

83--545 Checking vacuum element and temperature vacuum switch for leaks

Data

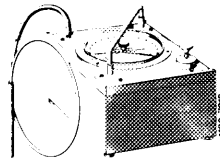
Permissible leaking of system (without vacuum reservoir)	6 mbar/min at 400 mbar vacuum
Permissible leaking of individual components	20 mbar/min at 300 mbar vacuum
Plug-on length of connections	12 ± 2

Colour coding of vacuum lines for air conditioning system

Vacuum line	Colour code	
	1st version	2nd version
Suction line from distributor to vacuum reservoir (103)	medium green	grey-light blue
Suction line to temperature vacuum switch (102)	medium green	green-yellow
Control line „cooling recirculating air“ (104)	dark green	green-orange
Control line „cooling fresh air“ (105)	light green	green-light blue

Special tool

Tester for vacuum systems



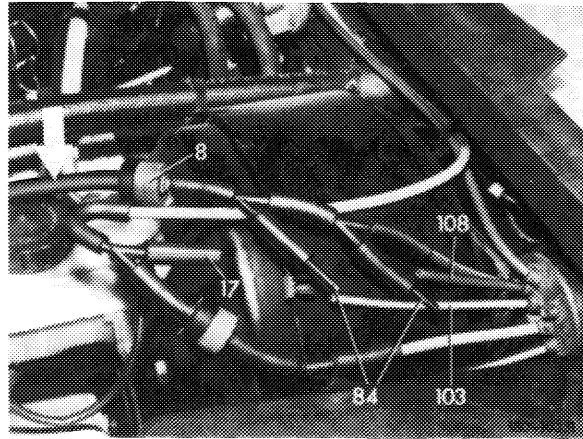
116 589 25 21 00

Note

For normal cooling the temperature vacuum switch is turned clockwise. The air conditioning system operates in range between 0 and the mark on green scale (approx. 3/4 cooling capacity) with fresh air. For max cooling with temperature vacuum switch between mark and end of green scale the air conditioning system operates with recirculating air.

Checking vacuum system of air conditioning system without vacuum reservoir

1 Pull suction line (103) for vacuum reservoir and suction line (108) for heating system out of connections (17) and close with blind plugs (84).



2 Pull check valve (8) out of connection (17) and connect tester (refer to arrow).

3 In position „cooling recirculating air“, evacuate system and read pressure increase on pressure gauge of tester. Similarly, check in position „cooling fresh air“. Depending on the condition („cooling recirculating air“ or „cooling fresh air“) in which the pressure increases, continue checkup in the event of a leaking circuit. If both circuits are leaking, continue checkup according to section both circuits covering both circuits leaking.

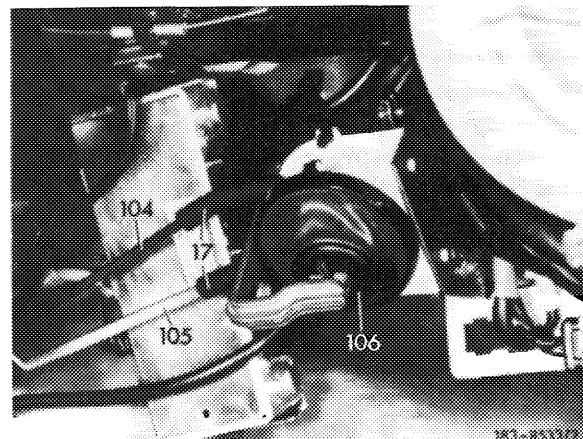
Attention!

Check hose lines and their connections of circuits found leaking prior to replacing vacuum element.

Cooling fresh air or cooling recirculating air leaking

4 Remove cover under instrument panel right so that vacuum element is accessible.

5 Pull off connection (17) with line (104 or 105) of circuit found leaking.



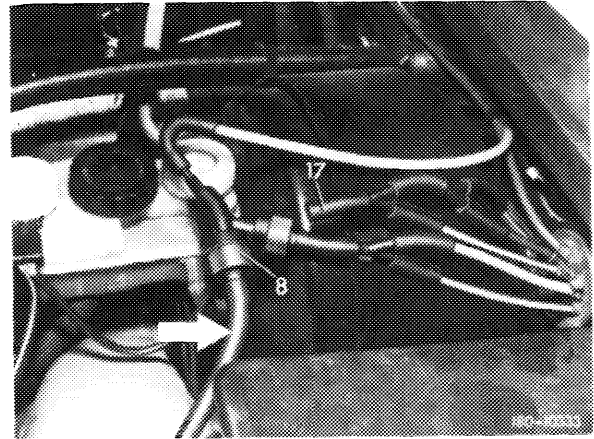
6 Connect tester and evacuate.

7 If readout on pressure gauge changes during checkup, replace vacuum element.

Cooling fresh air and cooling recirculating air leaking

8 If both circuits are leaking, the leak may be in check valve.

9 Pull connection (17) from check valve (8), connect tester (refer to arrow), evacuate and read pressure gauge.



10 If readout on pressure gauge is not changing, the check valve is sealtight. If both circuits continue leaking, the fault is with temperature vacuum switch.

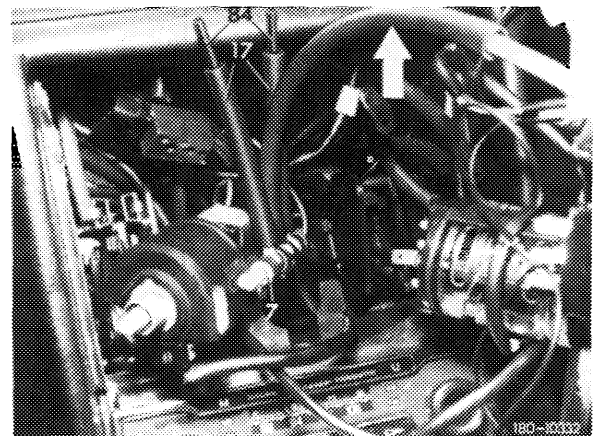
11 In such a case, remove temperature vacuum switch and check.

12 For this purpose, pull off all three connections.

13 Close two connections (17) 90 mm long with blind plugs (84), slip on temperature vacuum switch at left and right.

14 Connect tester (refer to arrow) to center connection and evacuate.

15 If the temperature vacuum switch is leaking, the readout on pressure gauge will change.



16 Replace temperature vacuum switch.

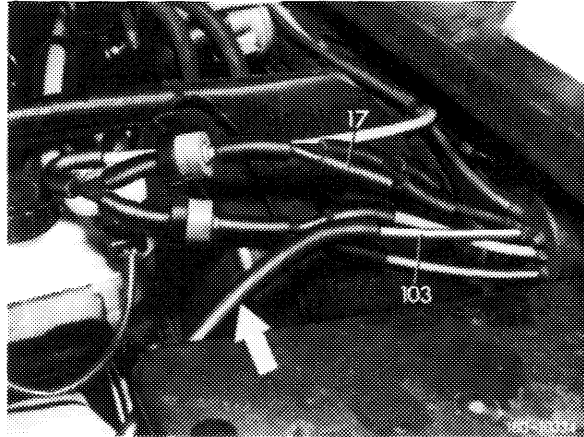
Attention!

Upon completion of checkups on temperature vacuum switch make sure that the capillary of the temperature switch is pushed into guide tube of evaporator up to mark.

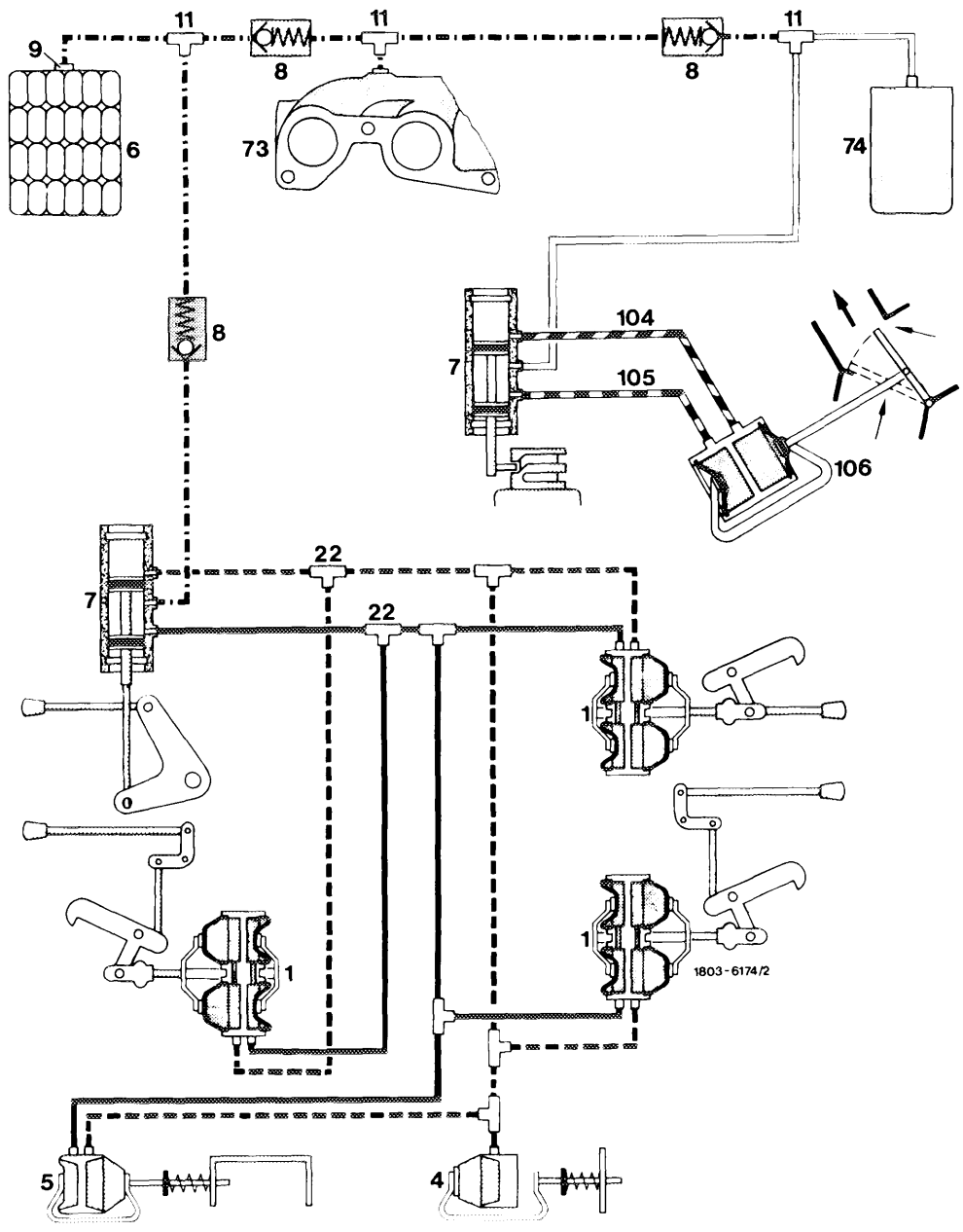
Checking vacuum reservoir

17 Pull vacuum line (103) out of connection (17). Connect tester (refer to arrow) to suction line (103) and evacuate.

18 If readout on pressure gauge changes, replace seal of vacuum reservoir or replace vacuum reservoir, if required.



Functional diagram central locking system and air conditioning system



- Unlocking line
- Interlocking line
- Suction line
- Suction line (air conditioning system)
- Control line (cooling fresh air)
- Control line (cooling recirculating air)

- | | |
|--|---|
| 1 Vacuum element (driver's and rear doors) | 11 Distributor |
| 4 Vacuum element (flap for tank filler neck) | 22 Distributor |
| 5 Vacuum element (trunk lid) | 73 Intake pipe |
| 6 Vacuum reservoir | 74 Vacuum reservoir (air conditioning system) |
| 7 Vacuum switch | 104 Control line (cooling recirculating air) |
| 8 Check valve | 105 Control line (cooling fresh air) |
| 9 Seal | 106 Vacuum element (air conditioning system) |