

There is no heater hot water valve. The flow through the heater matrix is continuous and as this contributes to the engine cooling, these pipes are not to be blocked.

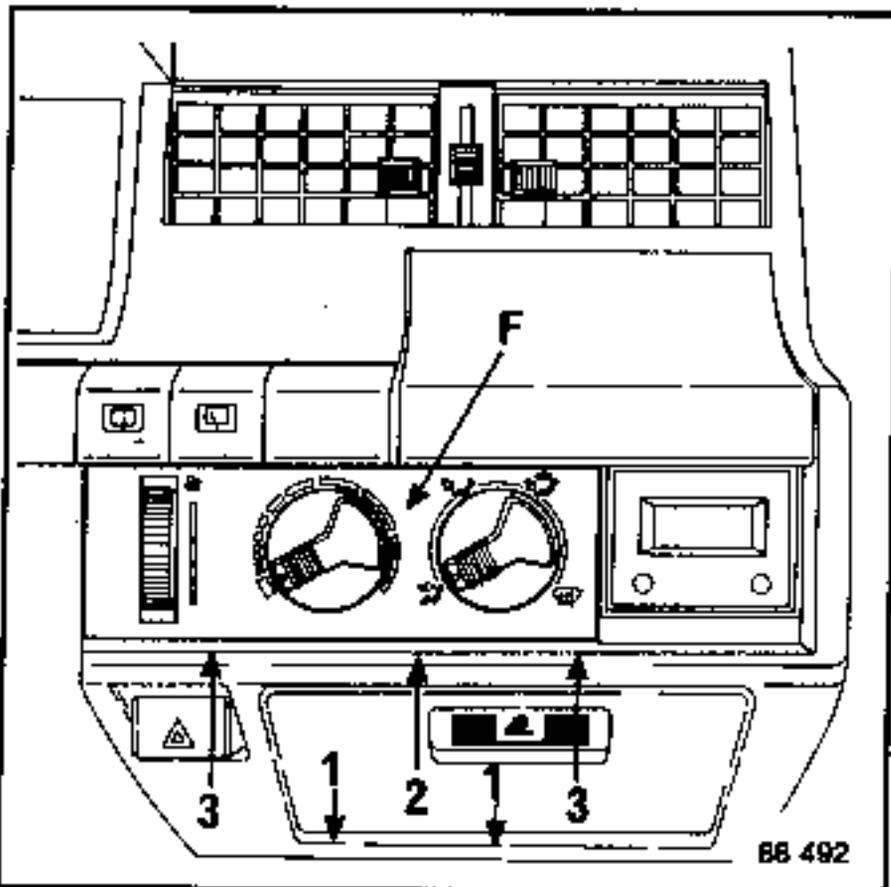
The matrix and air distribution casing are removed as one unit.

ESSENTIAL SPECIAL TOOLS

Mot. 453-01	Set of two hose clamps
M.S. 583	Set of two hose clamps

REMOVING

Disconnect the battery and then, depending on the version :

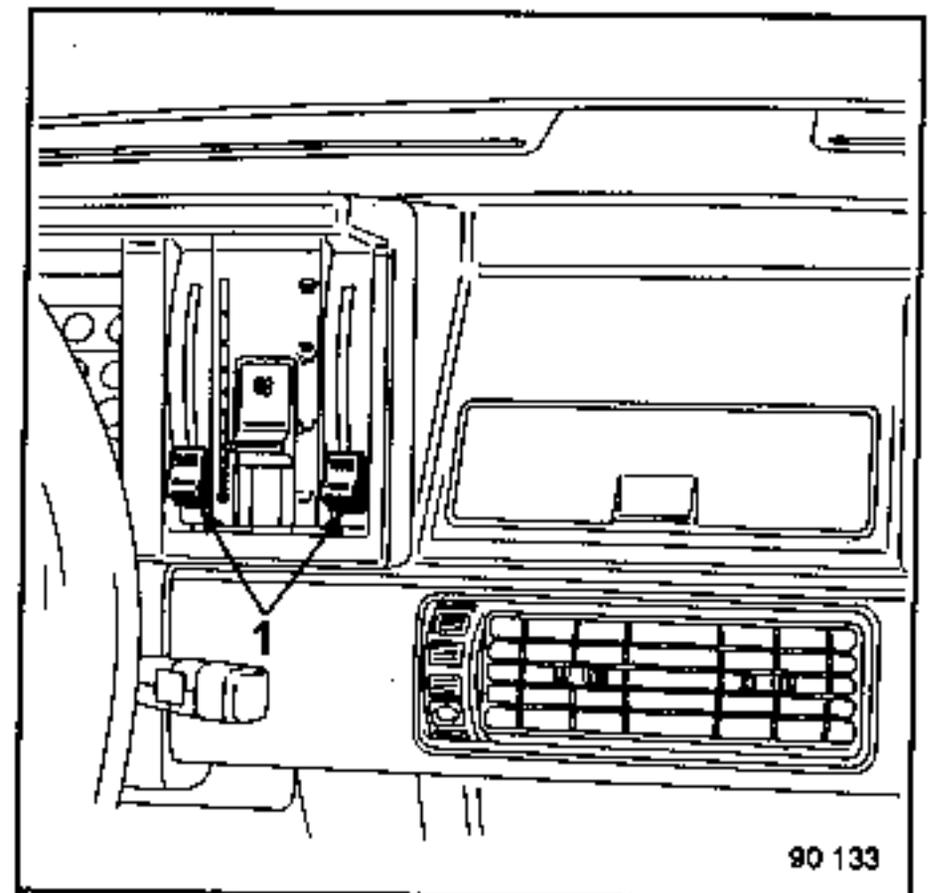


Open the ashtray.

Remove :

- the two screws (1),
- the ashtray,
- the screw (2).

Free the two clips (3) and push the front panel (F) into the fascia panel (do not disconnect the control cables).



Remove :

- The choke control.
- The instrument panel visor.
- The instrument panel.

Free the heater controls (1) (remove the screw at the bottom to free the studs at the top).

- Disconnect the cables from the air distribution casing.

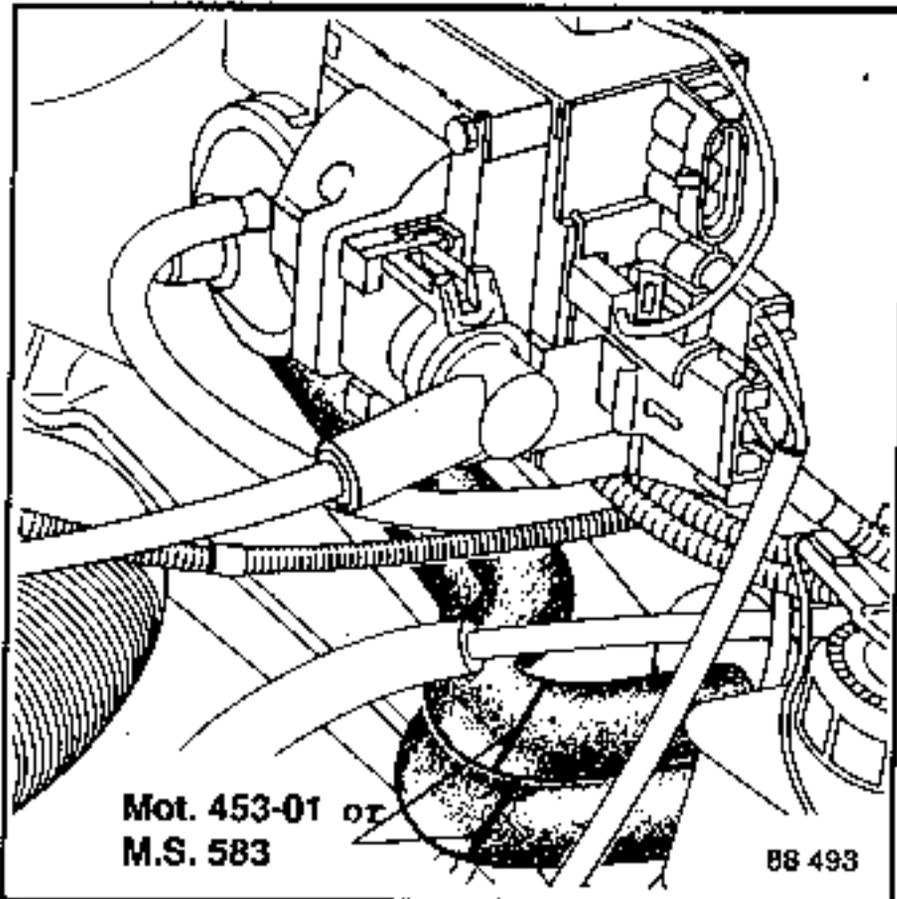
Remove :

- the trim (see the Bodywork Manual),
- the fascia panel (see section "80").

Pinch flat the heater matrix hoses using clamps Mot.453-01 or M.S.583.

Mark the hoses and disconnect them.

NOTE : If the hoses are connected the wrong way round on refitting, the coolant flow through the heater matrix will be noisy.



Remove the screws that secure the casing to the scuttle and remove the casing and the control unit.

Separating the two half casings

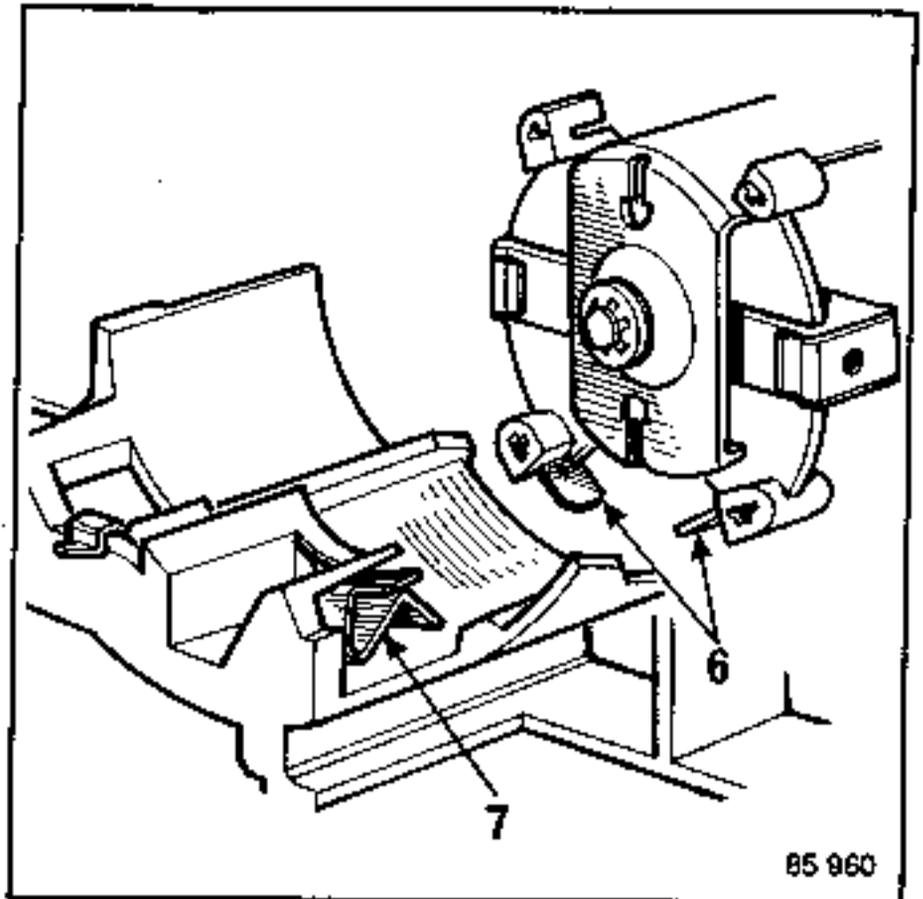
Remove the snap ring (4).

Remove the clips (5).

Separate the two half casings.

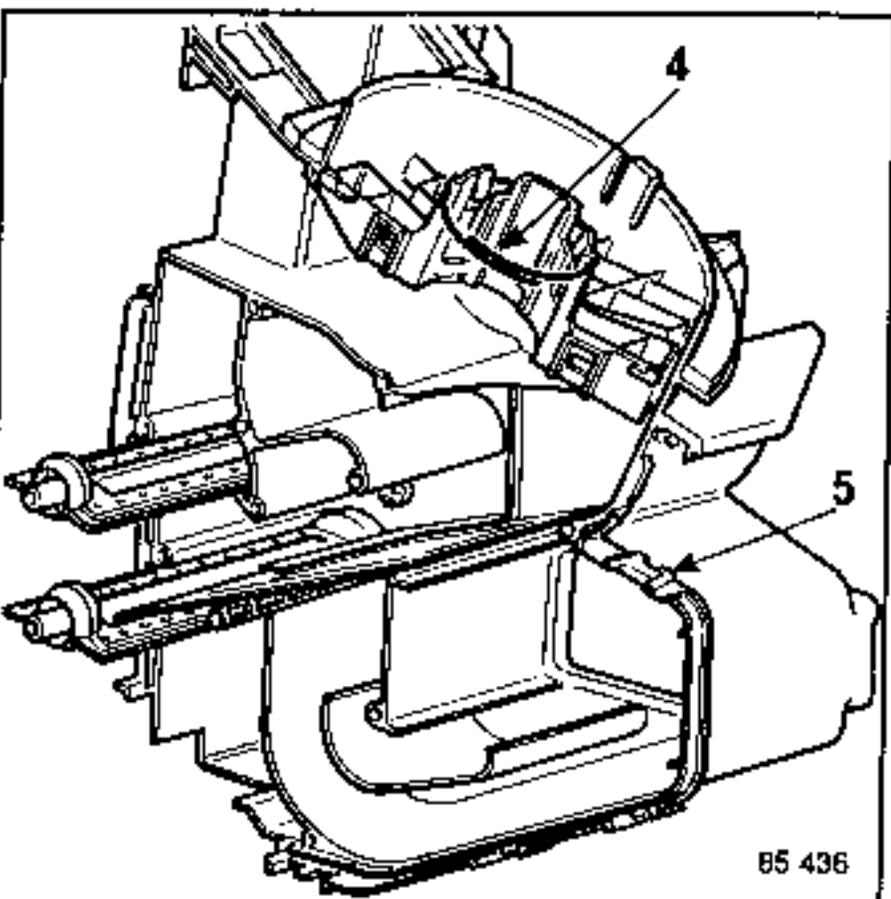
REFITTING (Special features)

Position the motor so that the lugs (6) enter their locations (7).



The distribution casing is refitted at the same time as the control unit and its cables.

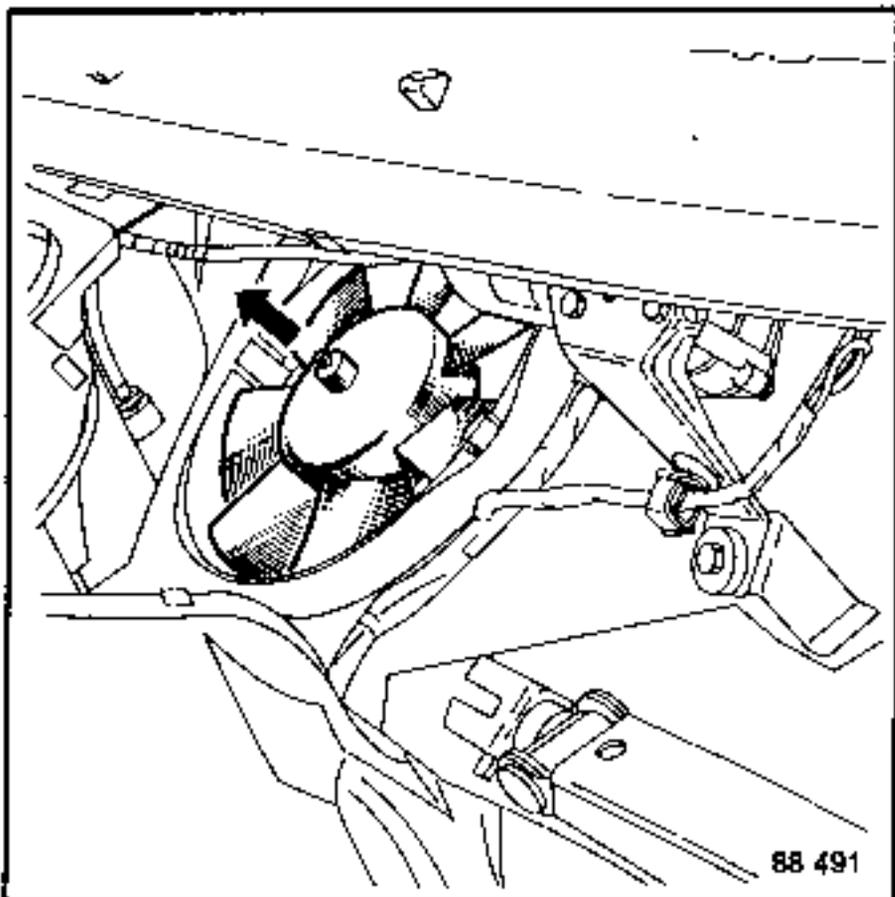
Fill and bleed the cooling system (see section "19").



Access to the blower motor is gained through the engine compartment

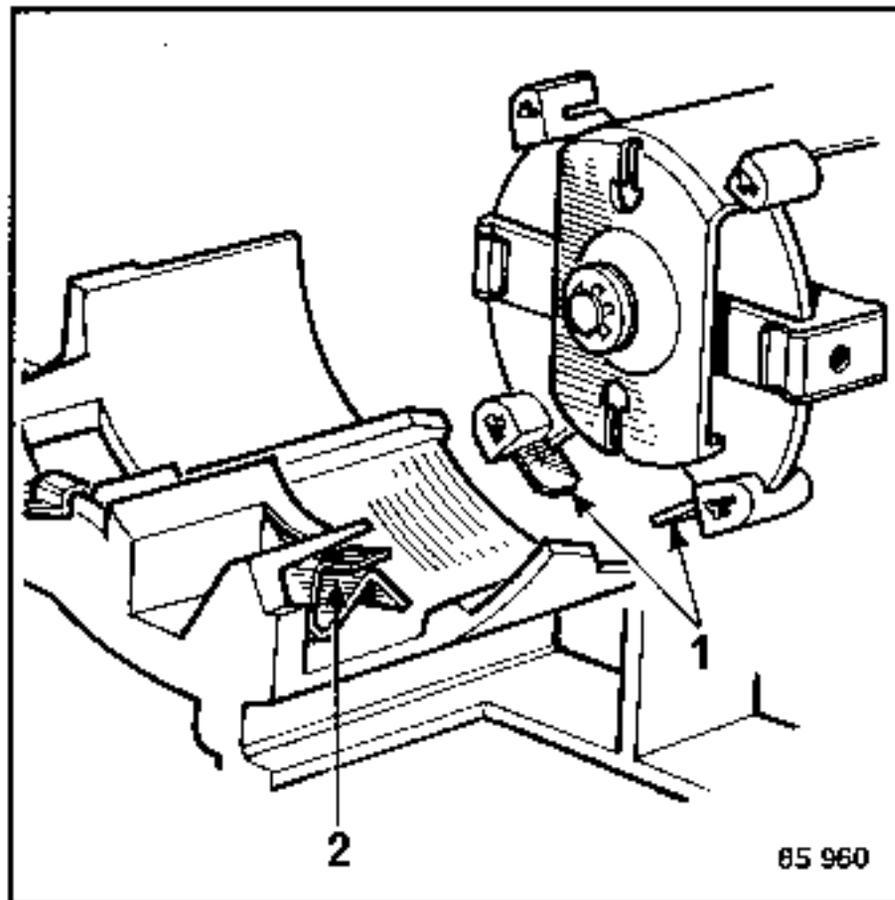
REMOVING

- Disconnect the battery.
- Remove the blower motor protection.
- Remove the grille.
- Take out the motor by pulling it upwards.



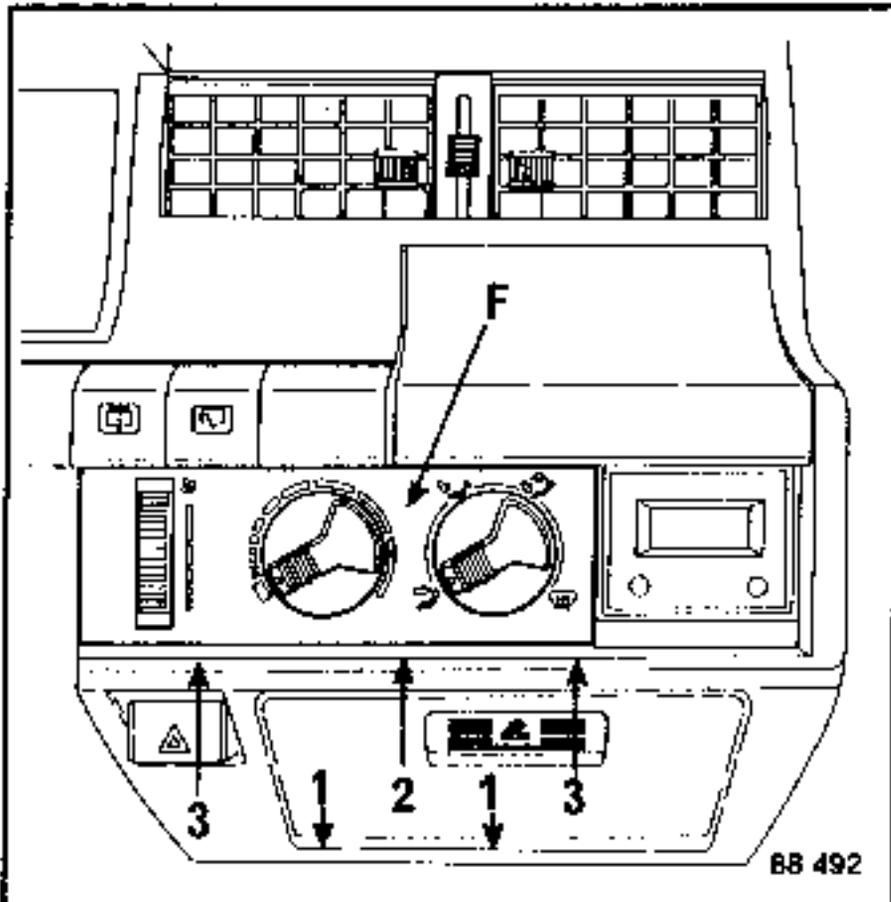
REFITTING

- Position the motor so that its lugs (1) enter their locations (2).



REMOVING

Disconnect the battery then, depending on the version :



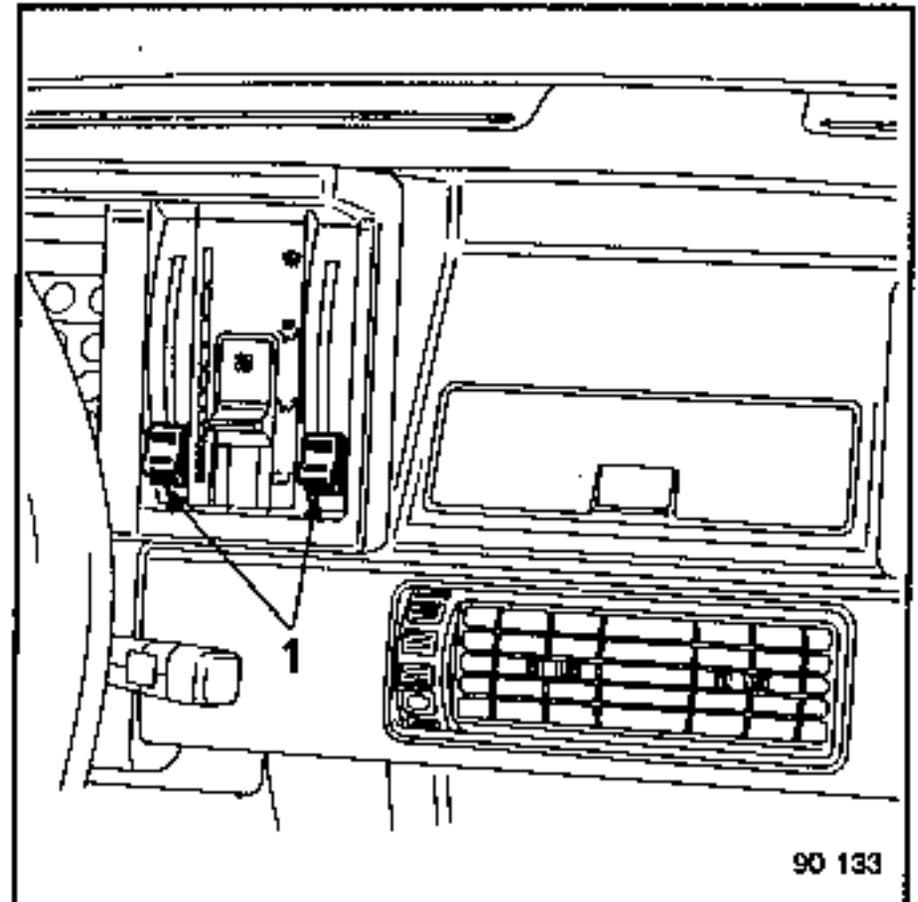
Open the ashtray.

- Remove :
- the two screws (1),
 - the ashtray,
 - the screw (2).

Unclip the two clips (3) and push the front panel (F) into the fascia panel (do not disconnect the control cables).

Remove the fascia panel lower fastenings (see section "80") and slightly lift the panel.

Remove the cable or cables.



Remove :

- the visor.
- The instrument panel (see section "80").
- The lower screw from the control unit.

Disconnect the control cables from the air distribution casing (slightly lift the fascia panel to do so).

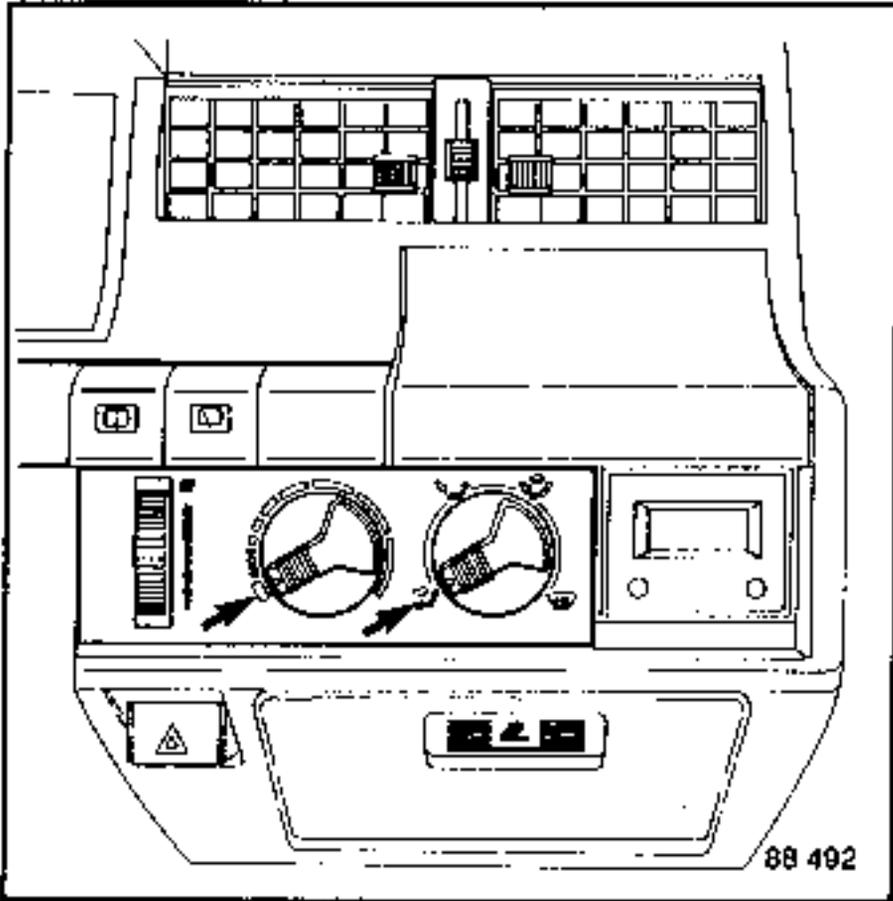
Free all the controls from the distribution casing and disconnect the blower fan switch.

REFITTING

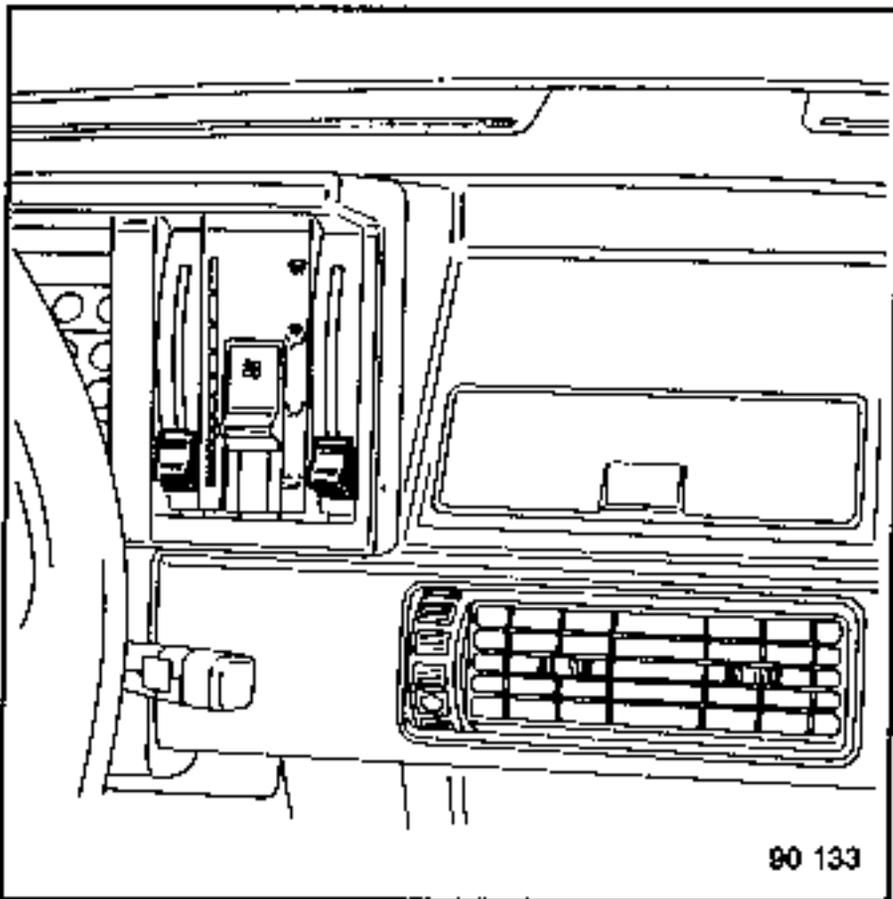
Refitting is a straight forward operation.

ADJUSTING

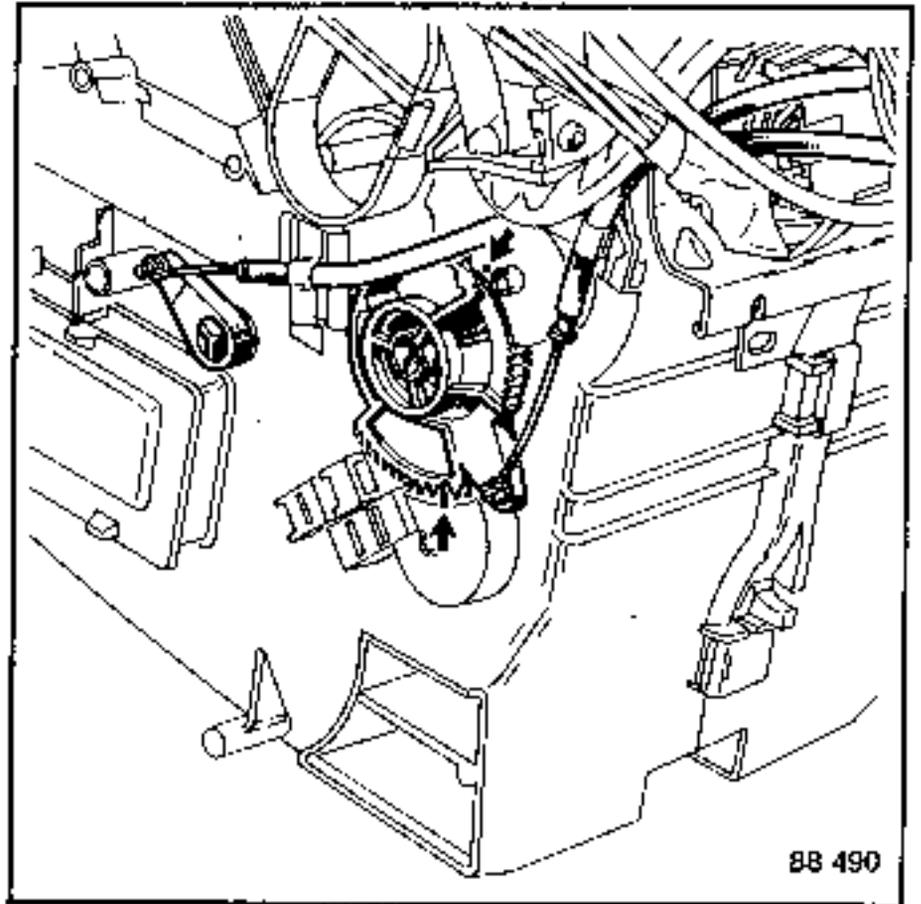
Place the controls in the following position.



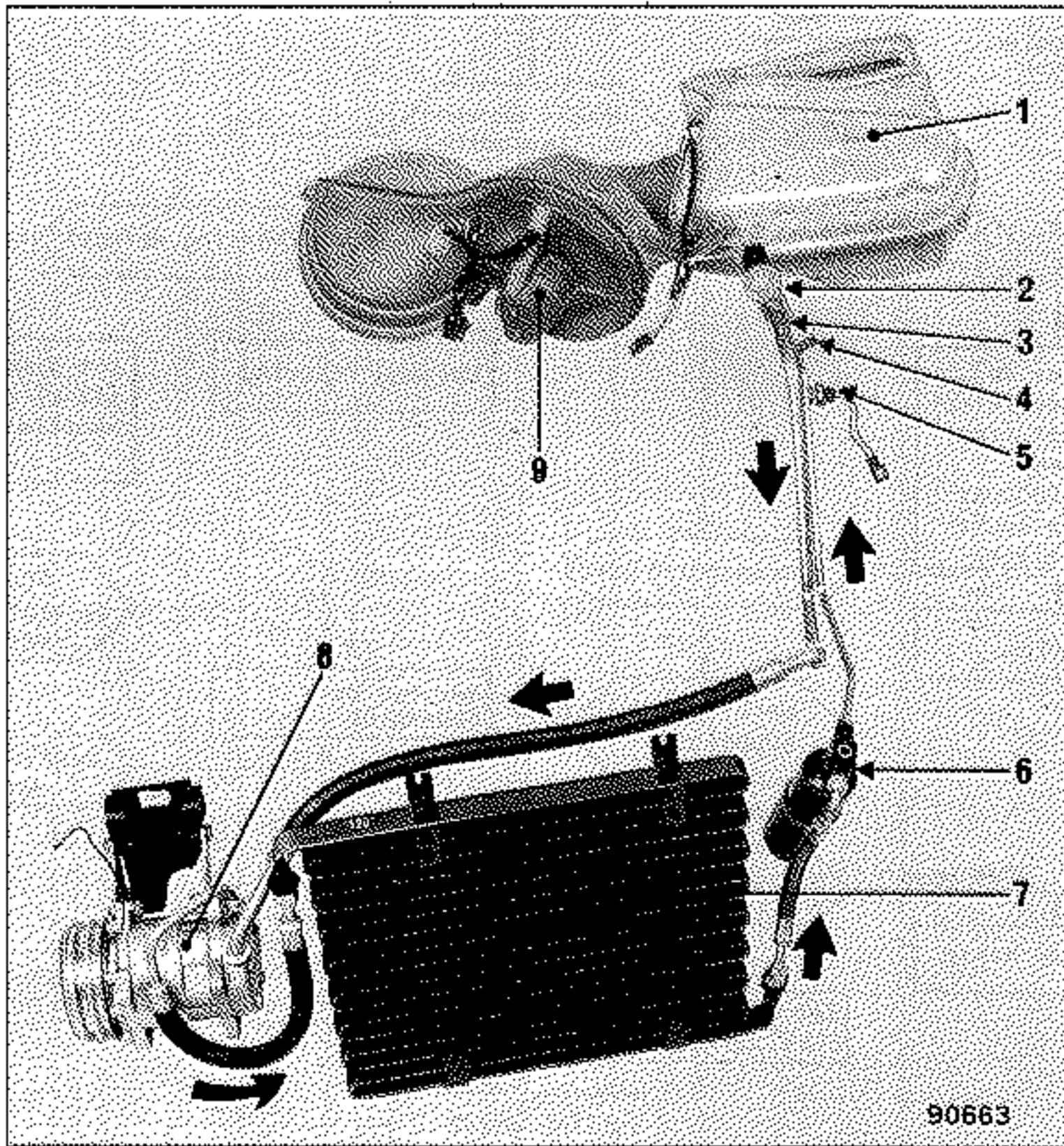
or



Align the position marks.



Clip the cable cover ends in place.



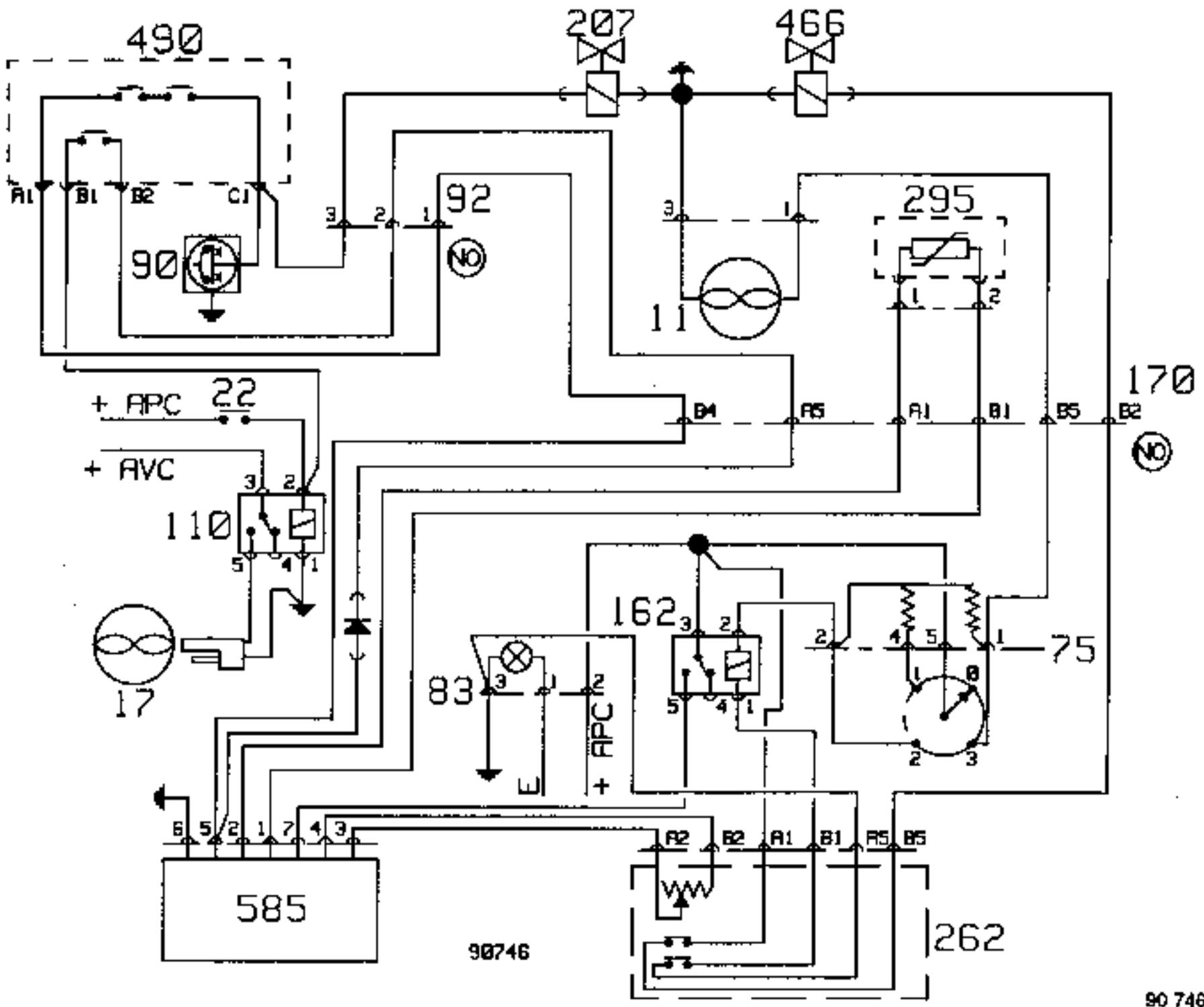
- 1 - Evaporator
- 2 - Expansion valve
- 3 - Low pressure bleed
- 4 - High pressure bleed
- 5 - Pressure switch
- 6 - Dryer bottle
- 7 - Condensor
- 8 - Compressor
- 9 - Fan unit

Air conditioning refrigerant gas :
use only freon R12 (R12 refrigerant)
750 to 800 gr.

Compressor oil :
ELFrima 100

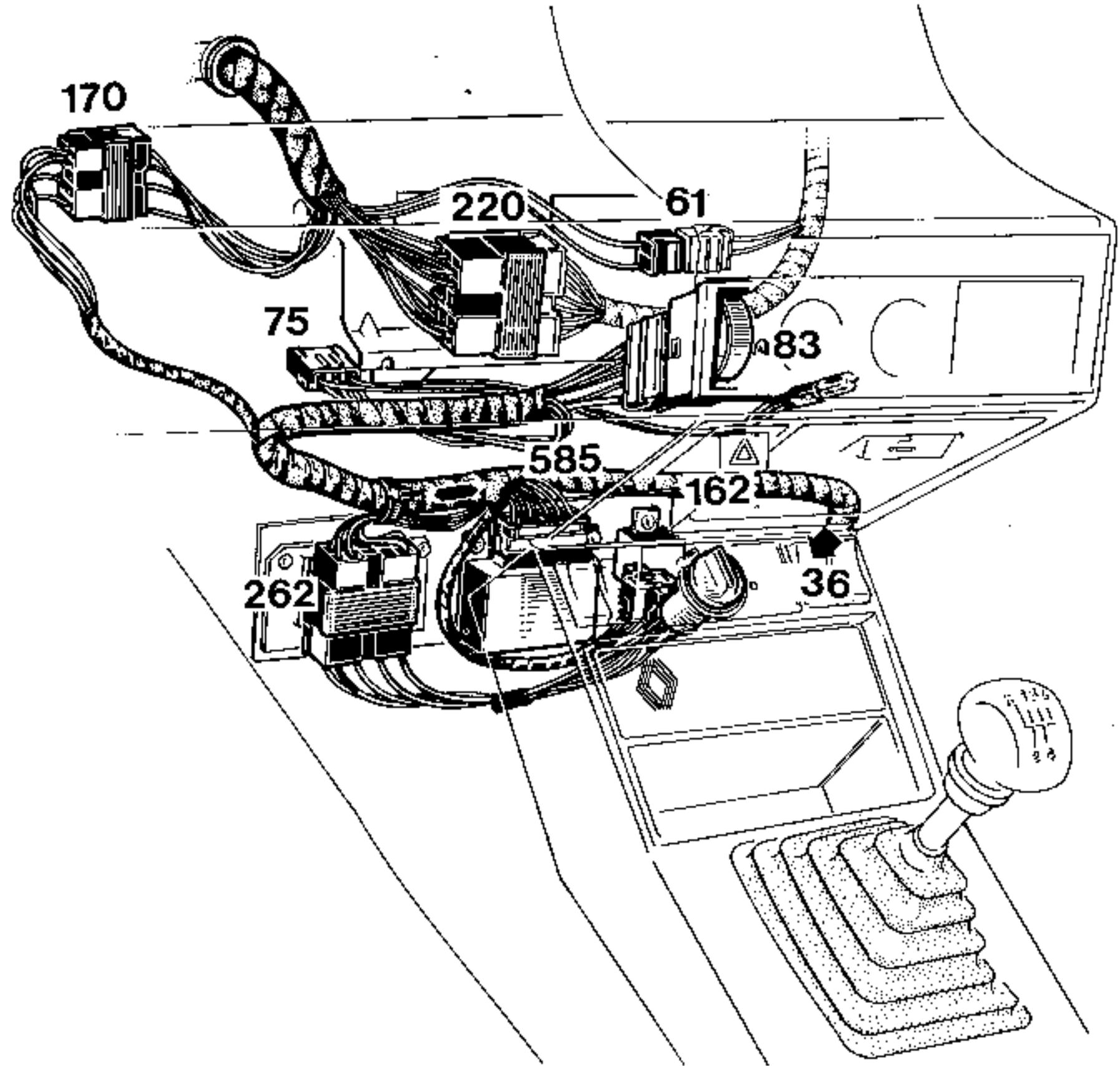
Compressor :
SANKYO SD 508

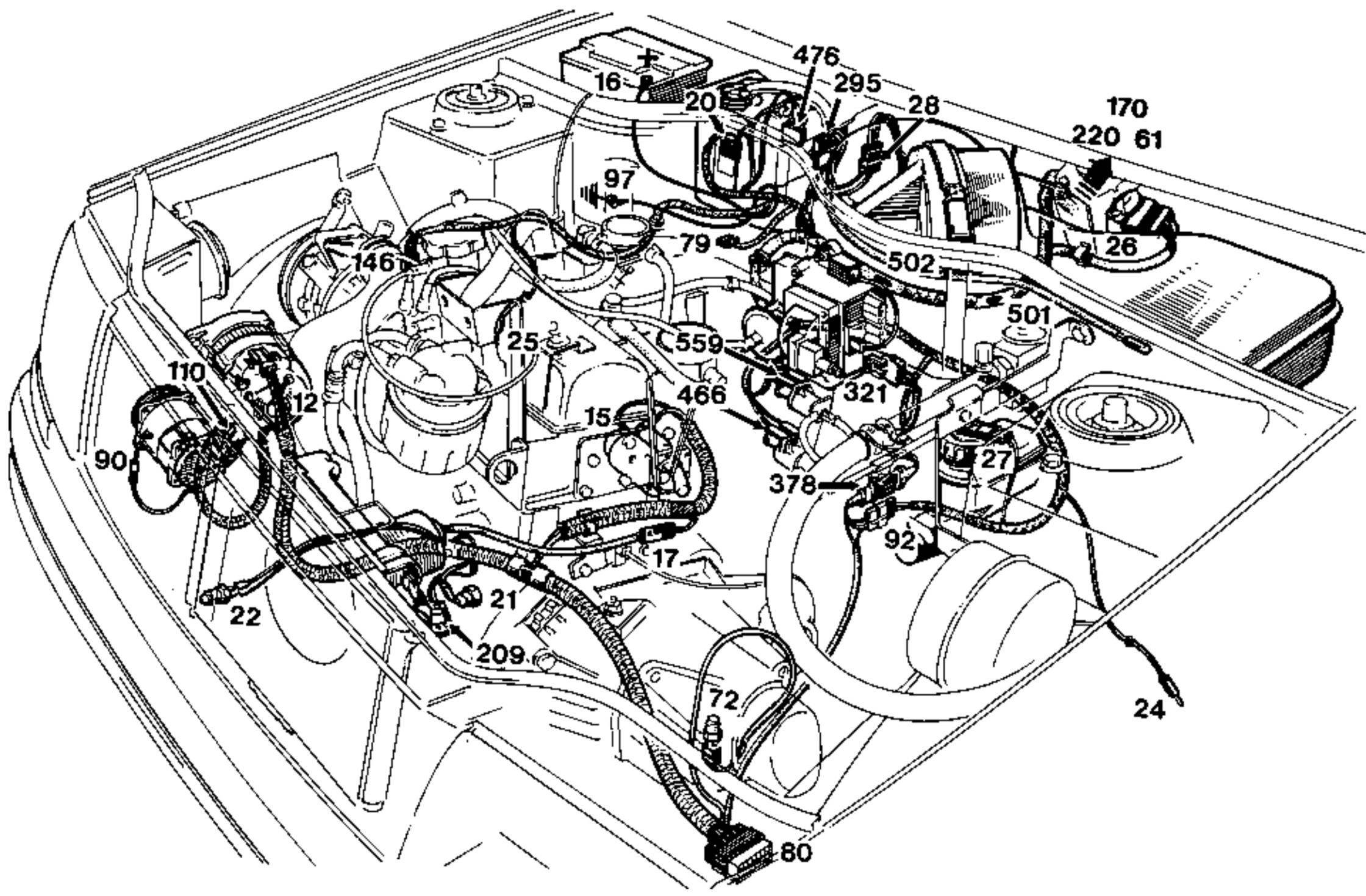
Expansion valve :
SINCER 1-5 TON



- 11 - Air conditioning blower fan
- 17 - Cooling fan
- 22 - Fan control temperature switch
- 75 - Heater blower switch
- 90 - Air conditioning compressor
- 92 - Connection to air conditioning wiring (engine end)
- 110 - Relay for cooling fan (17)
- 162 - Air conditioning relay
- 170 - Connection to air conditioning wiring
- 207 - Anti-stall solenoid valve
- 262 - Air conditioning control
- 295 - Evaporator sensor
- 490 - Air conditioning pressure switch
- 466 - Recycling flap solenoid valve
- 585 - Air conditioning control module
- +AVC - + Before ignition switch
- +APC - + After ignition switch
- E - Lighting

NOTE : The fan unit 17 only operates when 22 or 490 are closed.





CHECKING

Pressure sensors

A pressure switch (5) monitors the minimum and maximum operating pressures in the coolant circuit.

- Low pressure shut-off threshold 2 bars.
- High pressure shut-off threshold 28 bars.
- High speed operating threshold for electric fan (17) 19 bars (on certain versions).

(The quantity of freon in the circuit must be correct).

Pressure drop pressure switch (electric)

Carried out either on the vehicle or after removal.

- On the vehicle (with the engine running) using the refrigerant charging equipment.
- With the pressure switch removed using compressed air and a pressure gauge. The contacts should be closed at pressures above 2 bars.

Excess pressure switch (electric)

- On the vehicle (with the engine running) using the refrigerant charging equipment. The contact should be closed at pressures below 28 bars.
- On the vehicle (with the engine running at more than 4 500 rpm). The contact should be permanently closed.

CHECKING

The potentiometer

Disconnect the connector from control module 585.

Connect an ohmmeter across terminals 3 and 4 on the control module connector.

The resistance should vary from 0 to 10Ωk .

Thermistor sensor

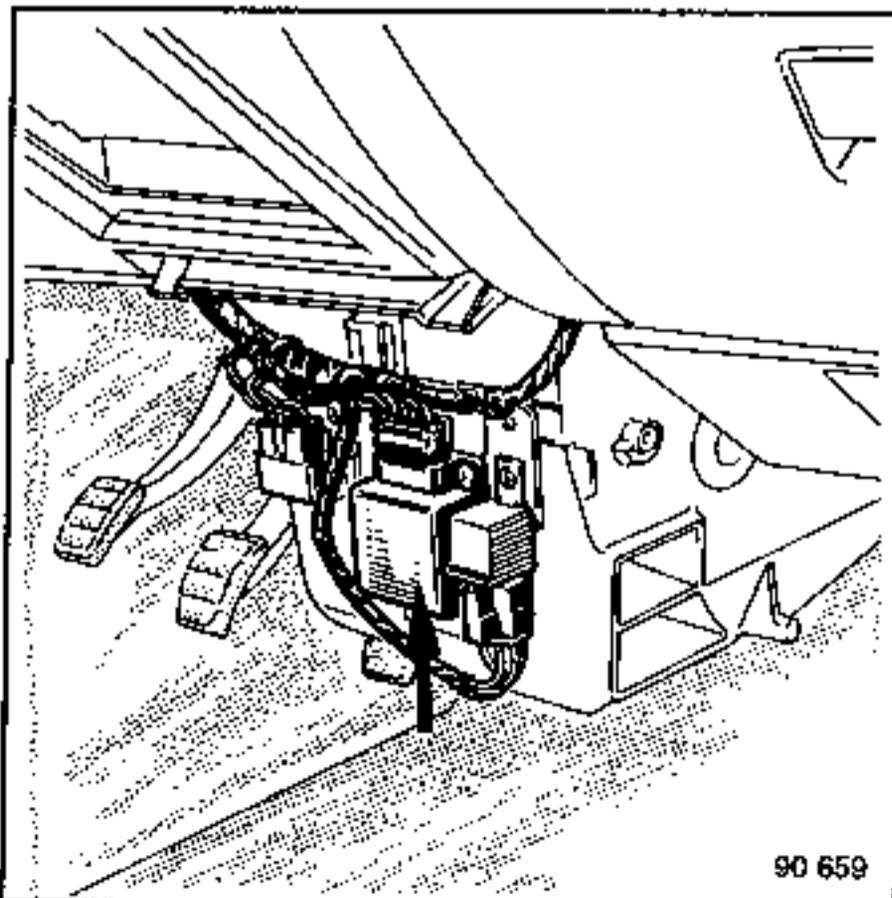
Disconnect the connector from the control module.

Connect an ohmmeter across terminals 1 and 2 on the control module connector.

Take the temperature at the sensor and check the resistance against the chart below :

10°C	10 000 Ω
15°C	7 500 Ω
20°C	6 000 Ω
25°C	4 750 Ω
30°C	4 000 Ω
35°C	3 000 Ω

Position of control module



ESSENTIAL SPECIAL TOOLS

Ele.346-04 Belt tension tester

REMOVING - REFITTING

The cold air blower unit is in the water casing.

When carrying out any mechanical repair operations, we strongly recommend that the compressor or the condenser and its bottle should be removed so as not to damage one of the air conditioning components.

CONDENSER + DRYER BOTTLE

Disconnect the battery.

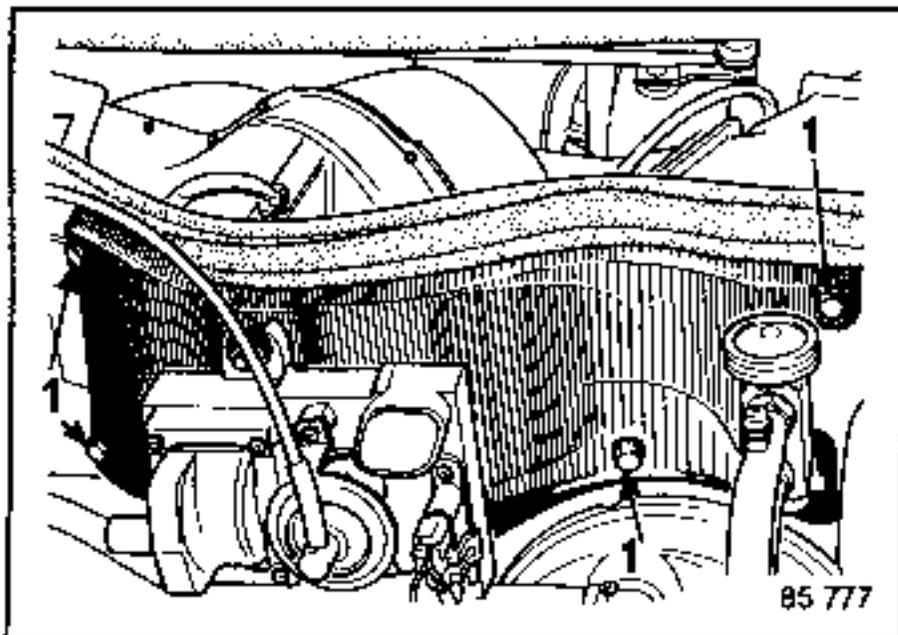
Lift up the radiator.

Free the condenser.

EVAPORATOR

Disconnect the connectors from the ignition unit.

Remove the 5 screws (1) that secure the water casing partition in place.

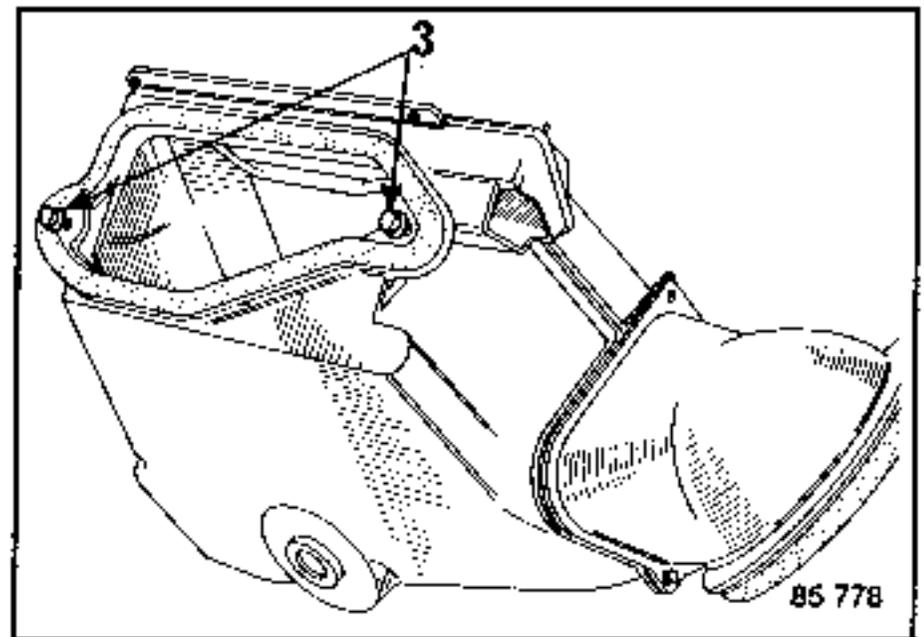


Remove the screw that secures the evaporator to the partition.

Remove the 2 screws that secure the evaporator (3) (these screws are accessible from inside the vehicle).

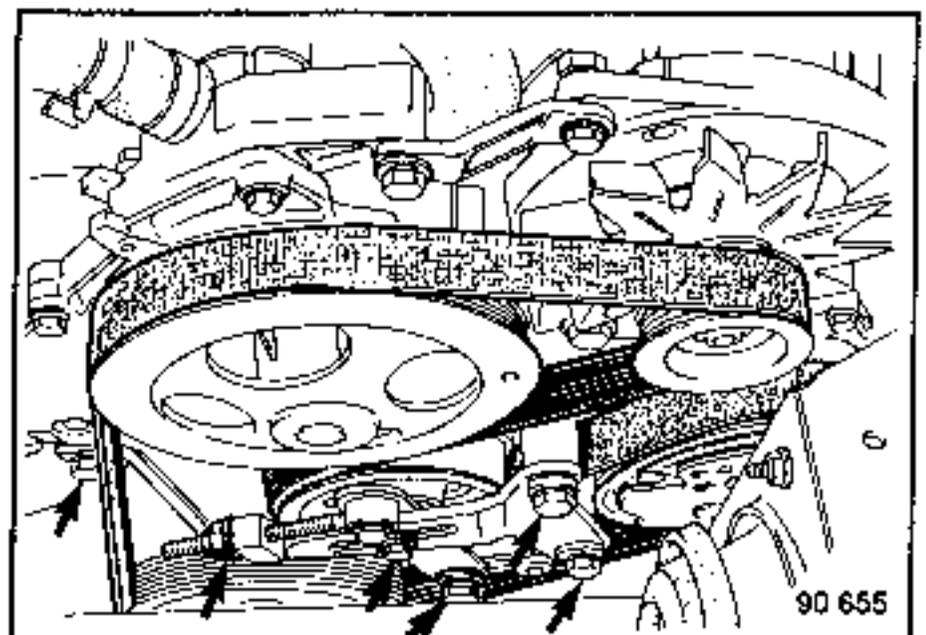
Unscrew the refrigerant pipe unions if necessary.

Take out the evaporator.



COMPRESSOR

Release the tension from the engine accessory drive belt (see section "19").



Remove the alternator.

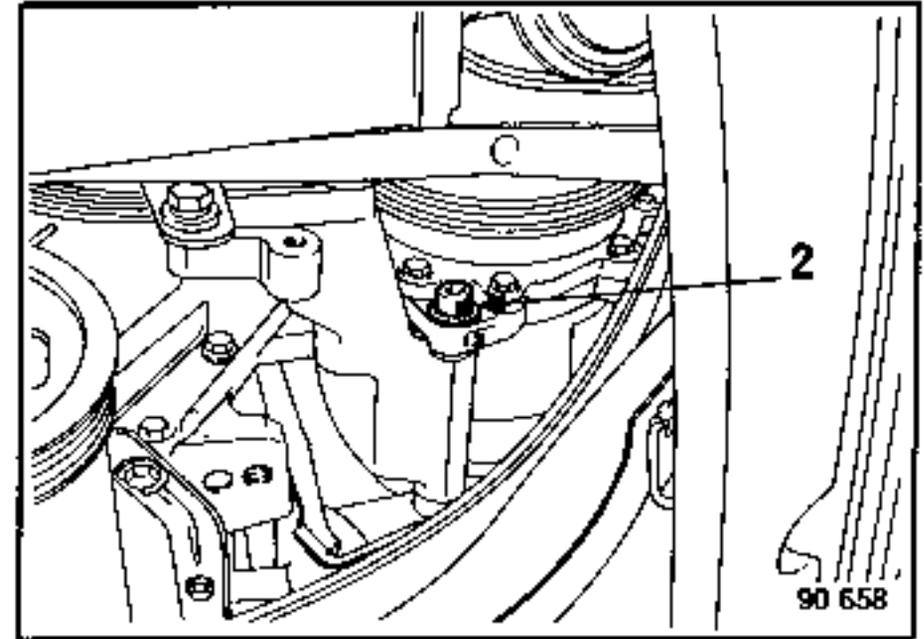
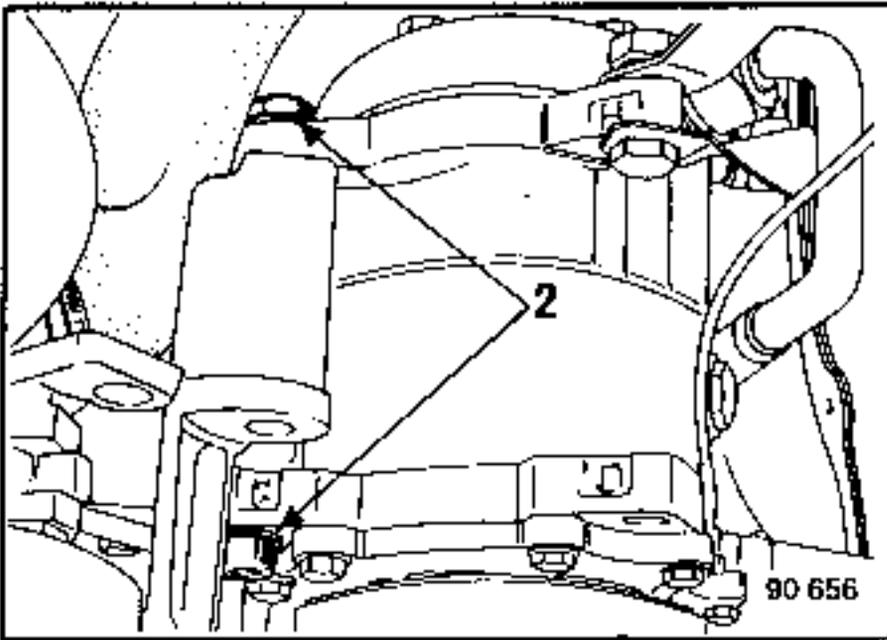
Remove the right hand side protector.

Remove the radiator grille.

REMOVING - REFITTING

Remove the front right hand protector.

Remove the 4 bolts that secure the compressor (2) to its support.



Unscrew the unions on the refrigerant pipes if necessary.

Remove the compressor.

BELT TENSION

3 to 4 mm when the belt is cold after the belt has been running for 1 minute, using Ele.346-04.

