

## 83–542 Removal and installation, adjustment or checkup of temperature vacuum switch or temperature dial and temperature sensor for air-conditioning system

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### A. Temperature vacuum switch up to 07/80

#### Data

|   |                       |                                 |
|---|-----------------------|---------------------------------|
| Cutting-in temperature °C   | + 4.5 ± 1<br>+ 16 ± 2 | completely cold<br>minimum cold |
| Cutting-out temperature °C  | 1 ± 1                 |                                 |
| Difference between cutting-in and cutting-out temperature in rotary range | 3.5 ± 1               |                                 |
| Angle of rotation °   | 315 ± 5               |                                 |

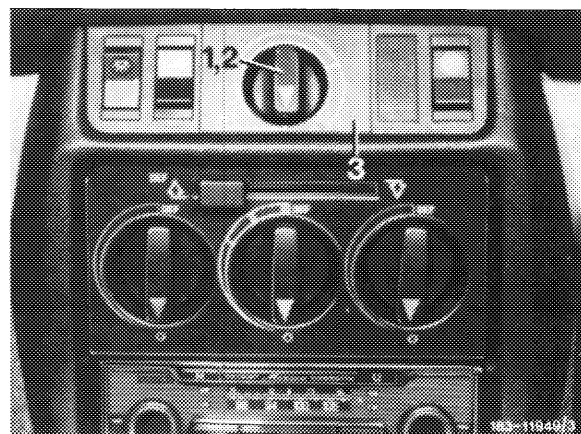
#### Note

During the function test (83–510) of air-conditioning system the air outlet temperature may not be less than 1 °C. A prerequisite is that the capillary of temperature switch is slipped into guide tube up to mark, that the fluid level of the system is in order and that the required pressures at suction and pressure end of compressor have been attained. If the measured temperature is outside the specified values (83–510), the temperature switch must be readjusted.

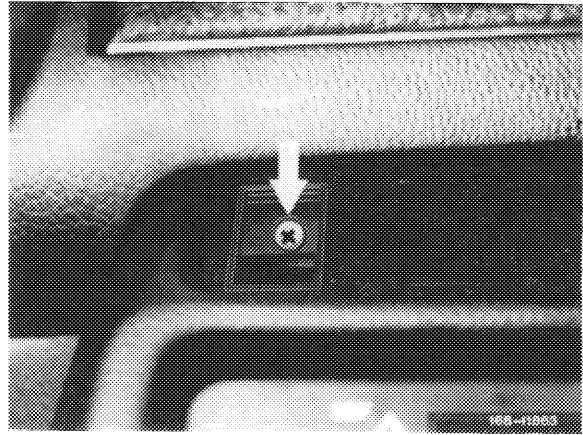
#### Adjustment

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- 1 Pull off knob (1) and unscrew hex. nut (2).



2 Remove cover (3) by loosening screws at left and right (if in place).

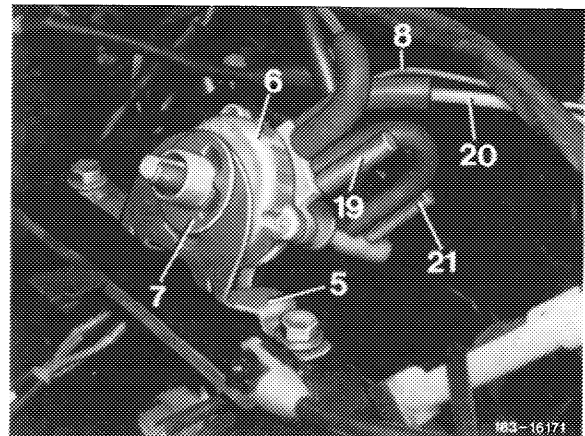
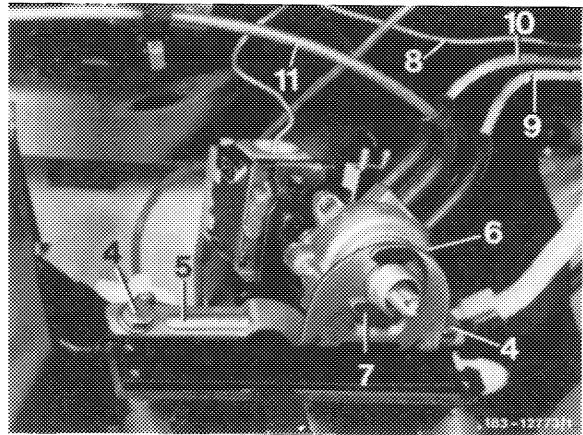


3 Remove lock (7), unscrew screws (4) and remove holder (5).

4 Remove temperature vacuum switch (6) from opening in center console only to the extent that the closing cover (11) can be removed.

**Important!** Pay attention to capillary (8).

1st version

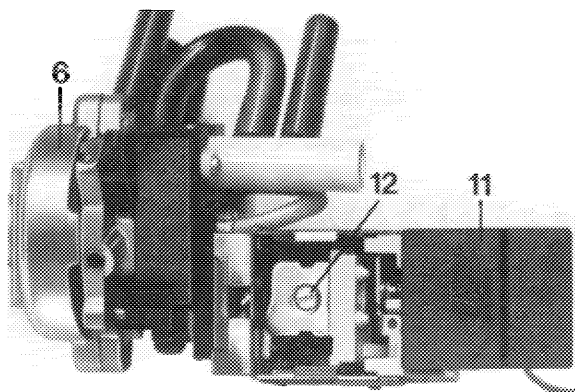


2nd version

5 Adjust temperature switch by turning adjusting screw (12) ("colder" to the left). One full turn corresponds to approx. 2° C.

6 Put back closing cover (11).

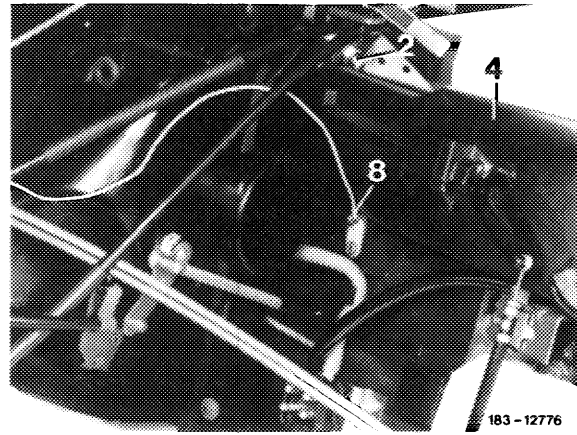
7 Additional installation item 15 to 19.



## Removal

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- 8 Refer to item 1 to 3.
- 9 Remove glove box and pull capillary (8) out of evaporator.
- 10 Pull two flat plugs from temperature switch and loosen double coupling.
- 11 Pull vacuum lines (9 to 11) from vacuum switch (6) (pay attention to color code).



## Installation

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- 12 Plug-on double coupling and two flat plugs on temperature switch.
- 13 Plug-on vacuum lines (9 to 11) on vacuum switch according to color code.
- 14 Install capillary (8) to evaporator and slide into guide tube up to mark.
- 15 Attach holder (5) to temperature vacuum switch (6) with lock (7).
- 16 Screw-on holder (5) with screws (4).
- 17 Install cover (3) and screw temperature vacuum switch with nut (2) to cover.
- 18 Check bulb in temperature switch for correct seat and push-on button (1).
- 19 Check air-conditioning system for function.

## B. Temperature dial and temperature sensor starting 08/80

### a) Removal, installation and checkup of temperature dial for air-conditioning system

#### Data

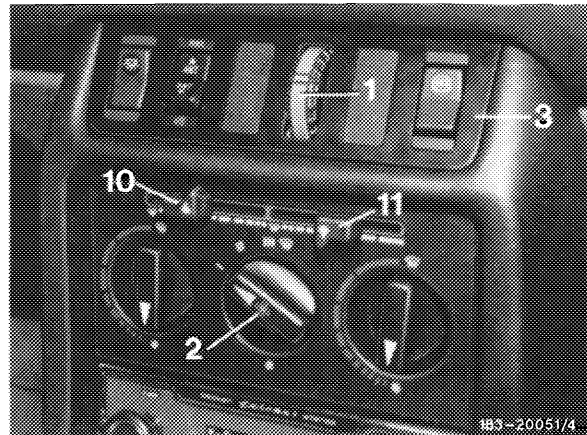
|   |                       |                                 |
|---|-----------------------|---------------------------------|
| Cut- in temperature °C  | + 4.5 ± 1<br>+ 27 ± 1 | completely cold<br>minimum cold |
| Difference between cutting-in and cutting out temperature °C in turning range | 3.5 ± 1               |                                 |
| Angle of rotation °   | 180                   |                                 |

#### Note

During function test (83–510) of air-conditioning system the outlet temperature should not drop below 1 °C. A prerequisite is that the temperature sensor is correctly seated between evaporator plates and corresponds with the Ohm values named in section b, that the fluid level of the system is in order and that the required pressures at suction and pressure end of compressor are attained. If the measured temperature is outside of the specified values (83–510), replace temperature dial.

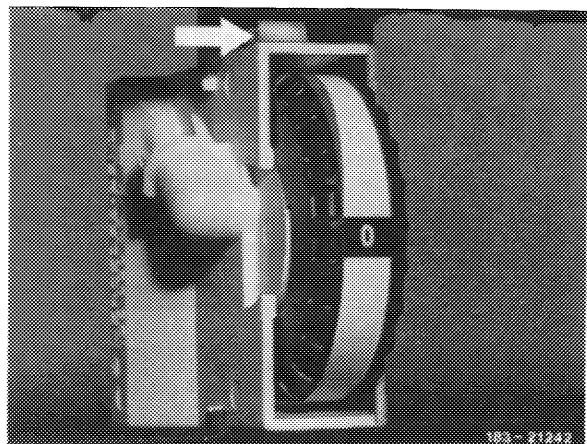
#### Removal

1 Remove cover (3).



2 Unclip temperature dial from holder (refer to arrow) and remove in forward direction.

3 Pull 2- and 4-pole coupler from temperature dial and socket for lights.



## Installation

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- Place 2- and 4-pole coupler on temperature dial, as well as socket for lights, and clip into holder.
- Install cover.

## Testing switch function for switchover valve of recirculating air flap

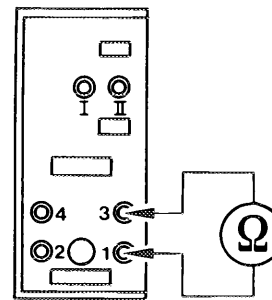
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| Selector dial | Nominal value |
|---------------|---------------|
|---------------|---------------|

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|                                    |                   |
|------------------------------------|-------------------|
| 0 engaged up to prior to max. stop | = $\infty$        |
| max. engaged                       | = 0 to 1 $\Omega$ |

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## Note

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The potentiometer and the electronic system in selector dial cannot be tested with ohmmeter.

## b) Remove and install, test temperature sensor for air-conditioning system

### Test values

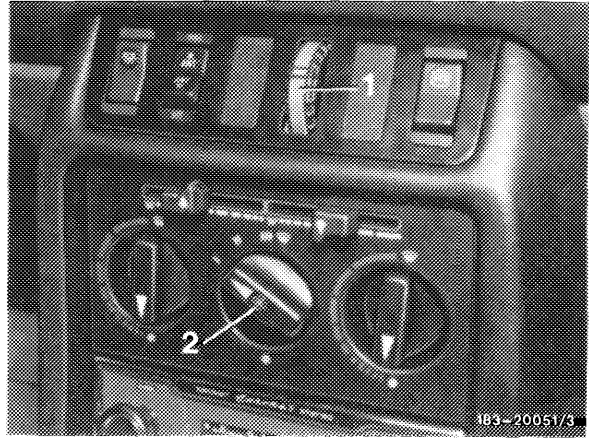
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| Sensor temperature | Resistance                       |
|--------------------|----------------------------------|
| 5 °C               | 30 k $\Omega$ $\pm$ 1 k $\Omega$ |
| 15 °C              | 24 k $\Omega$ $\pm$ 1 k $\Omega$ |
| 25 °C              | 17 k $\Omega$ $\pm$ 1 k $\Omega$ |
| 35 °C              | 13 k $\Omega$ $\pm$ 1 k $\Omega$ |
| 40 °C              | 11 k $\Omega$ $\pm$ 1 k $\Omega$ |

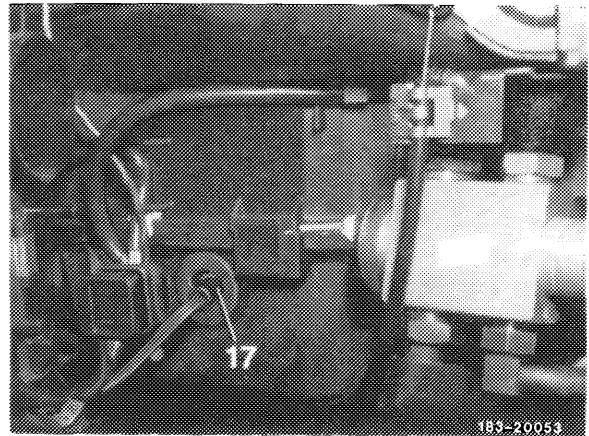
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## Removal

- 1 Remove cover at the right (on righthand steering vehicle at the left) under instrument panel.
- 2 Pull 2-pole coupler from temperature dial (1) while removing temperature dial for this purpose (refer to section a).

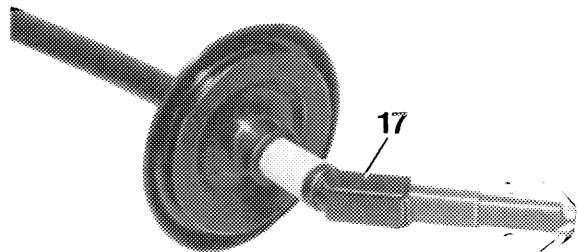


- 3 Pull temperature sensor (17) out of evaporator housing.



## Installation

- 4 Check temperature sensor. If required, insert new temperature sensor (17) carefully in-between evaporator plates. Make sure that the temperature sensor (17) is correctly seated, that is, sensor should engage between evaporator pipes. Then mount rubber grommet into opening in evaporator housing.



- 5 Plug 2-pole coupler on temperature dial (1) and install temperature dial (refer to section a).
- 6 Install cover under instrument panel.
- 7 Check air-conditioning system for function (83-510).

