

**83–545 Checking vacuum element and temperature vacuum switch for leaks
lefthand steering up to 08/81 and righthand steering**

Data

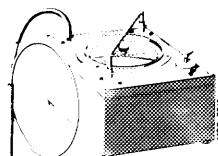
Permissible leaking of system (without vacuum reservoir)	6 mbar/min at 400 mbar vacuum
Permissible leaking of individual components	20 mbar/min at 300 mbar vacuum
Plug-on length of connections	12 ± 2

Color coding of vacuum lines for air conditioning system

Vacuum line	Color code	
	1st version	2nd version
Suction line from distributor to vacuum reservoir (103)	white	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

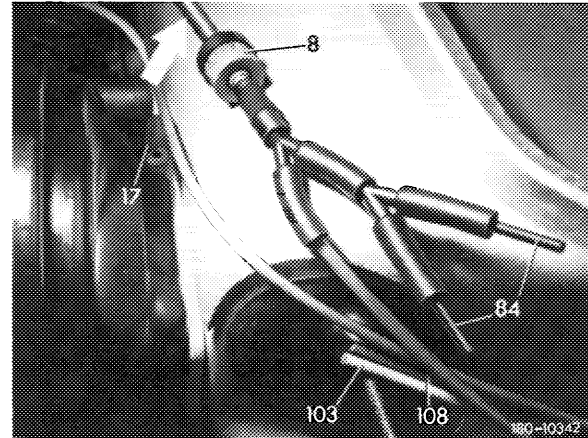
Note

For normal cooling the temperature vacuum switch is turned clockwise. The air conditioning system operates in range between 0 and 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 approx. 80 % recirculating air and approx. 20 % fresh 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 connection (17) and close with blind plug (84).

2 Pull check valve (8) from 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 leaking.

Attention!

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

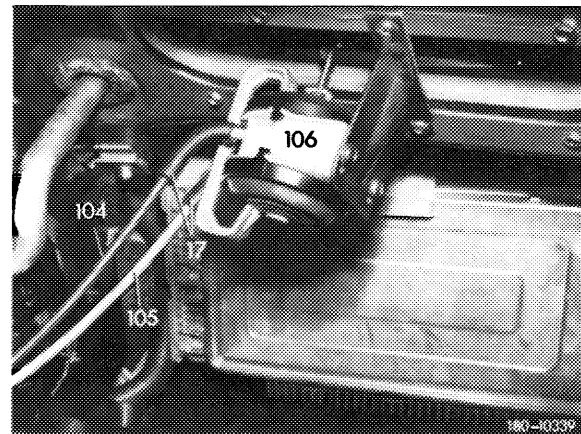
With one circuit leaking

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

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

6 Connect tester to vacuum element and evacuate.

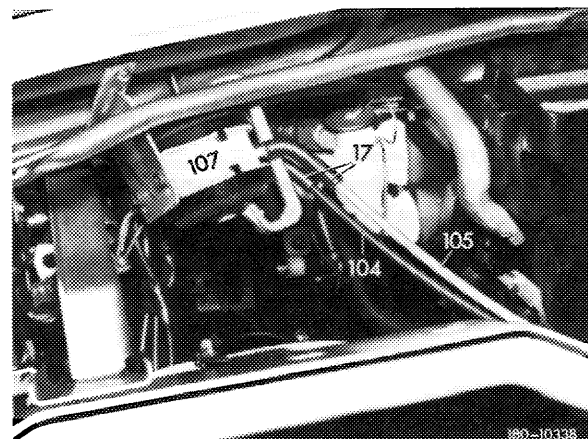
7 If readout on pressure gauge changes during check-up, replace vacuum element.



8 If the circuit found leaking is not leaking at right-hand vacuum element, the leak is at left-hand vacuum element.

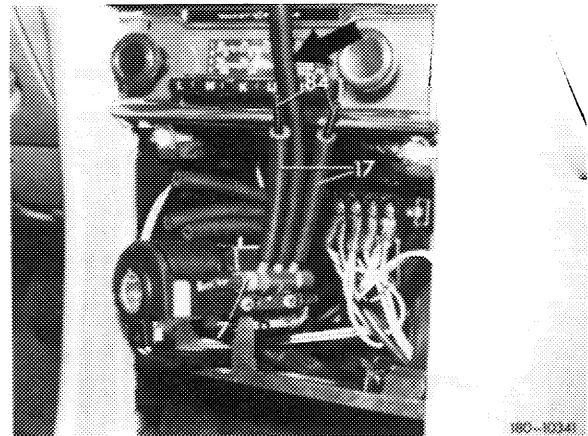
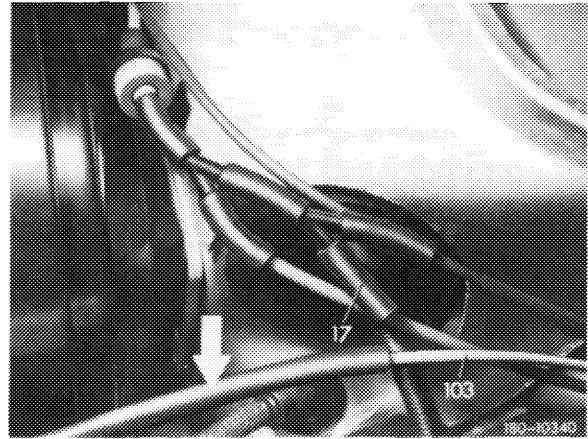
9 Remove cover at left under instrument panel so that vacuum element (107) becomes accessible.

10 Complete test similar to righthand vacuum element.



With both circuits leaking

- 11 If both circuits are leaking, the check valve may be leaking.
- 12 Pull connection (17) from check valve (8) and connect tester (refer to arrow), evacuate and read pressure gauge.
- 13 If readout on pressure gauge is not changing, the check valve is not leaking. If both circuits continue to be leaking, the fault is with temperature vacuum switch.
- 14 In such a case, remove temperature vacuum switch and check vacuum switch (83–542).
- 15 For this purpose, pull off all three connections.
- 16 Close two connections (17) and 90 mm long with blind plug (84) and slip on temperature vacuum switch at left and right.
- 17 Connect tester (refer to arrow) to center connection and evacuate.
- 18 If the vacuum switch is leaking, the readout on pressure gauge will change.
- 19 Replace vacuum switch.

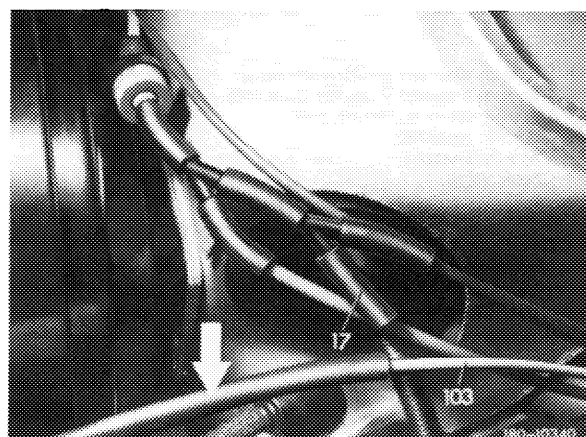


Attention!

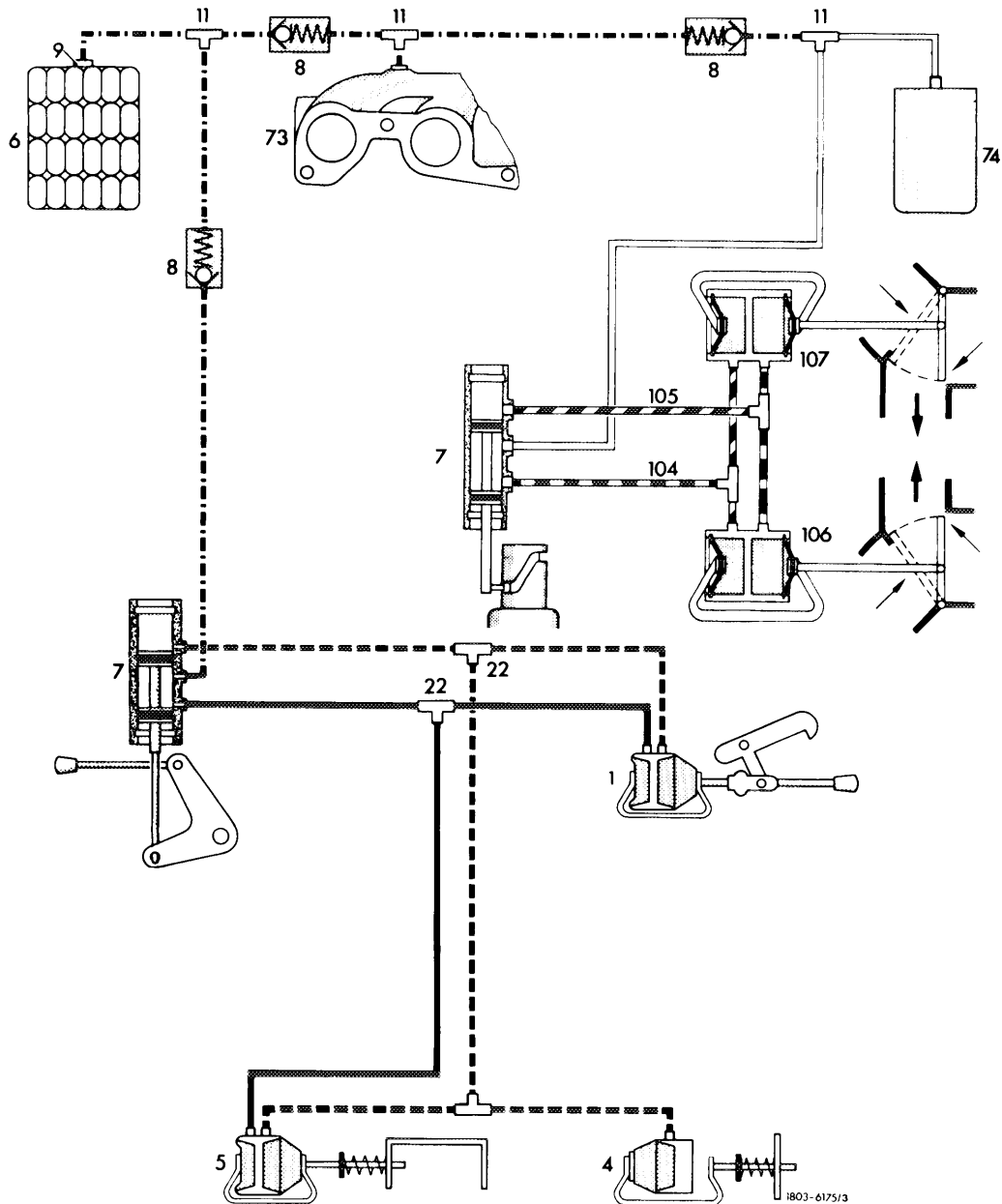
At end of tests on temperature vacuum switch make sure that the capillary of the temperature switch is again slipped into guide tube of evaporator up to mark.

Checking vacuum reservoir

- 20 Pull suction line (103) out of connection (17). Connect tester (refer to arrow) on suction line (103) and evacuate.
- 21 If readout on pressure gauge changes, replace seal of vacuum reservoir or replace vacuum reservoir.



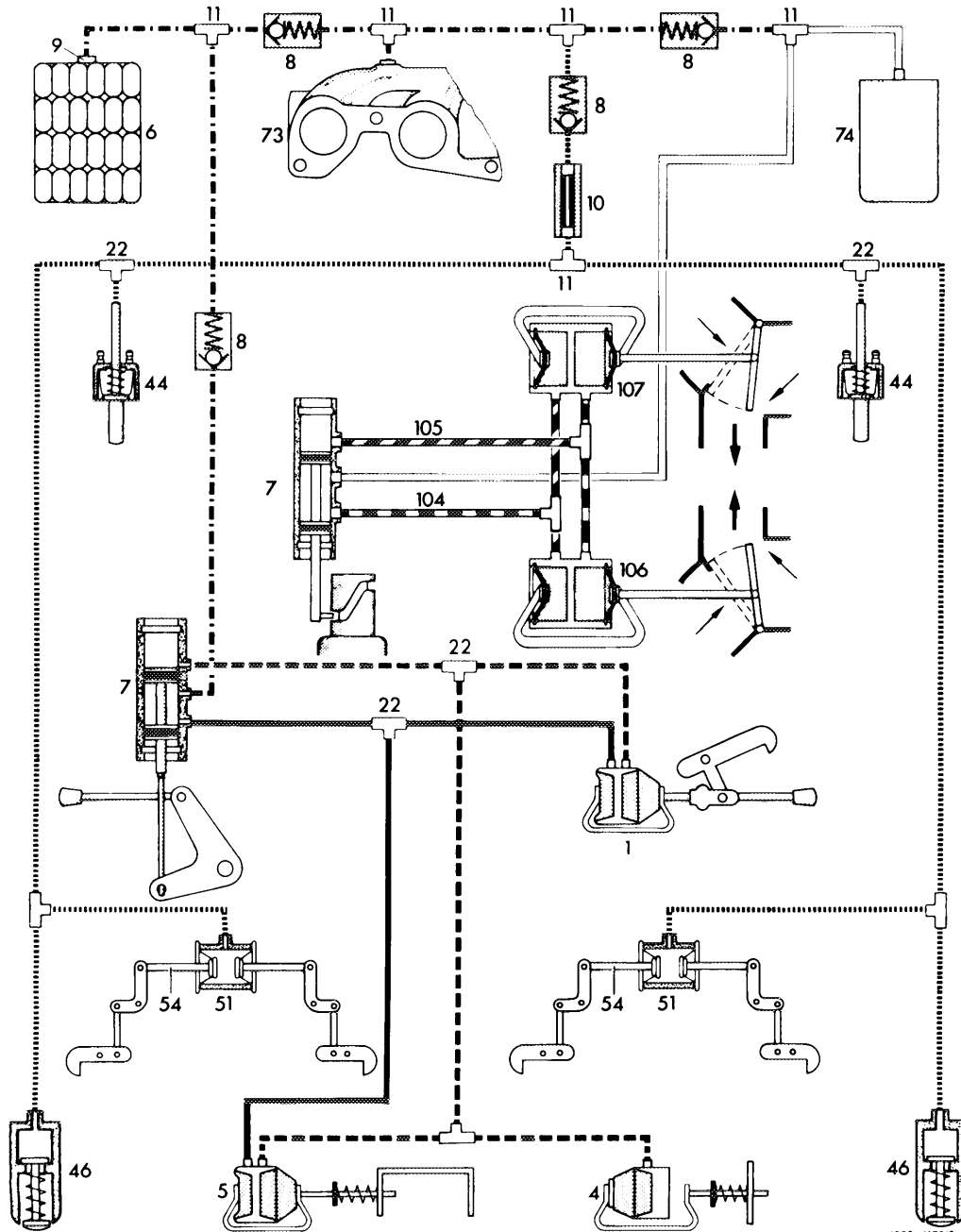
Function diagram central locking system and air conditioning system
(up to 08/81 and righthand steering)



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

- | | |
|--|--|
| 1 Vacuum element (co-driver's door) | 22 Distributor |
| 4 Vacuum element (flap for tank filler neck) | 73 Intake pipe |
| 5 Vacuum element (trunk lid) | 74 Vacuum reservoir (air conditioning system) |
| 6 Vacuum reservoir | 104 Control line (cooling recirculating air) |
| 7 Vacuum switch | 105 Control line (cooling fresh air) |
| 8 Check valve | 106 Vacuum element right (air conditioning system) |
| 9 Seal | 107 Vacuum element left (air conditioning system) |
| 11 Distributor | |

**Function diagram central and backrest locking system with air conditioning system
(up to 08/81 and righthand steering)**



1803-6173/3

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

- 1 Vacuum element (co-driver's door)
- 4 Vacuum element (flap for tank filler neck)
- 5 Vacuum element (trunk lid)
- 6 Vacuum reservoir
- 7 Vacuum switch
- 8 Check valve
- 9 Seal
- 10 Throttle
- 11 Distributor
- 22 Distributor

- 44 Door contact vacuum switch
- 46 Vacuum switch (rear compartment)
- 51 Vacuum element (seat)
- 54 Actuating rod
- 73 Intake pipe
- 74 Vacuum reservoir (air conditioning system)
- 104 Control line (cooling recirculating air)
- 105 Control line (cooling fresh air)
- 106 Vacuum element right (air conditioning system)
- 107 Vacuum element left (air conditioning system)