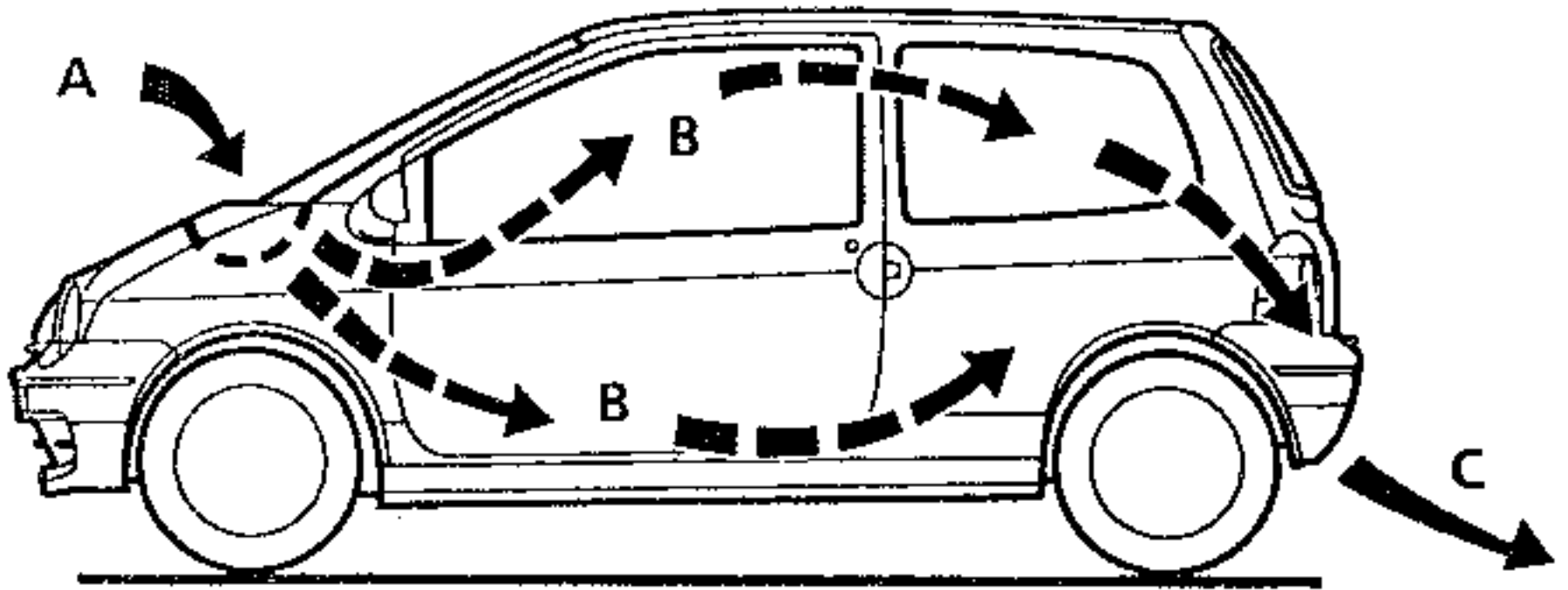


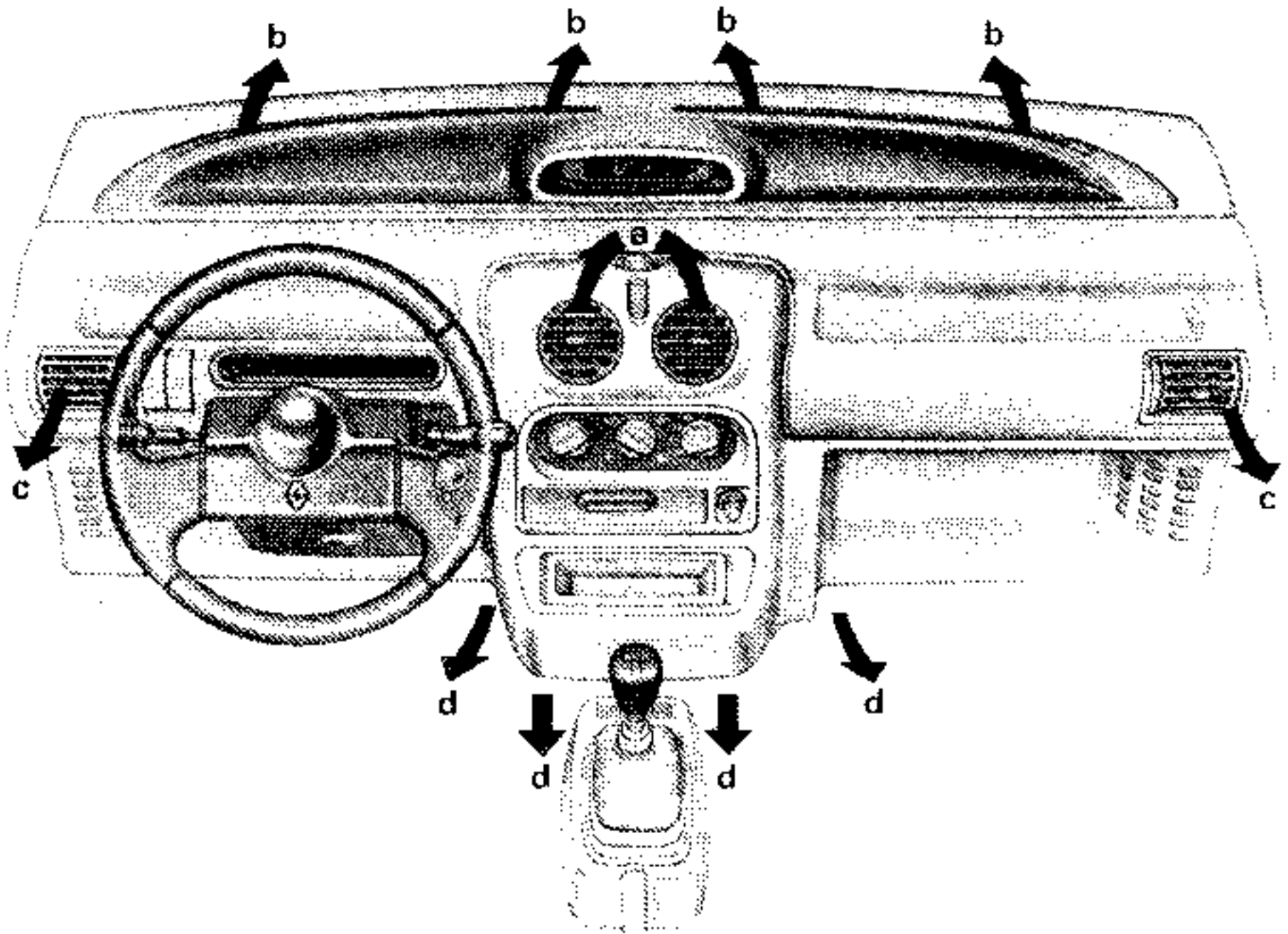
AIR CIRCULATION



95 915-1 R

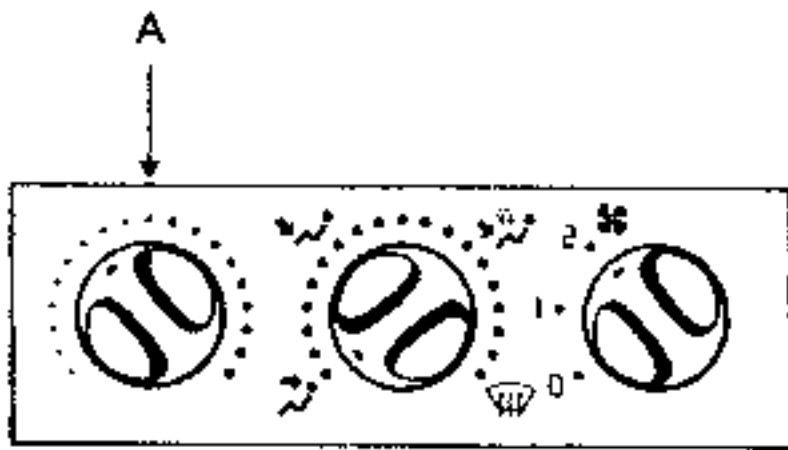
- A External air inlet
- B Distribution of air in the passenger compartment
- C Extraction of air through the luggage compartment

AIR DISTRIBUTION



- a Central vents
- b Windscreen de-misting / de-icing vents
- c Side vents
- d Lower vents

TEMPERATURE CONTROL KNOB (A)



95 932 R1

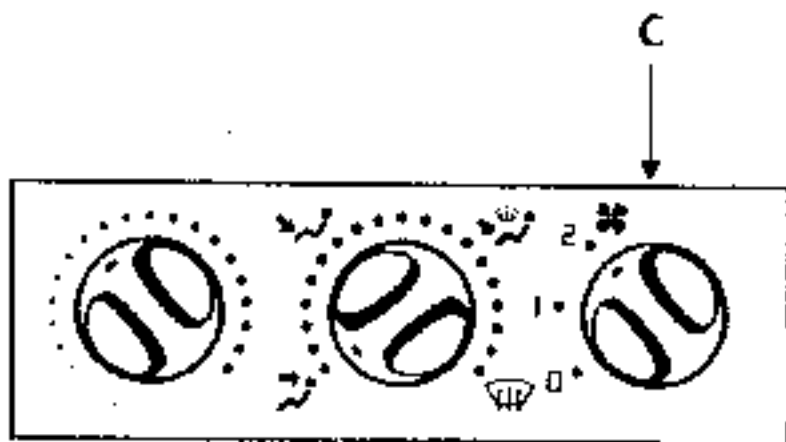
This controls the hot/cold air mixing flap.

When positioned to the extreme left, the air is not heated. It is at the minimum temperature possible.

The fan does not have a heating control and is permanently fed.

The mixing flap ensures the fresh air heating system operates correctly.

FAN SPEED KNOB (C)

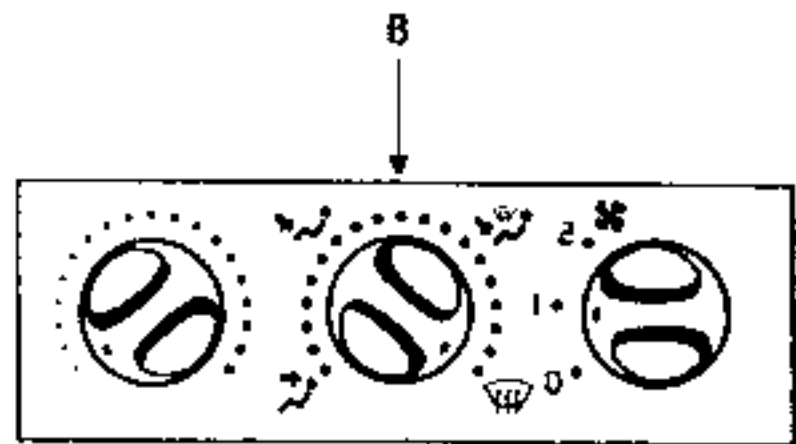


95 932 R1

Ventilation is by blown air.

The amount of air blown into the passenger compartment is determined by the position of knob (C).

AIR DISTRIBUTION KNOB (B)



95 932 R2

Position 

The air flow is directed only to the dashboard vents (a) and (c).

Each vent has three settings :


- open or closed,
- pointed up or down,
- pointed left or right.

Position 

The air flow is directed to the lower vents (d) and the dashboard vents (a) and (c).

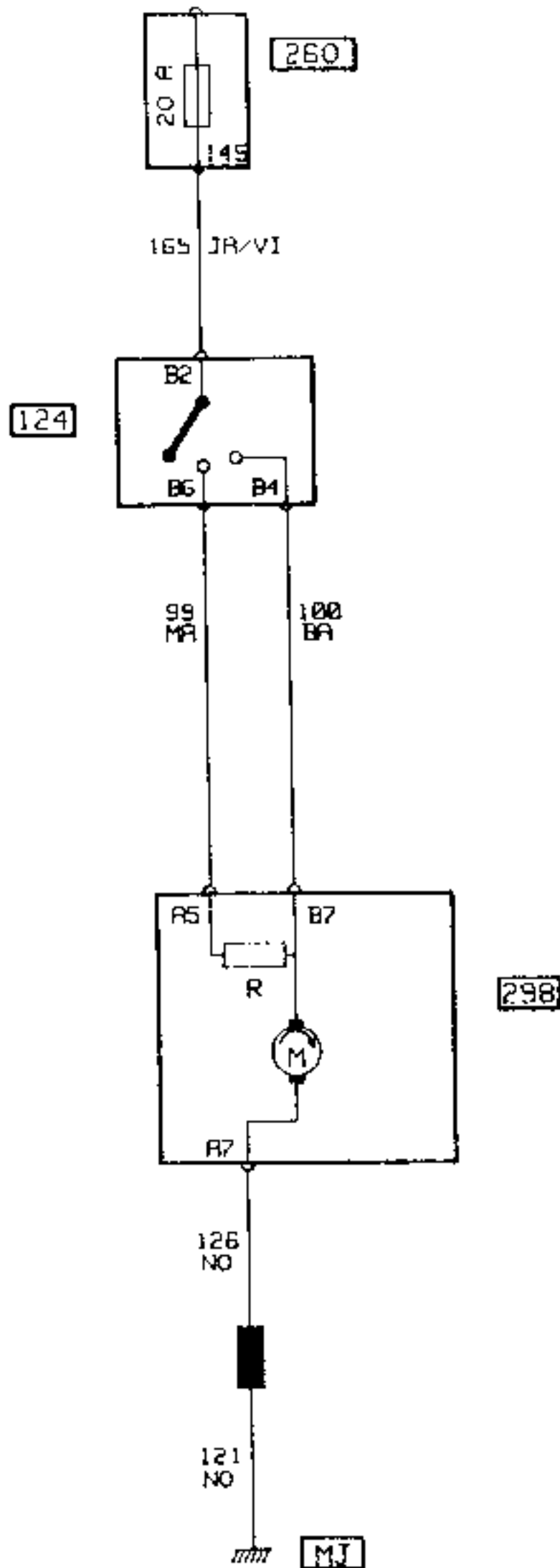
Position 

The air flow is distributed between all the vents (a), (b), (c) and (d).

Position 

The air flow is directed to the windscreen vents (b) and dashboard vents (a) and (c).

For improved windscreen de-misting / de-icing efficiency, vents (a) and (c) should be closed.



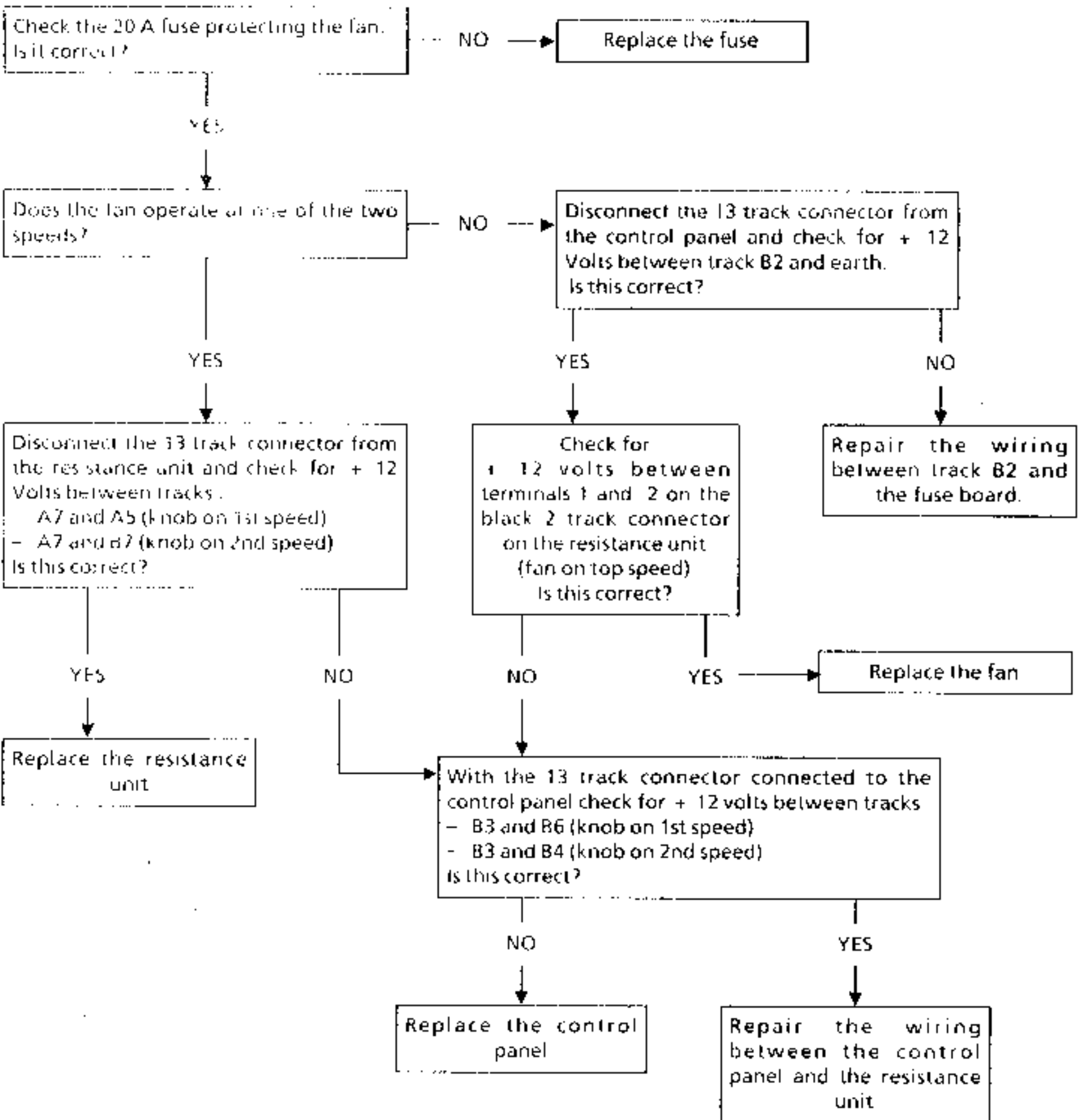
96 343

- 124 Heating control
- 260 Fuse box
- 298 Heating unit.

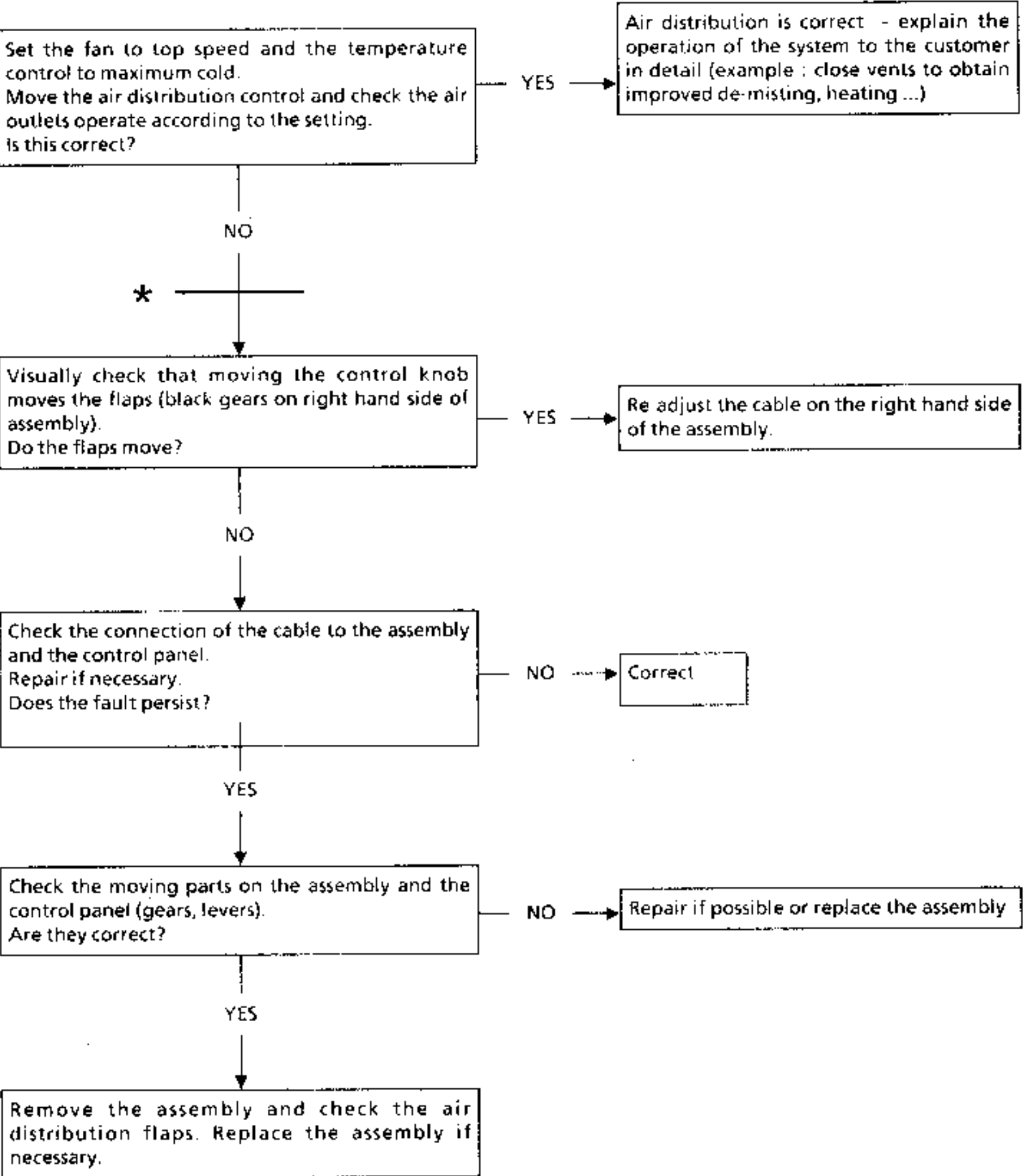
MJ Front right hand pillar earth

NOTE : this wiring diagram applies to all X06 vehicles but may be modified depending on technical changes made to the vehicle.

FAULT : THE FAN DOES NOT OPERATE



FAULT : AIR DISTRIBUTION PROBLEM



* From the asterisk onwards this fault finding chart is also valid for the following faults : no hot air, air too hot and heating efficiency problems.

FAULT : HEATING EFFICIENCY PROBLEM

Before taking any action check the customer is using the heating system correctly (see vehicle Handbook and specific MR)

Carry out a road test to confirm the customer's complaint.
Is the test satisfactory?

YES

Advise the customer how to gain optimum benefit from the heating system: do not have the fan on top speed when starting the engine from cold - increase the speed gradually.

NO

Visually check that moving the control knob moves the mixing flap (cable and blue lever).
Does the flap move?

NO

Refer to the fault chart on the previous page "Air distribution problem" from (*)

YES

Visually check that the flap moves as far as it should.
Is this correct?

NO

Re-adjust the cable.

YES

Check the cooling circuit is correctly filled and bled.
Also check the circuit is clean, pipes and connections are correct and the circuit conforms to requirements.
Repair if necessary.
Does the fault persist?

NO

Correct

YES

Remove the engine coolant thermostat and check it is not stuck open.
Replace the thermostat if necessary.
Does the fault persist?

NO

Correct

YES

Next page



NOTE : During a test, if you notice that at high speed the heating system is inefficient, replace the engine coolant thermostat since it is opening under pressure.

FAULT : HEATING EFFICIENCY PROBLEM (cont)

A

Check that there are no leaks of cold air coming into the passenger compartment (seals, wiring openings, cables ...)
Repair if necessary.
Does the fault persist?

NO

Correct

YES

Road test the vehicle with the temperature control knob on 3/4 hot
Note the position of the knob and check that it does not move back towards the cold setting as you are driving.

NO

Replace the cable control or the heating assembly, but before replacing any parts, check the Technical Notes or contact I.T.G. (See 0428)

YES

Check the air inlets and outlets. Blocked air inlets or outlets reduce the flow of heating air into the passenger compartment.
Repair if necessary
Does the fault persist?

NO

Correct

YES

The heating radiator is blocked. Remove the heating assembly and clean or replace the heating radiator.

FAULT : AIR FLOW PROBLEM (when the air distribution knob is set to position)



Check the air inlet circuit, scuttle panel, passenger compartment fan assembly, heating member (coolant reservoir)... Repair if necessary. Does the fault persist?

NO → Correct

YES

Check the air extraction circuit. Repair if necessary. Does the fault persist?

NO → Correct

YES

Remove the heating assembly, the heating radiator is blocked. Clean or replace the heating radiator.

FAULT : AIR FLOW PROBLEM (when the air distribution knob is set to position)



Check the air inlet circuit, scuttle panel, passenger compartment fan assembly, heating member (coolant reservoir)... Repair if necessary. Does the fault persist?

NO → Correct

YES

Check the air extraction circuit. Repair if necessary. Does the fault persist?

NO → Correct

YES

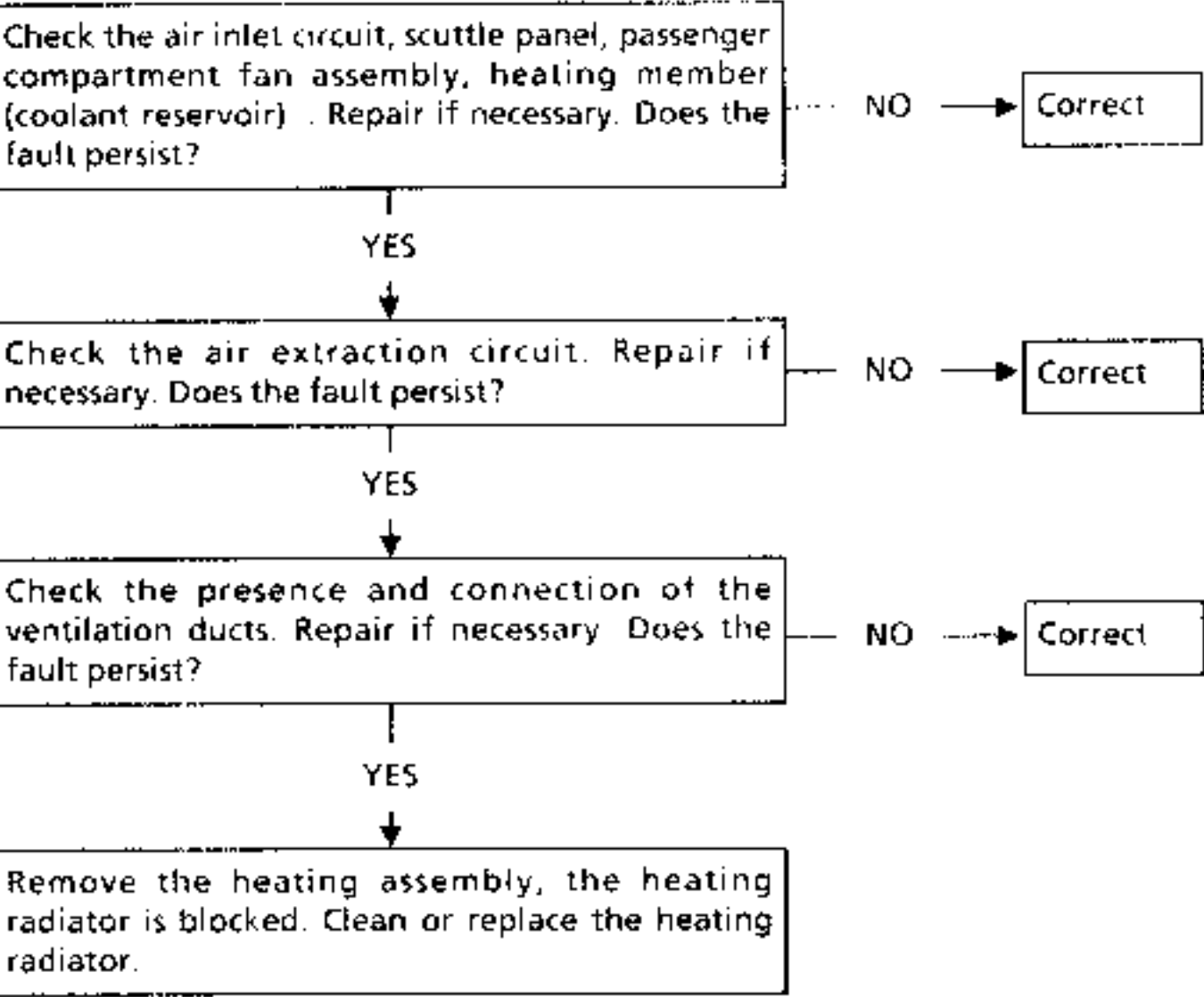
Check that the upper section of the dashboard which contains the vents is aligned with the outlets in the heating member. Repair if necessary. Does the fault persist?

NO → Correct

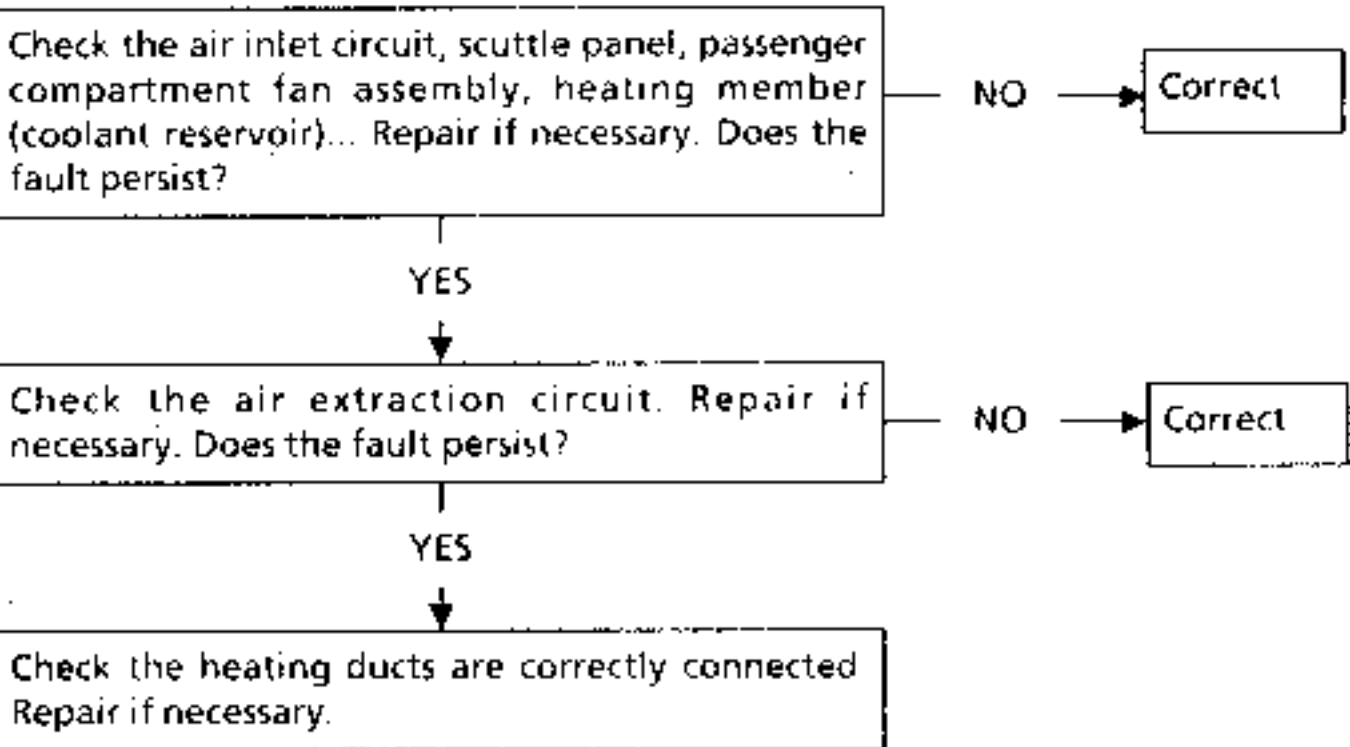
YES

Remove the heating assembly, the heating radiator is blocked. Clean or replace the heating radiator.

FAULT : AIR FLOW PROBLEM (when the air distribution knob is set to position and the air mixing control is on maximum hot)



FAULT : AIR FLOW PROBLEM (when the air distribution knob is set to position and the air mixing control is on maximum cold)



FAULT : CONTROLS DIFFICULT TO OPERATE

Check the cable path. Repair any sections where the cable is catching, kinked or frayed by plastic collars etc....
Replace the cable if necessary.
Does the fault persist?

NO → Correct

YES

Unhook the cable from the assembly and check the control knob and the flap operate (mixing or distribution).
Are they correct?

NO → Replace the control panel or the heating / ventilation assembly (if the controls are very difficult to operate).

YES

If the controls are really difficult to operate, inform the I.T.G. who will refer the problem to the Design Office.

FAULT : FOREIGN BODIES EMITTED FROM VENTS

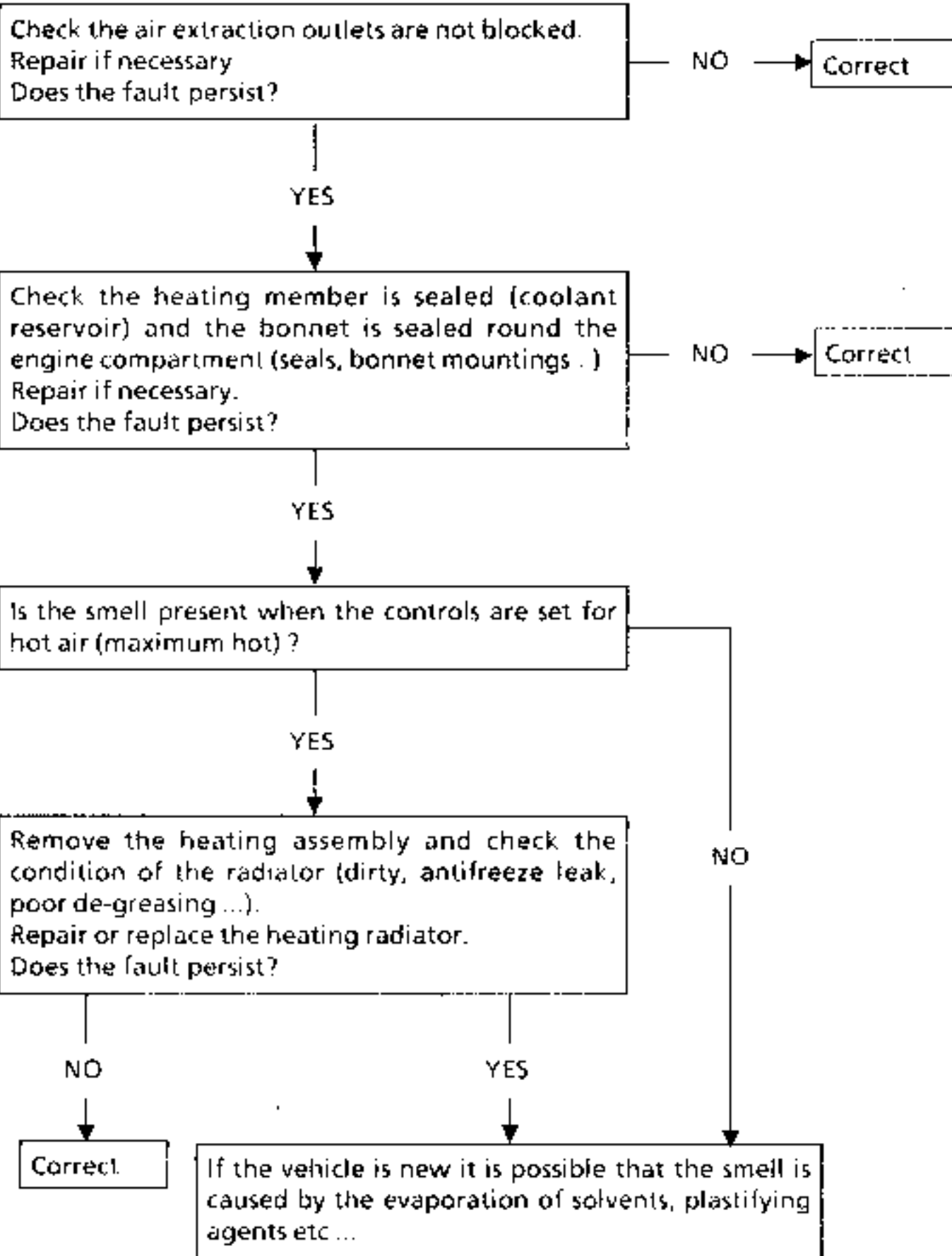
Check the air inlet grille is clean and in good condition. Clean or replace the grille.
Does the fault persist?

NO → Correct

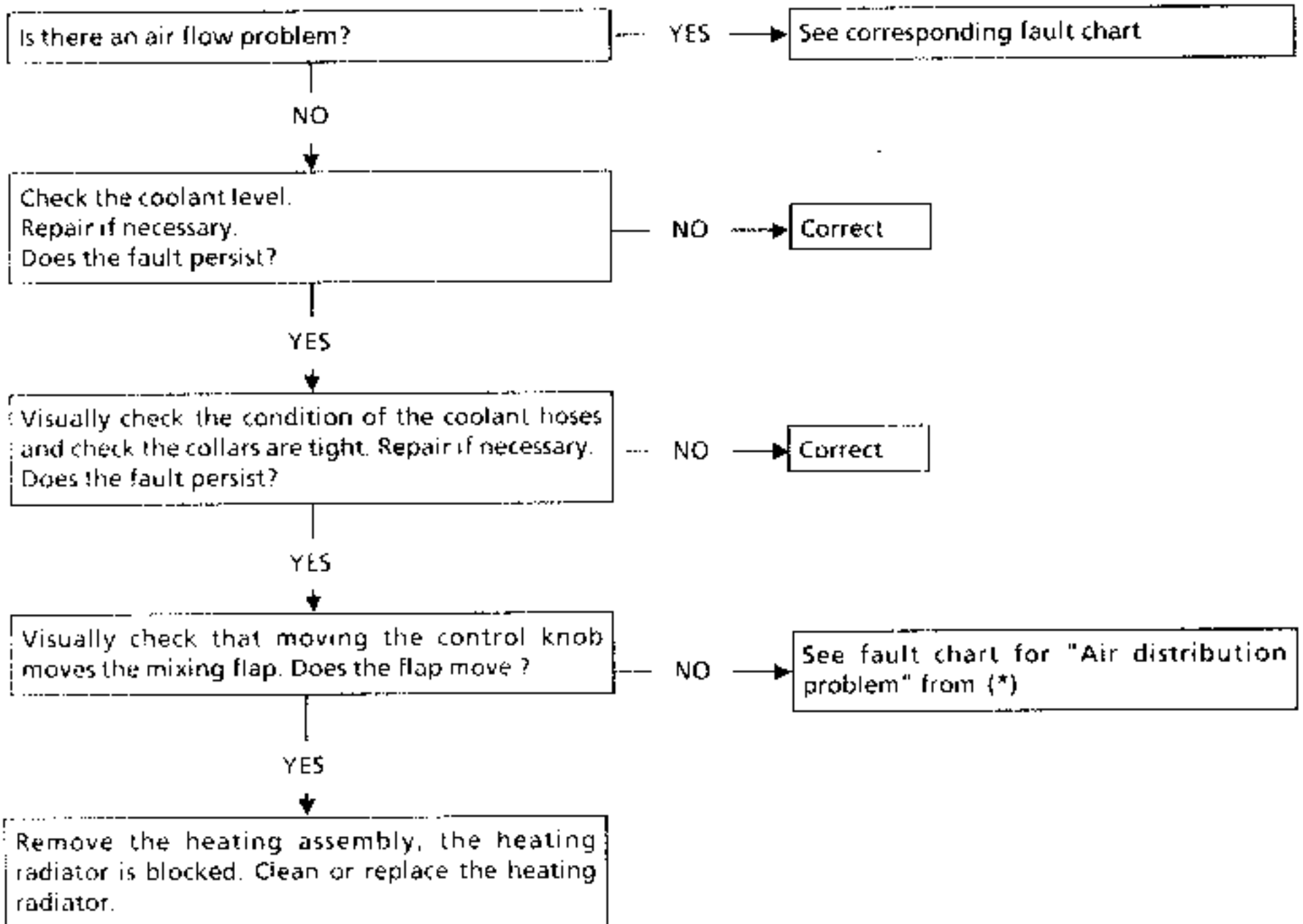
YES

Grille mesh too large - refer to ITG to :
1. Ensure the grille is correct according to the latest specification
2. Report the problem

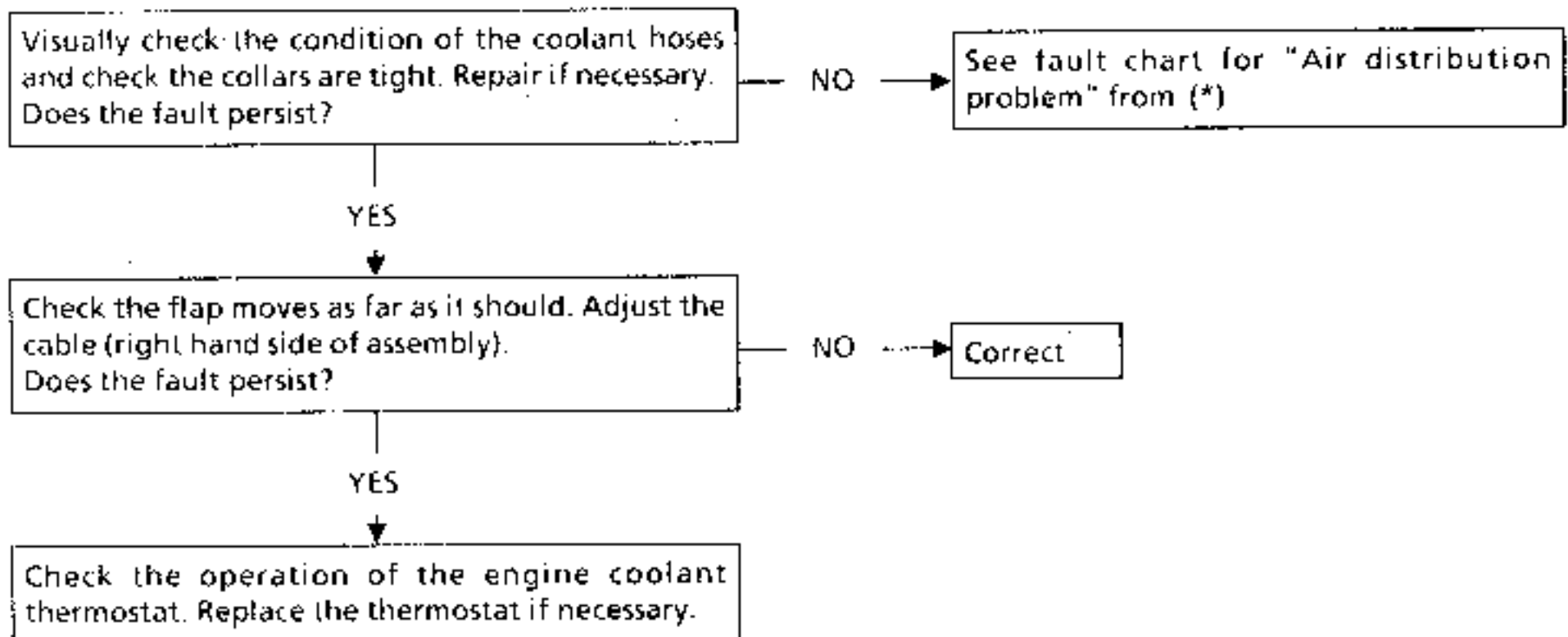
FAULT : SMELLS IN PASSENGER COMPARTMENT



FAULT : NO HOT AIR



FAULT : TOO MUCH HOT AIR



FAULT : DE-MISTING / DE-ICING EFFICIENCY PROBLEM

Before carrying out any work on the system check the customer is using it correctly. Remind him that the vents should be closed for improved de-icing efficiency.
Also check the cleanliness of the inside of the windows (greasy windows reduce de-icing efficiency).

Check the air extraction outlets are not blocked. Repair if necessary.
Does the fault persist?

NO → Correct

YES

Ensure there is no water leaking into the passenger compartment which would increase humidity and therefore reduce de-icing efficiency.
NOTE : if there is a leak inside the vehicle, after driving and then stopping the vehicle for several hours, there will be a film of water on the inside of the windows.
Repair if necessary.
Does the fault persist?

NO → Correct

YES

Is there an air distribution problem?

YES → See corresponding fault chart

NO

Is there an air flow problem?

YES → See corresponding fault chart

NO

Is there a heating efficiency problem?

YES → See corresponding fault chart to "Remove the thermostat..."

NO

RECHECK YOUR DIAGNOSIS

SPECIAL TOOLING REQUIRED	
Mot. 453-01	Hose clamps
M.S. 583	Hose clamps

REMOVAL

The dashboard must be removed to remove the distribution unit.

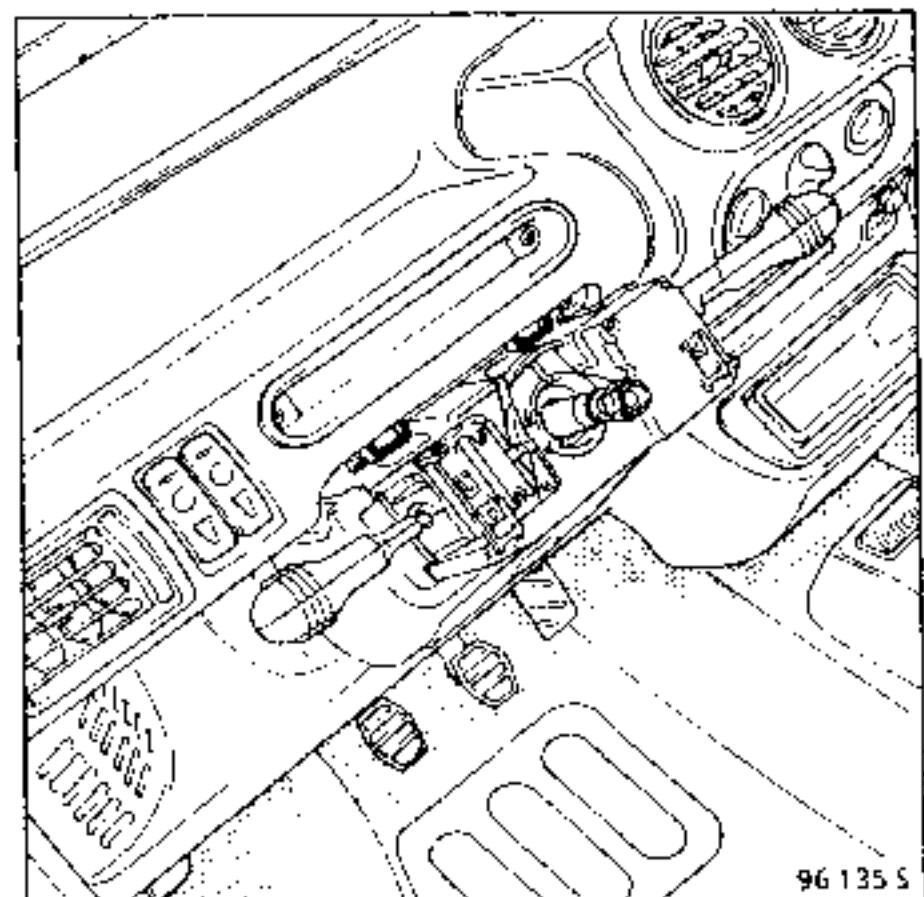
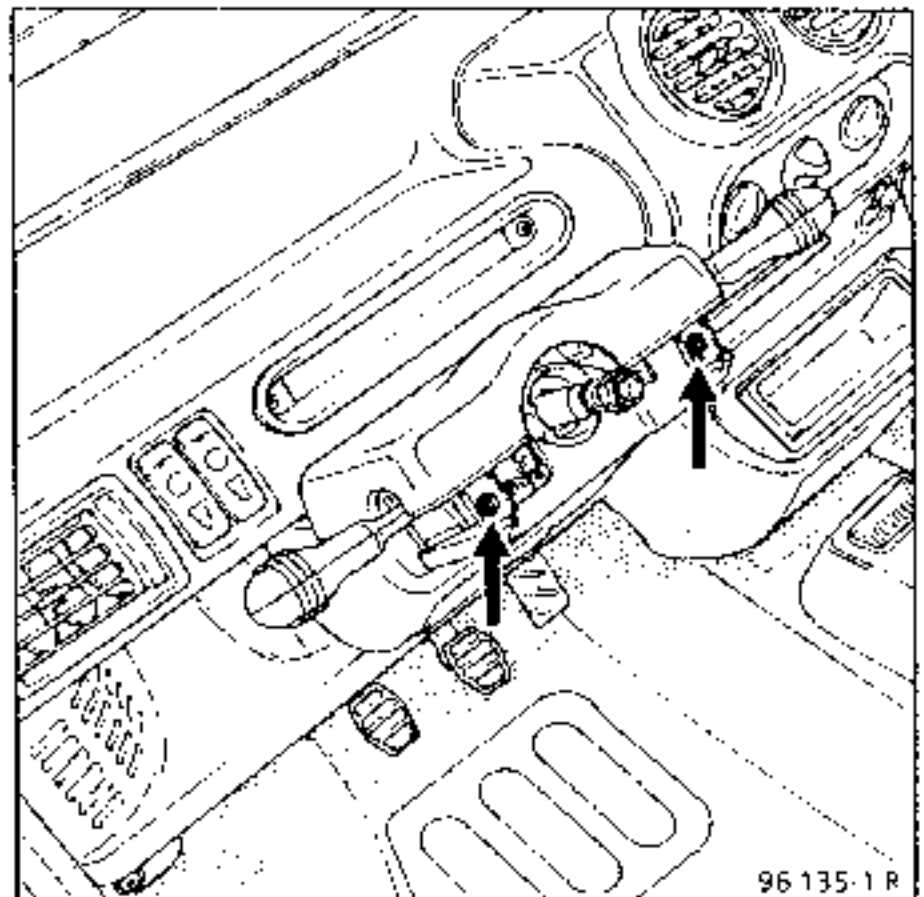
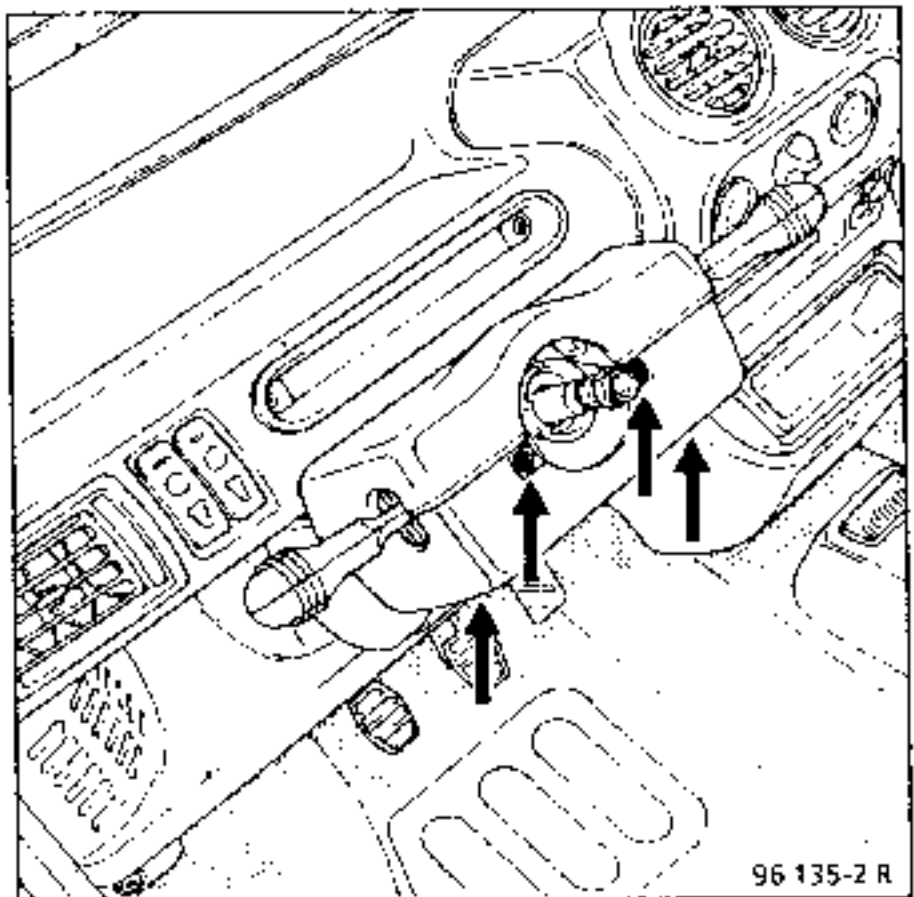
To do this :

Disconnect the battery.

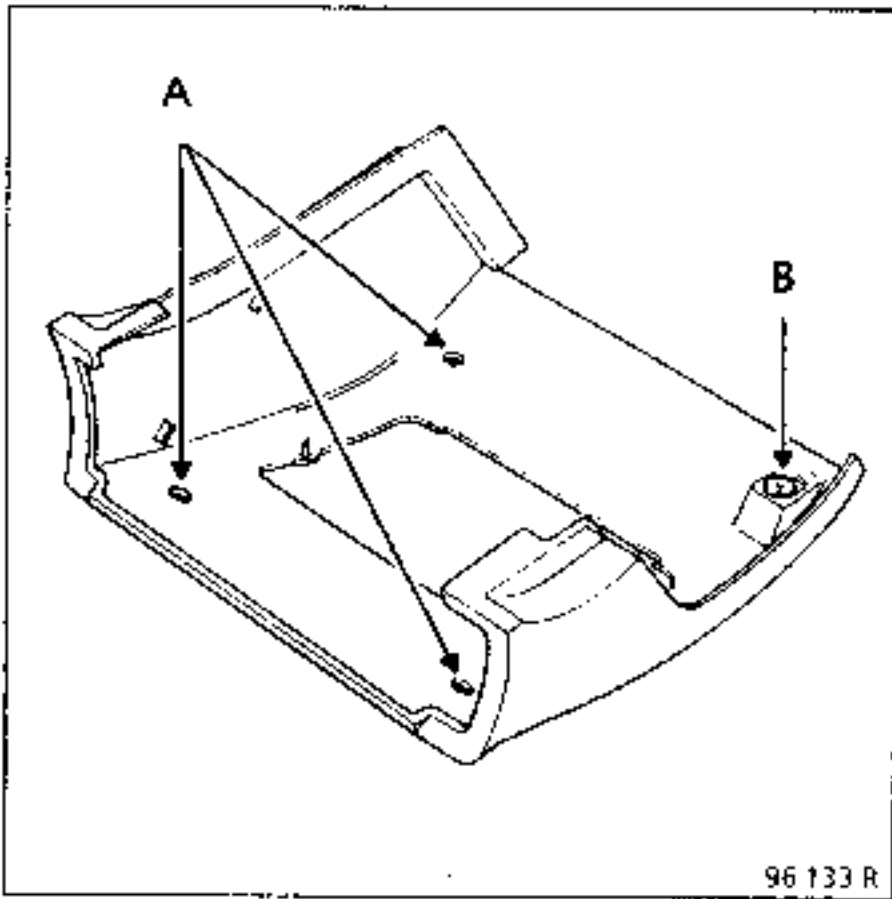
Remove:

- the steering wheel having marked its position,
- the half cowl under the steering wheel,

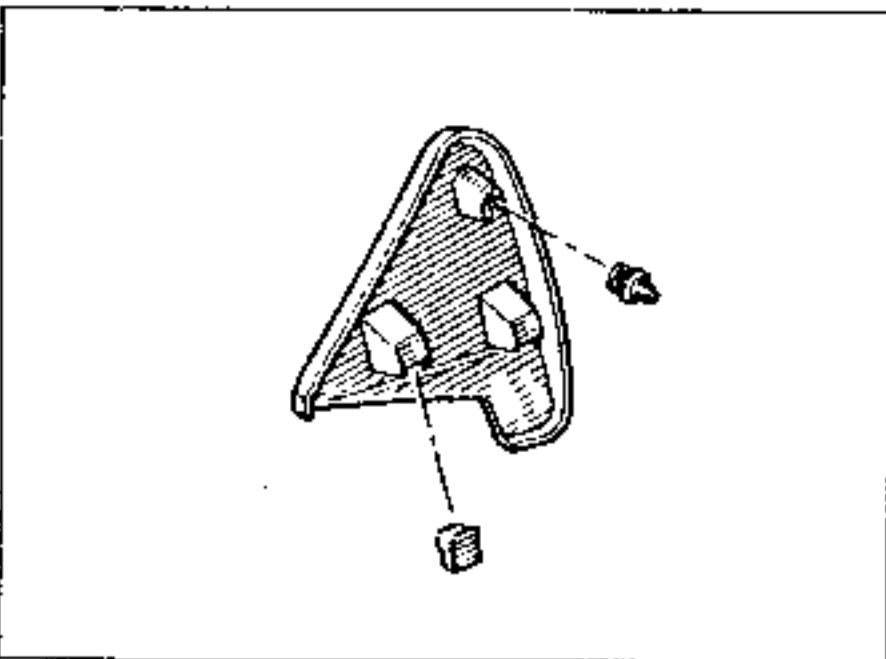
- the upper half cowl,



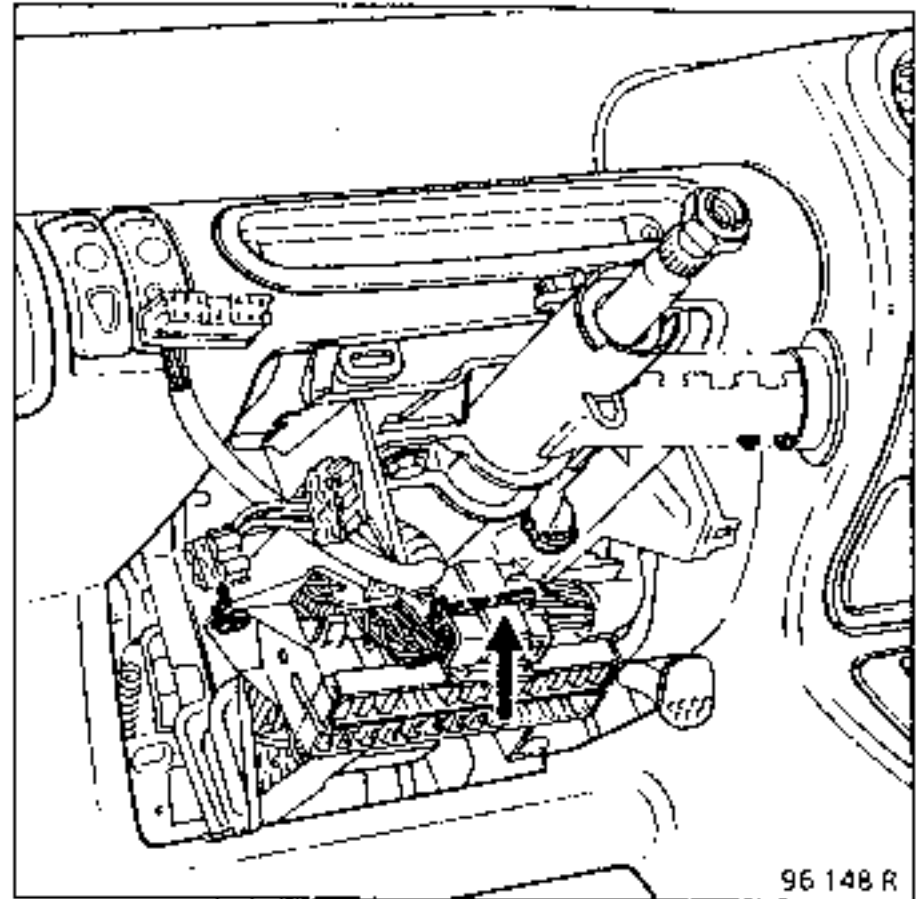
- the steering column cover : three Torx bolts (A) and one clip (B),



- the lighting switch stalk : one bolt,
- the rear view mirror cover trim (or protector).

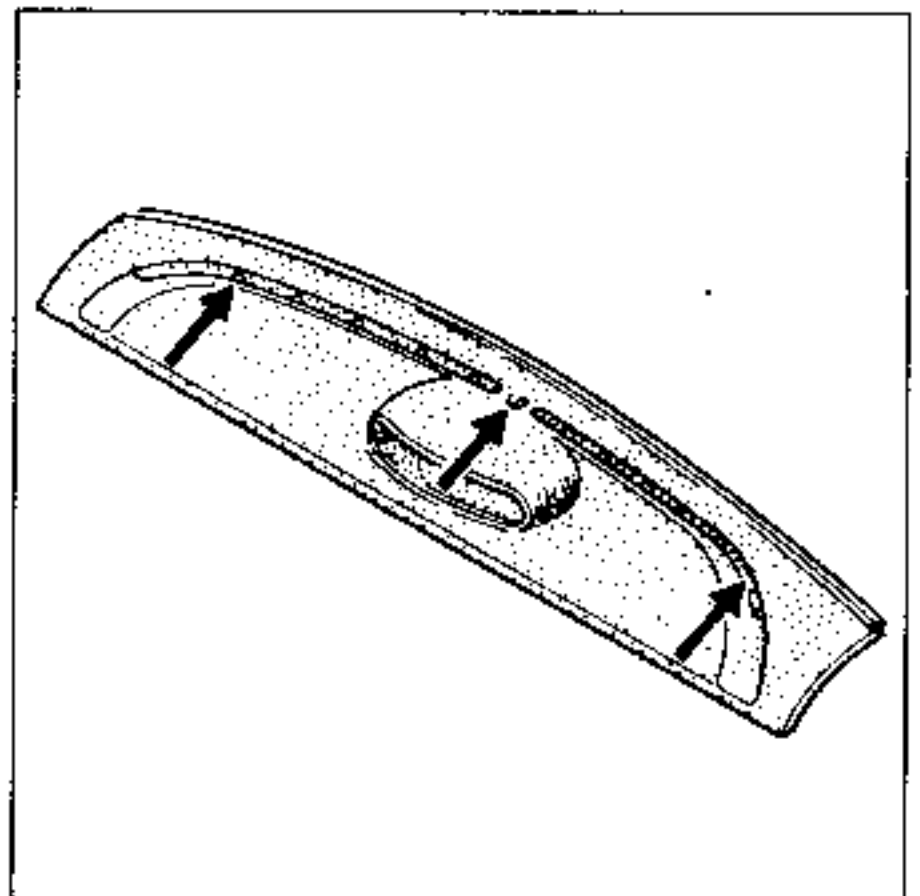


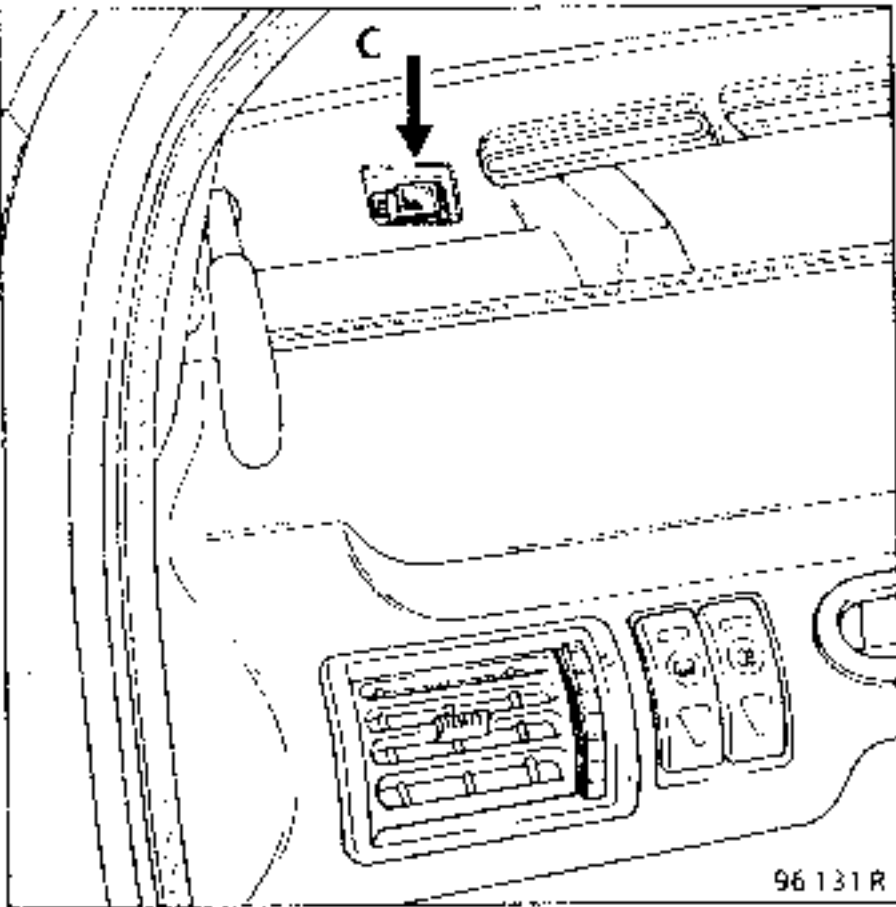
Disconnect the wiring harness.



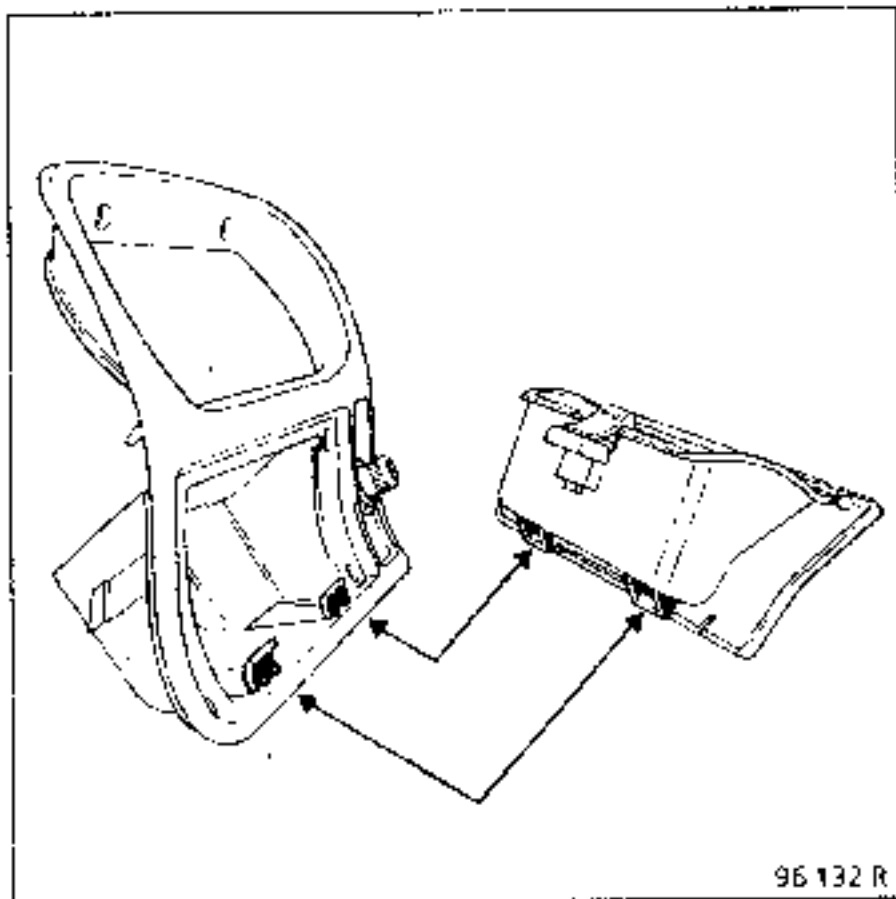
Remove:

- the upper section of the dashboard (three bolts). Clips (C) are sliding fittings, allowing the upper section of the dashboard to be centred.

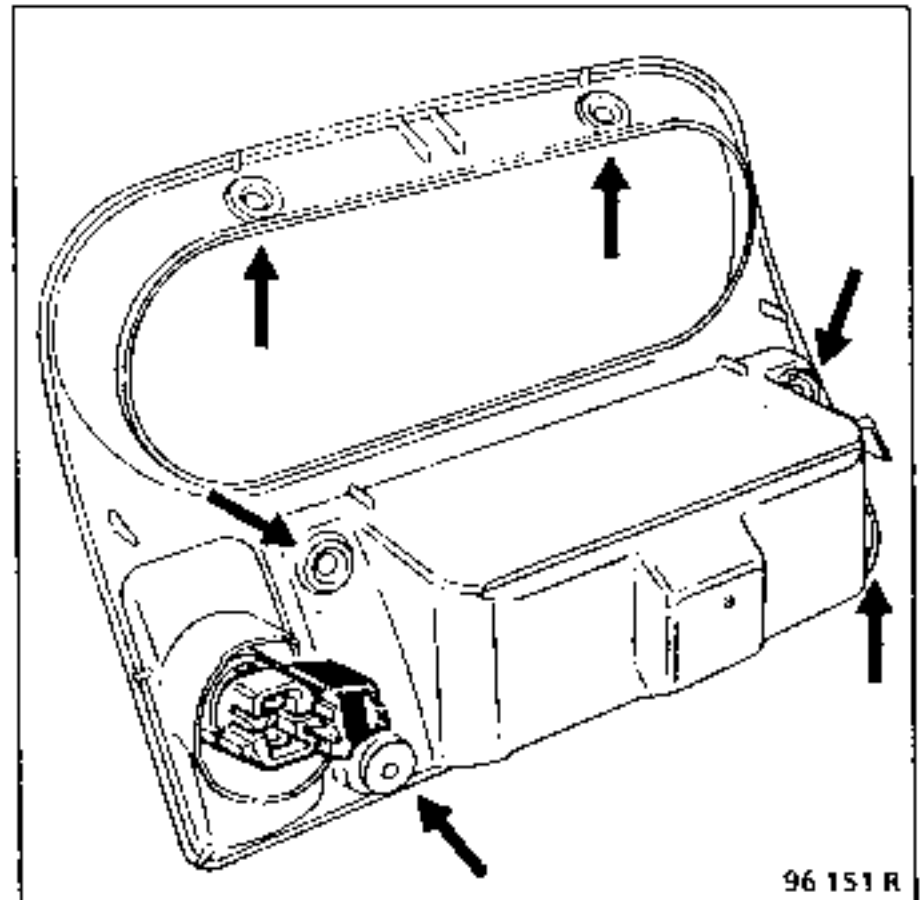




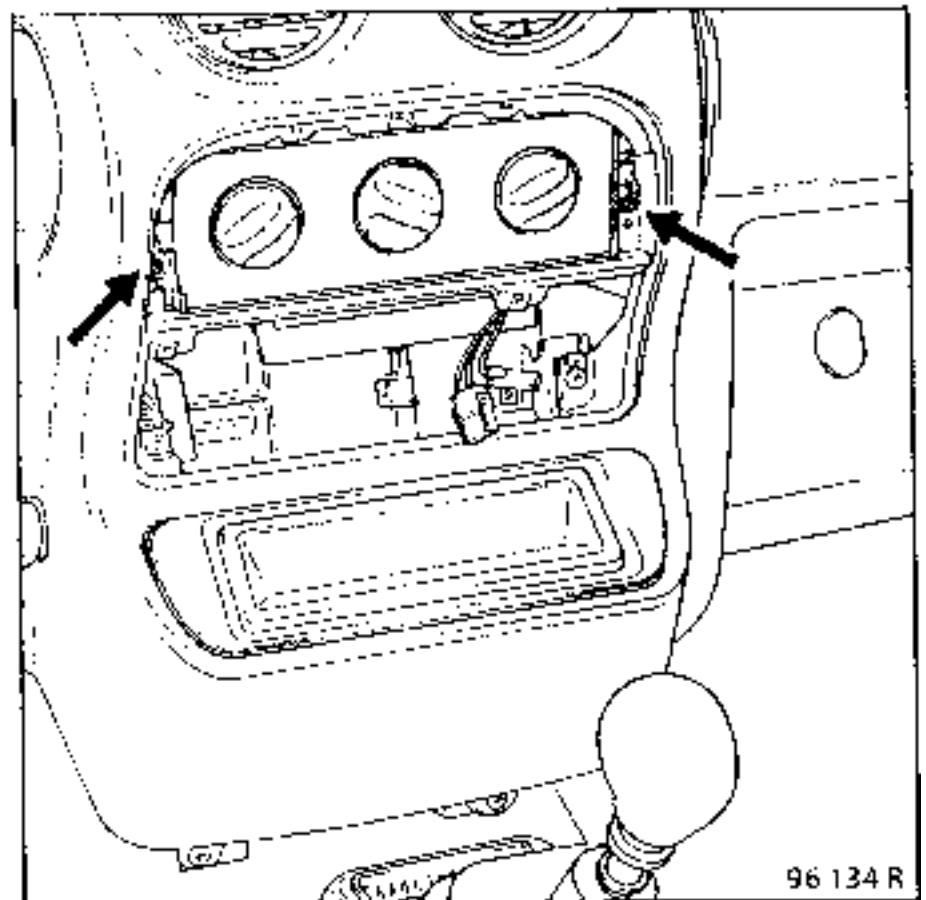
- the ashtray,



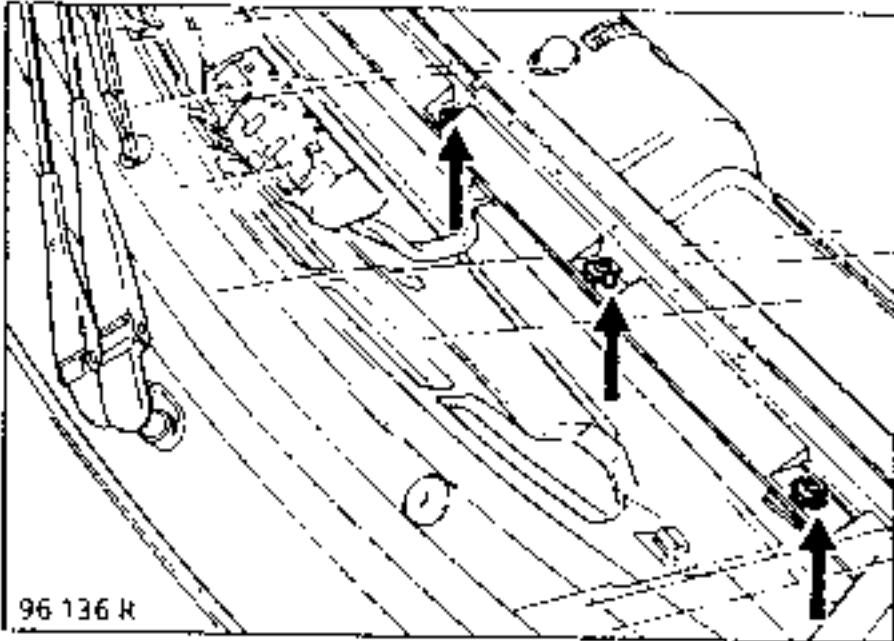
- the heating control panel surround (six bolts),



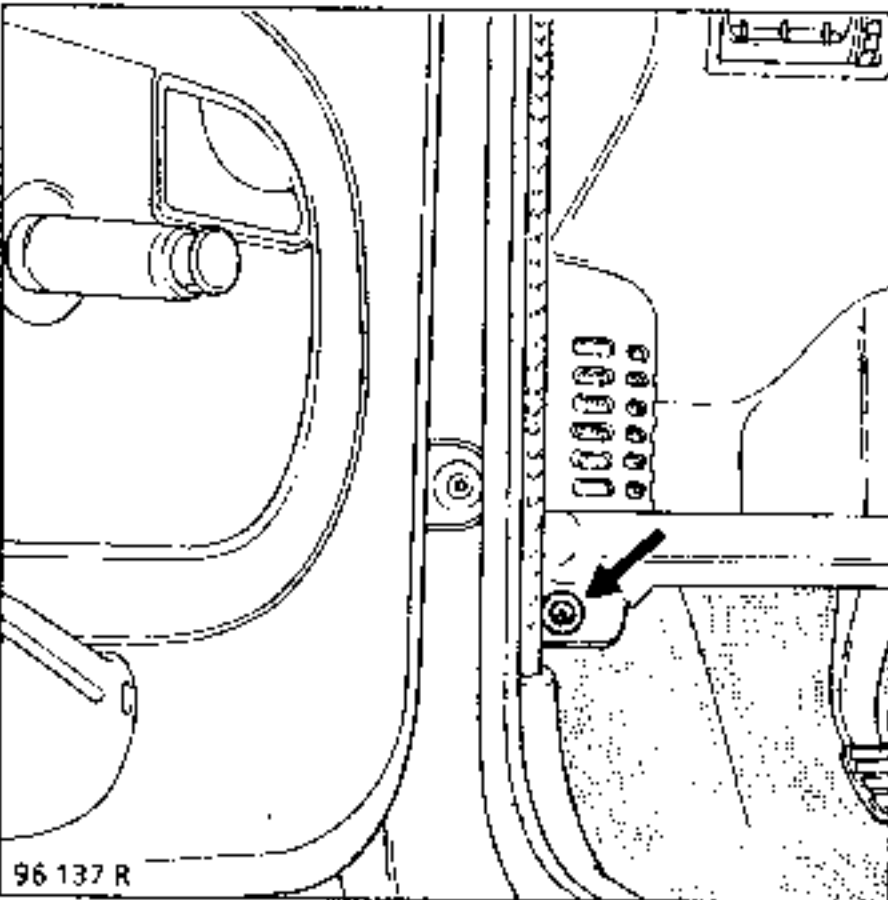
- the two heating control unit bolts,



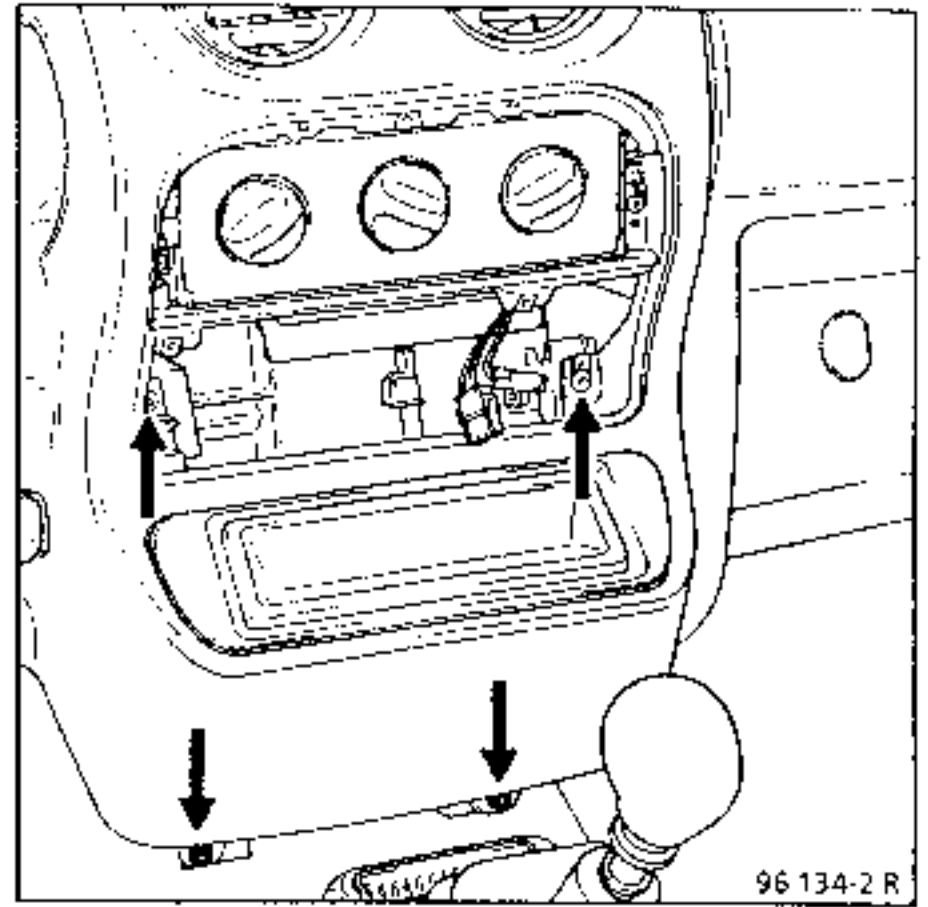
- the five upper dashboard section mounting bolts,



- the lower side mountings,



- the lower centre mountings,



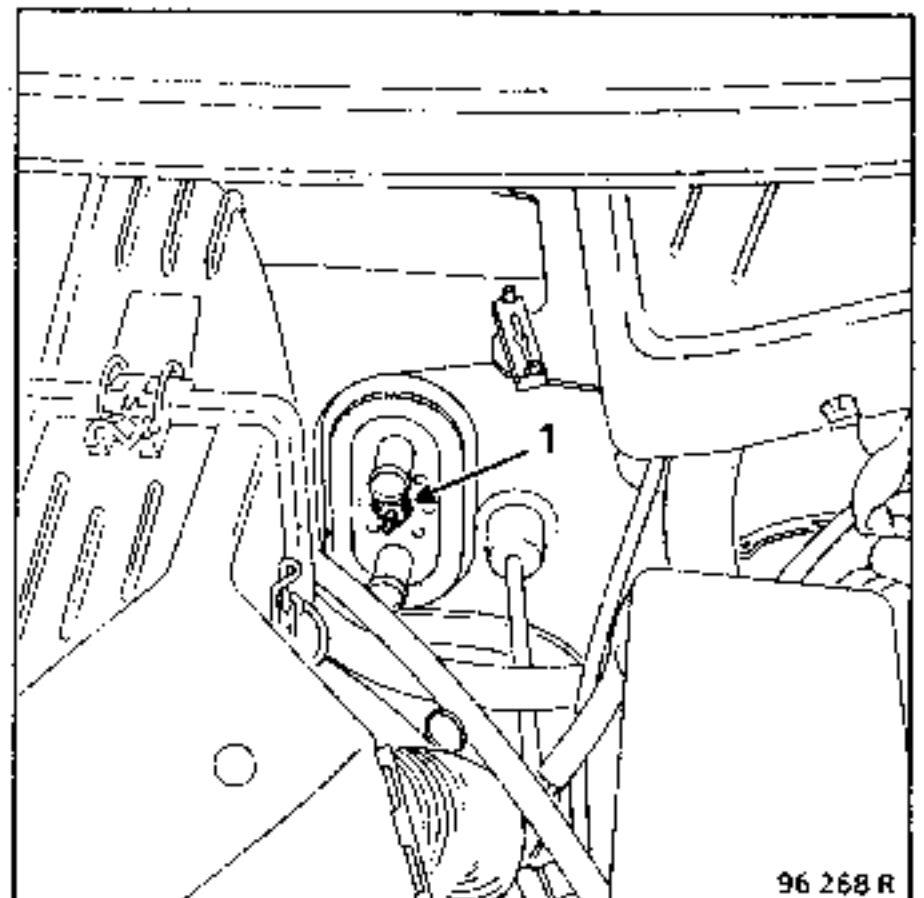
Disconnect the connectors and remove the dashboard carefully.

Then:

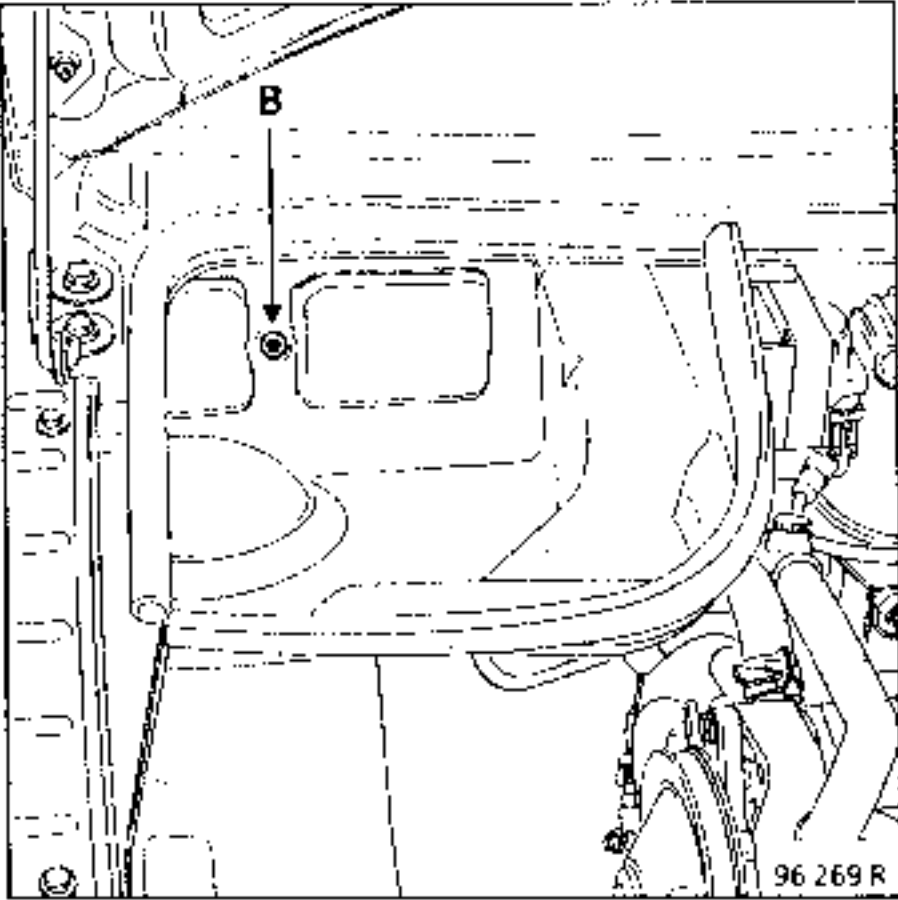
- remove the air filter.
- fit the hose clamps **Mot. 453-01** or **M.S. 583**.

Remove:

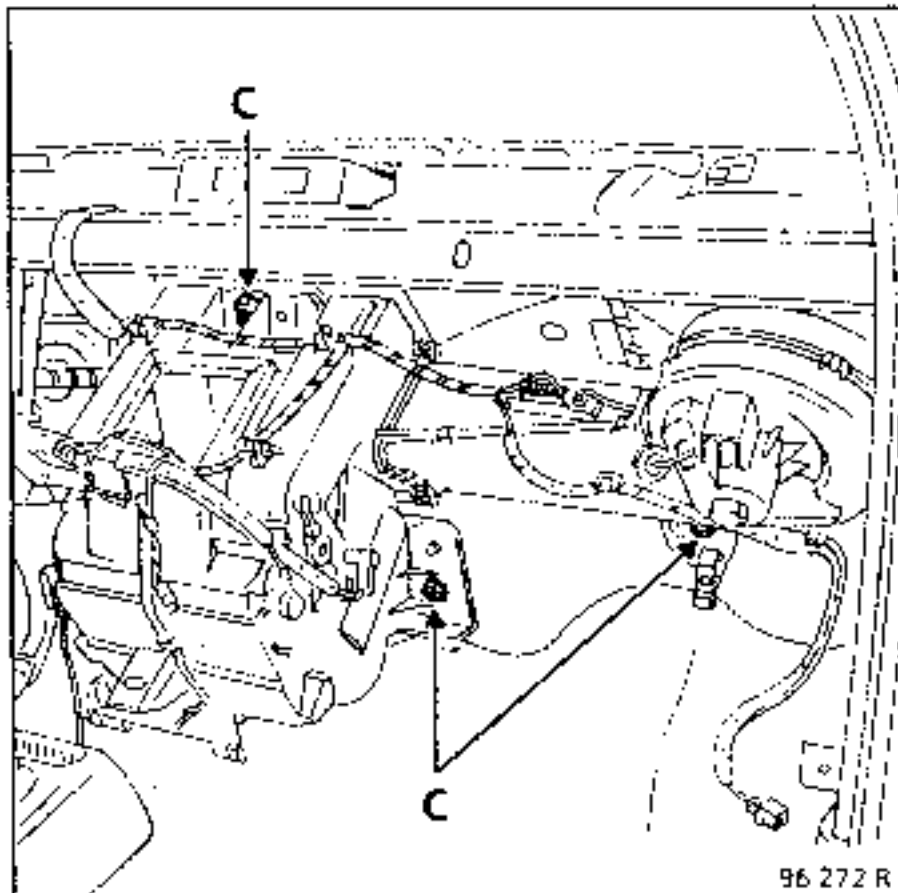
- the two heating hoses,
- the nut (1),



- mounting bolt (B) which secures the fan in the external air inlet partition.



Remove the wiring from the unit and remove the three mounting bolts (C)



Remove the distribution unit.

REFITTING

There are no special points for refitting.

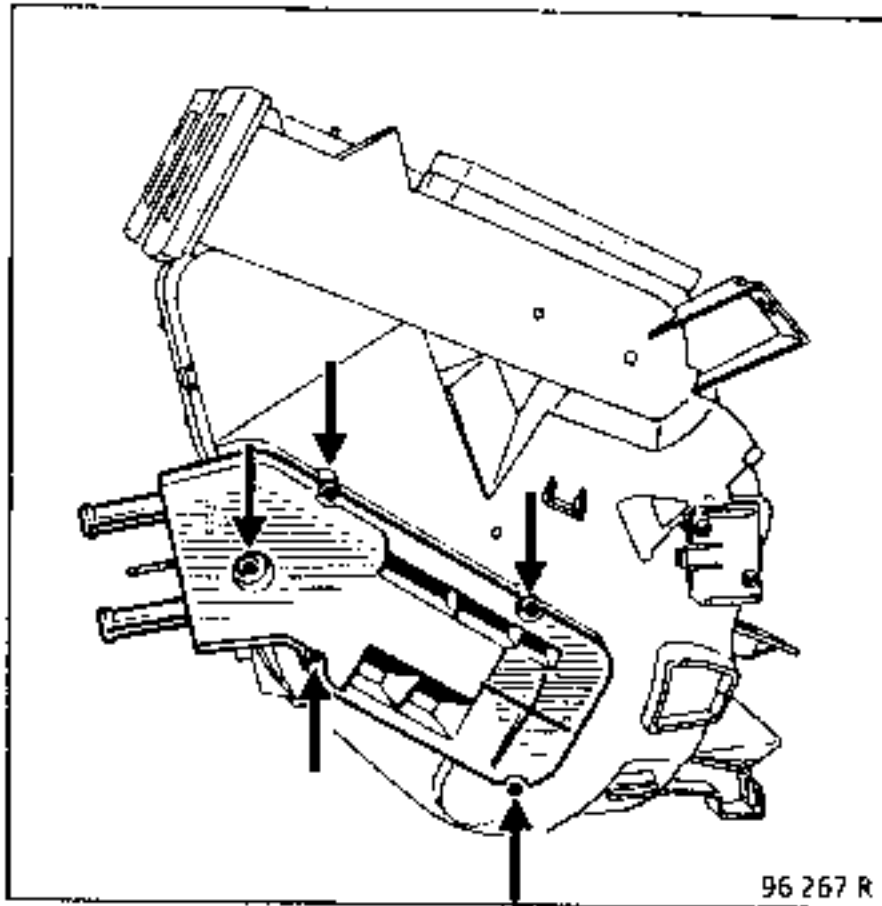
Refitting is the reverse of removal.

Bleed the engine coolant circuit (if necessary).

REPLACEMENT

The radiator is replaced after removing the air distribution unit (previous section).

Remove the five mounting bolts from the radiator cover.

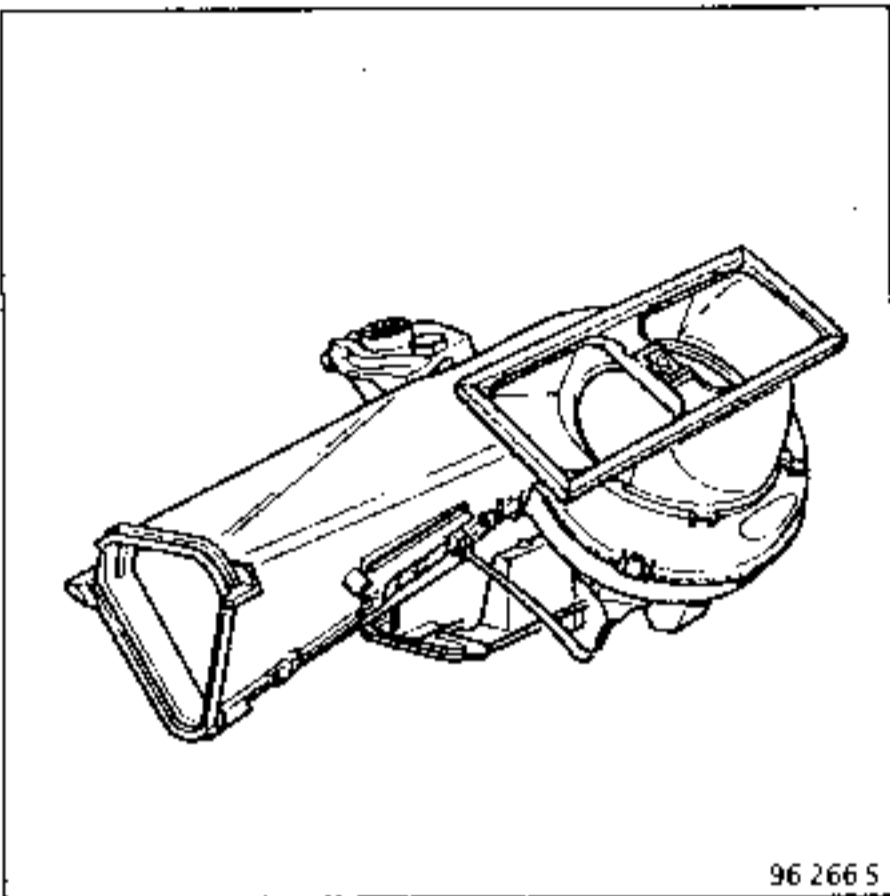


Use a screwdriver to remove the air distribution unit cover, which is held in place by a foam seal

Remove the radiator taking care not to damage the fins.

When refitting, insert the radiator into the distribution unit with its foam sealing strips.

The fan cannot be removed from the fan assembly. The assembly is sold as a complete unit by the Parts Department.

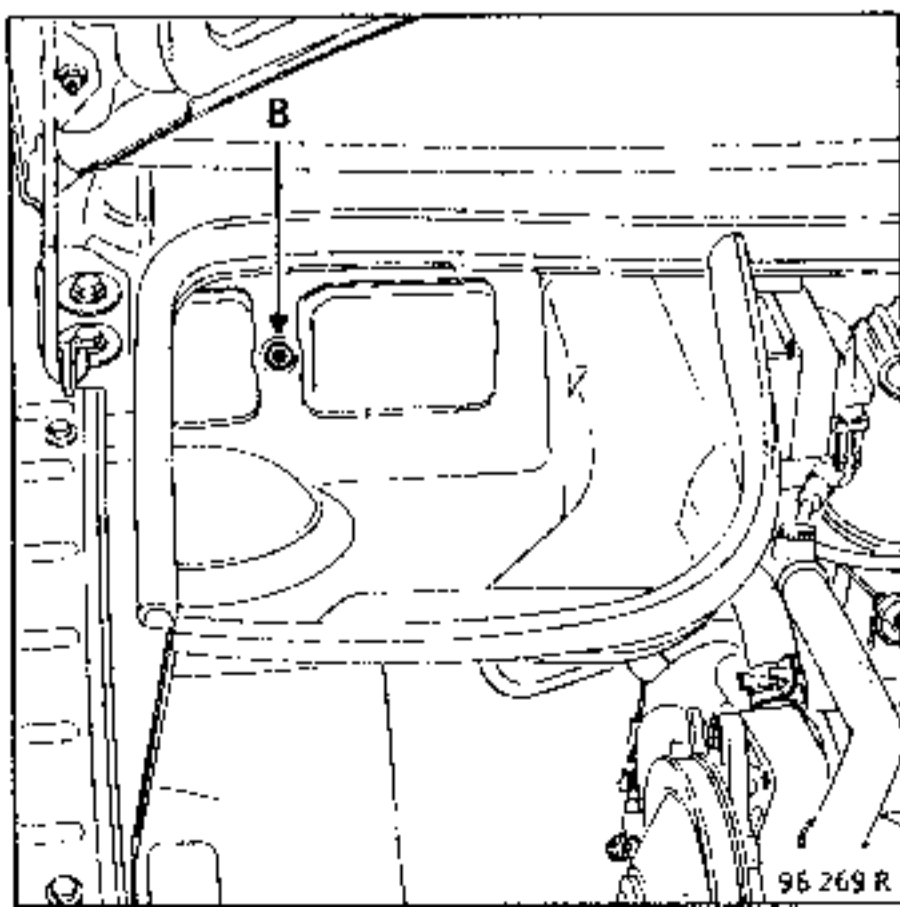


REPLACEMENT

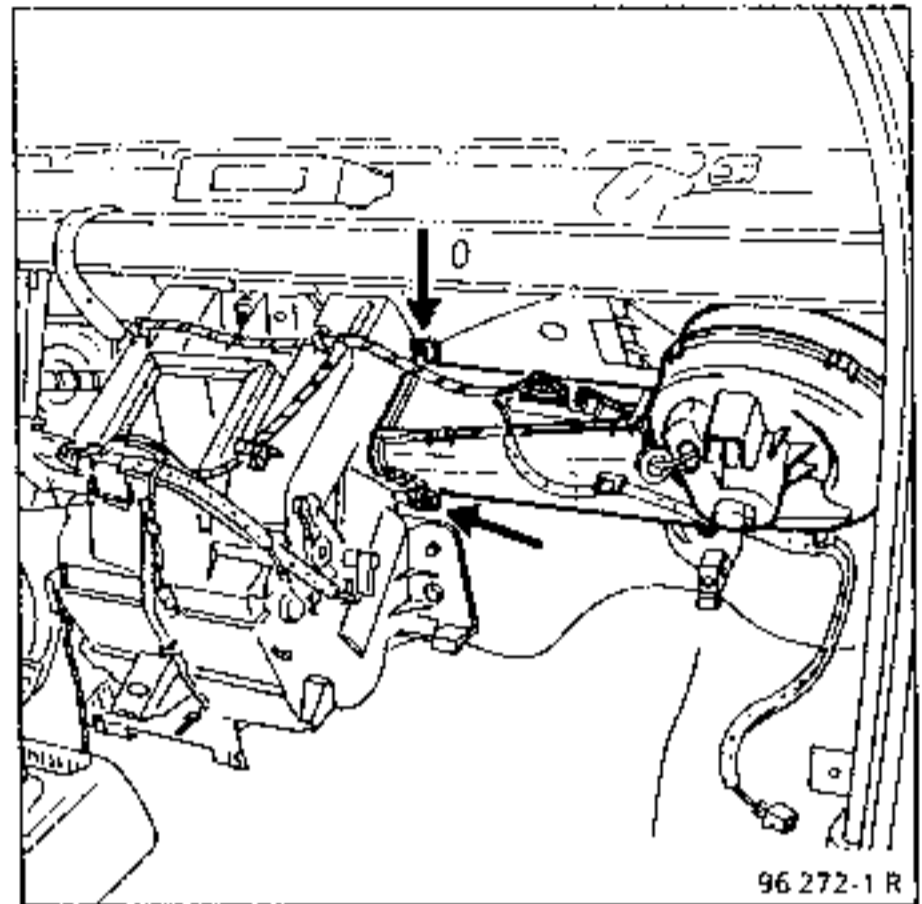
To remove the fan unit, the dashboard must be removed (see "Distribution unit" section).

Then remove :

- the resistance unit connector and release the wiring,
- the fan assembly mounting bolt (B) from the external air inlet partition,



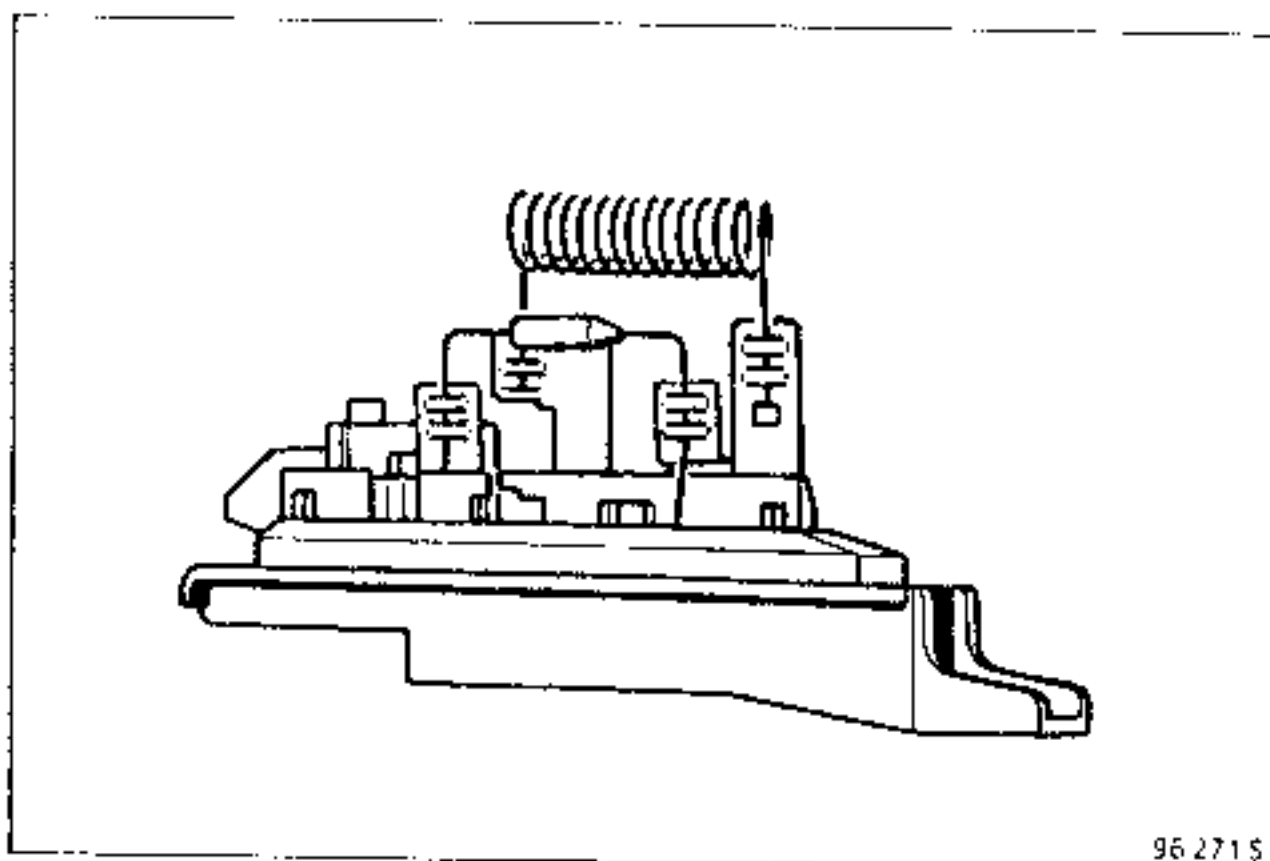
- the two mounting bolts on the distributor unit,



- the fan assembly.

REFITTING

Refitting is the reverse of removal.



96 271 5

REPLACEMENT

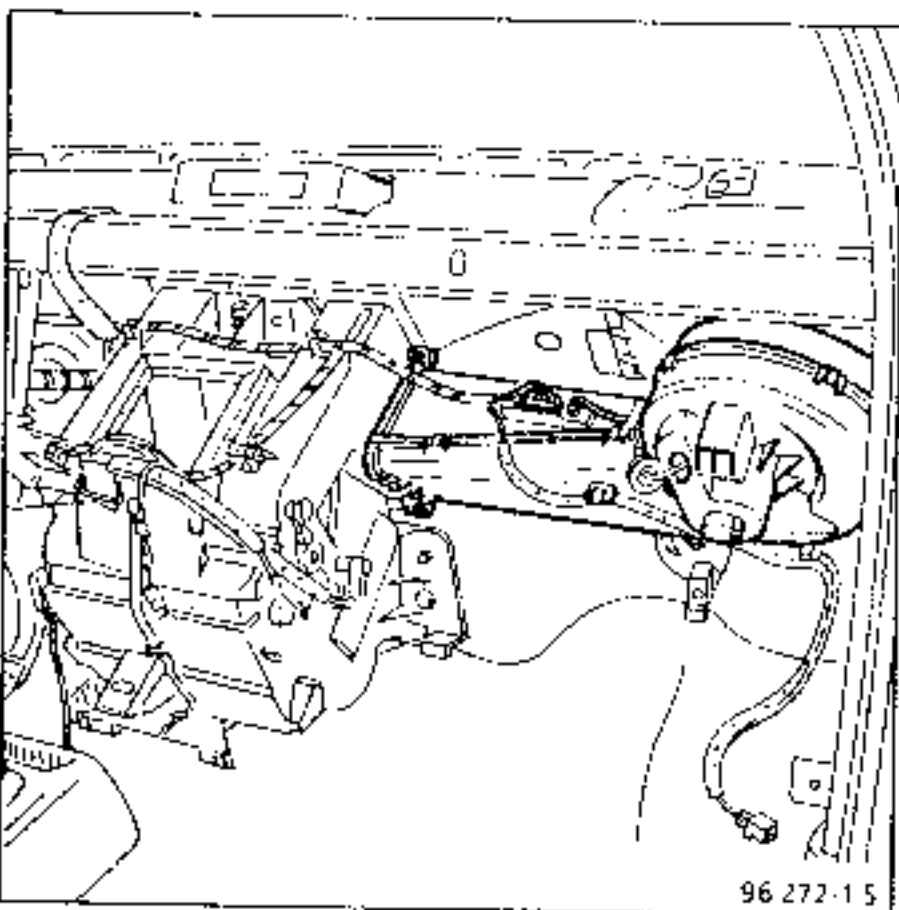
The dashboard must be removed for this operation (see "Distributor Unit" section)

Remove the resistance unit connector and the unit mounting bolt

Remove the resistance unit from the fan assembly

NOTE : if the resistance unit has been removed as it was damaged, check the fan is rotating freely (from the external air inlet partition), otherwise replace it

There are no special notes for refitting.

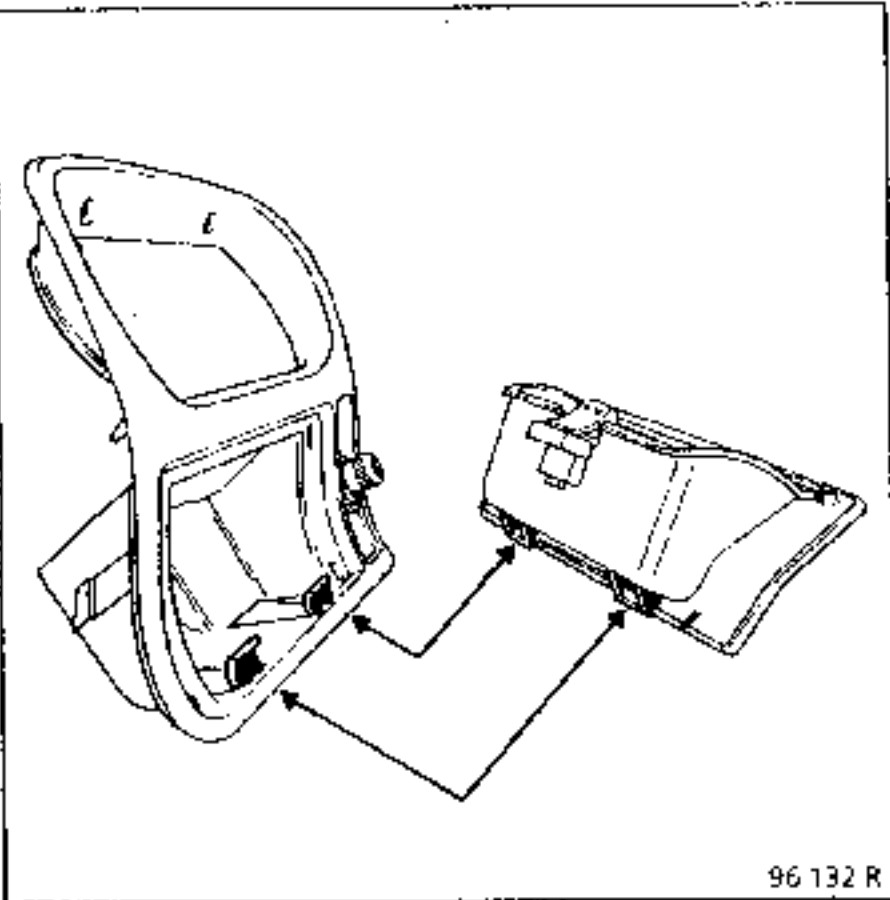


96 272-1 5

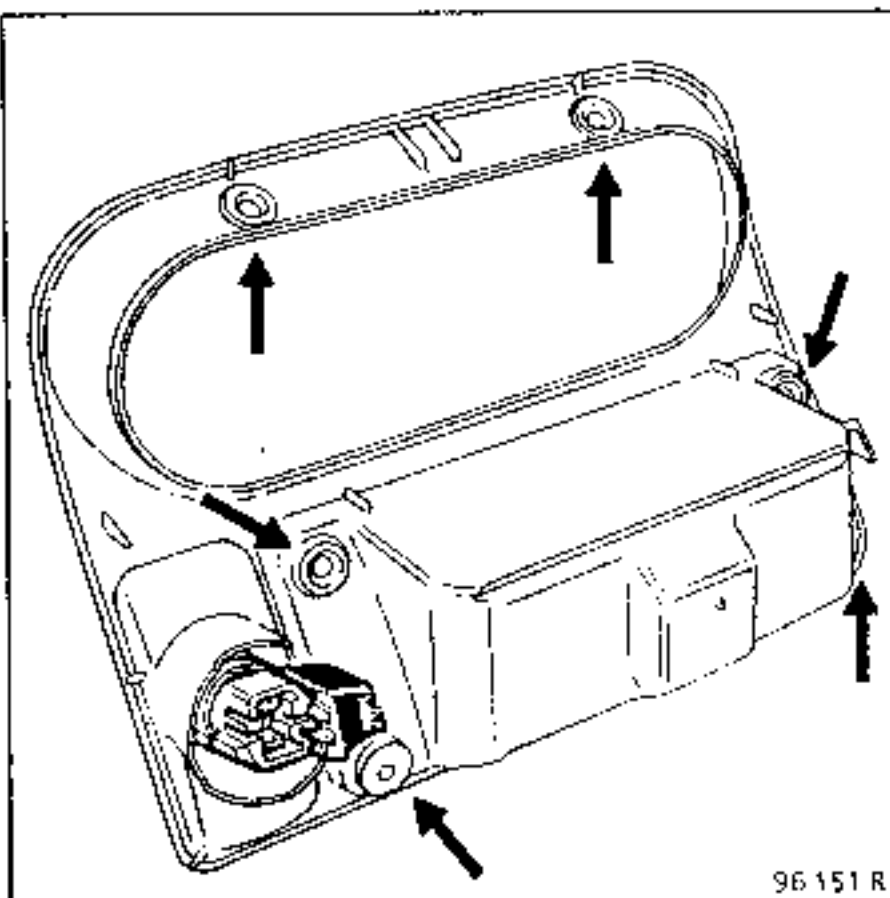
REPLACEMENT

Remove:

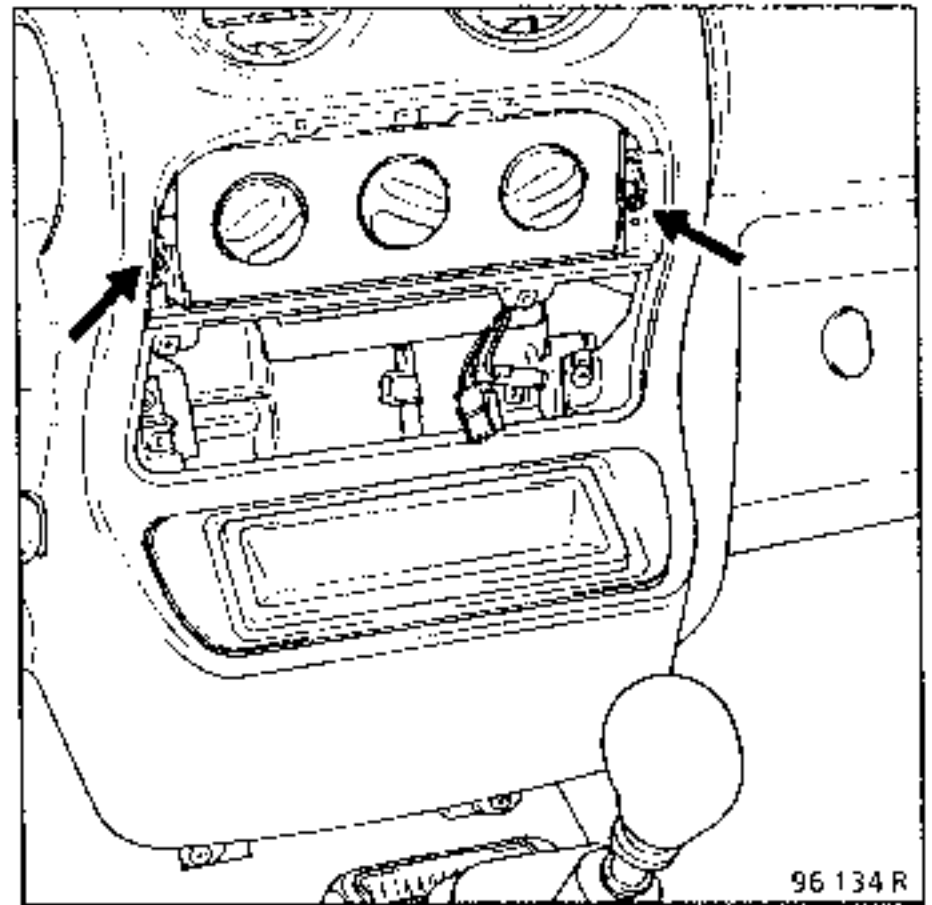
- the ashtray,



- the heating control panel surround (six bolts),



- the two heating control panel mounting bolts



Release and remove the cables.

Release the connector and remove the the control panel.

When refitting, hook the cables to the control panel so the cable sleeves are on the stop.

AIR MIXING CABLE

The air mixing cable can be replaced without having to remove the dashboard

REMOVAL

Disconnect the battery.

Remove:

- the control panel (see corresponding section),
- the clips on the control panel and on the distributor unit then remove the cable.

REFITTING

Control panel side

Clip the cable on the control panel with the cable sleeves on the stops.

Distributor unit side

Position the control panel temperature knob and the mixing flap on maximum cold.

Hook the cable on and clip the cable sleeve stop into position

Refit the control panel.

Reconnect the battery.

NOTE : there is no adjustment on the control panel side

AIR DISTRIBUTION CABLE


The dashboard must be removed to replace the air distribution cable (see "Distribution Unit" section).

REFITTING

Control panel side

Clip the cable on the control panel with the cable sleeves on the stops.

Distributor unit side

Position the control panel distribution knob and the mixing flap on position 

Hook the cable on and clip the cable sleeve stop into position.

Refit the dashboard.

NOTE : there is no adjustment on the control panel side