

Thermostat / temperature sensor, engine coolant, replacing

Special tools: [951 2885](#) , [999 5722](#) , [999 7109](#) , [951 2953](#) , [951 2957](#)

Note! The illustrations in this service information are used for different model years and/or models. Some variation may occur. However, the essential information in the illustrations is always correct.

Removing / installing

Removing the engine coolant temperature (ECT) sensor

Remove:

- the upper timing belt cover. Disconnect the connector for the temperature sensor
- the temperature sensor from the thermostat housing. Use [951 2885](#) .

Note! Put paper underneath the sensor to prevent coolant spillage.



Installing the engine coolant temperature (ECT) sensor

Install:

- the sensor with a new seal. Tighten. See: [Tightening torque](#) . Use: [951 2885](#)
- the upper timing belt cover.



Removal

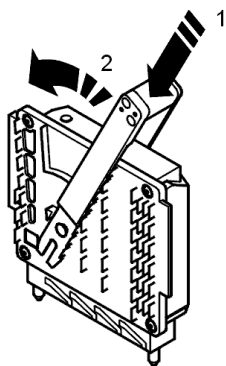
Preparation

Remove the cap from the expansion tank. Install a hose clamp on the upper coolant hose. The vehicle must be raised for this work. See: [Jacking points, body](#) . Remove the lower cover plate.

Position a container under the engine drain cock. Drain **2 liters** of engine coolant.



Close the cock. Install the lower protective panel.
Lower the vehicle.



Removing the engine control module (ECM)

Ignition off. Wait for 2 minutes.

Caution! Do not touch the terminal pins on the control module with fingers. Static electricity may damage components in the engine control module (ECM).

Remove the cover over the control module box.
Put the cover to one side.

Insert tool [999 5722](#) around the control module.
Move the upper section of the tool backwards as far as it will go. Pull up the tool. Carefully pull up the control module.

For vehicles with automatic transmissions repeat the above work.

Remove the surround from around the control module box.

Removing the auxiliaries belt

Note! Make a note of the routing of the belt.

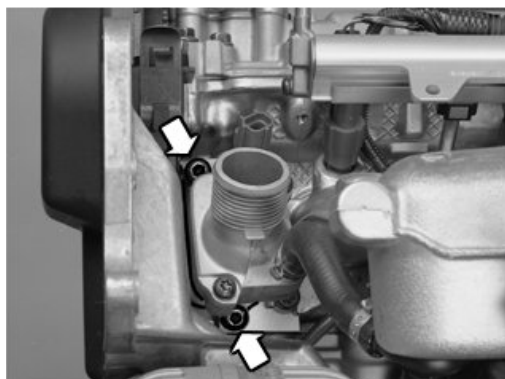
Remove:

- the auxiliaries belt. Use [999 7109](#)
- the upper timing belt cover.



Removing the power steering pump

Remove the 3 x screws for the power steering pump. Place the power steering pump to one side.



Removing the thermostat housing

Remove:

- the hose clamp to the upper radiator hose. Disconnect the hose from the thermostat housing
- the connector from the temperature sensor
- the 2 x screws for the thermostat housing at the section against the cylinder head
- the thermostat housing from the cylinder head
- the hose clamp for the water hose for heating crankcase ventilation.

Transfer the temperature sensor to the new thermostat housing.

Installation

Note! For tightening torques, see: [Tightening torque](#).

Installing the thermostat housing

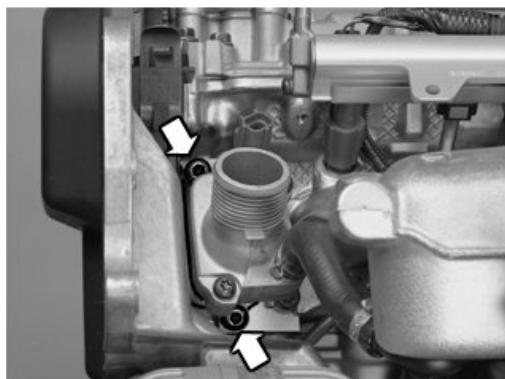
Install:

- the hose for the water heated crankcase ventilation. Before installing the thermostat housing, use a new hose clamp
- a new gasket
- the thermostat housing assembly. Tighten the screws
- the upper radiator hose. Tighten the hose clamp.

Connect the connector for the temperature sensor.

Finishing

Note! Ensure that the auxiliaries belt is correctly positioned on all the pulleys.





Install:

- the power steering pump. Tighten the 3 x screws
- the auxiliaries belt. Use [999 7109](#)
- the upper camshaft cover.

Installing control modules

Caution! Check that no pins or sockets are damaged on the connector.

Install the surround for the control module box. Carefully press the control module down into the grooves on the inside of the control module box. Press to the limit position. Insert tool [999 5722](#) around the control module. Move the upper section of the tool forwards as far as it will go. Pull up the tool. Press the cover into place over the control modules. Check that the air ducts are correctly positioned.

Finishing

Remove the hose clip. Refill with coolant. Use filling equipment [951 2957](#) and cover [951 2953](#). Install the cap on the expansion tank. Test drive the engine until the thermostat has opened. Check for leakage. Top-up the coolant.

