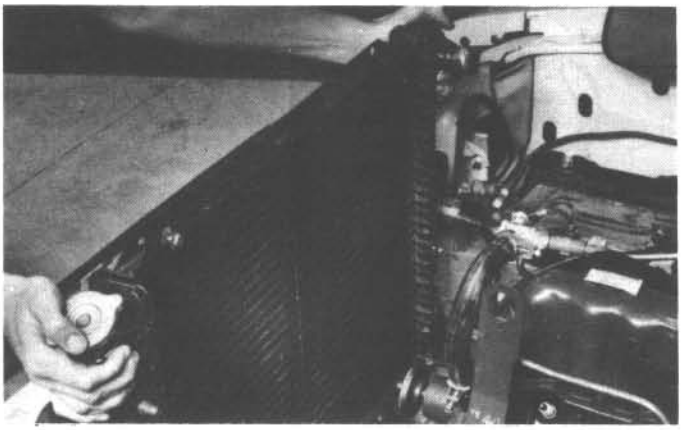
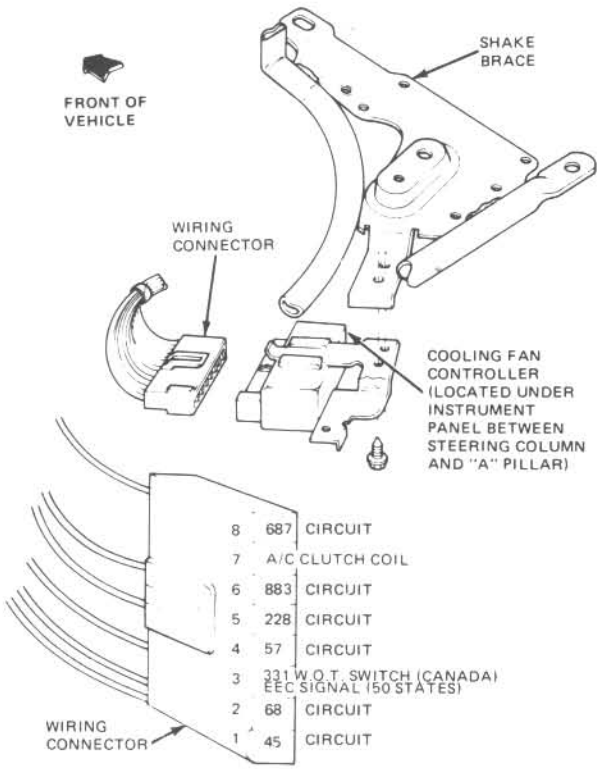


4.9 Lift the radiator up carefully to avoid damaging the radiator



5.2 The fan controller on most models is located under the instrument panel, near the steering column

4 Radiator – removal and installation

Refer to illustrations 4.6a, 4.6b, 4.8 and 4.9

Warning: *Wait until the engine is completely cool before beginning this procedure.*

1 Disconnect the negative battery cable from the battery.

2 Drain the cooling system (see Chapter 1). If the coolant is relatively new or in good condition, save it and reuse it. **Warning:** *Be sure to store coolant where children and pets can't get to it. It's sweet smell attracts them. Ingesting even a small amount can be fatal!*

3 Loosen the hose clamps, then detach the radiator hoses from the fittings. If they're stuck, grasp each hose near the end with a pair of adjustable pliers and twist it to break the seal, then pull it off – be careful not to distort the radiator fittings! If the hoses are old or deteriorated, cut them off and install new ones.

4 Disconnect the reservoir hose from the radiator filler neck.

5 On vehicles equipped with a flex-blade or clutch-type fan, detach the shroud from the radiator and slide the shroud toward the engine.

6 If the vehicle is equipped with an automatic transmission, disconnect the cooler lines from the radiator **(see illustration)**. Use a flare-nut wrench so the nut isn't rounded off and hold the fitting with a backup wrench so it isn't damaged. Use a drip pan to catch spilled fluid. On vehicles with quick-disconnect oil cooler line fittings, a special disconnecting tool is available from Ford **(see illustration)**.

7 Plug the lines and fittings. A very small amount of dirt can cause automatic transmission failure.

8 Remove the radiator mounting bolts **(see illustration)**.

9 Carefully lift the radiator out **(see illustration)**. Don't spill coolant on the vehicle or scratch the paint.

10 With the radiator removed, it can be inspected for leaks and damage. If it needs repair, have a radiator shop or dealer service department perform the work as special techniques are required.

11 Bugs and dirt can be removed from the radiator with compressed air and a soft brush. Don't bend the cooling fins as this is done.

12 Check the radiator mounts for deterioration and make sure there's nothing in them when the radiator is installed.

13 Installation is the reverse of the removal procedure.

14 After installation, fill the cooling system with the proper mixture of antifreeze and water. Refer to Chapter 1 if necessary.

15 Start the engine and check for leaks. Allow the engine to reach normal operating temperature, indicated by the upper radiator hose becoming hot (all except 2.8L V6) or by the lower radiator hose becoming hot (2.8L V6). Recheck the coolant level and add more if required.

16 If you're working on an automatic transmission equipped vehicle, check and add fluid as needed.

5 Electric cooling fan and motor – check, removal and installation

1 The Electrodrive cooling fan system is installed on 1980 and later turbocharged 2.3L engines, as well as on 1982 and later non-turbocharged 2.3L engines. It utilizes an electrically-driven fan motor which is triggered by a coolant temperature sensor. Turbocharged, carbureted vehicles also have a temperature sensor in the base of the carburetor which switches the fan on when carburetor temperature reaches 155-degrees F. On air conditioned vehicles, the fan operates whenever the A/C compressor is engaged, regardless of coolant temperature. **Warning:** *On some vehicles the fan may come on automatically, even with the ignition Off. DO NOT place your hands or tools where they may be struck by the fan if it starts moving suddenly! If possible, disconnect the negative cable from the battery when working near the fan.*

Check

Refer to illustration 5.2

2 The fan controller (1981 and later models, except Fuel Economy Leader) is located under the instrument panel near the steering column **(see illustration)**.

3 To test the motor, unplug the electrical connector at the motor. Connect one jumper wire from the motor positive terminal to the battery positive terminal. Connect the other jumper wire from the motor negative terminal to ground. If the fan still does not work, replace the motor.

4 If the motor tested OK, the fault lies in the coolant temperature switch, the fan controller, the EEC system (see Chapter 6) or the wiring which connects these components. Carefully check all wiring and connections. If no obvious problems are found, further diagnosis should be done by a Ford dealer service department or repair shop.

Removal and installation

Refer to illustrations 5.7 and 5.8

5 Disconnect the negative cable from the battery.

6 Detach the fan wiring harness from its clip, then unplug the connector.