



## Model Year 1985

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Tempmatic climate control, model 201, model year 1985

Differences from model year 1984:

### 1. Air conditioning compressor, model 201.024

Model 201.024 now has the swash plate compressor (Nippondenso) used on model 201.122. Due to the installation of the single belt drive on engine 102, the same compressor cut-out (as on engine 601) is used to prevent belt damage in case the compressor jams.

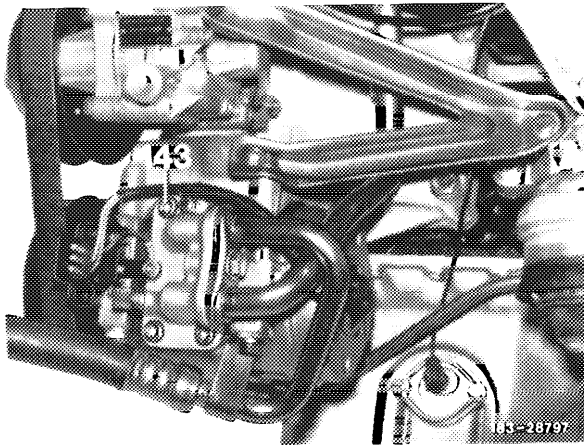


Fig. 207 Air conditioning compressor (143), model 201.024

### 2. Air conditioning compressor cut-out

A similar control unit as used on model 201.024 is installed in model 201.122. Both control units are designed for a delayed compressor cut-in. The compressor is activated 10 seconds after an engine speed of 600 rpm is reached. This improves engine speed stabilization after start-up.

To prevent the 102 engine from overheating, the control unit has an additional integrated cut-out circuit. At a coolant temperature of 110°C, this circuit is grounded through temperature switch (23) and the compressor stops working. At approx. 103°C, the temperature switch opens and the compressor comes on again.

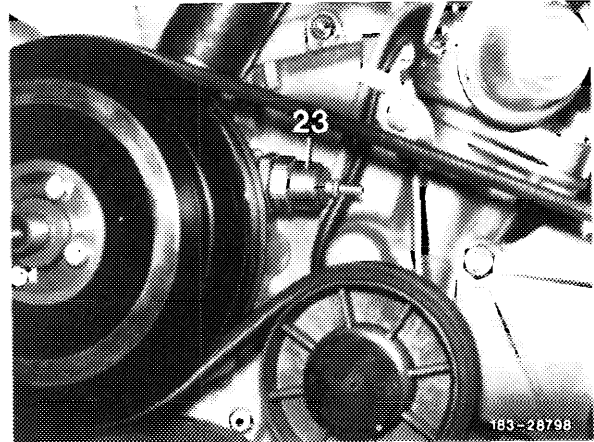


Fig. 208 Location of temperature switch 110°C (23)

### 3. Temperature switch for engine fan clutch (100°C) and auxiliary fan (110°C)

This temperature switch (16) has three connections and two switch functions. One switches the fan clutch on at 100°C, the other switches the auxiliary fan on at 110°C.

On model 201.024, the engine fan clutch control and the relay for the auxiliary fan are now switched through the positive side of the electrical circuit (see wiring diagrams).

The previous temperature switch for the auxiliary fan in 201 models was therefore eliminated.

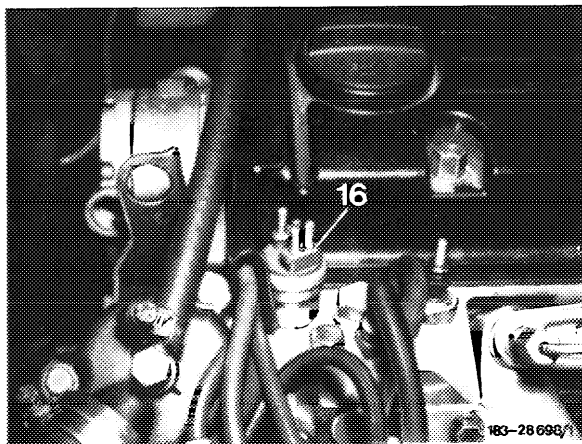


Fig. 209 Location of coolant temperature switch 1001110 °C (16), model 201.024

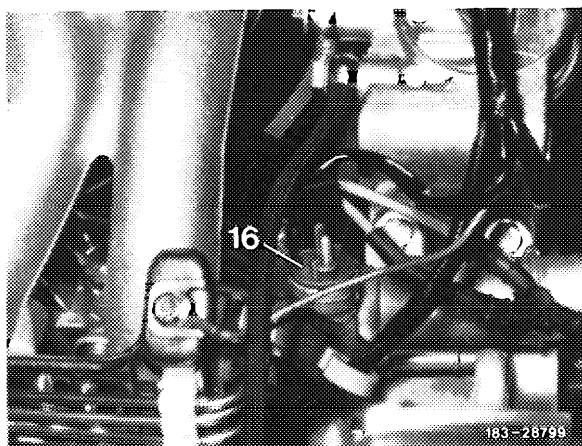


Fig. 210 Location of coolant temperature switch 1001110°C (16), model 201.122

**Important:**

Air conditioning compressor switching was changed from the positive to the negative side of the electrical circuit.

This means that with the ignition and tempmatic climate control switched on, the low pressure switch and the control unit are connected to ground (M 10).



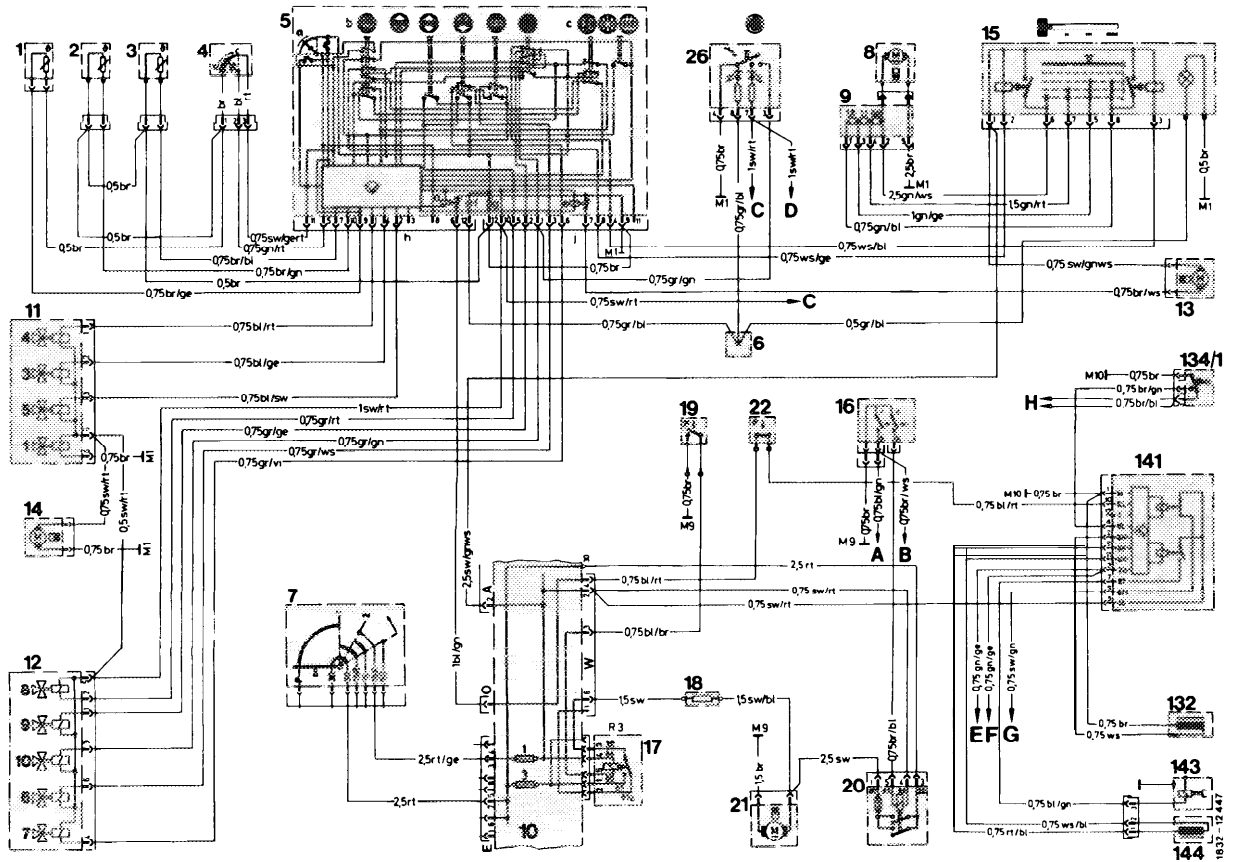


Fig. 212 Wiring diagram, tempmatic climate control, model 201.122

- |               |                                                                                                                                                                                                                                                                                        |       |                                                                                     |        |                                                                                                                 |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------|--------|-----------------------------------------------------------------------------------------------------------------|
| 1             | In-car temperature sensor                                                                                                                                                                                                                                                              | 11    | Switchover valve unit, 4 connections                                                | 20     | Relay, auxiliary fan                                                                                            |
| 2             | Ambient sensor, <b>outside air</b> temperature                                                                                                                                                                                                                                         | 11.4  | Switchover valve for blend air flaps ("cold")                                       | 21     | Auxiliary fan                                                                                                   |
| 3             | Temperature sensor, air conditioning evaporator                                                                                                                                                                                                                                        | 11.3  | Switchover valve for blend air flaps ("warm")                                       | 22     | Low pressure switch, <b>air</b> conditioning compressor cut-out: On 2.6 bar/Off 2.0 bar                         |
| 4             | Feedback potentiometer                                                                                                                                                                                                                                                                 | 11.5  | Switchover valve for heater valve ("closed")                                        | 26     | Switch, fresh <b>air</b> /recirculating <b>air</b>                                                              |
| 5             | Pushbutton <b>switch</b> unit, consisting of:                                                                                                                                                                                                                                          | 11.1  | Switchover valve for heater valve ("open")                                          | 132    | Rpm sensor, <b>ring</b> gear                                                                                    |
| a             | Temperature wheel                                                                                                                                                                                                                                                                      | 12    | Switchover valve unit, 5 connections                                                | 134/11 | Microswitch for compressor cut-out at full load (only connected on vehicles <b>with</b> automatic transmission) |
| b             | Pushbutton switch with six buttons                                                                                                                                                                                                                                                     | 12.6  | Switchover valve for legroom flaps                                                  | 141    | Control unit for compressor protective cutout                                                                   |
| c             | Mode switch for air conditioning compressor <b>with</b> three buttons <b>air</b> conditioning on, controlled via temperature sensor (3) to 0°C evaporator temperature air conditioning, controlled via pushbutton switch unit ( <b>electronic system</b> ) <b>air</b> conditioning off | 12.9  | Switchover valve for fresh <b>air</b> /recirculating air flap (short stroke)        | 143    | Electromagnetic clutch, compressor                                                                              |
| d             | Relay for air conditioning compressor                                                                                                                                                                                                                                                  | 12.10 | Switchover valve for fresh <b>air</b> /recirculating air flap (long stroke)         | 144    | Rpm sensor, compressor shaft                                                                                    |
| e             | Relay for auxiliary coolant pump                                                                                                                                                                                                                                                       | 12.6  | Switchover valve for defroster nozzle flaps (short stroke)                          | A      | Coolant temperature switch (100%) for <b>engine</b> fan clutch                                                  |
| f             | Lights                                                                                                                                                                                                                                                                                 | 12.7  | Switchover valve for defroster nozzle flaps (long stroke)                           | B      | To control unit, EGR, terminal 6                                                                                |
| g             | Fuse: 2 amps                                                                                                                                                                                                                                                                           | 13    | Auxiliary coolant pump                                                              | C      | To hazard warning switch, <b>circuit</b> 15                                                                     |
| h             | 12-pin connector, at left side of pushbutton switch unit                                                                                                                                                                                                                               | 14    | Aspirator blower for <b>in-car</b> temperature sensor                               | D      | To seat belt indicator, terminal 6 (circuit 15)                                                                 |
| j             | 12-pin connector, at right side of pushbutton switch unit                                                                                                                                                                                                                              | 15    | Blower switch                                                                       | E      | To control unit, EGR, terminal 4                                                                                |
| 6             | Terminal block, circuit <b>58d</b>                                                                                                                                                                                                                                                     | 16    | a Coolant temperature switch (100°C) for engine fan clutch                          | F      | To control unit, electronic idle speed, terminal 10                                                             |
| 7             | Preglow starter switch                                                                                                                                                                                                                                                                 | b     | Coolant temperature switch (110°C) for auxiliary fan (high speed)                   | G      | To kickdown switch                                                                                              |
| 8             | Blower motor                                                                                                                                                                                                                                                                           | 17    | Relay, <b>auxiliary fan pre-resistor</b>                                            | H      | To switchover valves, EGR                                                                                       |
| 9             | Pm-resistor, blower motor                                                                                                                                                                                                                                                              | 16    | <b>Pre-resistor, auxiliary fan</b>                                                  | M I    | Common ground connection (behind Instrument cluster)                                                            |
| 10            | Electrical center with fuses                                                                                                                                                                                                                                                           | 19    | High <b>pressure</b> switch, <b>auxiliary fan</b> (low speed): On 20 bar/Off 15 bar | M 5    | Ground connection, engine (unit screwed into <b>engine</b> )                                                    |
| Fuse 1 = 16 A |                                                                                                                                                                                                                                                                                        |       |                                                                                     | M 9    | Ground connection, front left (near <b>headlight</b> )                                                          |
| Fuse 3 = 16 A |                                                                                                                                                                                                                                                                                        |       |                                                                                     | M 10   | Ground connection, battery                                                                                      |

## Model Year 1986

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Tempmatic climate control, model year 1986

### Modifications as compared with model year 1985

#### Model 201.024

#### Activation of electromagnetic clutch for engine fan

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At a refrigerant pressure of 20 bar the pressure switch (S 32) activates the low speed of the auxiliary fan **and** the electromagnetic clutch for engine fan via double contact relay (K 8).

Formerly only the auxiliary fan was activated by the refrigerant high pressure switch (S 32).

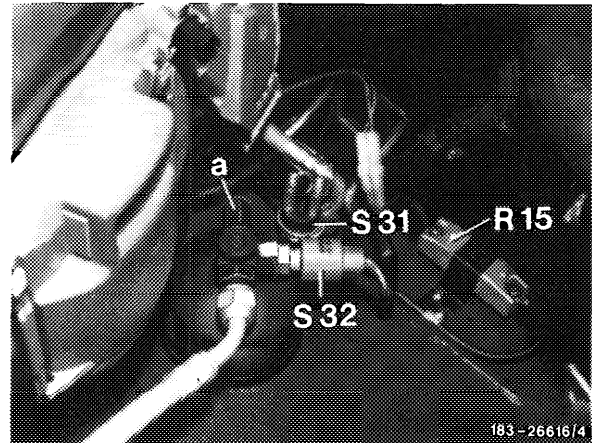


Fig. 83/27

S 32 Refrigerant high pressure switch  
(aux fan low and engine fan)

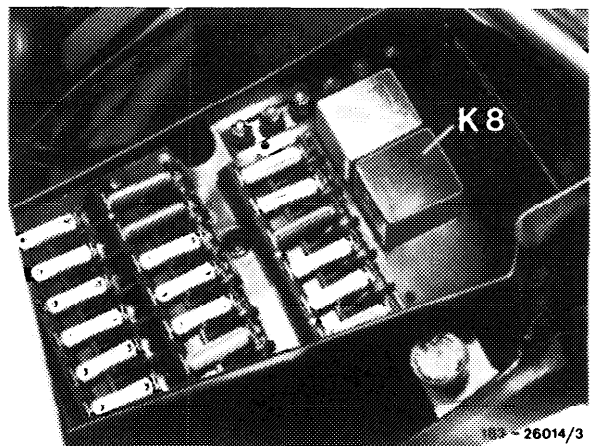


Fig. 83/28

K 8 Double contact relay

**Model 201 .126**

Layout and function are similar to A/C compressor protective cutout of model 201.122 model year 1985.

The switch (S 32) activates only the aux. fan low (engine has visco-fan).

**A/C compressor overheating cut-out, models 201.024/.126**

To prevent overheating of the engine, a cutout has been integrated in control unit (N6). At approx. 115°C (engine 602), 110°C (engine 102) coolant temperature the temperature switch (S 25/5 or S 25/3) will switch to ground so that the A/C compressor is switched off via the control unit. The temperature switch opens at approx. 108°C (engine 602), 103°C (engine 102) and the A/C compressor switches on again via control unit (N6).

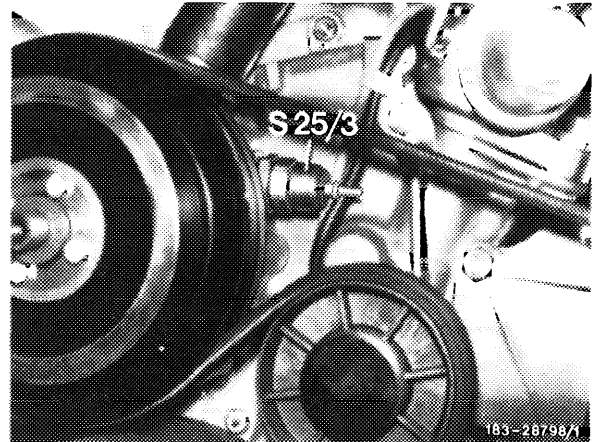


Fig. 83/29 Engine 102

S 25/3 Coolant temperature switch 110 C  
(A/C compressor cut-out)

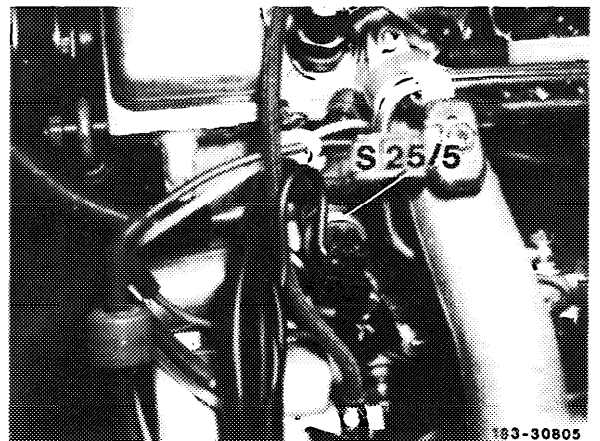


Fig. 83/30 Engine 602

S 25/5 Coolant temperature switch 105/115 °C  
a 105 C, aux fan (high speed)  
b 115 °C, A/C compressor cut-out

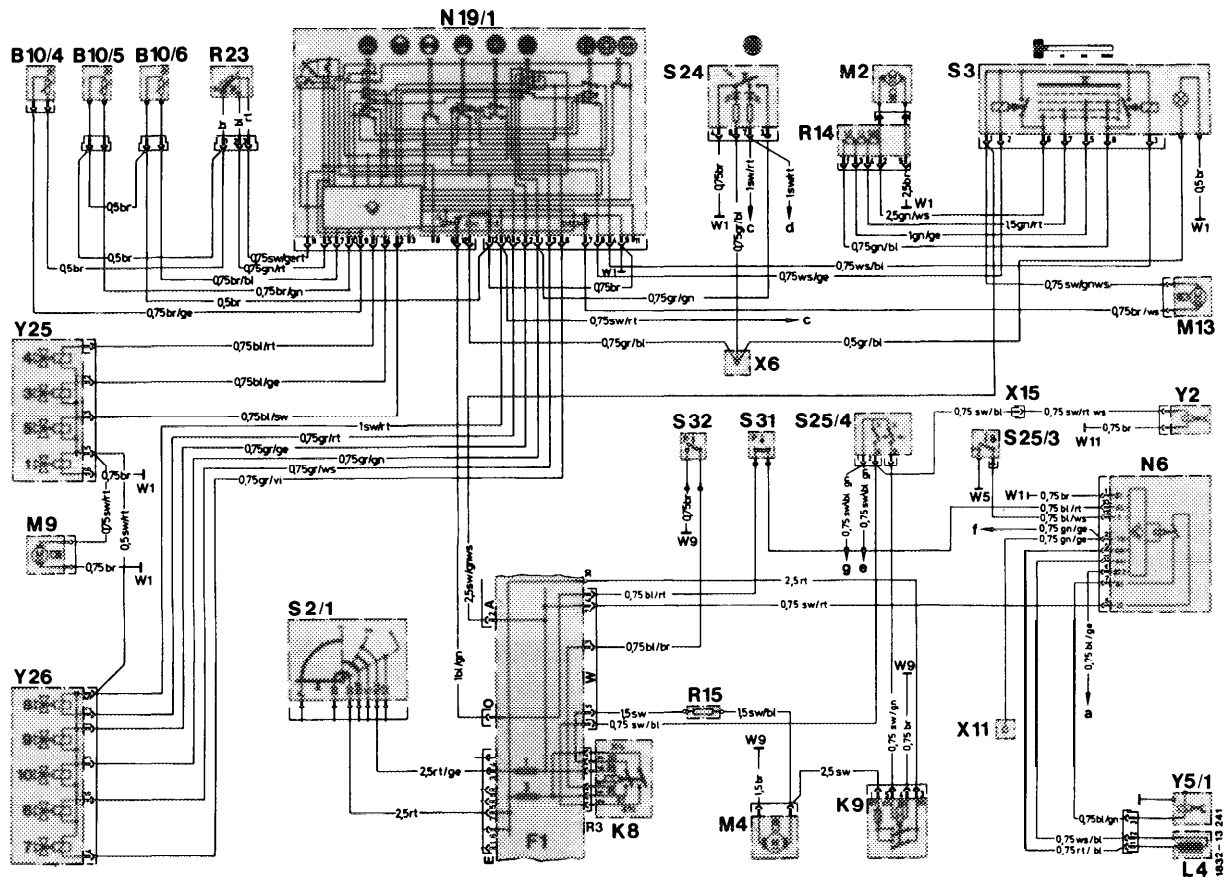


Fig. 83/31 Wiring diagram, tempmatic climate control, Model 201.024

- |        |                                                                        |        |                                                                      |      |                                                                      |
|--------|------------------------------------------------------------------------|--------|----------------------------------------------------------------------|------|----------------------------------------------------------------------|
| B 10/4 | In-car temperature sensor                                              | S 25/4 | Coolant temperature switch 100°/110°C                                | Y 26 | Switchover valve unit, 5 connections                                 |
| B 10/5 | Outside air temperature sensor                                         |        | a 100°C for engine fan clutch                                        | 8    | Switchover valve for legroom flaps                                   |
| B 10/6 | Evaporator temperature sensor                                          |        | b 110°C for aux fan (H)                                              | 9    | Switchover valve for fresh/recirculating air flap (short stroke)     |
| F 1    | Electrical center Fuse 1 = 16 A                                        | s 31   | Refrigerant low pressure switch (compressor)                         | 10   | Switchover valve for fresh/recirculating air flap (long stroke)      |
|        | Fuse 3 = 16 A                                                          | S 32   | Refrigerant high pressure switch (aux fan low and engine fan clutch) | 6    | Switchover valve for defroster flaps (short stroke)                  |
| K 8    | Double contact relay, auxiliary fan low and engine fan clutch          |        | Closed 2.6 bar/Open 2.0 bar                                          | 7    | Switchover valve for defroster flaps (long stroke)                   |
| K 9    | Relay, auxiliary fan high                                              | W 1    | Common ground (behind Instrument cluster)                            | a    | To control unit for CIS-E system pm socket 19                        |
| L 4    | Rpm sensor, A/C compressor                                             | W 5    | Engine ground                                                        | c    | To hazard warning switch terminal 15                                 |
| M 2    | Blower motor                                                           | w 9    | Ground, at front headlamp                                            | d    | From fasten seat belt indicator, terminal 8 (connection terminal 15) |
| M 4    | Auxiliary fan                                                          | X 6    | Terminal block 58 d                                                  | e    | To heated windshield washer nozzle (terminal 15)                     |
| M 9    | Aspirator blower for in-car sensor                                     | x 11   | Diagnostic plug                                                      | f    | To fuel pump relay pm socket 10                                      |
| M 13   | Auxiliary coolant pump                                                 | x 15   | Connector plug, engine fan to coolant temperature switch (S 25/4)    | g    | To tachometer                                                        |
| N 6    | Compressor cut-out control unit                                        | Y 2    | Engine fan clutch                                                    |      |                                                                      |
| N 19/1 | Pushbutton switch unit                                                 | Y 5/1  | Electromagnetic clutch for A/C compressor                            |      |                                                                      |
|        | a Relay for A/C compressor                                             | Y 25   | Switchover valve unit, 4 connections                                 |      |                                                                      |
|        | b Relay for aux coolant pump                                           |        | 4 Switchover valve for blend air flaps ("cold")                      |      |                                                                      |
|        | c Illumination                                                         |        | 3 Switchover valve for blend air flaps ("warm")                      |      |                                                                      |
|        | d Fuse = 2 A                                                           |        | 5 Switchover valve for heater valve ("opens")                        |      |                                                                      |
| R 14   | Pre-resistor for blower motor                                          |        | 1 Switchover valve for heater valve ("open")                         |      |                                                                      |
| R 15   | Pre-resistor for aux fan                                               |        |                                                                      |      |                                                                      |
| R 23   | Feedback potentiometer                                                 |        |                                                                      |      |                                                                      |
| S 2/1  | Ignition-starter switch                                                |        |                                                                      |      |                                                                      |
| s 3    | Blower switch                                                          |        |                                                                      |      |                                                                      |
| S 24   | Fresh/recirculation switch                                             |        |                                                                      |      |                                                                      |
| S 25/3 | Coolant temperature, engine overheat (1.1 0°C), A/C compressor cut-out |        |                                                                      |      |                                                                      |



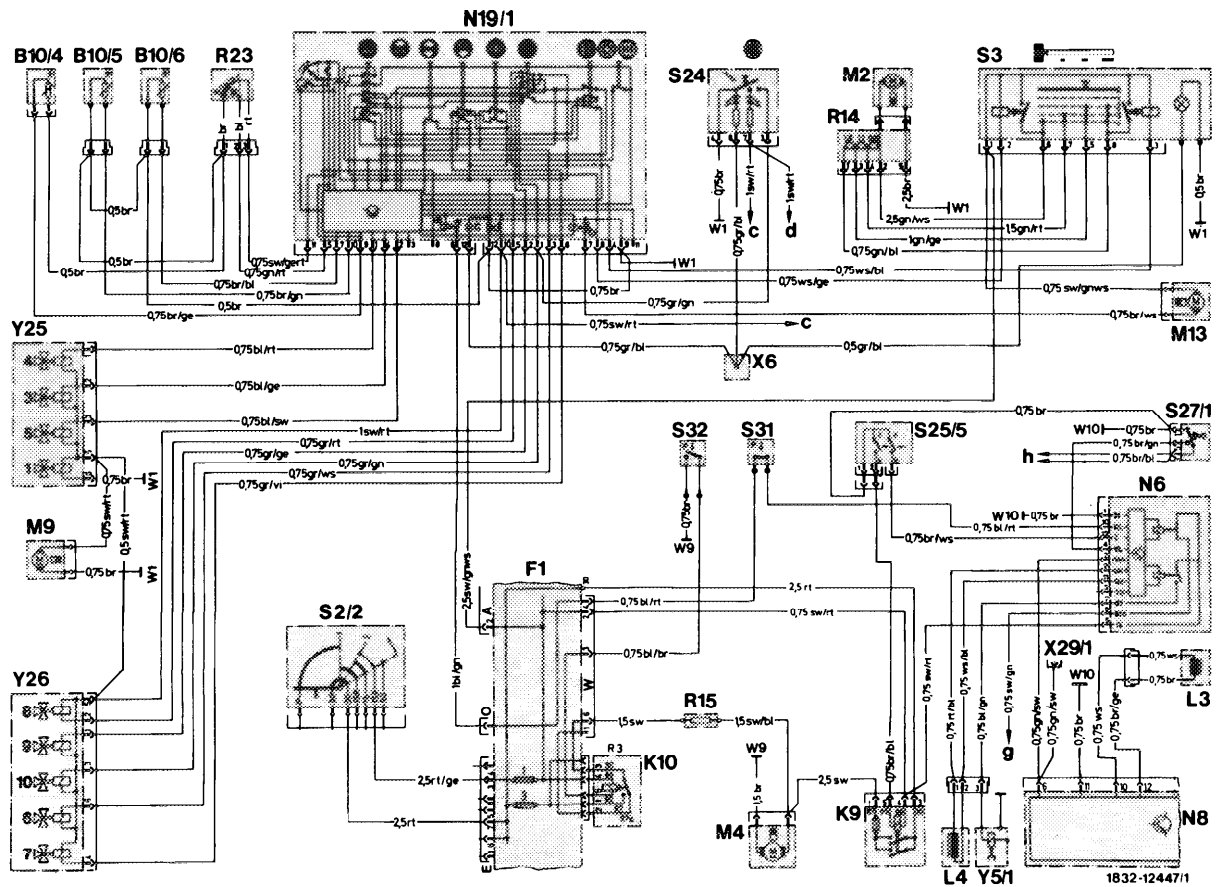


Fig. 83/32 Wiring diagram, tempmatic climate control, Model 201.126

- |        |                                                                                                                        |        |                                                                                                                      |      |                                                                      |
|--------|------------------------------------------------------------------------------------------------------------------------|--------|----------------------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------|
| B 10/4 | In-car temperature sensor                                                                                              | S 24   | Fresh/recirculation switch                                                                                           | Y 25 | Swrtchover valve unit, 4 connections                                 |
| B 10/5 | Outside air temperature sensor                                                                                         | s 25/5 | Coolant temperature switch 105/115°C<br>a 105°C for aux fan (H)<br>b 115°C engine overheat<br>A/C compressor cut-out | 4    | Swrtchover valve for blend air flaps ("cold")                        |
| B 10/6 | Evaporator temperature sensor                                                                                          | s 27/1 | Microswitch for A/C compressor cut-out at full throttle (only connected with auto trans )                            | 3    | Swrtchover valve for blend air flaps ("warm")                        |
| F 1    | Electrical center Fuse 1 = 16 A<br>Fuse 3 = 16A                                                                        | s 31   | Refrigerant low pressure switch (A/C compressor cut-out)                                                             | 5    | Swrtchover valve for heater valve ("closed")                         |
| K 9    | Relay, auxiliary fan                                                                                                   | S 32   | Refrigerant high pressure switch (aux fan low)                                                                       | 1    | Swrtchover valve for heater valve ("open")                           |
| K 10   | Relay, auxiliary fan pre-resistor                                                                                      | W 1    | Common ground (behind Instrument cluster)                                                                            | Y 26 | Swrtchover valve unit, 5 connections                                 |
| L 3    | Rpm sensor, flywheel ring gear                                                                                         | w 9    | Ground, at front headlamp                                                                                            | 8    | Swrtchover valve for legroom flaps                                   |
| L 4    | Rpm sensor, A/C compressor                                                                                             | w 10   | Battery ground                                                                                                       | 9    | Swrtchover valve for fresh/recirculating air flap (short stroke)     |
| M 2    | Blower motor                                                                                                           | X 6    | Terminal block 58 d                                                                                                  | 10   | Swrtchover valve for fresh/recirculating air flap (long stroke)      |
| M 4    | Auxiliary fan                                                                                                          | x 29/1 | Test connection for rpm signal                                                                                       | 6    | Swrtchover valve for defroster flaps (short stroke)                  |
| M 9    | Aspirator blower for m-car sensor                                                                                      | Y 5/1  | Electromagnetic clutch for A/C compressor                                                                            | 7    | Swrtchover valve for defroster flaps (long stroke)                   |
| M 13   | Auxiliary coolant pump                                                                                                 |        |                                                                                                                      | c    | To hazard warning switch terminal 15                                 |
| N 6    | Compressor cut-out control unit                                                                                        |        |                                                                                                                      | d    | From fasten seat belt indicator, terminal 8 (connection terminal 15) |
| N 8    | Idle rpm control unit                                                                                                  |        |                                                                                                                      | g    | To kickdown switch                                                   |
| N 19/1 | Push button switchunit<br>a Relay for A/C compressor<br>b Relay for aux coolant pump<br>c Illumination<br>d Fuse = 2 A |        |                                                                                                                      | h    | To swrtchover valves for EGR                                         |
| R 14   | Pre-resistor for blower motor                                                                                          |        |                                                                                                                      |      |                                                                      |
| R 15   | Pre-resistor for aux fan                                                                                               |        |                                                                                                                      |      |                                                                      |
| R 23   | Feedback potentiometer                                                                                                 |        |                                                                                                                      |      |                                                                      |
| S 2/2  | Pre-glow starter switch                                                                                                |        |                                                                                                                      |      |                                                                      |
| s 3    | Blower switch                                                                                                          |        |                                                                                                                      |      |                                                                      |

**Tempmatic climate control, model year 1987**

**Tempmatic climate control, model 201**

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Modifications as compared to Model Year 1986:

**Fresh/recirculated air switch and tempmatic pushbutton control unit**

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The fresh/recirculated air switch has been integrated into the tempmatic pushbutton control unit, in place of the previous "EC" pushbutton. In addition, the operation of the A/C mode pushbuttons, as well as the symbol for the center button, have been modified (Fig. 83/1). Both A/C mode pushbuttons can be switched on and off individually. If one pushbutton is depressed, it will automatically cancel the other. With both A/C mode pushbuttons switched off, the climate control operates as before in the economy ("EC") setting (no A/C).



Fig. 83/1

**Function of recirculated air mode** 

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The function of the recirculated air mode is identical to model 124, however, when depressing the recirculated air switch, the outside temperature must exceed 15 °C for the system to remain in the recirculated air mode for 30 minutes (in model 124, exceeding 7 °C).

**Function of dehumidifying mode** 

Pushing this button switches the compressor on to operate until the evaporator reaches i-5 °C. The interior temperature sensor has no influence.

**Pushbutton control unit**

- Short-circuit proof design.
- Override function during failure of a temperature sensor or the feedback potentiometer.
- Malfunction indication using light emitting diode (LED) blink code.

**Short-circuit proof design**

The circuit board in the tempmatic pushbutton control unit is protected against shorts from any of its externally connected circuits. The respective output signal, i.e. blower and A/C compressor, is switched off, and the blend air flap remains in its present position. The respective output signals are switched on again after the short-circuit has been eliminated.

Due to this modification, the two ampere fuse in the tempmatic pushbutton control unit is no longer required.

**Override function during failure of a temperature sensor or feedback potentiometer**

Then tempmatic pushbutton control unit switches to an override function if one of the following components fails:

- In-car temperature sensor
- Outside temperature sensor
- Evaporator temperature sensor
- Coolant temperature gauge sensor
- Feedback potentiometer

In this case, the blend air flap remains in its present position. The heater valve remains open or opens. The blower continues to blow at the previously set speed, and the legroom flaps open. All other functions are non-operational.

**Malfunction indication using light emitting diode (LED) blink code**

A defective temperature sensor or feedback potentiometer is detected by the tempmatic pushbutton control unit. The malfunction indication is conveyed in the form of voltage impulses (battery voltage) at terminal 9 of the right connector on the tempmatic pushbutton control unit. These impulses can be "read" through the use of a LED (not a light bulb). The malfunctioning component or respective wiring can be pinpointed according to the number of voltage impulses indicated by the blinking LED. The LED will blink once for each impulse. The voltage impulses have a **frequency** of 1/2 Hz. (two seconds).

Defective component with wiring	Number of voltage impulses (blinks)	Time of impulse sequences in seconds
In-car temp. sensor	5	10
Outside temp. sensor	10	20
Feed back potentiometer	15	30
Evaporator temp. sensor	20	40
Coolant temp. gauge sensor	25	50

The malfunction indication repeats until the defect is no longer detected. There is a pause of four seconds between each sequence of impulses, at which point the opening and closing of the relay in the blower switch is audible (clicking noise), momentarily switching the blower off. This provides an additional method for diagnosing the defective component by listening to the relay and timing the impulse sequences.

The test procedure for diagnosis using the LED blink code is on page 246.

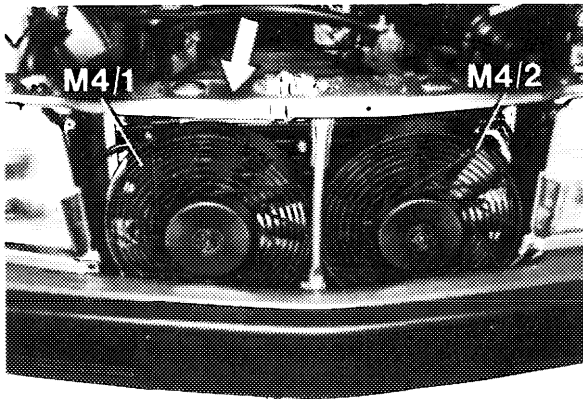
**Model 201.0291128**

**Auxiliary fan**

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These models are equipped with dual electric auxiliary fans. They are switched on simultaneously in the first speed at a refrigerant pressure of 20 bar and in the second speed at an engine temperature of 105° C. At maximum speed, both auxiliary fans draw approx. 26 Amps at 13 Volts battery voltage.

The auxiliary fans are attached to the condenser and can only be removed after first removing the front center reinforcement (arrow).



183-33339

Fig. 83/2

M 4/1 Left auxiliary fan  
M 4/2 Right auxiliary fan

**Models 107, 124, 126, 201**

**2-Function refrigerant pressure switch**

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To prevent damage to the A/C compressor, a 2-function refrigerant pressure switch (S 31 /1) is installed in the receiver/dryer replacing the previous switch.

1. Function 1 (low pressure) activates if the refrigerant level is too low or with no refrigerant in system.

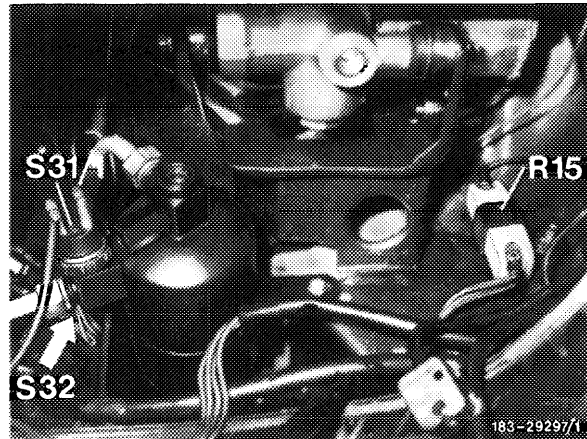
Cut-out pressure is approx. 2.0 bar.

Cut-in pressure is approx. 2.6 bar.

2. Function 2 (high pressure) activates if the expansion valve becomes clogged or if the auxiliary fan fails to operate.

Cut-out pressure is approx. 30.0 bar.

Cut-in pressure is approx. 22.0 bar.



183-29297/1

Fig. 83/3

S 3 111 2-Function refrigerant pressure switch

**Model 201**

**Testing the temperature sensors and the feedback potentiometer**

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Complaints resulting from a defective temperature sensor or feedback potentiometer causing the blower to switch off momentarily or the blower relay to make a clicking noise, can be more easily diagnosed using a light emitting diode (LED) blink code.

Further test procedures are performed as before.

**Diagnosis using LED blink code**

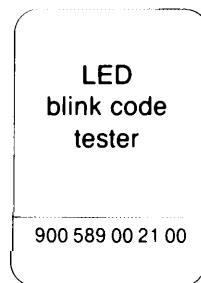
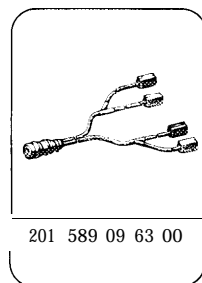
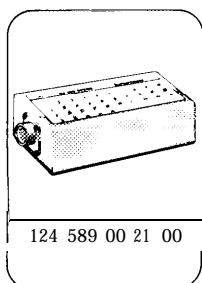


183-33771

**Fig. 83/4** LED blink code tester

Defective component and/or wiring	Number of voltage impulses (blinks)	Time of impulse sequences in seconds
In-car temp. sensor	5	10
Outside temp. sensor	10	20
Feed back potentiometer	15	30
Evaporator temp. sensor	20	40
Coolant temp. gauge sensor	25	50

**Special tools**



**Test procedure**

1. Remove pushbutton control unit. Connect socket box tester cable to tempmatic pushbutton control unit and unit wiring plugs.
2. Connect red wire of LED blink code tester to socket 10 and brown wire of LED blink code tester to socket 9 of the socket box.
3. Turn ignition on and set temperature wheel to 22° C. Pushbuttons can be in any position.
4. Count number of voltage impulses by counting the blinking LED in the switch of the LED blink code tester.
5. Replace defective part or check respective wiring.
6. Repeat test procedure until no defects are detected.

**Modified test value for checking the feedback potentiometer**

Due to modifications to the pushbutton switch, the required voltage for adjustment of the feedback potentiometer, with the temperature selector in position "MIN", is changed from 3.9-4.4 V to 2.4-2.7 V.

**Note:** We recommend to make the above change in test step 20 of your test chart "Tempmatic, Model 201".

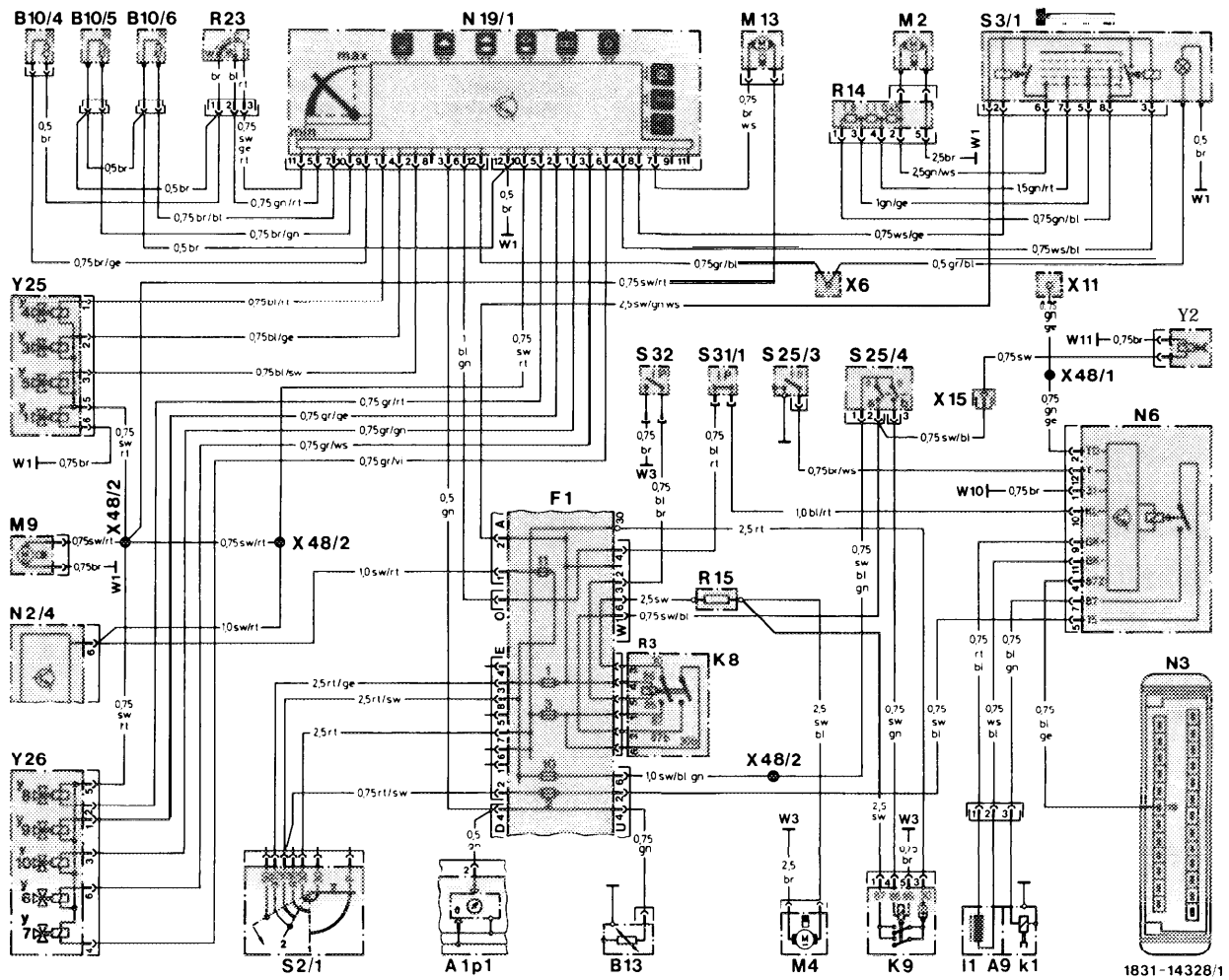


Fig. 83/5 Wiring diagram, Tempmatic climate control, model 201.028

A 1p1	Coolant temperature gauge	R 14	Blower motor preresistor group	Y 2	Electro-magnetic engine fan clutch
A 9	A/C compressor	R 15	Auxiliary fan preresistor	Y 25	Switch-over valve unit, 4 connections
A 9k1	Electro-magnetic clutch	R 23	Feedback potentiometer		4 Switch-over valve for blend air flaps ("cold")
A 911	RPM sensor	S 2/1	Ignition/starter switch		3 Switch-over valve for blend air flaps ("warm")
B 10/4	In-car temperature sensor	S 3/1	Blower switch, Tempmatic		5 Switch-over valve for heater valve ("closes")
B 10/5	Outside temperature sensor	S 25/3	110° C temperature switch		1 Switch-over valve for heater valve ("opens")
B 10/6	Evaporator temperature sensor	S 25/4	100/110° C temperature switch		Y 26
B 13	Coolant temperature gauge sensor	a	100° C for engine fan clutch		5 connections
F 1	Electrical center.	b	110° C for auxiliary fan		8 Switch-over valve for legroom flaps
	Fuse 1 16A	S 31/1	Refrigerant pressure switch, 2-function (off 2 0/30 0 bar, on 2 6/22 0 bar)		9 Switch-over valve for fresh/recirculated air flap (short stroke)
	Fuse 2 8A	S 32	Refrigerant high pressure switch (auxiliary fan) (off 15 0 bar, on 20 0 bar)		10 Switch-over valve for fresh/recirculated air flap (long stroke)
	Fuse 3 16A	W 1	Mam ground, behind instrument cluster		6 Switch-over valve for defroster flaps (short stroke)
	Fuse 10 8A	W 3	Ground, left front wheelhousing (at ignition coil)		7 Swatch-over valve for defroster flaps (long stroke)
	Fuse 11 3A	W 5	Ground, engine		
K 8	Double contact relay for auxiliary fan, low, and magnetic clutch for engine fan	X 6	Terminal block, circuit 58d		
K 9	Auxiliary fan relay, high	X 11	Diagnostic socket/terminal block		
M 2	Blower motor	X 15	Connector, engine fan/100° C temp switch (S 25/4)		
M 4	Auxiliary fan	X 48/1	Connector sleeve, circuit TD (solder joint in harness)		
M 9	Aspirator blower	X 48/2	Connector sleeve, circuit 15 (solder joint in harness)		
M 13	Auxiliary coolant pump				
N 2/4	Warmng module (seat belts, keys, lights)				
N 3	CIS-E control unit				
N 6	A/C compressor control unit				
N 19/1	Tempmatic pushbutton control unit				

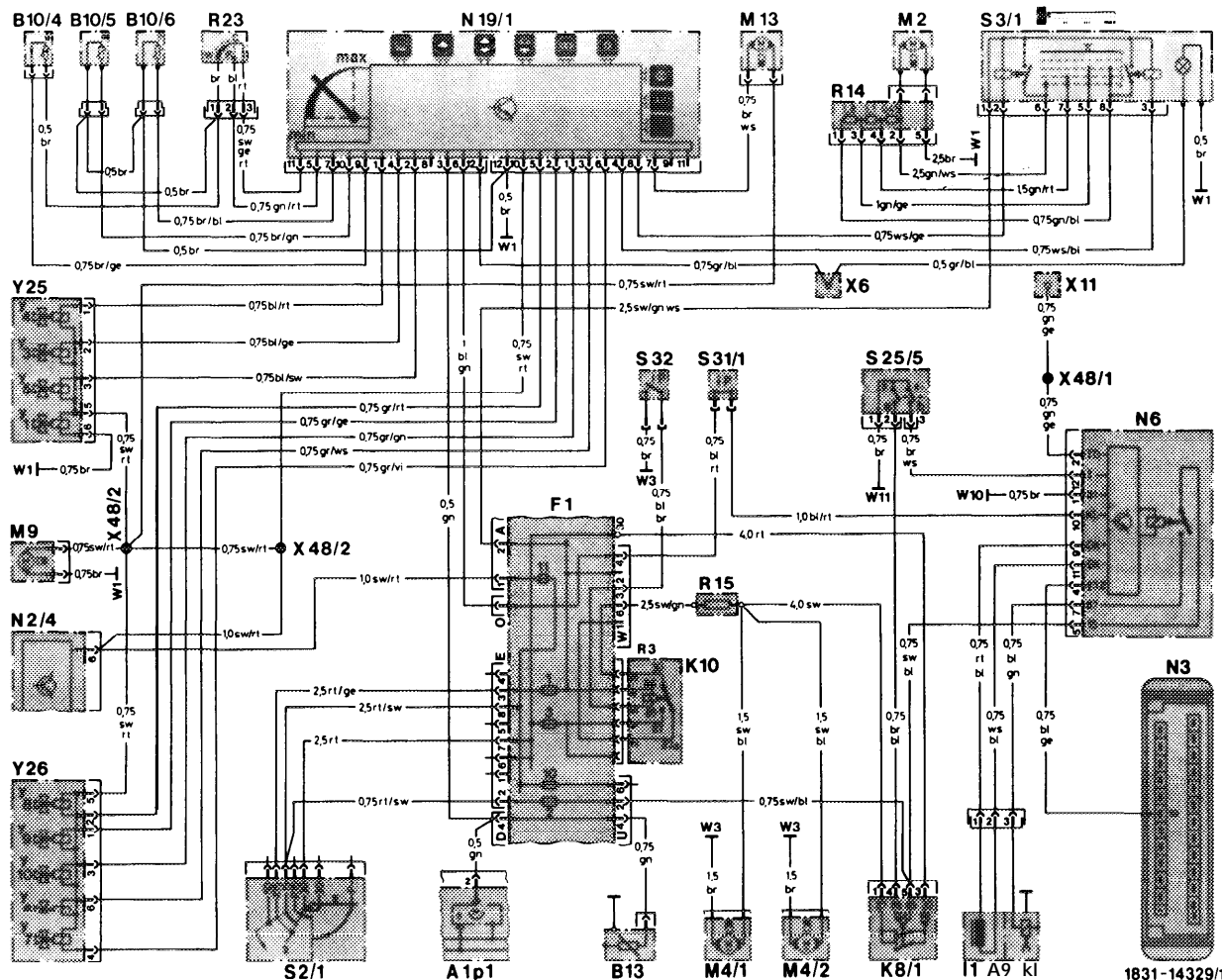


Fig. 83/6 Wiring diagram, Tempmatic climate control, model 201.029

A 1p1	Coolant temperature gauge	N 19/1	Tempmatic pushbutton control unit	Y 25	Switch-over valve unit, 4 connections
A 9	A/C compressor	R 14	Blower motor prerestor group		4 Switch-over valve for blend air flaps ("cold")
A 9k1	Electro-magnetic clutch	R 15	Auxiliary fan prerestor		3 Switch-over valve for blend air flaps ("warm")
A 911	RPM sensor	R 23	Feedback potentiometer		5 Switch-over valve for heater valve ("closes")
B 10/4	in-car temperature sensor	S 2/1	Ignition/starter switch		1 Switch-over valve for heater valve ("opens")
B 10/5	Outside temperature sensor	s 3/1	Blower switch		Y 26
B 10/6	Evaporator temperature sensor	s 25/5	105°/115° C temperature switch		Switch-over valve unit, 5 connections
B 13	Coolant temperature gauge sensor	a	105° C for auxiliary fan		Et Switch-over valve for legroom flaps
F 1	Electrical center, Fuse 1 16A, Fuse 2 8A, Fuse 3 16A, Fuse 10 8A, Fuse 11 8A	b	115° C for A/C compressor emergency cut-out		9 Switch-over valve for fresh/recirculated air flap (short stroke)
K 8	Double contact relay for auxiliary fan, low, and magnetic clutch for engine fan	S 31/1	Refrigerant pressure switch, 2-function (off 2.0130 0 bar, on 2 6/22 0 bar)		10 Switch-over valve for fresh/recirculated air flap (long stroke)
K 8/1	Relay for dual auxiliary fan, high	S 32	Refrigerant high pressure switch (auxiliary fan) (off 15 0 bar, on 20 0 bar)		6 Switch-over valve for defroster flaps (short stroke)
M 2	Blower motor	W 1	Main ground, behind instrument cluster		7 Switch-over valve for defroster flaps (long stroke)
M 4/1	Left auxiliary fan	w 3	Ground, left front wheelhousing (at ignition coil)		
M 4/2	Right auxiliary fan	W 5	Ground, engine		
M 9	Aspirator blower	X 6	Terminal block, circuit 58d		
M 13	Auxiliary coolant pump	x 11	Diagnostic socket/terminal block (circuit TD)		
N 2/4	Warning module (seat belts, keys, lights)	X 48/1	Connector sleeve, circuit TD (solder joint in harness)		
N 3	CIS-E control unit	X 48/2	Connector sleeve, circuit 15 (solder joint in harness)		
N 6	A/C compressor control unit				

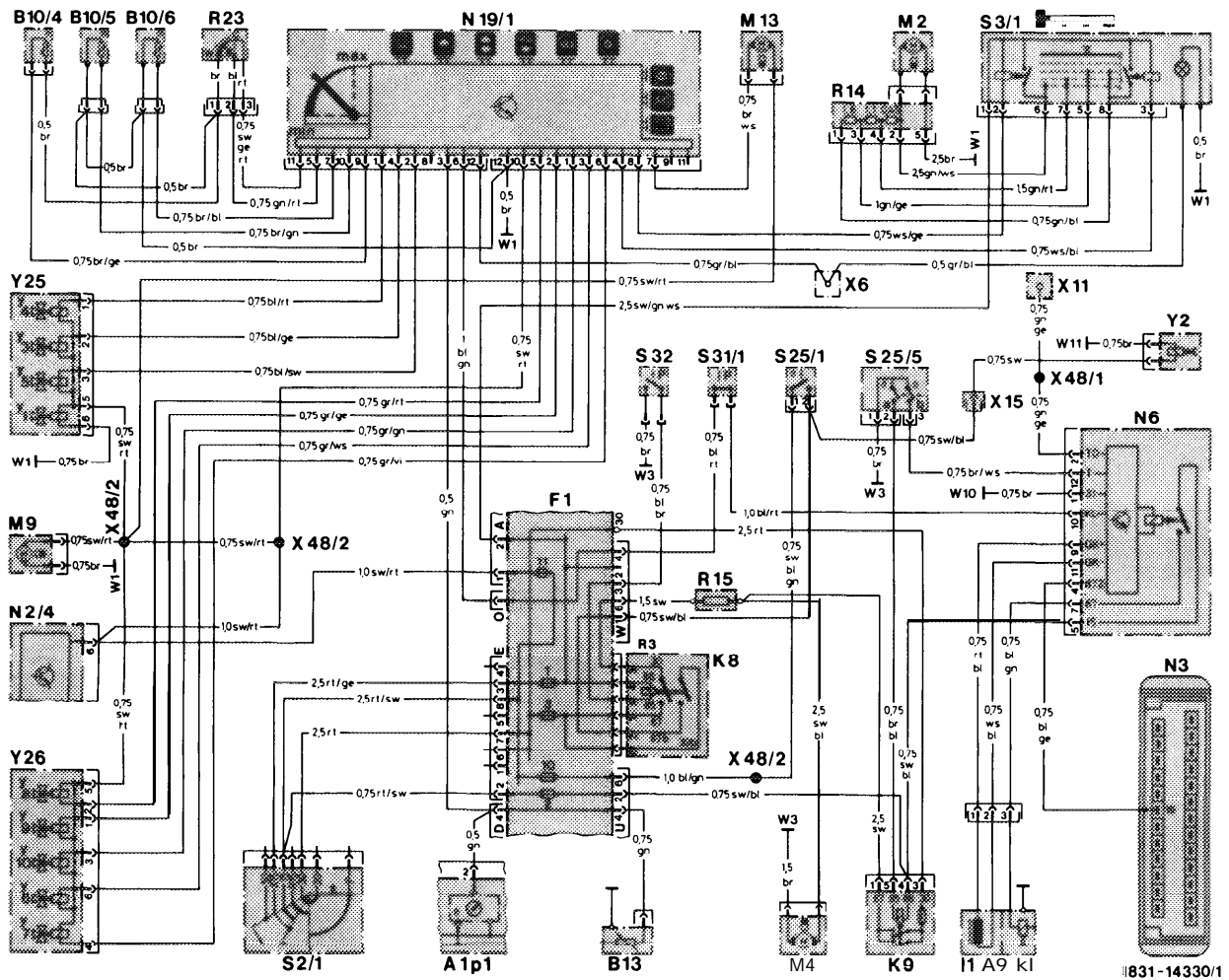


Fig. 83/7 Wiring diagram, Tempmatic climate control, model 201.034

A lpl	Coolant temperature gauge	R14	Blower motor presistor group	Y 2	Electro-magnetic engine fan clutch
A 9	A/C compressor	R 15	Auxiliary fan presistor	Y 25	Switch-over valve unit, 4 connections
A 9K1	Electra-magnetic clutch	R 23	Feedback potentiometer		4 Switch-over valve for blend air flaps ("cold")
A911	RPM sensor	s 2/1	Ignition/starter switch		3 Switch-over valve for blend air flaps ("warm")
B10/4	In-car temperature sensor	s 3/1	Blower switch		5 Switch-over valve for heater valve ("closes")
B10/5	Outside temperature sensor	s 25/1	100° C temperature switch		1 Switch-over valve for heater valve ("opens")
B10/6	Evaporator temperature sensor	S25/5	105/115° C temperature switch		Y 26
B 13	Coolant temperature gauge sensor	a	105° C for auxiliary fan		5 connections
F 1	Electrical center, Fuse 1: 16A, Fuse 2: 8A, Fuse 3: 16A, Fuse 10: 8A, Fuse 11: 8A	b	115° C for A/C compressor emergency cut-out		8 Switch-over valve for legroom flaps
K 8	Double contact relay for auxiliary fan, low, and magnetic clutch for engine fan	S 31/1	Refrigerant pressure switch, P-function (off 2.0/30.0 bar, on 2.6/22.0 bar)		9 Switch-over valve for fresh/recirculated air flap (short stroke)
K 9	Relay for auxiliary fan, high	S 32	Refrigerant high pressure switch (off 15.0 bar, on 20.0 bar)		10 Switch-over valve for fresh/recirculated air flap (long stroke)
M2	Blower motor	W1	Main ground, behind instrument cluster		6 Switch-over valve for defroster flaps (short stroke)
M4	Auxiliary fan	w3	Ground, left front wheelhousing (at ignition coil)		7 Switch-over valve for defroster flaps (long stroke)
M9	Aspirator blower	w5	Ground, engine		
M13	Auxiliary coolant pump	X 6	Terminal block, circuit 58d		
N2/4	Warmmg module (seat belts, keys, lights)	x 11	Diagnostic socket/terminal block (circuit TD)		
N3	CIS-E control unit	x 15	Connector, engine fan/100° C temperature switch		
N6	A/C compressor control unit	X48/1	Connector sleeve, circuit TD (solder joint in harness)		
N19/1	Tempmatic pushbutton control unit	X48/2	Connector sleeve, circuit 15 (solder joint in harness)		



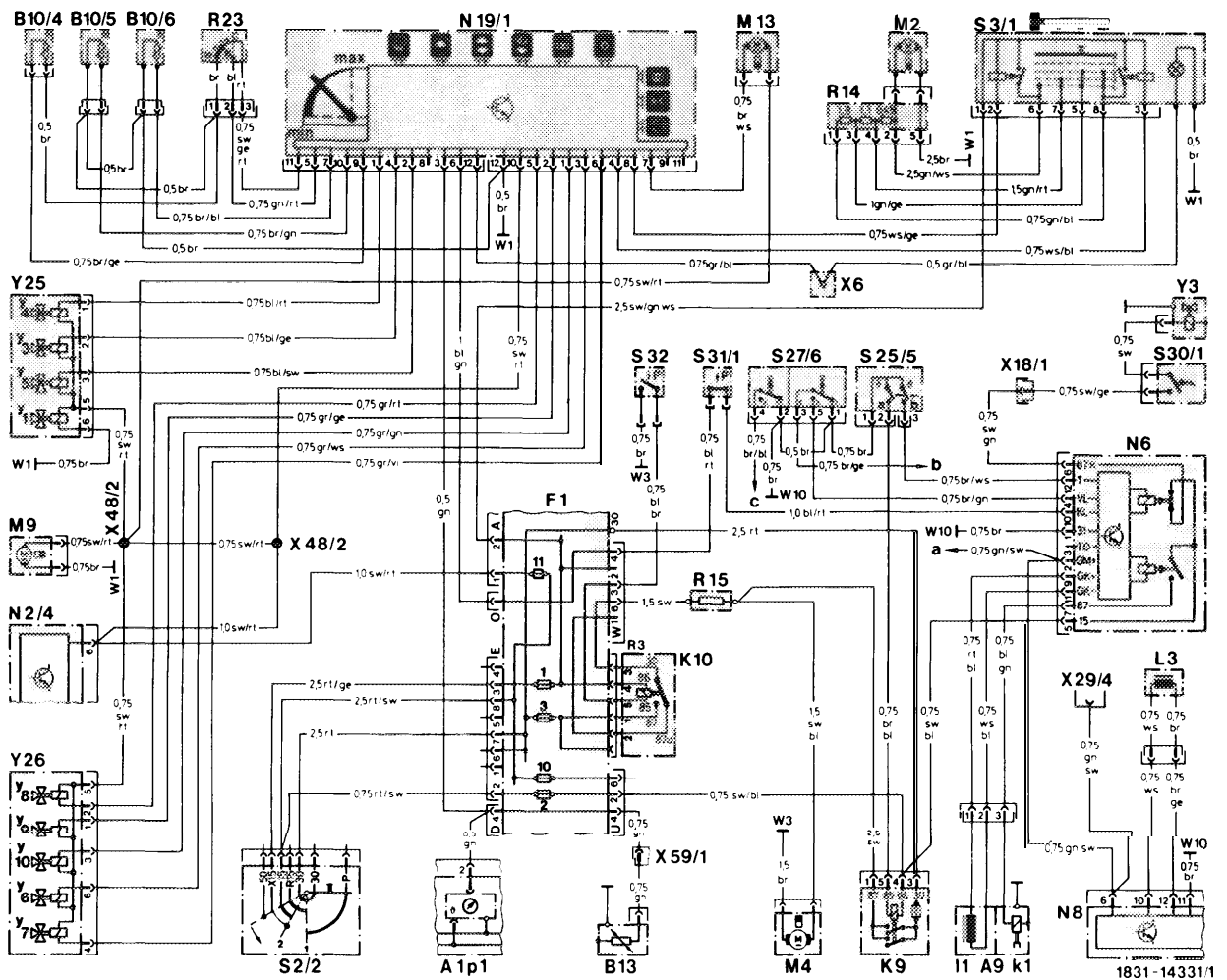


Fig. 83/8 Wiring diagram, Tempmatic climate control, model 201.126

A 1pl	Coolant temperature gauge	s 2/2	Glow/starter switch	Y 3	Kick-down solenoid (automatic transmission)
A 9	A/C compressor	S 3/1	Blower switch	Y 25	Swatch-over valve unit, 4 connections
A 9k1	Electro-magnetic clutch	S 25/5	105°/115° C temperature switch		4 Swatch-over valve for blend air flaps ("cold")
A 911	RPM sensor	a	105° C for auxiliary fan		3 Swatch-over valve for blend air flaps ("warm")
B 10/4	In-car temperature sensor	b	115° C for A/C compressor emergency cut-out		5 Swatch-over valve for heater valve ("closes")
B 10/5	Outside temperature sensor	S 27/6	A/C compressor and EGR cut-out microswitch (vehicles with automatic transmission only)		1 Swatch-over valve for heater valve ("opens")
B 10/6	Evaporator temperature sensor	S 30/1	Kick-down switch	Y 26	Swatch-over valve unit, 5 connections
B 13	Coolant temperature gauge sensor	S 31/1	Refrigerant pressure switch, 2-function (off 2 0/30 0 bar. on 2 6/22 0 bar)		8 Swatch-over valve for legroom flaps
F 1	Electrical center, Fuse 1 16A, Fuse 2 8A, Fuse 3 16A, Fuse 10 8A, Fuse 11 8A	S 32	Refrigerant high pressure switch (auxiliary fan) (off 15 0 bar, on 20 0 bar)		9 Swatch-over valve for fresh/recirculated air flap (short stroke)
K 9	Relay for auxiliary fan, high	W 1	Main ground, behind instrument cluster		10 Swatch-over valve for fresh/recirculated air flap (long stroke)
K 10	Auxiliary fan pre-resistor relay	w 3	Ground, left front wheelhouse (at ignition coil)		6 Swatch-over valve for defroster flaps (short stroke)
L 3	Ring gear speed sensor	W 10	Ground, battery		7 Swatch-over valve for defroster flaps (long stroke)
M 2	Blower motor	X 6	Terminal block, circuit 58d	a	to EGR (II) control unit N37/2, terminal 2
M 4	Auxiliary fan	x 18/1	Connector, taillamp harness/A/C compressor harness	b	to EGR (II) control unit N37/2, terminal 5
M 9	Aspirator blower	X 29/1	Test connection, engine speed signal (EDS)		
M 13	Auxiliary coolant pump	X 48/2	Connector sleeve, circuit 15 (solder joint in harness)		
N 2/4	Warning module (seat belts, keys, lights)	X 59/1	Connector, engine fan/coolant temperature sensor		
N 6	A/C compressor control unit				
N 8	Idle speed control unit				
N 19/1	Tempmatic pushbutton control unit				
R 14	Blower motor pre-resistor group				
R 15	Auxiliary fan pre-resistor				
R 23	Feedback potentiometer				

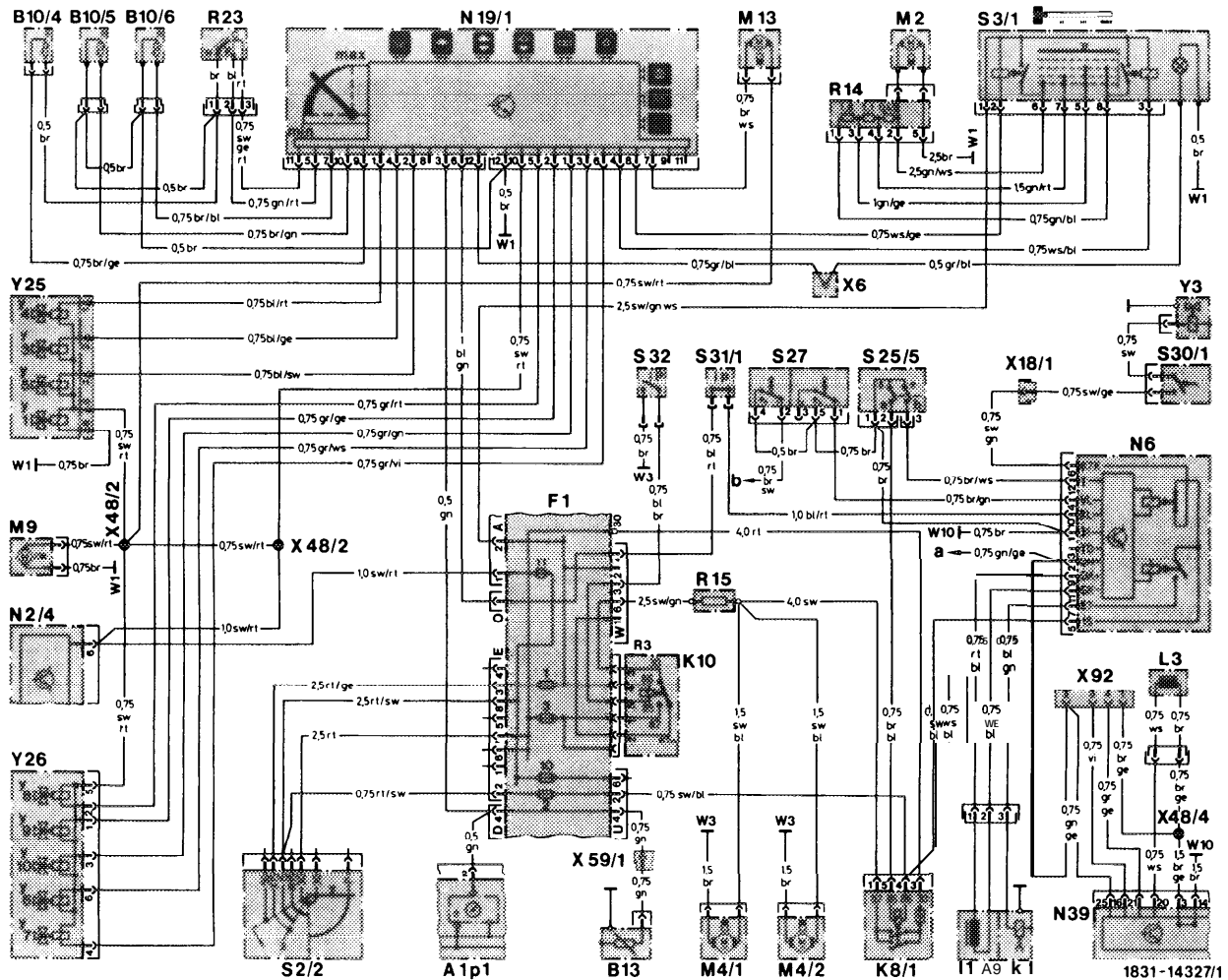


Fig. 83/9 Wiring diagram Tempmatic climate control, model 201.128

A 1p1	Coolant temperature gauge	S 2/2	Glow/starter switch	Y 3	Kick-down solenoid (automatic transmission)
A 9	A/C compressor	s 3/1	Blower switch	Y 25	Switch-over valve unit, 4 connections
A 9k1	Electro-magnetic clutch	S 25/5	105°/115° C temperature switch		4 Switch-over valve for blend air flaps ("cold")
A 911	RPM sensor	a	105° C for auxiliary fan		3 Switch-over valve for blend air flaps ("warm")
B 10/4	In-car temperature sensor	b	115° C for A/C compressor emergency cut-out		5 Switch-over valve for heater valve ("closes")
B 10/5	Outside temperature sensor	S 27	A/C compressor/boost pressure, cut-out microswitch		1 Switch-over valve for heater valve ("opens")
B 10/6	Evaporator temperature sensor	S 30/1	Kick-down switch	Y 26	Switch-over valve unit, 5 connections
B 13	Coolant temperature gauge sensor	S 31/1	Refrigerant pressure switch, 2-function (off 2 0/30 0 bar, on 2 6/22 0 bar)		8 Switch-over valve for legroom flaps
F 1	Electrical center, Fuse 1 16A, Fuse 2 8A, Fuse 3 16A, Fuse 10 16A, Fuse 11 8A	S 32	Refrigerant high pressure switch (auxiliary fan) (off 15 0 bar, on 20 0 bar)		9 Switch-over valve for fresh/recirculated air flap (short stroke)
K 8/1	Relay for dual auxiliary fan, high	W 1	Main ground, behind instrument cluster		10 Switch-over valve for fresh/recirculated air flap (long stroke)
K 10	Auxiliary fan pre-resistor relay	w 3	Ground, left front wheelhousing (at ignition coil)		6 Switch-over valve for defroster flaps (short stroke)
L 3	Ring gear speed sensor	W 10	Ground, battery		7 Switch-over valve for defroster flaps (long stroke)
M 2	Blower motor	X 6	Terminal block, circuit 58d	a	to clock/tachometer A1 p7
M 4/1	Left auxiliary fan	X 18/1	Connector, taillamp harness/A/C compressor harness	b	to engine overload protection pressure switch
M 4/2	Right auxiliary fan	X 48/2	Connector sleeve, circuit 15 (solder joint in harness)		
M 9	Aspirator blower	X 48/4	Connector sleeve, rpm sensor signal (solder joint in harness)		
M 13	Auxiliary coolant pump	X 59/1	Connector, engine fan/coolant temperature sensor		
N 2/4	Warning module (seat belts, keys, lights)	x 92	Test plug (EDS) 8-pole		
N 6	A/C compressor control unit				
N 19/1	Tempmatic pushbutton control unit				
N 39	Control unit (EDS)				
R 14	Blower motor pre-resistor group				
R 15	Auxiliary fan pre-resistor				
R 23	Feedback potentiometer				