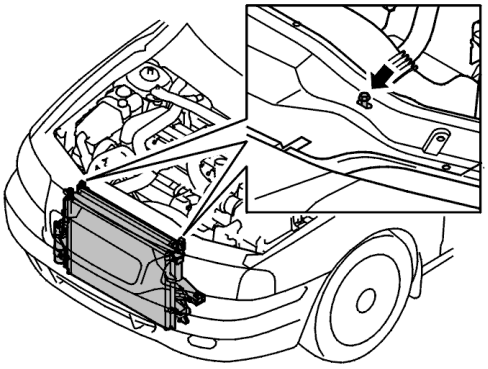
Replacing the radiator / charge air cooler (CAC)

Special tools: 999 5972

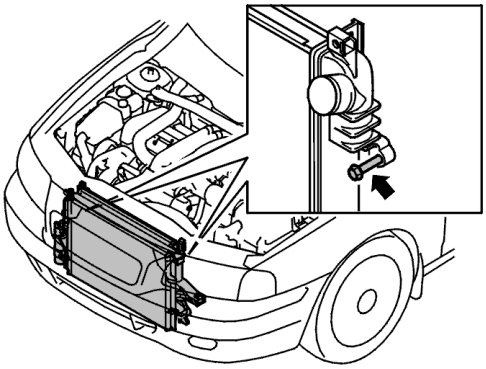
Removal

Removing the radiator unit

- Remove the engine cooling fan (FC) according to Replacing the engine cooling fan (FC) .

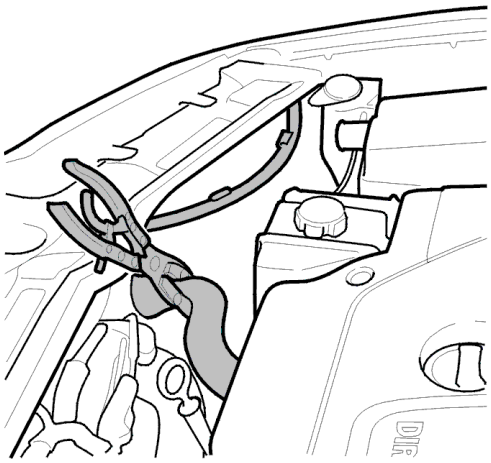


- Disconnect the charge air pipe from the charge air cooler (CAC) on the left-hand side (turbocharged engines only). If necessary, use a hot air gun to make removal easier
- Remove the screws for the radiator unit on the front cover plate.



Remove

- the two upper screws holding the radiator unit together
- the expansion tank cap.

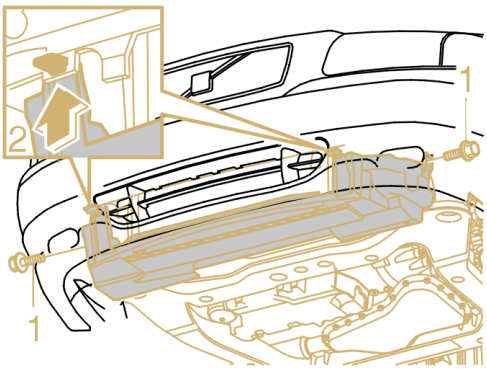


Block the upper radiator hose with lock grip pliers

Work under the car

Remove

- the air baffles
- the lower oil cooler hose from the radiator unit (automatics only)
- **Note! Collect the oil from the oil cooler in a**



container.

- the screw for the mounting for the cable duct for engine wiring at the front edge of the sub-frame.

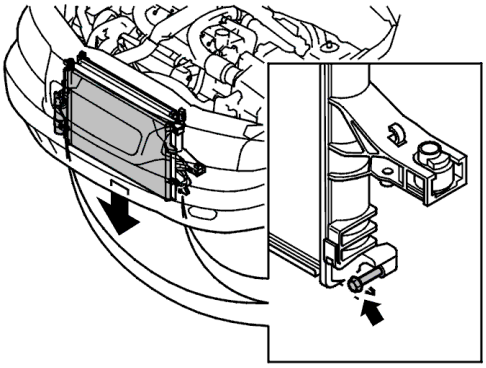
Drain the coolant

- Block the lower hose coolant hose with lock grip pliers
- Apply a hose on the nipple at the radiator
- Feed the hose down to a container
- Open the nipple and drain off the coolant.

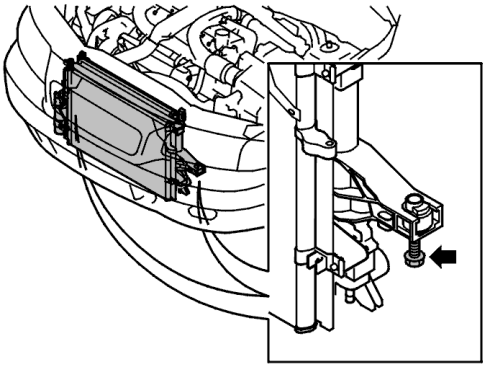
Work from above

- Remove the upper radiator hose. Place it to one side. Seal the openings.

Work under the car



- Disconnect the connector from the receiver drier and the cable from the holder
- Hang up the condenser using tie straps on the right-hand side in the pipe for the receiver drier and on the left-hand side in the pipe for the condenser
- Remove the lower screws holding the radiator unit.

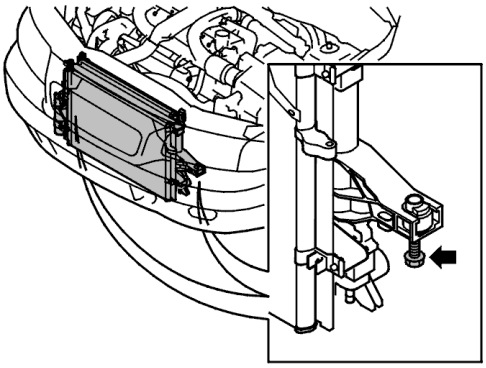


- **The following requires two people:** Disconnect the radiator and the charge air cooler (CAC) firstly from the left and then from the right-hand side by removing the two screws
- On the right-hand side, press the cable duct and the compressor hose towards the engine. At the same time release the radiator and charge air cooler (CAC) downwards on the right-hand side. Then release the radiator and charge air cooler (CAC) on the left-hand side. Ensure that the mounting for the radiator and charge air cooler (CAC) passes the AC pipe
- Disconnect the hose from the radiator to the expansion tank
- Replace the radiator / charge air cooler (CAC).

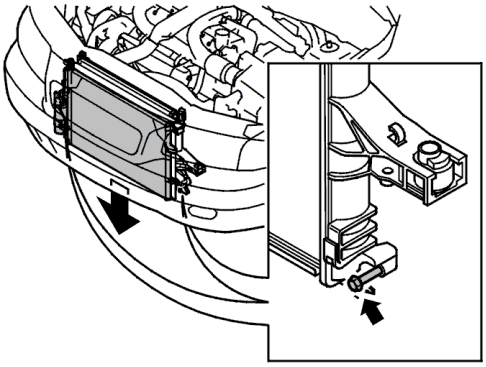
Installation

Installing the radiator and charge air cooler (CAC)

- Hold the radiator unit and secure the hose from the expansion tank to the radiator
- Install the connector from the receiver drier and the cable from the holder.



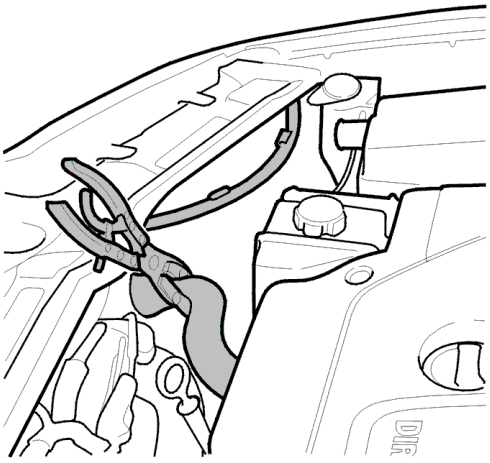
- Lift up the radiator and charge air cooler (CAC) on the left-hand side. Ensure that the mounting for the charge air cooler (CAC) passes above the AC pipe. Lift the right-hand side while pressing the cable duct and the compressor hose towards the engine
- Thread the screws for the radiator and charge air cooler (CAC) into the member.



- Install the lower screws to assemble the radiator unit. Tighten the screws. Tighten to **10 Nm**
- Remove the tie straps
- Check that the radiator unit is against the rubber seal
- Tighten the radiator unit to the member. Tighten to **25 Nm**.
- Install the lower radiator hose
- Remove the lock grip pliers
- Install the screw for the mounting for the engine wiring cable duct at the front edge of the sub-frame
- Install the lower oil cooler hose on the radiator unit (automatic gearboxs only).

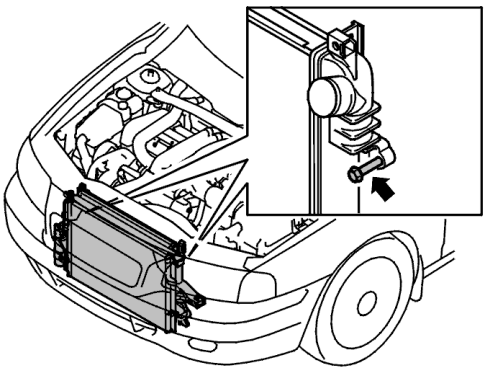
Work from above

Install

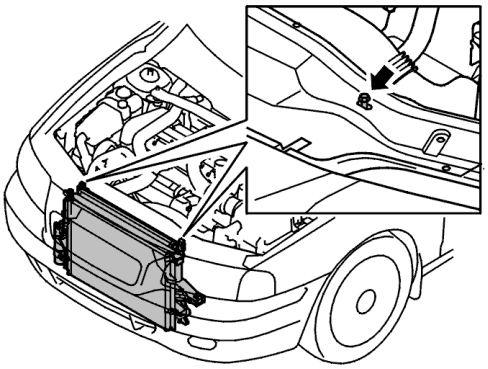


- the upper radiator hose. Remove the lock grip pliers
- the charge air pipe to the charge air cooler (CAC) on the left-hand side (turbocharged engines only).

- Install the upper screws to assemble the



radiator unit. Tighten the screws
- Tighten to **10 Nm**.



- Install the screws for the radiator unit on the front cover plate
- Tighten to **10 Nm**.

Installing the engine cooling fan (FC)

To install the engine cooling fan (FC), see Replacing the engine cooling fan (FC) .

Topping up the coolant

- Install the cap on the expansion tank
- Run the engine until the thermostat has opened
- Stop the engine. Top up if necessary.