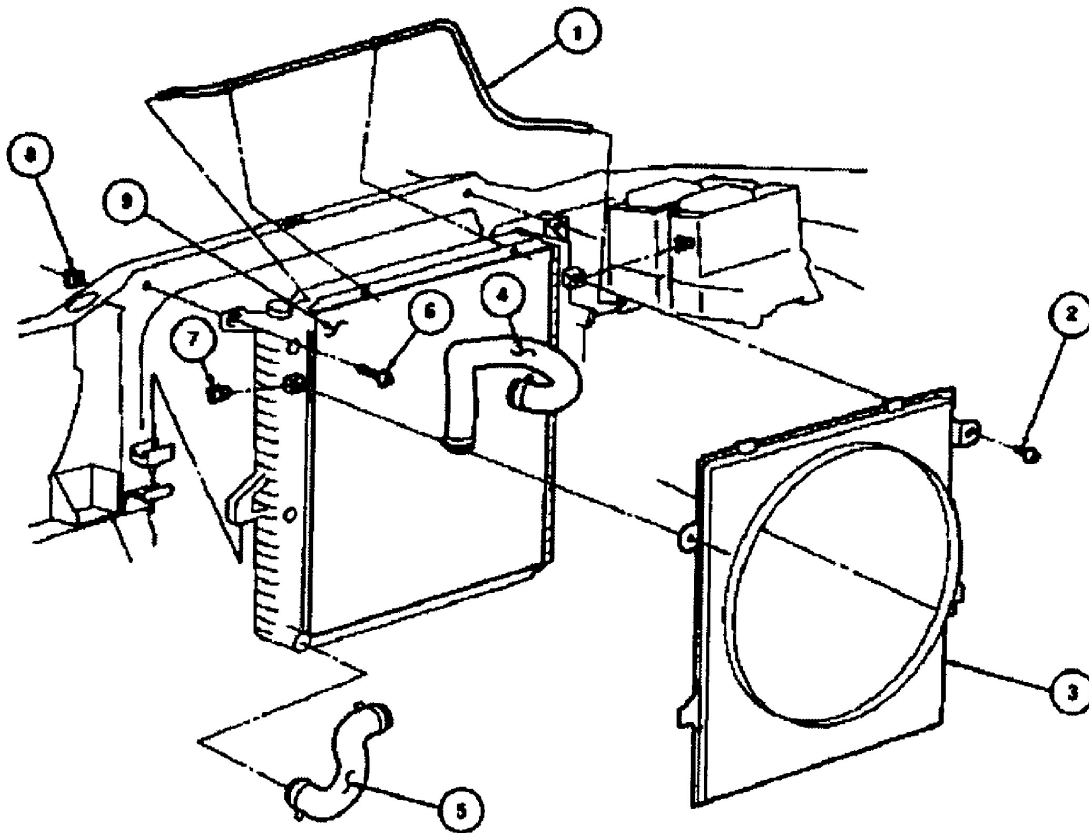


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1. Radiator Overflow Hose
2. Screw & Washer
3. Fan Shroud
4. Upper Radiator Hose
5. Lower Radiator Hose
6. Screw & Washer
7. U-Nut
8. U-Nut
9. Radiator

G00274240

Fig. 7: Removing/Installing Radiator (Explorer; 1996 Shown; 1997 Is Similar)
Courtesy of FORD MOTOR CO.

THERMOSTAT

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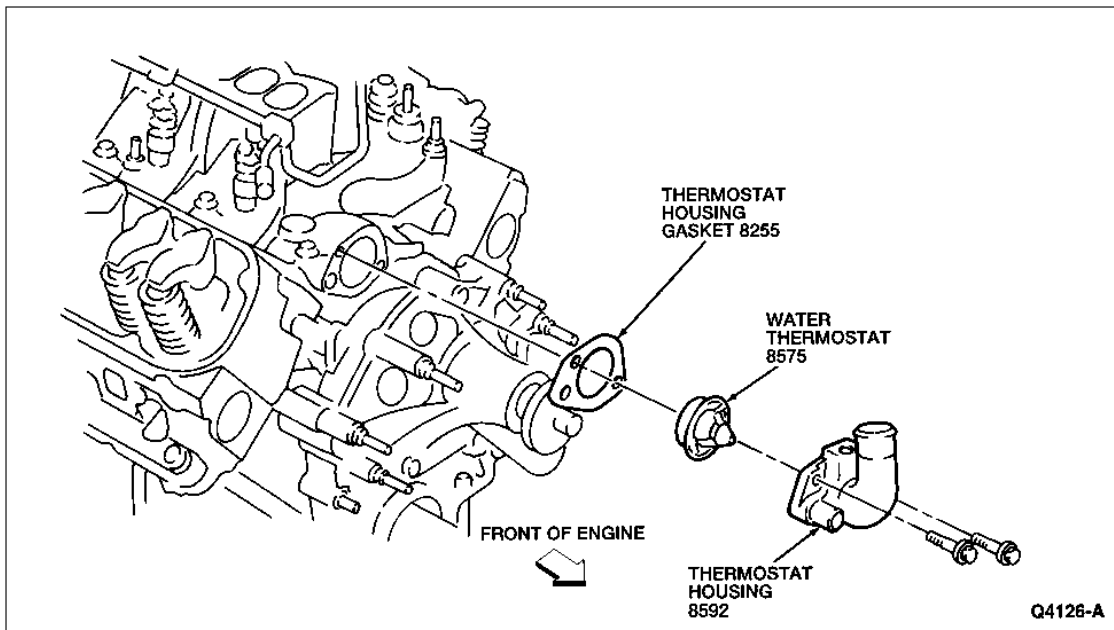


Fig. 8: Removing/Installing Thermostat
Courtesy of FORD MOTOR CO.

Removal

1. Drain the cooling system so that the coolant level is below the water thermostat.
2. Disconnect the heater return hose at thermostat housing.
3. Remove upper radiator hose (8260).
4. Remove the thermostat housing bolts.
5. Loosen the bypass hose at the water pump (8501).
6. Pull the elbow away from the intake manifold (9424).
7. Remove the water thermostat and gasket.

Installation

WARNING: DO NOT STAND IN LINE WITH OR NEAR RADIATOR FAN BLADE WHEN ENGINE IS RUNNING.

CAUTION: The thermostat seal (8590) must be positioned on the thermostat housing before the water thermostat is installed.

To prevent incorrect installation of the water thermostat, the thermostat housing contains a locking recess into which the water thermostat is turned and locked. Install the water thermostat with the bridge section in the thermostat housing. Turn the water thermostat clockwise to lock it in position on the flats cast into the thermostat housing.

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CAUTION: It is critical that the water thermostat be correctly aligned, to provide coolant flow to heater.

1. Insert and rotate water thermostat to the left or right until it stops in the thermostat housing, then visually verify that full width of heater outlet tube opening is visible within the thermostat port in assembly.

This port alignment at assembly is required to provide maximum coolant flow to the heater.

Clean the upper radiator hose connection, intake manifold and thermostat housing surfaces. Coat a new thermostat housing gasket with Gasket and Trim Adhesive F3AZ-19B508-AA or equivalent meeting Ford specification ESR-M11P17-A. Position the thermostat housing gasket on the intake manifold opening.

2. Reconnect the bypass hose to the water pump. Position the thermostat housing against the intake manifold. Install and tighten the thermostat housing bolts to 16-24 N-m (12-18 lb-ft).
3. Connect the upper radiator hose to the thermostat housing.
4. Fill the cooling system with Ford Premium Cooling System Fluid E2FZ-19549-AA or equivalent meeting Ford specification ESE-M97B44-A and water mixture as described in this section. Check for leaks and verify proper coolant level after the engine (6007) has reached operating temperature.

A coolant mixture of 50/50 ethylene glycol and water is recommended to maintain best overall performance. To avoid damaging the radiator (8005), the ethylene glycol should not exceed 60 percent.

WATER PUMP

Removal (Bronco, Explorer, Mountaineer & Pickup)

Drain cooling system. Remove accessory drive belt. Remove upper radiator hose. Remove fan blade, fan clutch and fan shroud. Disconnect lower radiator hose, heater hose and water by-pass tube from water pump. Remove A/C and power steering bracket bolts and position aside. Remove water pump retaining bolts. Remove water pump and gasket.

Removal (Van)

1. Drain cooling system. Remove upper and lower radiator hoses. Remove radiator. Remove accessory drive belt. Remove heater hose and by-pass tube from water pump. Remove fan blade, fan clutch and fan shroud as an assembly.
2. Release fuel pressure. See **FUEL PRESSURE RELEASE**. Using Spring Lock Coupling Remover (T81P-19623-G1) for 3/8" line or (T81P-19623-G2) for 1/2" line, disconnect fuel supply and return lines. See **Fig. 2**. Remove A/C compressor and power steering pump bracket to clear stud bolts on water pump. Remove water pump retaining bolt. Remove water pump and gasket.

Installation (All Models)

Clean all gasket mating surfaces. Coat both sides of NEW gasket with gasket sealer. Install water pump and tighten bolts to specification. See **TORQUE SPECIFICATIONS** table. To complete installation, reverse

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removal procedure. Tighten bolts and nuts to specification. See **TORQUE SPECIFICATIONS** table. Fill and bleed air from cooling system. See **COOLING SYSTEM BLEEDING**.

OIL PAN

NOTE: **On Explorer and Mountaineer, for oil pan removal, manufacturer recommends engine removal.**

Removal (Bronco & Pickup)

1. Remove fan shroud. Remove upper intake manifold. See **UPPER INTAKE MANIFOLD**. Raise and support vehicle. On A/T models, disconnect oil cooler lines from radiator.
2. On all models, disconnect exhaust pipes from exhaust manifold. Remove front engine mount-to-subframe nuts. Drain engine oil. Raise engine and insert wood block between mounts and subframe. Remove oil pan bolts and lower oil pan onto crossmember.
3. Remove 2 bolts attaching pick-up tube to oil pump. Remove nut attaching pick-up tube to number 3 main bearing cap. Lower oil pick-up tube assembly into pan. Remove oil pan from vehicle.

Installation (Bronco & Pickup)

To install, reverse removal procedure. Apply silicone sealant at front and rear corners of oil pan surface and cylinder block, and where timing chain cover meets cylinder block. To install remaining components, reverse removal procedure. Tighten bolts and nuts to specification. See **TORQUE SPECIFICATIONS** table.

Removal (Van)

1. Disconnect negative battery cable. Remove engine cover and air cleaner. Drain cooling system and engine oil. Remove upper radiator hose. Remove auxiliary heater hoses (if equipped). Remove fan shroud and fan assembly. Remove oil filler tube.
2. Disconnect junction block from bracket. Remove upper intake manifold. See **UPPER INTAKE MANIFOLD**. Raise and support vehicle. On A/T models, disconnect transmission cooler lines at radiator.
3. Disconnect oxygen sensors. Disconnect exhaust pipes from manifold and catalytic converter. Remove exhaust pipe. Remove engine mount-to-subframe nuts. Place a jack with wooden block under oil pan near front of engine and raise engine.
4. Engine and transmission assembly must remain centered in engine compartment in order for it to be raised approximately 4" at front engine mounts. Use wooden blocks to support engine assembly in this position.
5. Remove oil pan bolts and lower oil pan onto crossmember. Remove 2 bolts attaching pick-up tube to oil pump. Remove nut attaching pick-up tube to number 3 main bearing cap. Lower oil pick-up tube assembly into pan. Remove oil pan from vehicle.

Installation (Van)

1. Apply silicone sealant at front and rear corners of oil pan surface and cylinder block, and where timing