



6 Heating and ventilation

61 HEATING

62 AIR CONDITIONING

Heating and ventilation

Contents

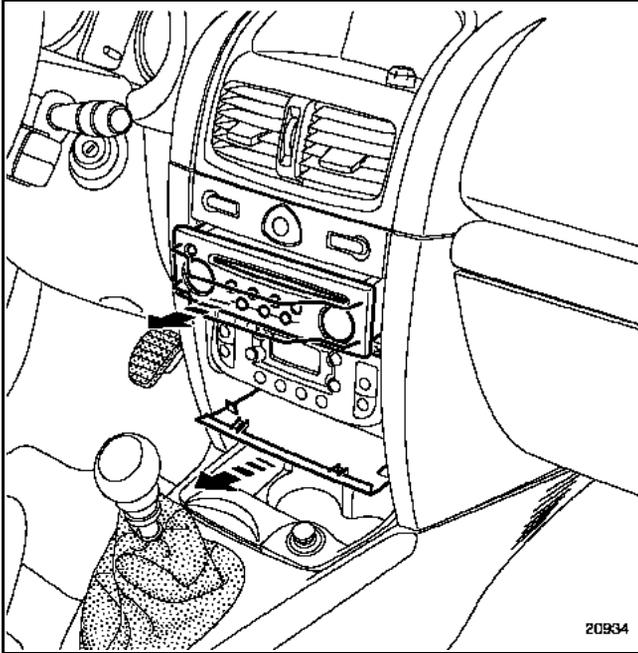
	Page
61 HEATING	
Control panel	61-1
Control motors	61-2
Fan assembly	61-3
62 AIR CONDITIONING	
Evaporator	62-1
Compressor	62-3
Connecting hoses	62-6
Evaporator sensor	62-8

REMOVAL

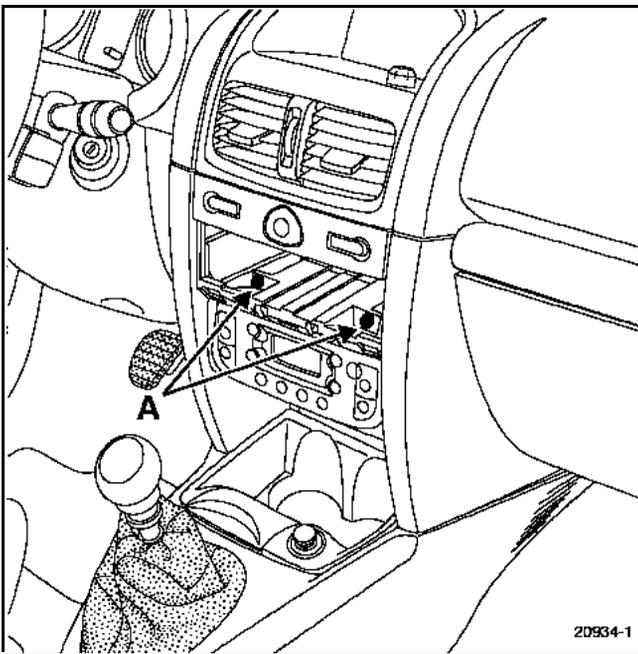
Disconnect the battery.

Remove:

- the Carminat speaker mounting,
- the radio (if fitted),

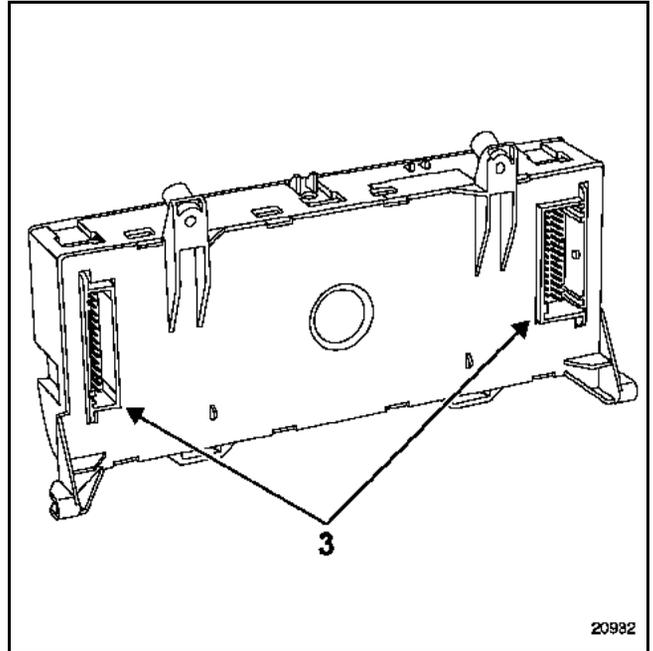


- the two control panel mounting bolts (A),
- the control panel.

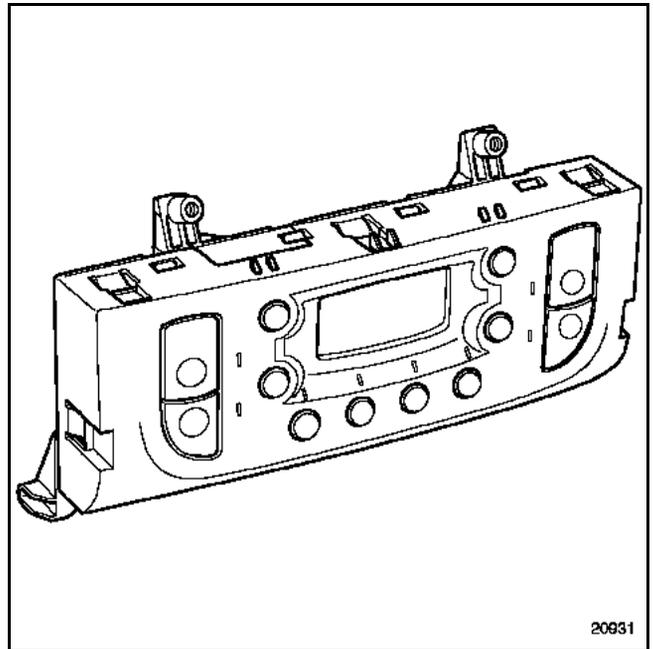


Version with regulated heating and ventilation

Disconnect the connectors (3) from the control panel.



Numeric control panel.



REFITTING

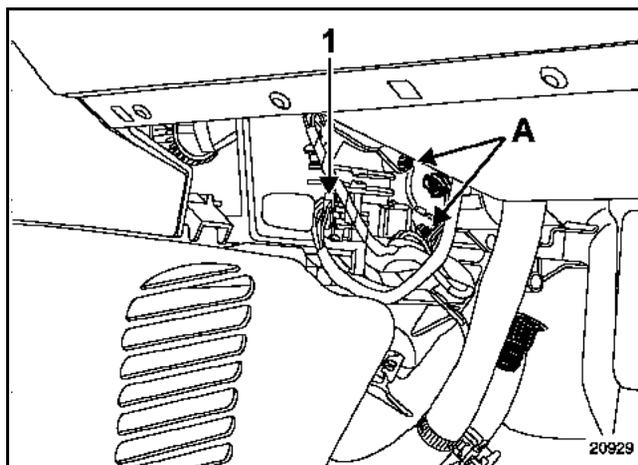
To refit, proceed in the reverse order to removal.

REMOVAL

You can remove the regulated heating and ventilation control motors without removing the dashboard.

Remove:

- the connector (1) of the relevant motor on the distribution unit,
- the motor retaining bolts (A),
- the relevant motor.



REFITTING

Refit in the reverse order to removal.

FITTING WITHOUT AIR CONDITIONING (with particle filter)

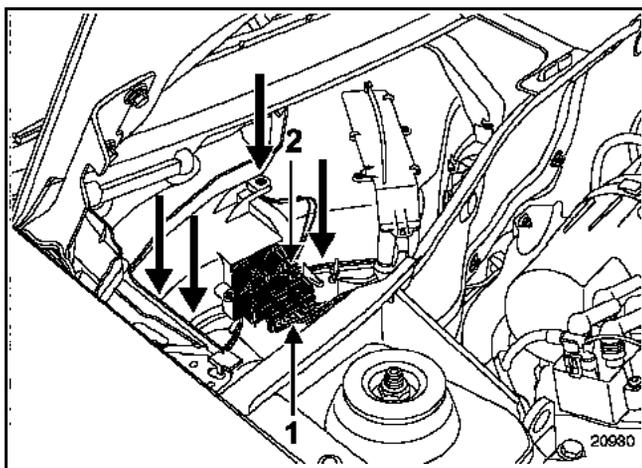
REMOVAL

Disconnect the battery.

Remove:

- the right scuttle half-grille,
- the grille deflector,
- the connectors (1) and (2),
- the four retaining bolts.

Extract the fan assembly.



REFITTING

Proceed in the reverse order to removal.

FITTING WITH AIR CONDITIONING (manual/regulated control)

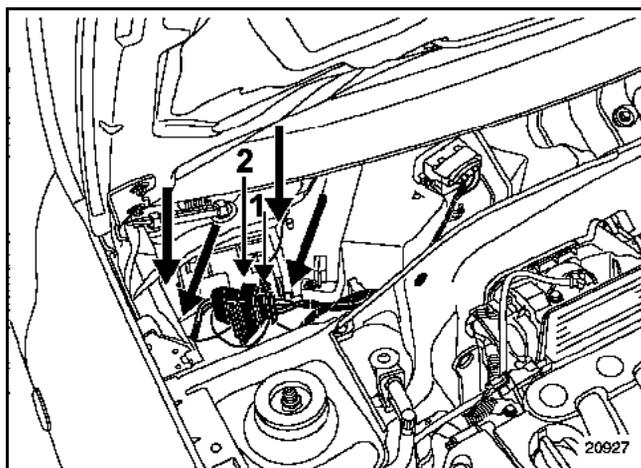
REMOVAL

Disconnect the battery.

Remove:

- the right scuttle half-grille,
- the grille deflector,
- the connectors (1) and (2),
- the four retaining bolts.

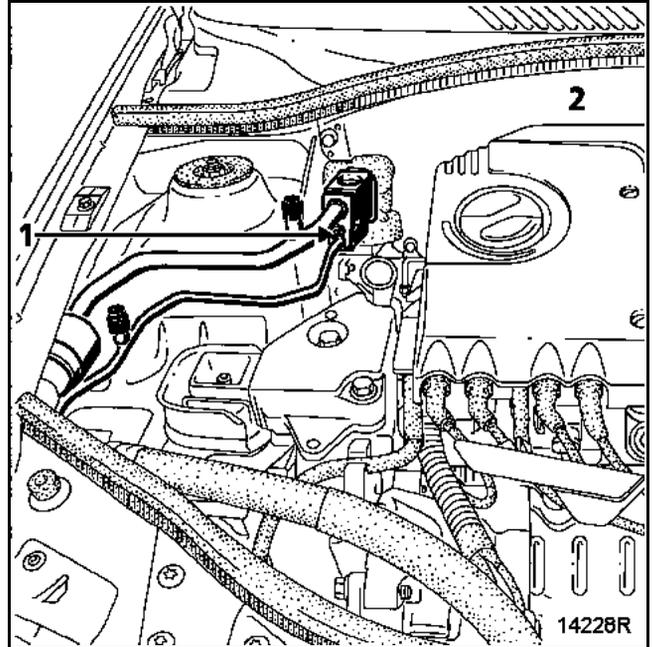
Extract the fan assembly.



REFITTING

Proceed in the reverse order to removal.

TIGHTENING TORQUES (in daNm)	
Evaporator pressure relief valve bolt	0.6
Pressure relief valve connecting hose retaining nut	0.8
Pressure relief valve connection hose retaining bolt on dehydration canister	0.8
Condenser connection hose retaining bolt on dehydration canister	1.2
Compressor connection hose retaining bolt on condenser	0.8
Compressor connecting hose retaining bolt	2.1
Compressor retaining bolt	2.1
Circuit pressure sensor	0.8



Disconnect electrical connectors (3) and (4) ((5) for vehicles fitted with regulated heating/ventilation).

Remove the retaining bolts from the evaporator housing.

REMOVAL

Disconnect the battery.

Drain the **R134a** coolant circuit using the filling equipment.

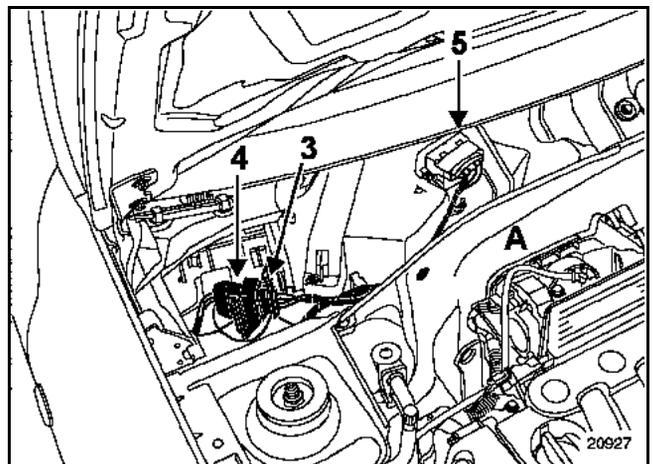
Engine compartment side

Disconnect the **R134a** hoses (nut 1) that connect to the pressure relief valve.

Fit plugs to the hoses and the pressure relief valve.

Remove:

- the windscreen wiper arms,
- the air inlet grille(s), depending on model (normal version/version with regulated heating/ventilation),
- the closure panel insulator (A) (on relevant models),
- the six plenum chamber closure panel (2) retaining bolts and remove the plenum chamber,
- the evaporator protector in the plenum chamber.

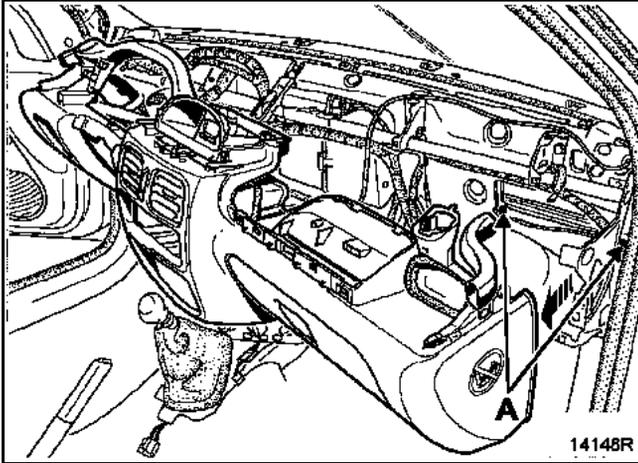


NOTE: you must remove the air filter unit on vehicles fitted with **K9K** engines to access and remove the evaporator housing.

Passenger compartment side

Remove the dashboard
(see section 57B)

Remove the two evaporator housing mountings (A)
located behind the dashboard on the passenger side.



Remove the cable.

Carefully remove the evaporator from its housing.

REFITTING

(see section 57B)

Check that the harness tubes are not in contact (risk of noise).

Proceed in the reverse order to removal.

Tighten the retaining nut on the pressure relief valve connecting hoses to **0.6 daNm** (check that the seals are in good condition).

NOTE:

When refitting the dashboard,
check:

- that the electrical wiring is positioned correctly,
- that the air ducts are in the correct positions.

IMPORTANT

(see the relevant section)

Refill the **R134a** coolant circuit using the filling equipment.

IMPORTANT

When an evaporator is changed, add **30 ml** of **P.A.G. SP 10** oil to the circuit.

Use the same oil for refitting the seals, ensuring that they are in good working order.

REMOVAL

Place the vehicle on a lift.

Drain the **R134a** coolant circuit.

Disconnect the battery.

Remove the front bumper.

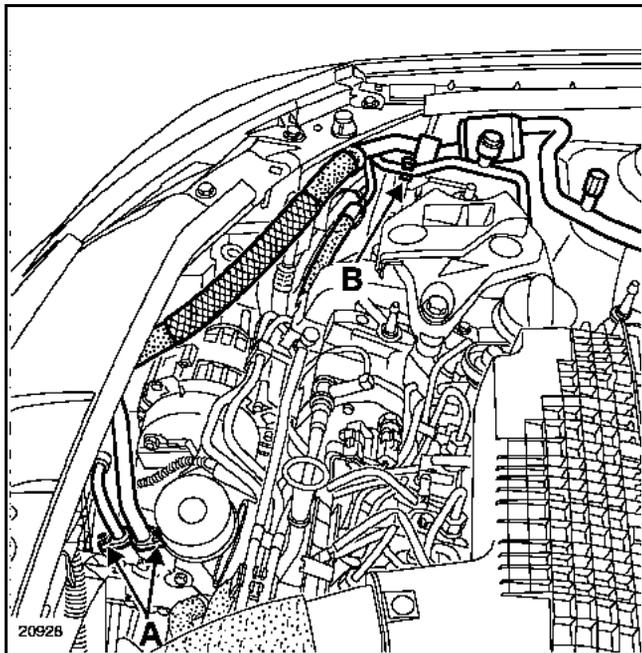
From above, remove:

- the compressor drive belt,
- the two connecting hoses (A),

From below, remove:

- the compressor connections,
- the three compressor retaining bolts and remove the compressor.

NOTE: it is essential to insert plugs in the hoses and in the compressor to prevent moisture entering the circuit.



REFITTING

If the compressor needs replacing, the new one is supplied filled with oil.

Position the compressor the correct way round (filler plug facing upwards).

Tighten the three retaining bolts (tightening torque: **2.1 daNm**).

Refit the two **R134a** refrigerant hoses (A) (tightening torque: **2.1 daNm**) on the compressor and refit the bracket (B).

Fit the drive belt and tension it.

Refill the **R134a** coolant circuit using the filling equipment.

NOTE: you must remember to refit all the bolts when refitting the hoses and compressor. Make sure that the bolts are in the right positions before tightening them to torque. This will ensure that the hoses stay in the right position and prevent unnecessary wear.

Check the condition of the seals and lubricate them with **P.A.G. SP 10** oil.

IMPORTANT: When changing the compressor, it is essential to top up the oil.

REMOVAL

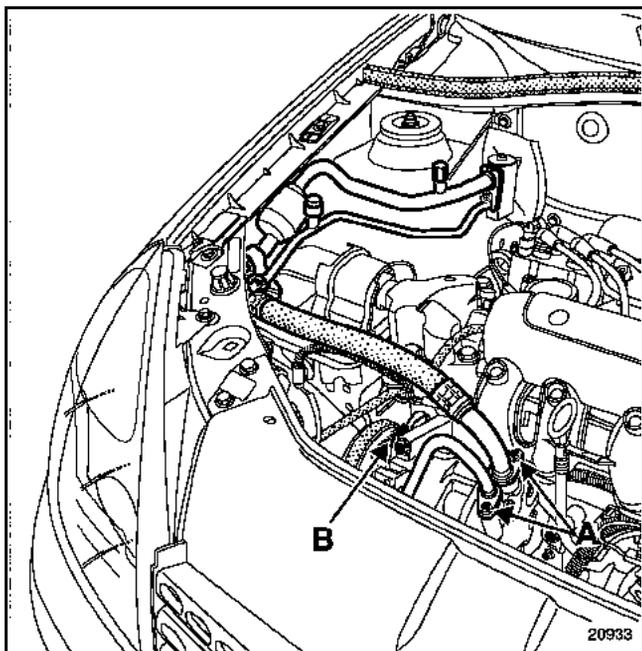
Drain the **R134a** coolant circuit.

Disconnect the battery.

Remove:

- the compressor drive belt,
- the two connecting hoses (A),
- the compressor connections (B),
- the three compressor retaining bolts and remove the compressor.

NOTE: it is essential to insert plugs in the hoses and in the compressor to prevent moisture entering the circuit.



REFITTING

If the compressor needs replacing, the new one is supplied filled with oil.

Position the compressor the correct way round (filler plug facing upwards).

Tighten the three retaining bolts (tightening torque: **2.1 daNm**).

Refit the two **R134a** coolant hoses (A) (tightening torque: **2.1 daNm**) on the compressor.

Fit the drive belt and tension it.

Refill the **R134a** coolant circuit using the filling equipment.

NOTE: you must remember to refit all the bolts when refitting the hoses and compressor. Make sure that the bolts are in the right positions before tightening them to torque. This will ensure that the hoses stay in the right position and prevent unnecessary wear.

Check the condition of the seals and lubricate them with **P.A.G. SP 10** oil.

IMPORTANT: When changing the compressor, it is essential to top up the oil.

REMOVAL

Place the vehicle on a lift.

Drain the **R134a** coolant circuit.

Disconnect the battery.

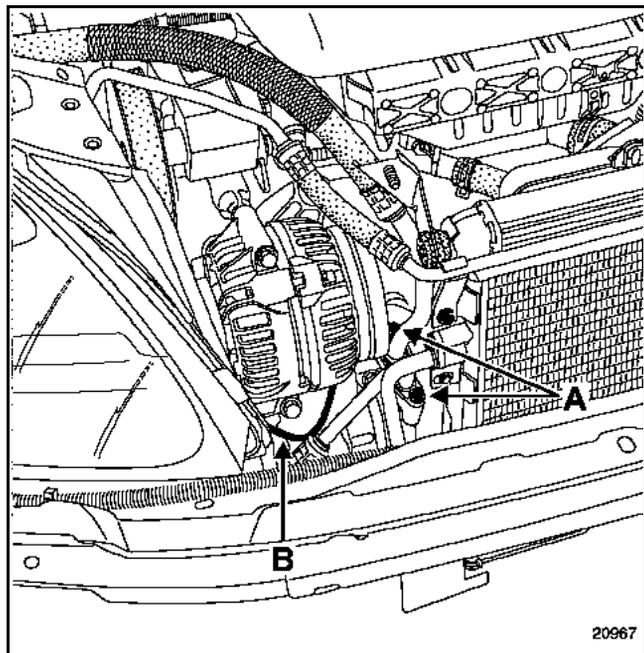
Remove:

- the engine undertray,
- the front bumper.

From above, remove the two connecting hoses (A).

From below, remove:

- the compressor drive belt,
- the compressor connections (B),
- the three compressor retaining bolts and remove the compressor.



NOTE: it is essential to insert plugs in the hoses and in the compressor to prevent moisture entering the circuit.

REFITTING

If the compressor needs replacing, the new one is supplied filled with oil.

Position the compressor the correct way round (filler plug facing upwards).

Tighten the three retaining bolts (tightening torque: **2.1 daNm**).

Refit the two **R134a** coolant hoses (A) (tightening torque: **2.1 daNm**) on the compressor.

Fit the drive belt and tension it.

Refill the **R134a** coolant circuit using the filling equipment.

NOTE: you must remember to refit all the bolts when refitting the hoses and compressor. Make sure that the bolts are in the right positions before tightening them to torque.

This will ensure that the hoses stay in the right position and prevent unnecessary wear.

Check the condition of the seals and lubricate them with **P.A.G. SP 10** oil.

IMPORTANT: When changing the compressor, it is essential to top up the oil.

REMOVAL

It is not necessary to use a lift.

Drain the **R134a** coolant circuit.

Disconnect the battery.

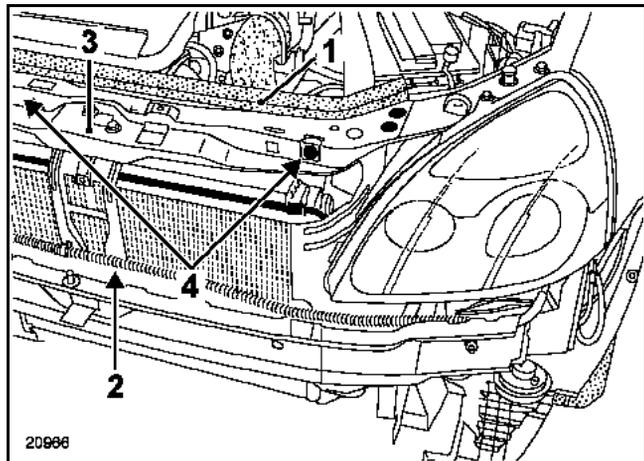
Remove:

- the front bumper and its grille,
- the seal (1),
- the upper cross member (3) electrical wiring harness (2),
- the two radiator upper retaining bolts (4).

Disengage the radiator-condenser assembly and push it back a little way.

Remove:

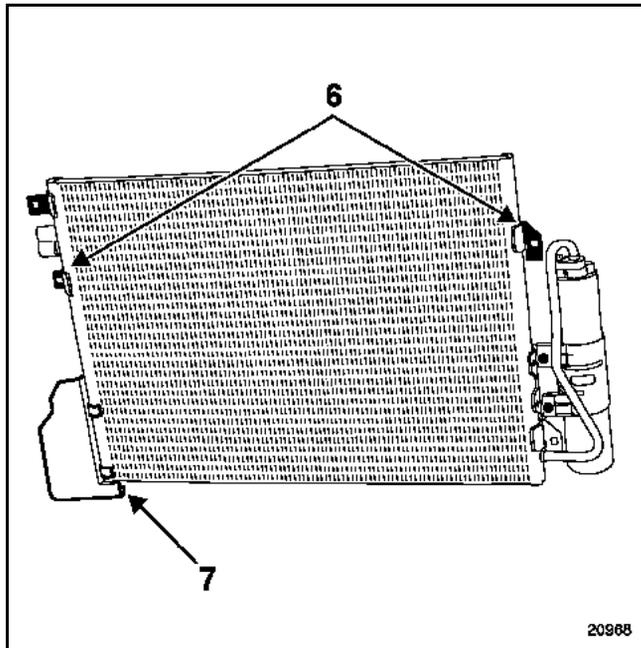
- the six upper cross member (3) bolts,
- the two **R134a** refrigerant hoses (fit plugs to prevent moisture entering the components).



Remove:

- the two condenser retaining bolts (6),
- the condenser hose protector (7).

Carefully remove the condenser.



REFITTING

Refit in the reverse order to removal (remember to refit the condenser protection (7)).

Check the condition of the seals.

Refill the **R134a** coolant circuit using the filling equipment.

IMPORTANT: When changing the condenser, add 30 ml of **P.A.G. SP 10** oil to the circuit.

NOTE: tightening torque of bolts (6): **0.8 daNm**.

TIGHTENING TORQUES (in daNm)	
Hose retaining bolt on compressor	2.1
Hose retaining nut on pressure relief valve	0.8
Hose retaining bolt on condenser	0.8

Disconnect the battery.

Drain the **R134a** coolant circuit using the filling equipment.

NEW HIGH PRESSURE HOSE BETWEEN THE COMPRESSOR AND THE CONDENSER

REMOVAL

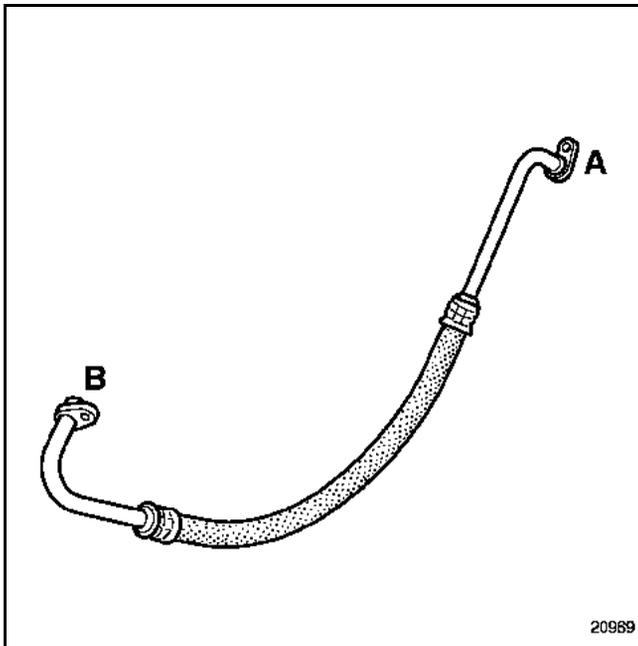
Remove the mounting bolt on the compressor.

Fit plugs to the hose and the compressor.

Remove the mounting bolt on the condenser.

Remove the hose.

Fit plugs to the condenser and the hose.



A Condenser outlet

B Compressor outlet

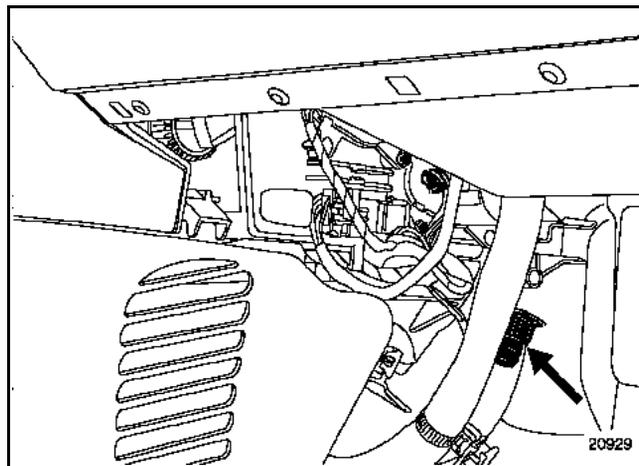
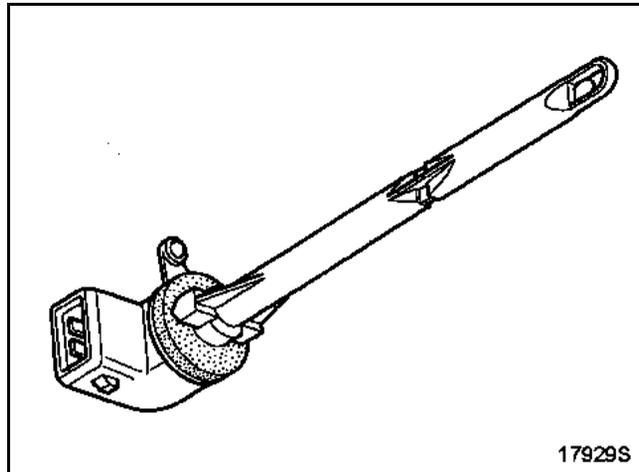
REFITTING

Refit in the reverse order to removal.

NOTE: when refitting the connecting hoses to the compressor, you must fit all the bolts loosely in the correct positions before tightening them to torque. This will ensure that the hoses stay in the right position and prevent unnecessary wear.

Check the condition of the seals and lubricate them with **P.A.G. SP 10** oil.

When changing a hose, add **10 ml** of **SP 10** oil or when a hose bursts (rapid leak), add **100 ml**.



The evaporator sensor provides information about the temperature at the evaporator outlet.

It is a negative temperature coefficient (**NTC**) thermistor.

REMOVAL

Remove the sensor from underneath the passenger side dashboard.

Unclip the sensor connections.

Turn the sensor one-quarter turn to remove it.

REFITTING

Proceed in the reverse order to removal.