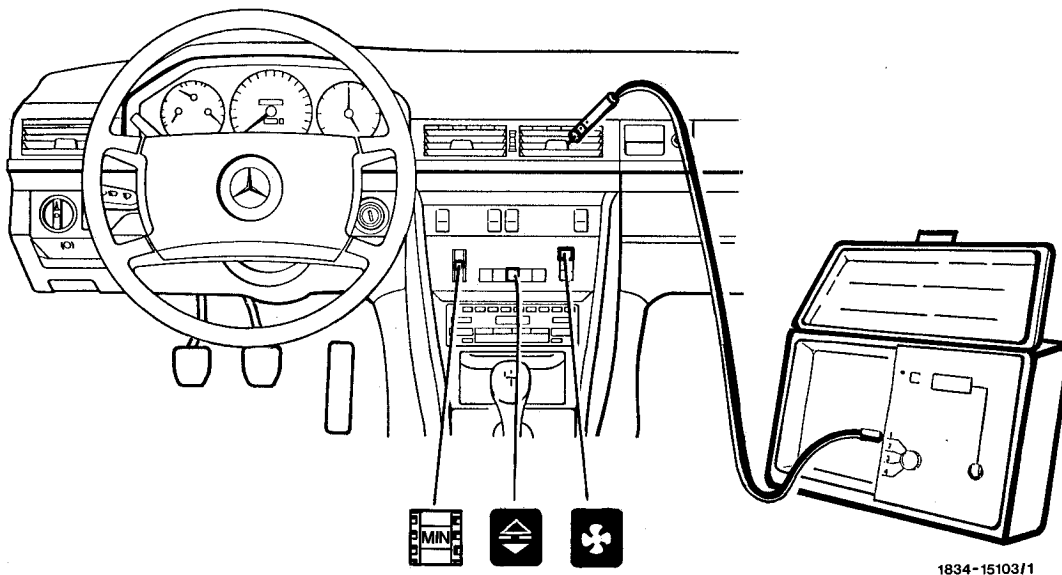




**83-607 Checking refrigerating capacity (short test)**

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Test conditions .....	Observe items 1 to 4
Differential between coldest and warmest outlet temperature .....	Measured between switching off and switching on of the refrigerant compressor max. 3°C
Coldest air outlet temperature from center nozzle ...	Measure + 5 ± 1°C with selector wheel position MIN engaged and function selections  

**Conventional tools**

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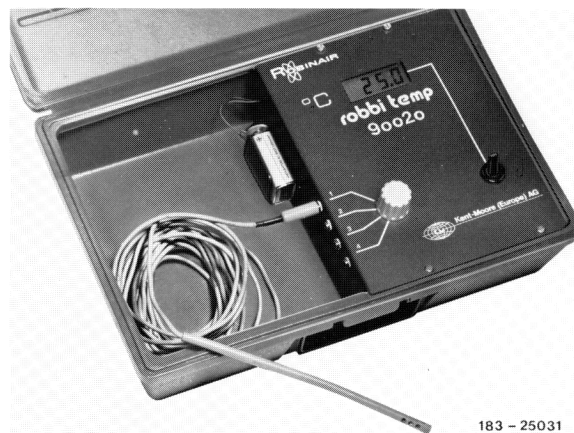
2 thermometers	- 20 °C to +70 °C
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Digital temperature measuring instrument with 4 measuring probes

Robbi temp 90020  
Air temperature measuring probe 90023  
(4.5 m cable length)

Supplier, e.g.:  
Switzerland: Kent-Moore (Europe) AG  
P.O. Box, CH-6340 Baar  
Germany: Kälte-Fischer  
Postfach 266, Augsburgstr. 289-291  
D-70327 Stuttgart

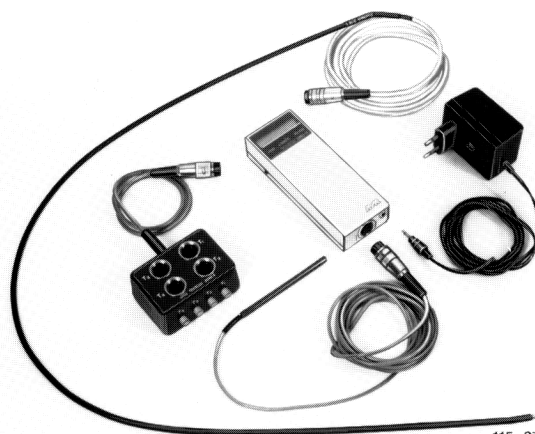


183 - 25031

Digital temperature measuring instrument with 4 measuring probes

Therm 2263-2  
4-fold measuring point  
changeover switch 2235-4  
Air temperature measuring probe W453-5  
(3 m cable length)

Supplier, e.g.:  
Germany: Ahlborn Meß- und Regelungstechnik,  
Eichenfeldstr. 1 - 3,  
D-83607 Holzkirchen



115-27973

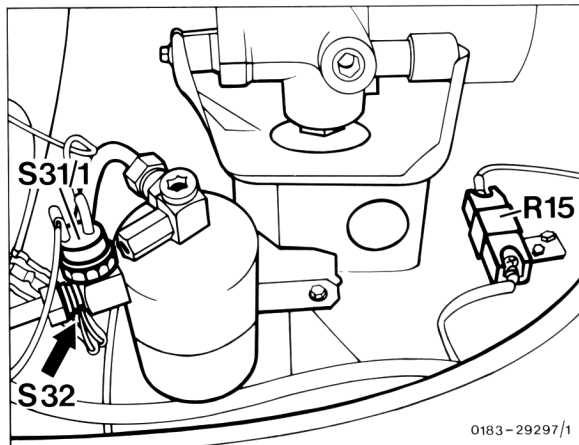
### Note

Carry out test after minor repairs, prolonged disuse etc.

### Test conditions

- 1 The vehicle should not be exposed to the sun before and during the test.
- 2 Check tension of the poly-V-belt for the compressor drive.

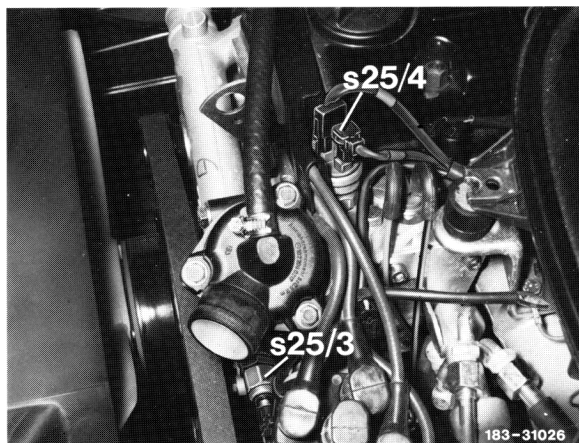
3 Check auxiliary fan function by switching on the ignition and shorting the two flat terminals on the pressure switch (S32 or S32/1). The auxiliary fan should start running at the 1st speed.



0183-29297/1

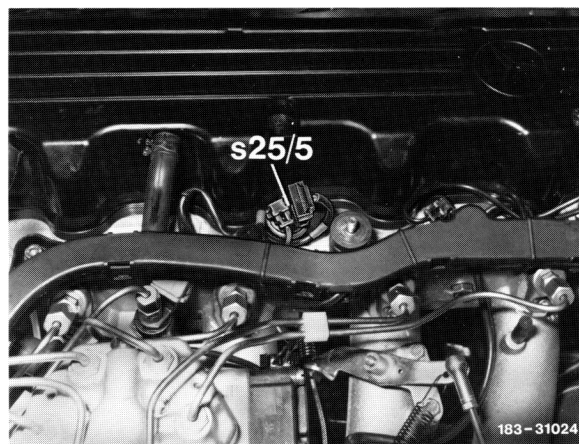
Then bridge the 2-pole coupling on the temperature switch (S25/4 or S25/5). The auxiliary fan 2nd speed should start up. Simultaneously observe the direction of rotation of the auxiliary fan (clockwise). On vehicles with 1-pole temperature switch (up to approx. 8/85), hold the 1-pole coupling to ground.

S25/4 Temperature switch 100/110 °C  
Model 124.0 with 4-cylinder engine



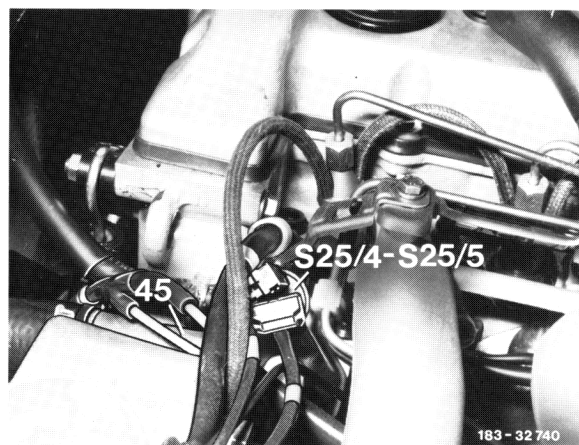
183-31026

S25/5 Temperature switch 105/115 °C  
Model 124.0/2 with 6-cylinder engine




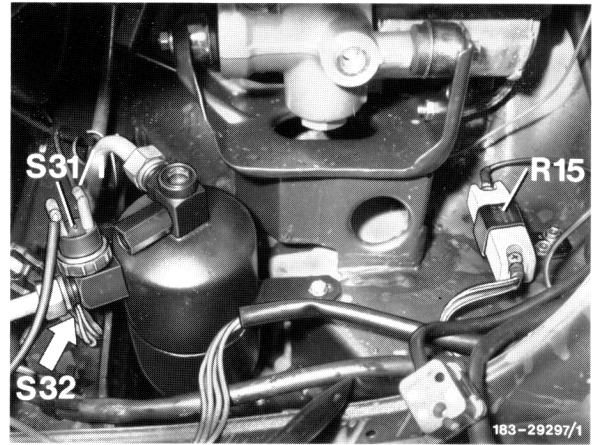
183-31024

S25/4, S25/5 Temperature switch 100/110 °C and  
105/115 °C  
Models 124.1/3



183-32740

4 Check fluid level in the air conditioner. To do so, pull off a cable on the pressure switch (S31/1), allow engine to run at idle speed ( $> 750/\text{min}$ ) and switch on the automatic climate control with the function selection . Clean the sight glass (arrow) in the fluid reservoir. Observe sight glass and reconnect the cable to pressure switch (S31/1) at the same time. Shortly before the electromagnetic coupling is switched on, the refrigerant should rise and subsequently flow through without bubbles (i.e. refrigerant no longer visible).





### Caution!

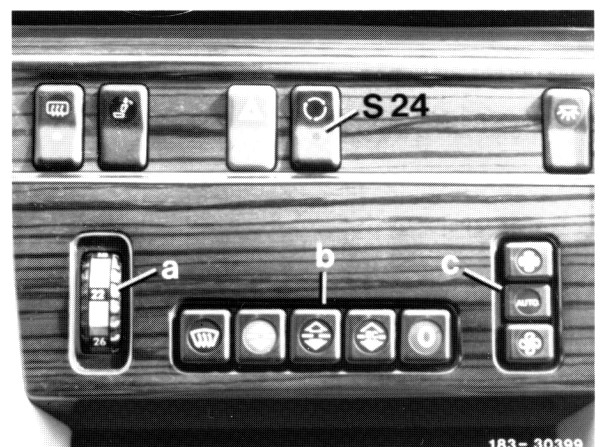
At pressures  $< 2$  bar, the control for the refrigerant compressor is interrupted by the pressure switch (S31/1). The circuit is closed again when the pressure is  $> 0.6$  bar above the switch-off pressure.

### Note

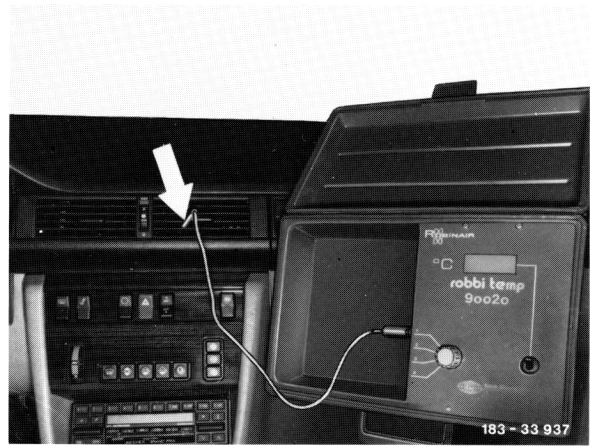
If the refrigerant compressor is not switched on, bridge the cables to the pressure switch (S31/1) and check fluid level according to item 4. If the refrigerant compressor is still not switched on, check the compressor cut-out (83-605) or the activation of the compressor (83-604).

### Checking

- 1 Engage temperature selector wheel (A) in "MIN".
- 2 On the pushbutton switch (b), switch on the function selection  and on the blower switch (c) the function selection .
- 3 Open the center and lateral nozzles and switch off switch (S24) (fresh air).

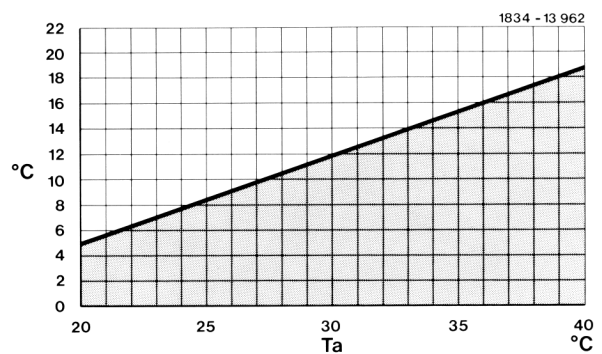


- 4 Insert a thermometer in the left or right center nozzle.
- 5 Provide a thermometer for ambient temperature (room temperature) approx. 2 m from the driver's side of the outside of the vehicle.
- 6 Open the window and close the vehicle doors. Run engine with approx. 2000/min.



- 7 After approx. 5 minutes, read the air outlet temperature of the center nozzle and the outside temperature on the two thermometers and compare with the values in the diagram.

Diagram  
 Ta Outside temperature °C



#### Note

If the refrigerating capacity is inadequate although the refrigerating compressor is operating, the suction/refrigerating capacity and high pressure of the air conditioner should be checked (83-608).

#### Caution!

The air outlet temperature on the center nozzle must not be less than + 5 °C. If the value is not attained, check the resistance value of the temperature sensor evaporator and its supply cables (83-604 test step 3), renew temperature sensor if required, If no fault can be detected, renew control unit.