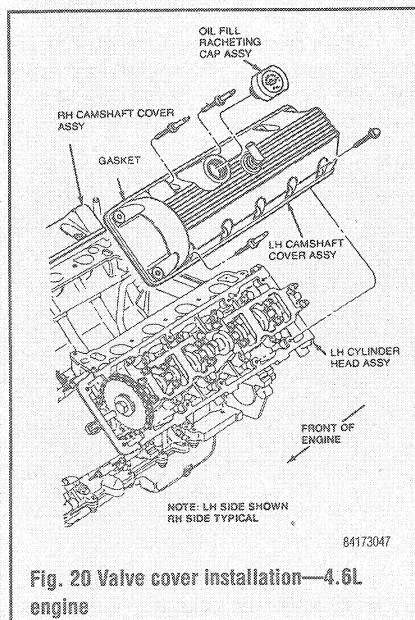
9. Install the crankcase ventilation tube in the right cover.

10. Install the upper intake manifold in the reverse order of removal. Use a new gasket and tighten the retaining bolts to 12–18 ft. lbs. (16–24 Nm).

11. Install the spark plug wires and bracket assembly on the rocker cover attaching stud. Connect the spark plug wires.

12. Install the air cleaner and intake duct assembly. Install the thermostator bypass valve and air supply hoses, if required.

13. Connect the negative battery cable, start the engine, and check for leaks.



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Fig. 20 Valve cover installation—4.6L engine