

Chapter 10 Heating System Operation and Diagnosis

NAME _____

SHORT ANSWER. Write the word or phrase that best completes each statement or answers the question.

1. What is the purpose and function of the heating system?

2. How does a thermoelectric device (TED) work?

3. What steps are included in performing a visual inspection of the heating system?

4. How can a scan tool be used to check the operation of the heater?

5. What are the methods that can be used to check for proper accessory belt tension?

Answer Key

Testname: AHAC9SHORT10

1. The heating system uses heat that would normally be wasted (removed by the radiator) to warm the interior of the vehicle.

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2. The thermoelectric device consists of positive and negative connections between two ceramic plates. Each ceramic plate has copper fins to allow the transfer of heat to air passing over the device and directed into the seat cushion. When electrical current flows through the module, one side is heated and the other side is cooled reversing the polarity of the current changes the side being heated.

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3. A visual inspection includes checking:

- coolant level and condition
- water pump drive belt condition and proper tension
- radiator or condenser for possible clogged or restricted areas
- temperature of the heater hoses
- proper airflow across the heater core

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4. Use a scan tool and check for:

1. Any stored or pending Diagnostic trouble codes especially those that pertain to the HVAC controls.
2. Check that the coolant temperature as measured by the engine coolant temperature (ECT) sensor is correct
3. Perform a bidirectional control of the blend door and blower motor speed

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5. The methods that can be used include: a belt tension gauge; marks on the tensioner, torque wrench readings, and deflection.

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