

Expansion bottle: Removal - Refitting

- the expansion bottle bottom hose.

- ☐ Refit the following using the tool (**Mot. 1448**) or « CLIC » clip pliers:
 - the clamp of the top hose of the expansion bottle,
 - the clamp of the bottom hose of the expansion bottle.
- ☐ Fill the expansion bottle with coolant.
- ☐ Remove the hose clamps (**Ms. 583**).
- ☐ Refit the expansion bottle.
- ☐ Torque tighten the **expansion bottle nuts (8 N.m)**.

III - FINAL OPERATION

- ☐ Top up the coolant level in the expansion bottle.
- ☐ Refit the expansion bottle cap.
- ☐ Bleed the cooling system (see **19A, Cooling, Cooling system: Draining - Refilling**, page 19A-6) .

K9K

Tightening torques

expansion bottle nuts	8 N.m
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IMPORTANT

Wear leaktight gloves (Nitrile type) for this operation.

IMPORTANT

The circuits are designed to be pressurised, so be careful at high temperatures (risk of serious burns).

Do not remove the cap from the expansion bottle while the engine is hot.

Take care when carrying out a repair under the bonnet, as the radiator fan(s) may start to operate without warning.

Do not open the bleed screw(s) with the engine running.

WARNING

Prepare for the flow of fluid, and protect the surrounding components.

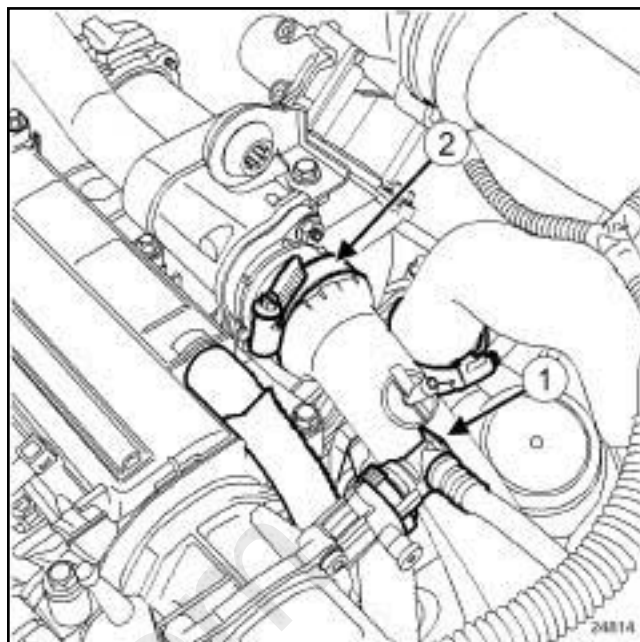
REMOVAL**I - REMOVAL PREPARATION OPERATION**

☐ Position the vehicle on a two-post lift (see **Vehicle: Towing and lifting**) .

☐ Remove:

- the engine cover,
- the engine undertray bolts,
- the engine undertray,
- the air filter unit (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page **12A-6**) ,
- the expansion bottle nuts.

☐ Move aside the expansion bottle.

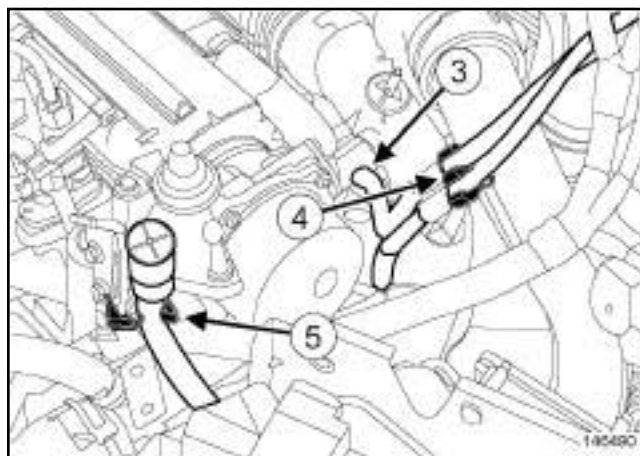


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☐ Disconnect:

- the union (1) on the vacuum pump,
- the air duct between the intercooler and the EGR assembly at (2) .

K9K, and 796



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☐ Disconnect the EGR solenoid valve pipe at (3) .

☐ Unclip:

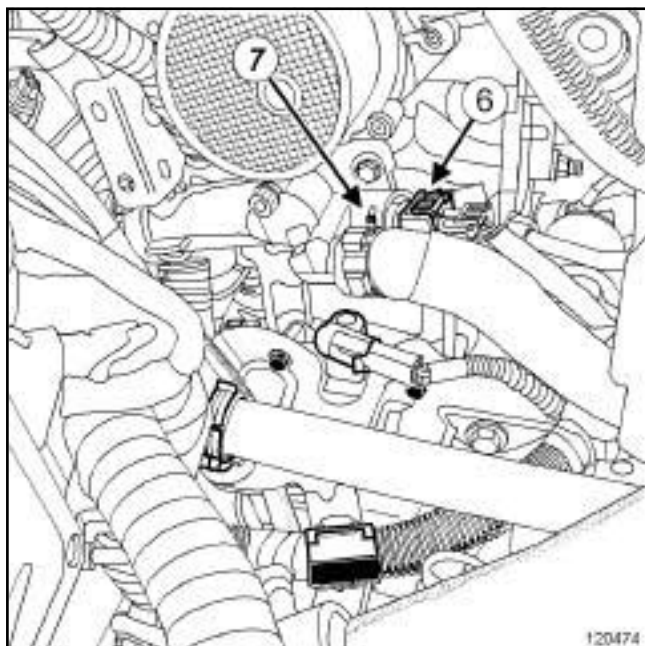
- the EGR solenoid valve pipes at (4) ,
- the gearbox breather pipe at (5) .

☐ Move aside the air duct between the intercooler and the EGR assembly.

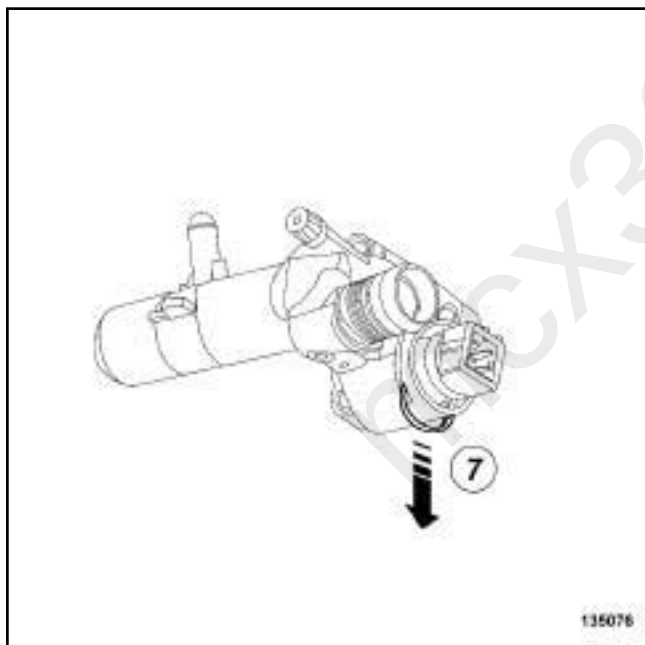
Coolant temperature sensor: Removal - Refitting

K9K

II - REMOVAL OPERATION



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- ☐ Disconnect the coolant temperature sensor connector (6) .
- ☐ Remove:
 - the coolant temperature sensor retaining clip (7) ,
 - the coolant temperature sensor,
 - the coolant temperature sensor O-ring.

REFITTING

I - REFITTING PREPARATION OPERATION

- ☐ parts always to be replaced: coolant temperature sensor seal.
- ☐ Use **SURFACE CLEANER** (see) to clean and degrease:
 - the mating face of the coolant temperature sensor if it is to be reused,
 - the coolant outlet unit.

II - REFITTING OPERATION

- ☐ Refit:
 - a new coolant temperature sensor seal on the coolant temperature sensor,
 - the coolant temperature sensor,
 - the coolant temperature sensor clip.
- ☐ Connect the coolant temperature sensor connector.

III - FINAL OPERATION

- ☐ Position the air duct between the intercooler and the EGR assembly.
- ☐ Connect:
 - the air duct on the EGR assembly,
 - the union to the vacuum pump.

K9K, and 796

- ☐ Connect the EGR solenoid valve pipe to the vacuum pump.
- ☐ Clip on:
 - the breather pipe from the gearbox,
 - the EGR solenoid valve pipes.

- ☐ Position the expansion bottle.

- ☐ Torque tighten the **expansion bottle nuts (8 N.m)**.

- ☐ Refit:
 - the air filter unit (see **12A, Fuel mixture, Air filter unit: Removal - Refitting**, page **12A-6**) ,
 - the engine undertray,
 - the engine undertray bolts,
 - the engine cover.

Coolant temperature sensor: Removal - Refitting

K9K

☐ Perform the following operations:

- top up the cooling system,
- bleed the cooling system (see **19A, Cooling, Cooling system: Draining - Refilling**, page **19A-6**).

Coolant temperature sensor: Removal - Refitting

K4M

Tightening torques

coolant temperature sensor	30 N.m
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IMPORTANT

The circuits are designed to be pressurised, so be careful at high temperatures (risk of serious burns).

Do not remove the cap from the expansion bottle while the engine is hot.

Take care when carrying out a repair under the bonnet, as the radiator fan(s) may start to operate without warning.

Do not open the bleed screw(s) with the engine running.

WARNING

Before the operation, protect the electrical accessories to prevent any risk of short circuiting and protect the belts to avoid damaging them.

WARNING

The coolant helps to keep the engine running properly (heat exchange).

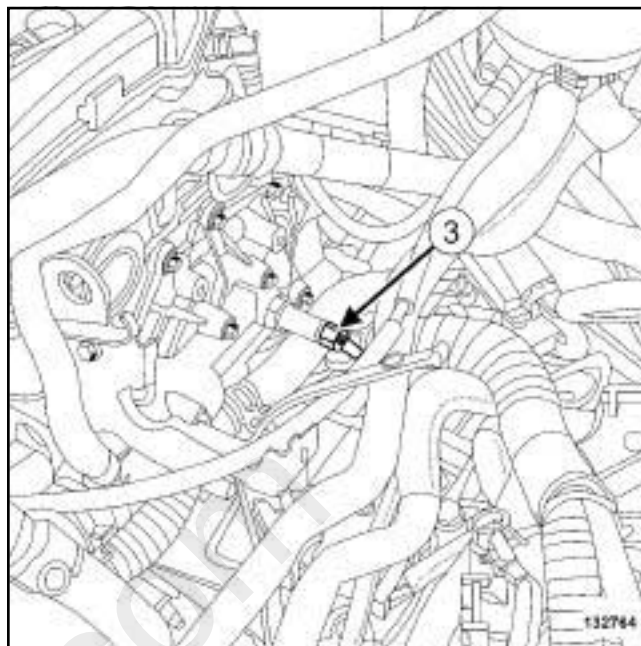
The system does not operate using pure water.

REMOVAL

I - REMOVAL PREPARATION OPERATION

- ❑ Remove the air resonator (see 12A, **Fuel mixture, Air resonator: Removal - Refitting**, page 12A-2) .

II - OPERATION FOR REMOVAL OF PART CONCERNED



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- ❑ Disconnect the coolant temperature sensor connector (3) .
- ❑ Remove the coolant temperature sensor.

REFITTING

I - REFITTING PREPARATION OPERATION

- ❑

Note:

Apply 1 to 2 drops of **FRENETANCHE** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to the coolant temperature sensor thread (only if the sensor is to be reused).

- ❑ Use **SURFACE CLEANER** (see **Vehicle: Parts and consumables for the repair**) (04B, Consumables - Products) to clean and degrease the mating face of the coolant temperature sensor on the water chamber.

II - REFITTING OPERATION FOR PART CONCERNED

- ❑ Refit the coolant temperature sensor.
- ❑ Torque tighten the **coolant temperature sensor (30 N.m)**.
- ❑ Connect the coolant temperature sensor connector.