

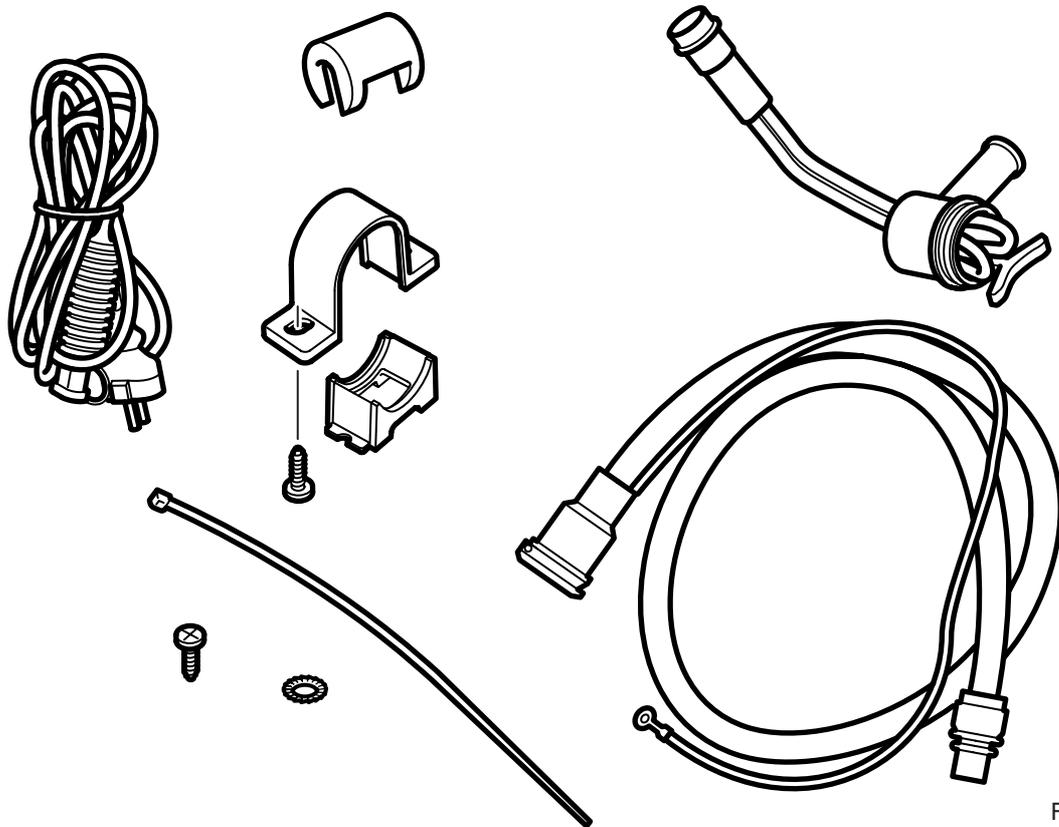


**MONTERINGSANVISNING · INSTALLATION INSTRUCTIONS
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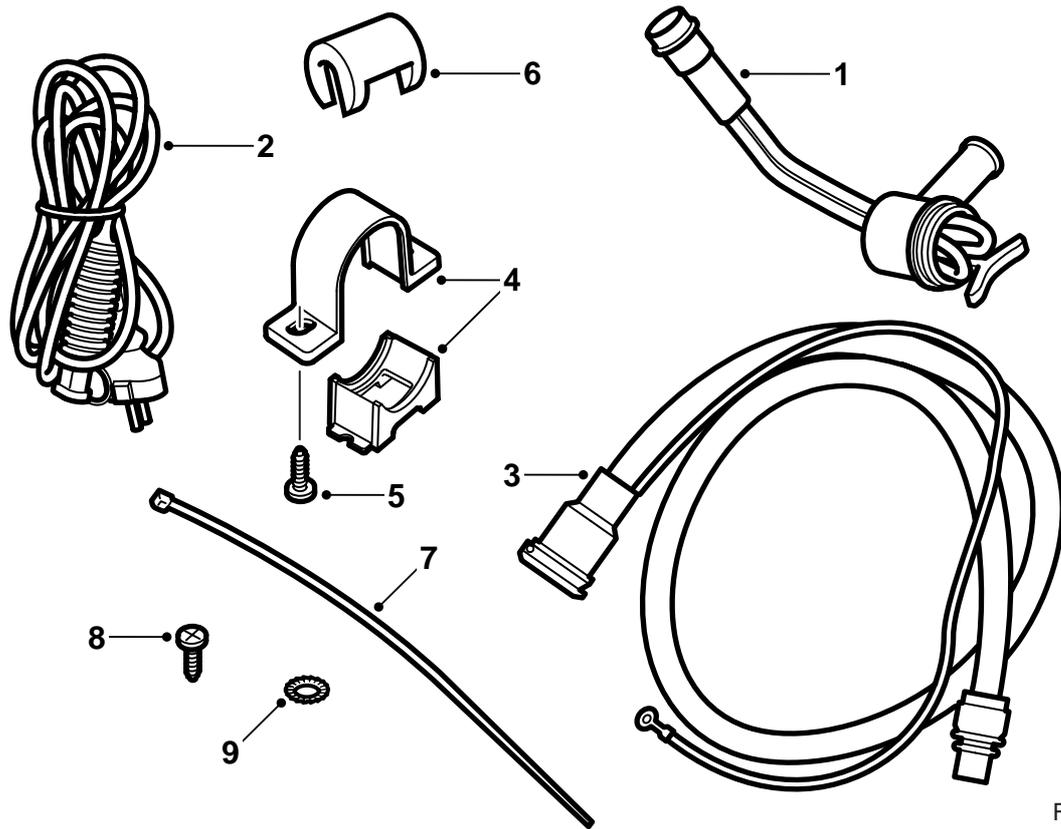
Saab 9-3 D223L M03-

Engine block heater

Accessories Part No.	Group	Date	Instruction Part No.	Replaces
12 787 165	9:87-35	Mar 04	12 788 902	12 788 902 Sep 02

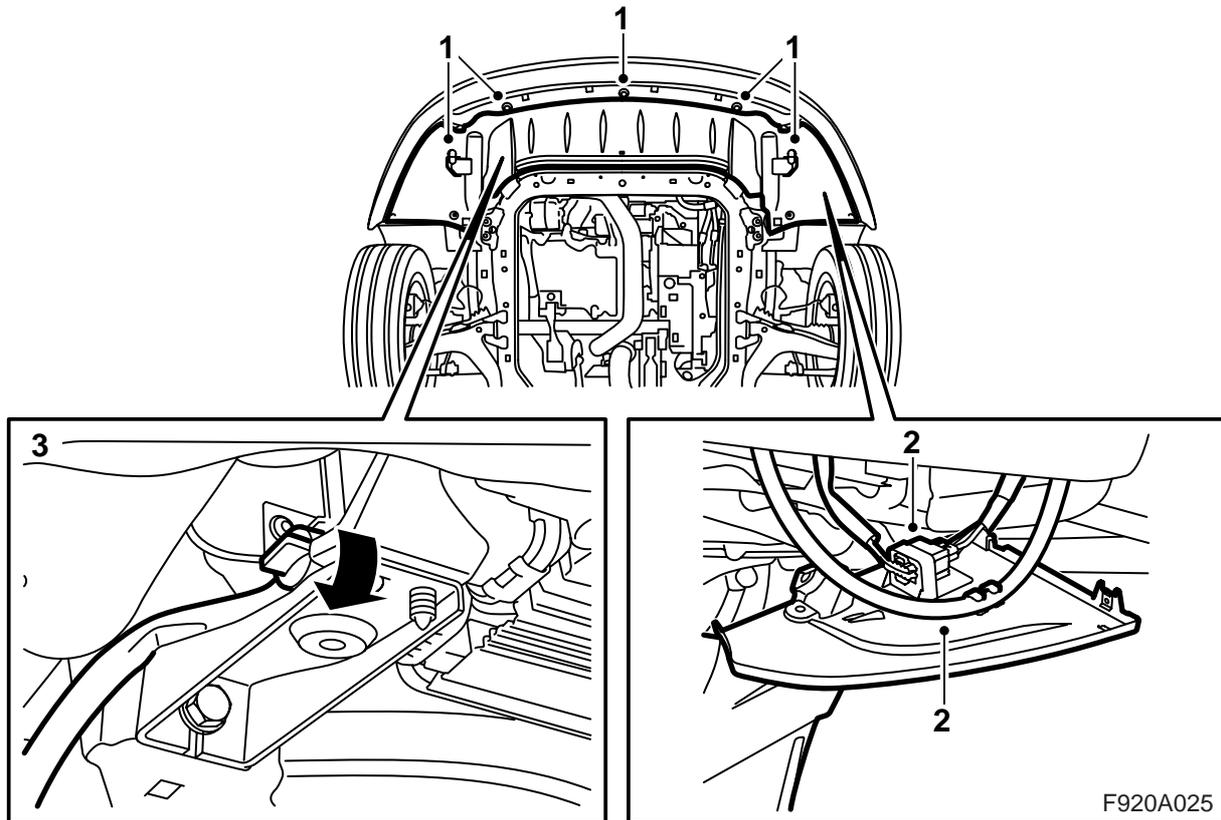


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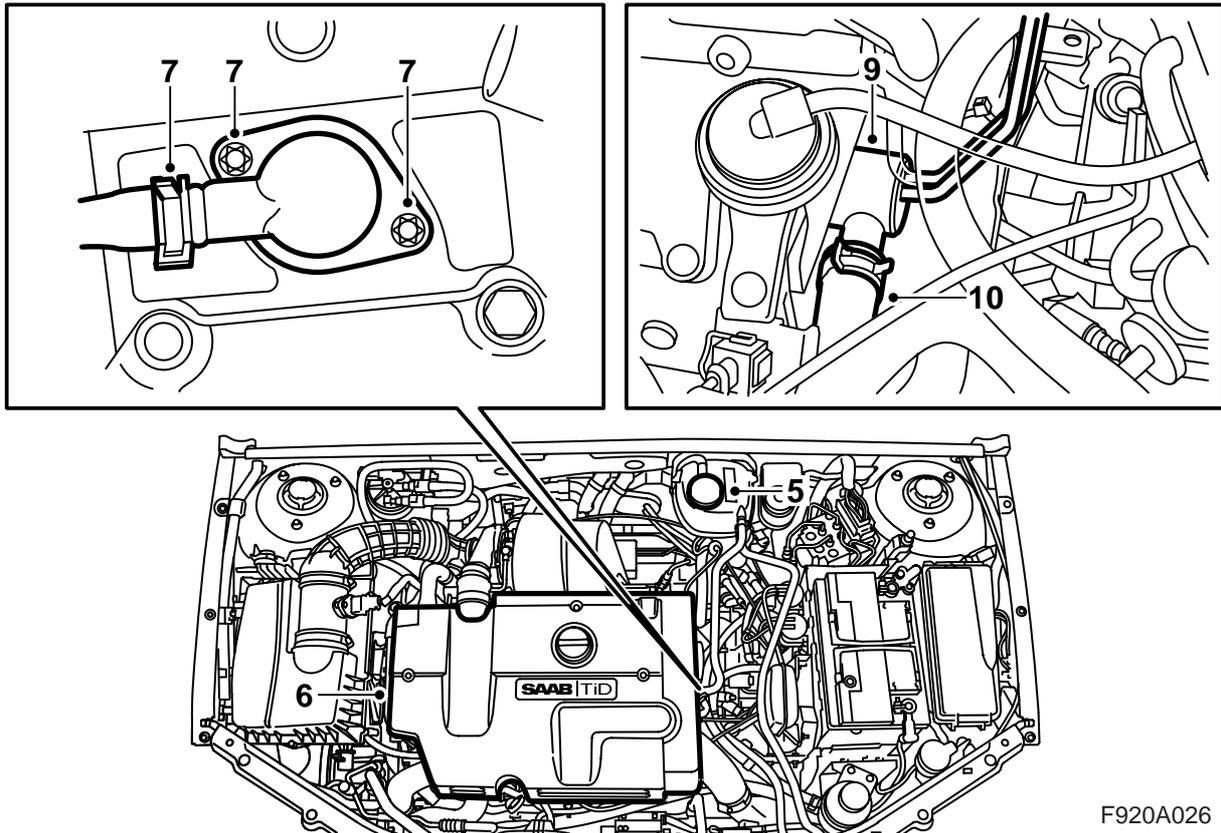


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- 1 Heating element
- 2 Extension cable
- 3 Connector plug and connector cable
- 4 Holder
- 5 Screw (x2)
- 6 Locking clip
- 7 Cable tie (x5)
- 8 Screw
- 9 Star washer



- 1 Raise the car and remove the spoiler shield.
- 2 Unplug the bumper connector and remove it from the holder on the spoiler shield.
Cars with headlamp washers: Unhook the hose from the spoiler shield.
- 3 Place a receptacle under the engine, fit a hose to the radiator drain nipple, open the radiator drain plug and drain the coolant.
- 4 Lower the car.



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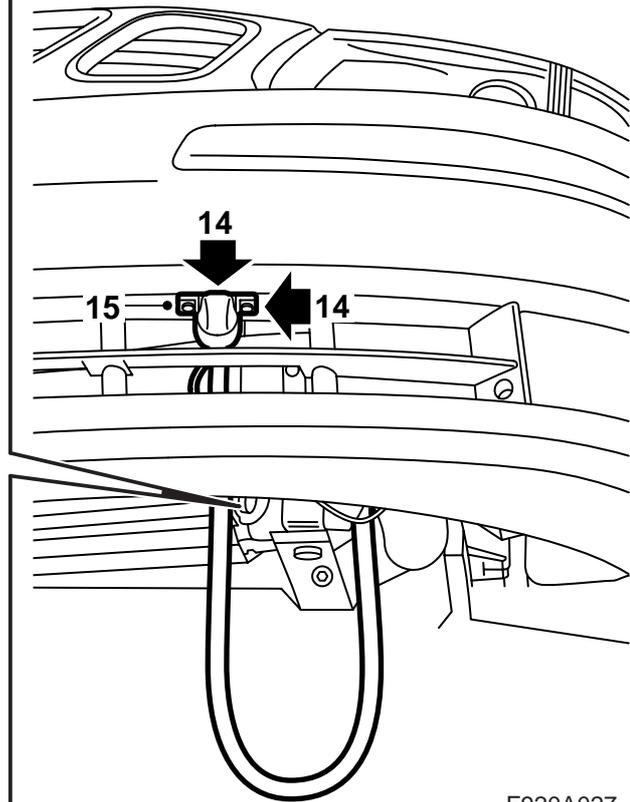
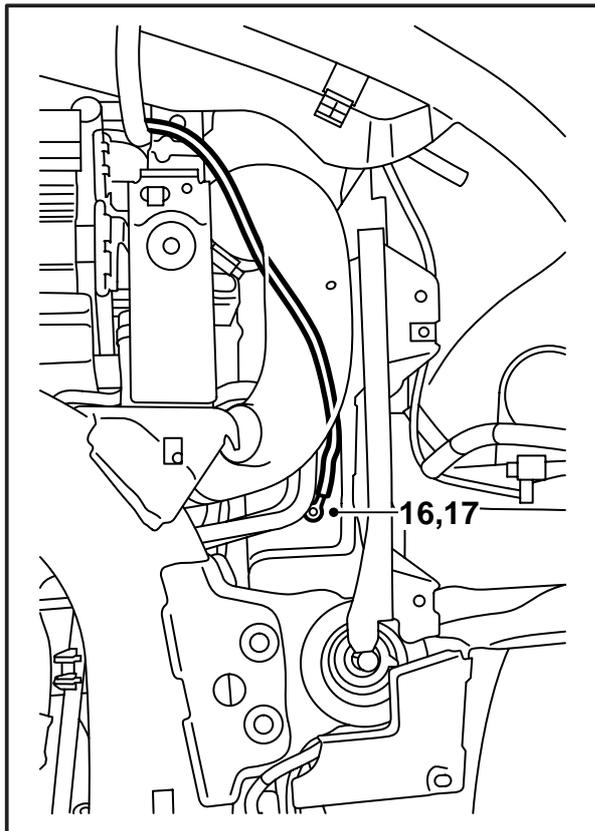
- 5 Remove the expansion tank cap.
- 6 Remove the engine cover and battery cover.
- 7 Remove the coolant connection from the engine block and the coolant hose from the coolant connection. Clean the sealing surfaces on the engine block.
- 8 Apply non-acidic Vaseline, part no. 30 06 665, or equivalent to the engine block heater O-ring.
- 9 Adjust the T-shaped support on the engine block heater so that it is located vertically, position the heater in the cylinder block and fit it.

Important

The coolant hose connection must be parallel to the bottom edge of the cylinder head.

Tightening torque 10 Nm (7.5 lbf ft)

- 10 Connect the coolant hose to the engine block heater.
- 11 Raise the car.
- 12 Close the radiator drain plug and remove the hose.



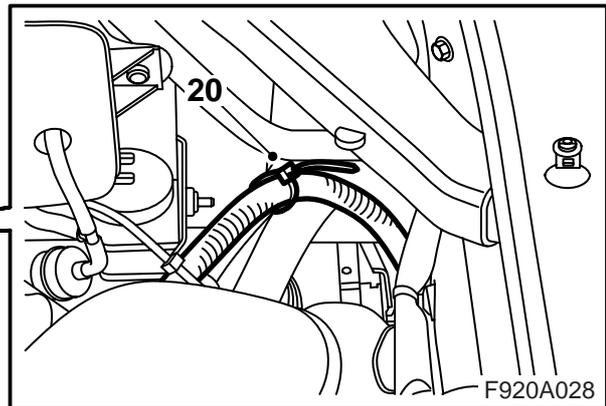
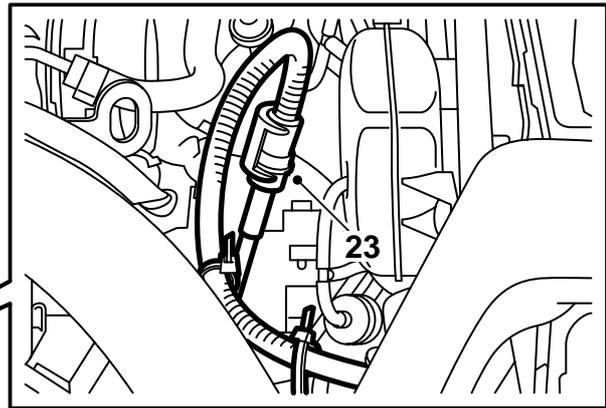
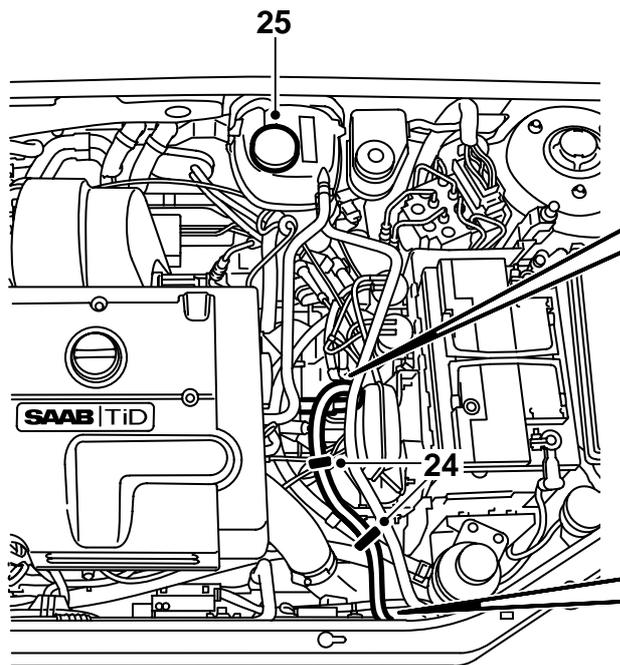
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- 13 Lower the car to a suitable working height and run the connecting cable through the bottom grille, between the pipes and between the radiator assembly and its left-hand bracket.
- 14 Mark out where the connecting plug holder is to be located, the arrow on the holder must be pointing forward, by placing the holder underneath the bumper with its front edge in line with the line in the bumper shell and in the centre of the opening. Make a hole with an awl.
- 15 Place the connector plug in the holder. The cover should open upward. Mount the holder on the bumper.
- 16 **M03-04:** Using a 3.5 mm bit, drill a hole in the structural member for the ground cable.
M05-: Detach the connector located on the structural member. Using a 3.5 mm bit, drill a hole in the structural member for the ground cable.
- 18 Run the connecting cable between the radiator and the charge air hose and then straight up the side of the structural member.
M05-: Attach the connector located on the structural member.
- 19 Lower the car.

Important

Drill the hole immediately next to the square hole.

- 17 Scrape away the paint to make a good ground connection and secure the ground cable using the screw and lock washer (the lock washer should be placed between the ground cable terminal and the body). Apply thin anti-corrosion protection, part no. 30 15 971.



- 20 Run the connecting cable to the left of the radiator and secure the cable to the upper left radiator mounting with a cable tie.
- 21 Run the connecting cable over the radiator vent hose, down along the power steering hose and back towards the engine block heater. Bend the cable towards the heater.
- 22 Apply non-acidic Vaseline, part no. 30 15 286, or equivalent on the connecting cable O-ring and connect the cable to the engine block heater.

⚠ WARNING

It is essential to lubricate the connecting cable O-ring before it is connected and that all connections are pressed in properly. A bad contact can cause overheating and fire.

- 23 Fit the lock clip over the connection. A click should be heard when the lock clip is fitted correctly.
- 24 Secure the connecting cable with cable ties. Bend the cable in an even curve so that it can take up any engine movement.
- 25 Fill with coolant, fit the cover on the expansion tank and check system integrity. Fit the engine cover and battery cover.

- 26 Bleed the cooling system in the following way:

Note

The A/C or ACC should be turned OFF.

Fill the cooling system to MAX. Close the cap on the expansion tank, start the engine and run it warm at varying engine speeds.

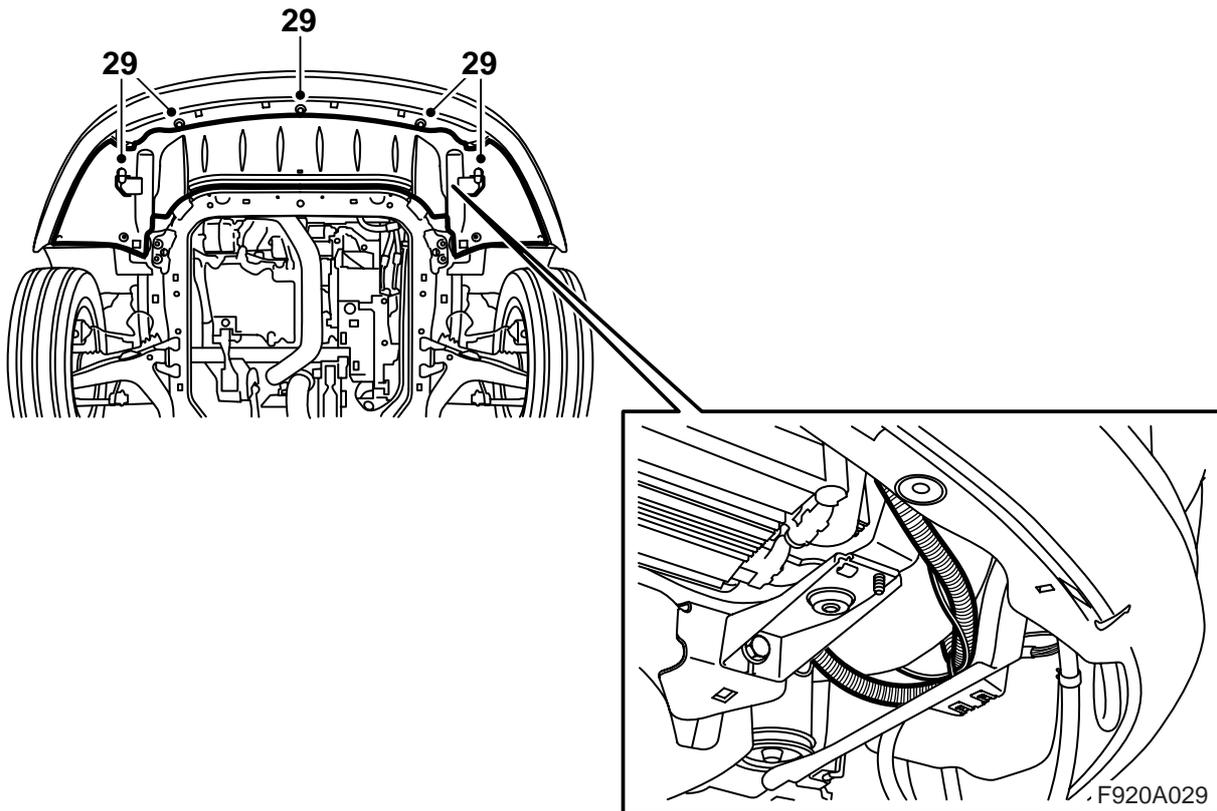
Make sure there is a continuous flow of coolant from the hose leading from the thermostat housing to the expansion tank.

Run the engine until the thermostat opens.

Carefully open the cap on the expansion tank and top up to MAX. Close the cap. Turn off the engine and top up as necessary to MAX.

Turn off the engine, open the cap to the expansion tank carefully and top up to MAX. Close the cap.

- 27 Raise the car.



- 28 Place any excess connecting cable between the charge air hose and the plastic shield. Secure with a cable tie.
- 29 Lift up the spoiler shield, fit the bumper connector into the holder and plug in the connector.
Cars with headlamp washers: Hook the hose onto the spoiler shield.
All: Fit the spoiler shield.
- 30 Lower the car.
- 31 **Cars with headlamp washers:** Check the operation of the headlamp washers.

User instructions

- The extension cable must be made of oil-resistant rubber and approved for outdoor use with a cross-sectional area of at least $3 \times 1.5 \text{ mm}^2$.
- The heater system may only be connected to a grounded socket.
- Handle all cables with care. Pay particular attention to the risk of pinching between the bonnet and the body of the car and the risk of cuts on sharp metal components.

 **WARNING**

Check the ground connection between the connecting cable ground pin, the heater casing and the car body regularly to prevent electric shocks.

- Inspect regularly the extension cable for damage or ageing. Damaged cables must be renewed immediately.

Note

The function of the heater will be at risk if:

- there are impurities in the coolant
- the coolant level is too low or if there is air in the system
- there is ice slush in the system
- radiator sealant is used