



Radiator Testing with an Infrared Pyrometer

Meets NATEF Task: (A1-D-3) Perform cooling system pressure tests; check coolant condition; inspect and test radiator, pressure cap, coolant recovery tank, and hoses. (P-1)

Name _____ Date _____ Time on Task _____

Make/Model/Year _____ VIN _____ Evaluation: 4 3 2 1

- _____ 1. Check to see if an infrared pyrometer can be aimed to most areas of the radiator from the engine side.

NOTE: The fan(s) shroud may have to be removed to gain access.

- _____ 2. What had to be removed to allow access? _____

- _____ 3. Start the engine and operate until normal operating temperature is achieved and the thermostat is fully open.

- _____ 4. Using an infrared pyrometer, measure the radiator at the inlet, middle, and outlet sections and record the readings.

Inlet = _____ (should be the hottest)

Middle = _____ (should be cooler than the inlet section)

Outlet = _____ (should be cooler than the middle)

OK _____ **NOT OK** _____

- _____ 5. Aim the infrared pyrometer to all sections of the radiator and look for any areas that are cooler than the surroundings which indicate a restricted or clogged portion of the radiator.

OK _____ **NOT OK** _____

- _____ 6. Reinstall any shrouds removed to gain access to the radiator.

- _____ 7. Based on the inspection and temperature tests, what is the necessary action?

