

Unfortunately, many motorists wait until the first severe cold snap or the hottest day of the year before paying attention to their cars' cooling system.

This often results in "crisis repairs" rather than preventive maintenance. The following tips from Automotive Cooling System Institute help avoid car trouble.

COOLING SYSTEM "TUNE-UP" CHECKLIST

- Flush dirt, bugs and leaves from front of radiator with a brush and garden hose.
- Inspect the radiator cap. Replace it if the rubber gasket is broken, dried out, or missing.
- Check the condition and level of coolant. If it is rusty, clean the system and replace with a 50/50 mixture of water and ethylene glycol anti-freeze.
- Inspect radiator and radiator hoses for leaks, cracks or soft, mushy condition. Tighten all clamps. Replace hoses as needed.
- Look for the heater hose running from the engine, through the firewall, to the heater core under the dash. Replace swollen or cracked hoses. To check the hoses, start the engine and turn on the heater. If after ten minutes the hoses are cool, they could be clogged.
- Inspect all engine belts for wear and cracks. Replace if worn, cracked or glazed. Adjust loose belts. Note: Some engines have a V-ribbed belt that drives some or all of the accessories. If the belt grooves show excessive cracks or "chunking", replace the belt.
- Check the thermostat operation by running the engine for 10-15 minutes. Generally, it's OK if you can feel warm coolant surging through the upper hose. Beware of an engine that runs too hot or too cool. Tighten loose bolts on the thermostat housing at the engine.
- Clean the engine exterior. Excessive oil and dirt will hide leaks, or insulate the engine, causing it to run hot.

HOW TO CLEAN, FLUSH AND REFILL

To avoid problems resulting from rust, dirt and mineral deposits in the cooling system, it's best to give it an internal cleaning every year or two.

It's easy. Here's how:

1. Begin with the engine cold and ignition off. Remove the radiator pressure cap.
2. Open the petcock at the bottom of the radiator and drain the coolant into a bucket.
3. Close the petcock and fill the radiator with water.
4. Start the engine and turn the heater control to hot. Add cooling system cleaner and idle the engine for 30 minutes (or as per the instructions on container).
5. Stop the engine and allow it to cool for five minutes. Drain the system.
6. Close the petcock, fill the radiator with water and let the engine idle for five minutes.
7. Repeat step No. 5. Close the petcock.
8. Install new 50/50 mixture of water and ethylene glycol antifreeze/coolant.



PERIODICALLY YOUR CAR SHOULD HAVE A THOROUGH INSPECTION
BY A QUALIFIED TECHNICIAN.



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HOW TO HELP YOUR CAR KEEP ITS COOL



A CAR'S ENGINE GENERATES ENOUGH HEAT TO DESTROY ITSELF. THE COOLING SYSTEM PROTECTS AGAINST DAMAGE, KEEPING THE ENGINE OPERATING WITHIN THE CORRECT TEMPERATURE RANGE. REGULAR CHECKS AND MAINTENANCE HELP ASSURE LONG LIFE OF VULNERABLE ENGINE PARTS. HERE'S WHAT'S INVOLVED IN PROPER COOLING SYSTEM MAINTENANCE.

1. CHECK CONDITION OF WATER PUMP.

2. INSPECT RADIATOR FOR LEAKS, CORROSION.

3. BE SURE YOU HAVE PLENTY OF COOLANT. CAUTION: NEVER OPEN OR REMOVE PRESSURE CAP WHEN ENGINE IS HOT.

4. LOOK FOR LEAKING HOSES AND CONNECTIONS.* TIGHTEN LOOSE CLAMPS.

5. CHECK CONDITION OF THE RADIATOR PRESSURE CAP.* REPLACE IF RUBBER GASKET IS DAMAGED.

6. IF THE ENGINE RUNS TOO COOL THE THERMOSTAT IS PROBABLY AT FAULT AND SHOULD BE REPLACED

7. INSPECT CONDITION OF HOSES. CRACKED, MUSHY OR OTHERWISE DETERIORATED HOSES SHOULD BE REPLACED.

8. HEATER HOSES DEMAND ATTENTION, TOO. LOOK FOR LEAKS, CRACKS, ROTTED RUBBER. REPLACE FAULTY CLAMPS.

9. CHECK BELTS FOR WEAR AND TENSION. REPLACE WHEN CRACKED OR FRAYED. USUAL LIFE IS ABOUT 4 YEARS.

*NOTE: PRESSURE TESTING OF RADIATOR AND PRESSURE CAP ASSURES MOST ACCURATE TEST. MOST SERVICE SHOPS ARE EQUIPPED WITH THESE TESTERS.

