INSTRUCTIONS (continued)

16. RECHECK THE COOLANT LEVEL – Shut the engine off, allow it to cool and check the coolant level. Fill the radiator as required. Check the coolant level in the coolant recovery reservoir and refill as required. Refer to the Owner's Manual for exact fill level specifications.

17. RECORD THE DATE AND MILEAGE OF THE HOSE AND RADIATOR FLUID CHANGE (if performed) IN YOUR SERVICE MAINTENANCE LOG. CHECK THE SCHEDULED MAINTENANCE GUIDE TO ASSURE ALL MAINTENANCE IS PERFORMED AT THE APPROPRIATE TIME FOR THE MILEAGE.

TROUBLESHOOTING

CONDITION	ACTION
Engine runs hot or overheats:	Check the coolant level in the radiator when the engine is cold. Check the radiator hoses and drain plugs for leaks. Remove the radiator cap when the engine is cold; run the engine for 5-10 minutes with the radiator cap removed to release air bubbles from the cooling system (this procedure may need to be repeated). With the engine off and the coolant still warm, touch the upper and lower radiator hoses. They should both be warm. If one is cold, the thermostat could be stuck in the closed position. Refer to the "How to Replace a Thermostat" brochure. If the problem persists, visit your Toyota Dealer Service Department for diagnosis and repair. DO NOT DRIVE THE VEHICLE if the engine overheats.
The "Check Engine" light comes on:	Take the vehicle to your Toyota Dealer Service Department for diagnosis and repair.

REFERENCES

Please refer to the following sources for additional information:

- Your vehicle's Owner's Manual
- Your vehicle's Repair Manual

CAUTION

Moving parts like the fan blade and drive belts, as well as extreme heat in the engine compartment or from the exhaust system can result in serious injury.

- Approach with caution and care.
- Never take shortcuts when replacing parts.
- Improper servicing may damage your Toyota and lead to personal injury.
- Unless you have proper knowledge, equipment and tools, you should have your Toyota Dealer Service Department perform the repairs and maintenance.

IMPORTANT SAFETY NOTICE

Proper installation of Genuine Toyota replacement parts is essential for the safe and reliable operation of your vehicle.

Following these instructions will:

- Help to assure your personal safety
- Assist you in the proper replacement of specific parts

There are many variations in the step-by-step procedures used in installing various parts, and varying skill levels of individuals doing the parts replacement. These instructions cannot anticipate all circumstances or provide advice and caution on each. If you are in doubt concerning your ability to replace the part or have any questions, consult your local Toyota Dealer Service Department and have the work performed by an experienced technician.

For further assistance, contact your Toyota dealer.

TOYOTA
GENUINE PARTS

Visit our Web site at www.toyota.com
M/N 00405-HOWTO-RHOSE

How To Replace The RADIATOR HOSE

A GUIDE TO ASSIST YOU IN THE PROPER REPLACEMENT OF GENUINE TOYOTA PARTS

TOYOTA

DIFFICULTY LEVEL
FROM ONE TO FOUR–FOUR BEING THE MOST DIFFICULT

ESTIMATED TIME INVOLVED
30-45 MINUTES

TOOLS AND SUPPLIES

- Genuine Toyota Radiator Hose
- Hose clamps – 2 for each hose
- Genuine Toyota Coolant as required
- Phillips (+ shaped) screwdriver (medium)
- Flat-tip (– shaped) screwdriver (medium)
- Pliers
- Radiator drain plug (hex-head) wrench (if needed)
- Drain pan (large enough to hold 2 to 3 gallons of coolant and still fit under the vehicle)
- Metal file
- Disposable gloves
- Eye protection
- Rags or paper towels

HARD TO SERVICE MODELS

Accessibility problems may exist on some Toyota models such as the MR2, MR2 Spyder, Toyota Van ('84-'89), Previa and turbo or supercharged models. Unless you have proper knowledge, equipment and tools, have your Toyota Dealer Service Department perform the repair.

INSTRUCTIONS

1. ALWAYS REMOVE THE KEYS FROM THE IGNITION WHEN WORKING ON THE VEHICLE. SEE **CAUTION** ON BACK PANEL.

   NOTE: Radiator hose replacement should be performed on a level surface when the engine is cool. Otherwise the system will be under pressure and the coolant may be hot enough to burn. Radiator caps should never be removed when the engine is hot. Set the parking brake and wear disposable gloves and eye protection.

2. DISCONNECT THE NEGATIVE BATTERY TERMINAL CABLE.

   NOTE: On some vehicles, the alarm will sound when the battery is reconnected. Also, clocks and radio station presets will have to be reset after the battery is reconnected (refer to your vehicle's Owner's Manual for instructions).

INSTRUCTIONS (continued)

⚠**WARNING:** Keep your hands and tools away from the fan. Do not lean on the fan housing. If the battery is not disconnected, the fan could automatically come on at any time.

3. DRAIN COOLANT INTO CONTAINER – Slowly remove the radiator cap to relieve pressure in the cooling system. Position the clean container under the radiator drain plug located in the lower section of the radiator. If the drain plug is the flat type, using pliers, turn the drain plug counterclockwise and allow the coolant to drain. If the drain plug is the hex-head type, use a hex-head wrench, turn counterclockwise and allow the coolant to drain. When enough coolant has been drained, turn the drain plug clockwise to tighten. **DO NOT OVER-TIGHTEN**.

   NOTE: If only the upper radiator hose is being replaced, it is not necessary to drain out all of the coolant. Drain about one gallon to ensure the coolant level is below the hose.

   NOTE: If you are replacing the lower radiator hose and the coolant is over 2 years old, it is also recommended to drain the coolant from the engine block at the same time as the radiator (see step 13). Refer to your vehicle's Owner's Manual for the location of the engine drain plug.

4. LOOSEN THE HOSE CLAMP – Using a screwdriver or hose clamp pliers, loosen the hose clamp on one end of the hose and push it back a couple of inches. The flat-tip screwdriver may be used to help move the clamp if it is difficult to move by hand.

5. DISCONNECT THE HOSE FROM THE FITTING – Twist the hose back and forth to loosen it. Pull firmly on the hose – it will be difficult to get started but should come off easily after being loosened. Be careful not to damage the flange.

6. DISCONNECT THE OTHER END OF THE HOSE AS STATED IN STEPS 4 & 5.

7. INSPECT THE HOSE FITTING – Carefully feel around the outside lip of the flange with your finger. Check for rough edges, burrs and deformation.

INSTRUCTIONS (continued)

CAUTION: DO NOT install a new hose over a damaged fitting. Smooth out any rough edges with a metal file. If more severe damage is noted, see your Toyota dealer.

8. PUT NEW HOSE CLAMPS OVER EACH END OF THE NEW HOSE – Loosely install the hose clamps 3 or 4 inches from the hose ends.

9. PUSH THE HOSE ONTO THE RADIATOR AND ENGINE FITTING – Apply a small amount of water or coolant inside of the new hose and twist and push the hose over the fitting as far as it will go.

10. INSPECT THE HOSE INSTALLATION – Check that the hose routing is correct, not twisted, and clear of other engine components.

11. INSTALL THE HOSE CLAMPS – Slide the hose clamps over the lip of the fitting approximately one inch from the end of the hose.

12. TIGHTEN THE HOSE CLAMPS (if screw type) UNTIL THE SURFACE OF THE CLAMP IS FLUSH WITH THE RUBBER HOSE – If the clamps are spring type, this operation is not required.

    CAUTION: DO NOT OVER-TIGHTEN the clamps.

13. FILL THE RADIATOR WITH COOLANT – Slowly add coolant to insure proper filling. Rapid filling will not allow air to escape from the cooling system. If the old coolant is more than 2 years old, flush the cooling system with water and replace coolant with 50 to 70% anti-freeze and 50 to 30% water. Bleed air out of the system (see Repair Manual for your vehicle's bleeding requirements.) **Super Long Life Coolant** is pre-mixed, there is no need to add water.

    CAUTION: Do not bleed system while engine is hot – severe burns may result.

    ⚠**WARNING:** Do not pour coolant onto the ground or into a storm drain or sewer – it is environmentally unsafe and illegal. Put the coolant into plastic containers and take them to a service station, recycling center or your Toyota Dealer Service Department for recycling. USED COOLANT MAY CONTAIN HEAVY METALS AND IS TOXIC. Be sure to clean up any coolant that has spilled on your hands, clothes, the vehicle, or the ground. Animals are attracted to spilled coolant and can be fatal if ingested.

14. RE-CONNECT NEGATIVE BATTERY CABLE.

15. CHECK THE HOSE CONNECTIONS FOR LEAKAGE – Start the engine and run the engine until it reaches normal operating temperature, then check for fluid leaks at the hose connections.