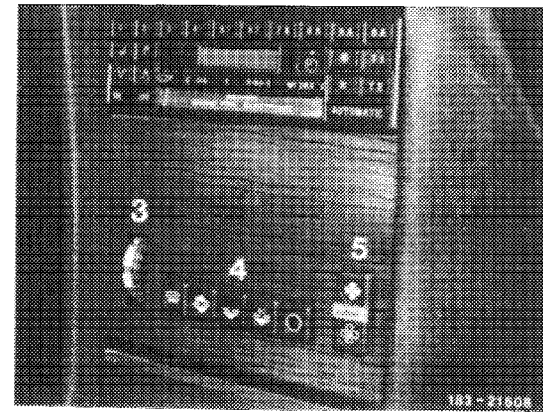
A. General

Models 107 can be optionally provided with a newly developed automatic climate control system instead of manual air conditioning.

The automatic climate control system regulates the desired in-car temperature. Heating, cooling and air distribution (top, center, bottom) are automatically controlled.

On all vehicles except (USA) and (J) the flap for center nozzles is manually operated.

Automatic climate control operates only when the engine is running.

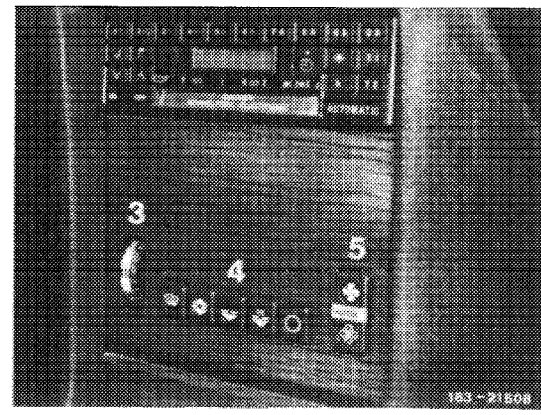


3 Temperature dial
4 Pushbutton switch with 5 functions
5 Blower switch

For adaptation to prevailling weather conditions, the various functions can be selected by means of push-buttons. The air inlets in center of instrument panel and the side vents can be opened, closed or swivelled as desired.

For perfect operation of automatic climate control, the manually operated air inlets in instrument panel should not be closed altogehter.

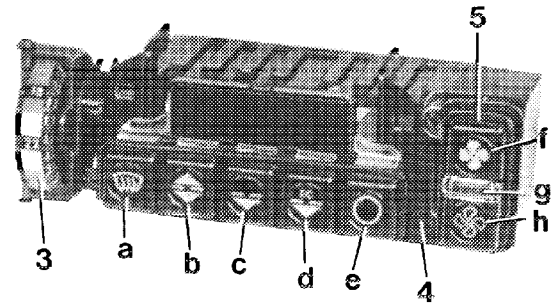
Buttons should be pushed only one at a time.



B. Control unit

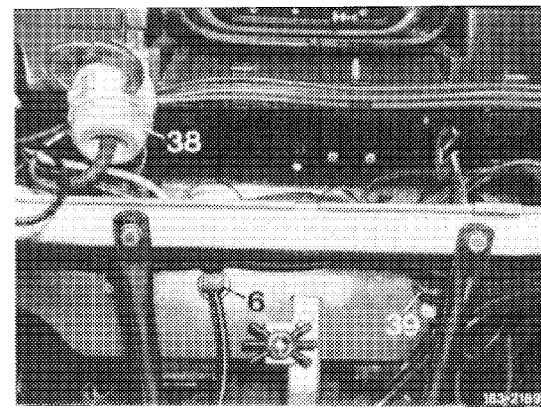
The control unit is located in center console and comprises a temperature dial (3), a pushbutton switch unit (4) and a blower switch (5).

The temperature dial serves for stepless adjustments of in-car temperature between the two end detent positions „MIN" = not heating and „MAX" = fully heating.



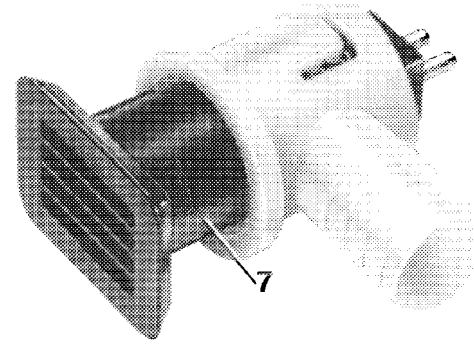
183-17660/1

Set to „MAX" means full, uncontrolled heating capacity; set to „MIN" means full, uncontrolled cooling capacity, each time in 5th blower stage. These functions apply only for pushbuttons „b" and „c"; „d" for uncontrolled heating only, as well as for blower switch in position „AUTOM".
The temperature set with temperature dial is attained as quickly as possible and will then remain constant.



6 Temperature sensor for heat exchanger

To prevent undesired temperature fluctuations, the temperature, once set, should be corrected in small steps only. Rotation of temperature dial will adjust a potentiometer. Togehter with in-car sensor (7) and sensor (6) for heat exchanger, the potentiometer provides the nominal value for temperature control.

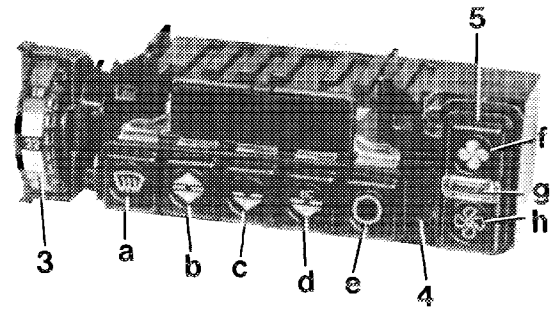


7 In-car temperature sensor

183-17657/1

The pushbutton switch unit (4) has 5 functions (a to e), the blower switch (5) has 3 (f, g, h); all are included in control unit.

The temperature dial (3) and the blower switch can be individually removed from control unit.



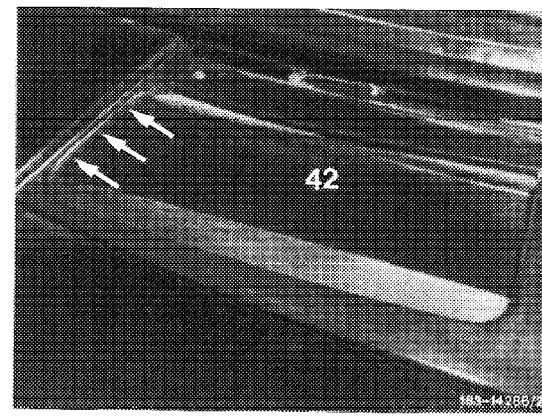
183-17660/1

3 Temperature dial
4 Pushbutton switch unit with 5 functions
5 Blower switch

Function selection „e" (Off)

Selecting this function will reduce the air supply through main air flaps inside of vehicle to approx. 20 % (e.g. in the event of unpleasant outside dust or odours).

The electronic system continues to operate while driving and the monovalve (11) remains closed. Blower is not operating.



42 Main air flap left (arrows are showing inlet for approx. 20 % fresh air)

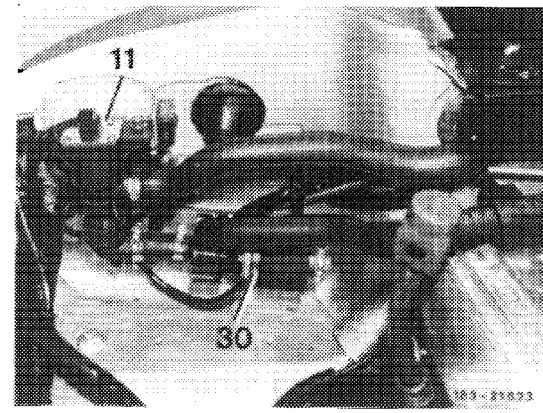
Function selection „d" (cooling system off)

EC (ECONOMY = refrigerant compressor is off), system operates with fresh air only.

In heating mode, tempered air will flow out of legroom and side nozzles, as well as leak air from defroster nozzles. In such a case, the windshield will be provided with just enough air to remain free of fog during normal weather conditions.

In venting mode, air is routed to air inlet in center of instrument panel and to lateral vents only. The minimum in-car temperature depends on outside temperature and on solar radiation.
At low outside temperatures the air supply and the blower remain switched off until the engine coolant has been heated to approx. 33 °C. The blower operates in stages 3 to 5 at „AUTOM".

We recommend the above function selection at outside temperatures at which no cooling of fresh air is required (to save fuel).



Function selection „c" (normal adjustment)

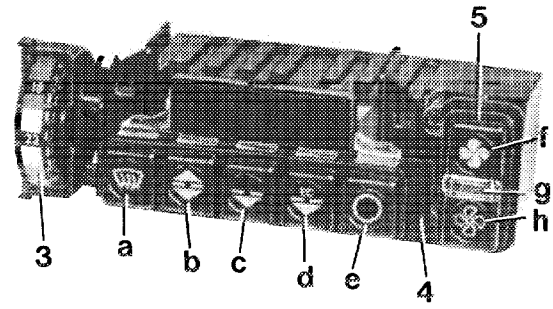
Function selection „c" corresponds to function selection „d", but with cooling.

The refrigerant compressor of the air conditioning system is in switched-on condition at outside temperatures above + 2 °C.

If the vehicle in-car temperature is higher by approx. 4 °C than the preselected temperature on temperature dial, the blower will start immediately. At „AUTOM" the blower operates in stages 2 to 5.

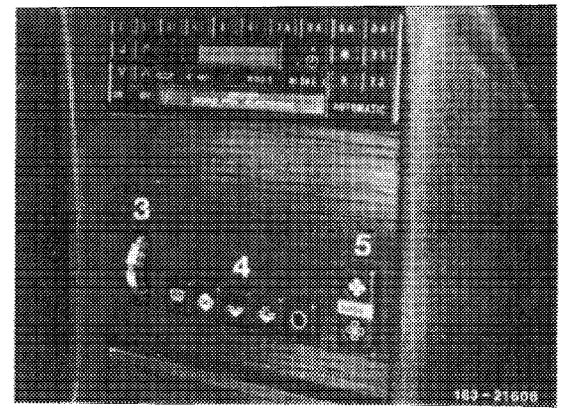
In heating mode, tempered air will flow out of legroom, center and side nozzles, as well as leak air from defroster nozzles. Simultaneously, the tempered air is guided to the doors.

In cooling mode, cooled air will come out of center and side nozzles only. The mode change is automatic; overlapping is possible, that is, legroom and center nozzles can be open at the same time.



183-17660/1

The refrigerant compressor is added at outside temperatures above + 2 °C, the evaporator temperature is held to approx. 0 °C. If the system moves to full „cooling", the main air flaps will automatically switch to recirculating air.



3 Temperature dial
4 Pushbutton switch unit with 5 functions
5 Blower switch with 3 functions

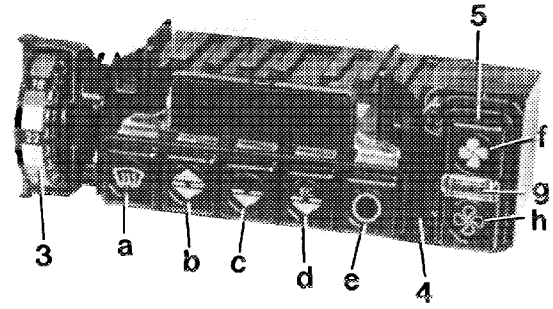
Function selection „b" (top and bottom)

The blower starts after approx. 10 seconds, also below 33 °C coolant temperature. In position „AUTOM" in stages 3 to 5.

The refrigerant compressor is in switched-on condition at outside temperatures above + 2 °C.

In heating and cooling mode, air is routed to windshield, to center and side nozzles, as well as to legroom and doors.

The interior of the vehicle is widely free of draft – the legroom is cooled more intensively. This function serves the purpose of removing fog, if any, on glass during damp, cold weather conditions.



3 Temperature dial
4 Pushbutton switch unit with 5 functions
5 Blower switch with 3 functions

183-17660/1

Function selection „a" (defrosting)

With the ignition switched on, the blower will start immediately and operate in 6th blower stage only.

Independent of temperature dial adjustment, max. heated air will be routed to windshield and side nozzles.

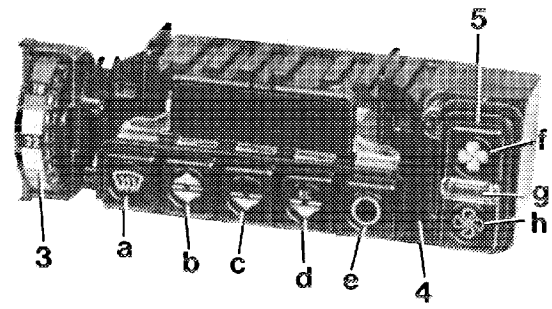
The recirculating pump is always running along and the refrigerant compressor is switched on at outside temperatures above + 2 °C. If, with the ignition switched on, function selection „a" or „b" is pushed, followed by switching to „c" or „d", the system remains in operation also below 33 °C coolant temperature.

Blower switch (5)

The blower operates in 6 stages.

At function selection „b", „c" and „d" the air volume can be set as required.

Switch	Air volume	Blower stage	
f (top)	max.	6	(12 V)
h (bottom)	min.	1	(4 V)
g (center)	automatic	2–5	(5–10 V)

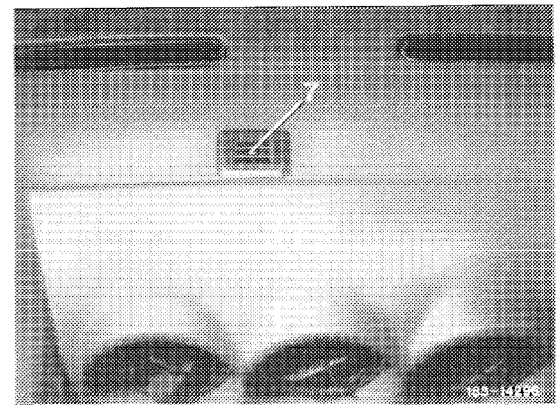


183-17660/1

During „AUTOM" operation in functions „b, c and d" the blower will start in 2nd blower stage after the system has been switched on with a delay of approx. 10 seconds, and remains there for approx. 10 seconds. If required, the blower will switch up to 5th blower stage.

C. Temperature sensor

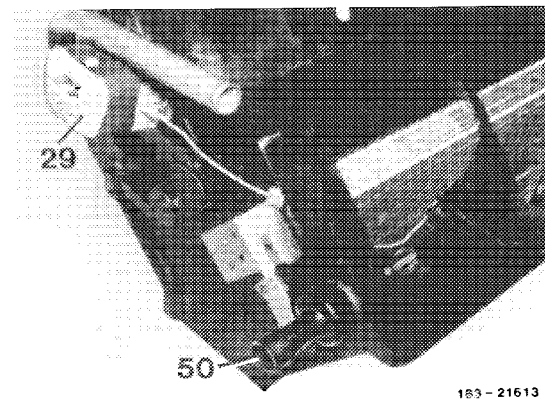
The in-car temperature sensor (7) is located under a grille at top in instrument panel. The sensor feels the in-car temperature and transmits its resistance to the electronic switching unit (9) to balance the temperature as set.



Layout of in-car temperature sensor

7 In-car temperature sensor

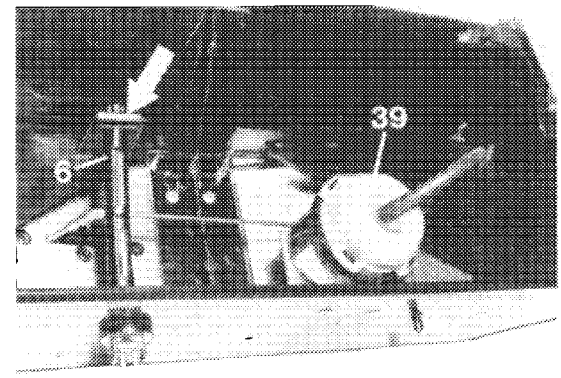
An air jet (50) attached to heater box will draw air from interior of vehicle by way of the in-car temperature sensor, while the blower is running. As a result, the response period of this sensor is shortened and the control accuracy is increased.



50 Air jet

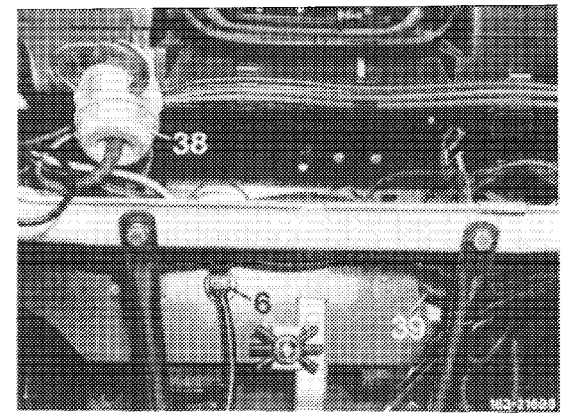
183-21613

The temperature sensor (6) for heat exchanger is located in air duct center and transmits its resistance to the electronic switching unit (9) for temperature control.



6 Temperature sensor for heat exchanger in air duct

183-21626

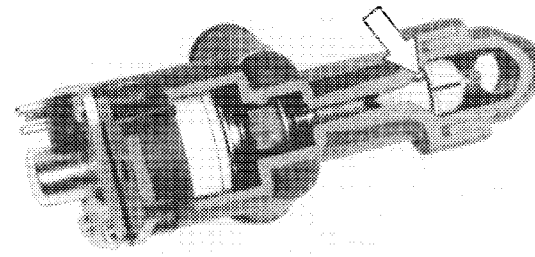


Layout of temperature sensor (6) for heat exchanger

D. Monovalve with check valve, electric recirculating pump and cold engine lock

The monovalve (11) controls the flow rate of the coolant in heat exchanger and comprises a magnetic valve, which is provided with plus (positive) current directly from fuse element and is connected to ground in control range by electronic switching unit in a 5-second cycle. Without ground connection the valve is always open, if ground is connected, the valve is completely closed. Opening and closing times are activated by the electronic switching unit for temperature control and depend on the deviation from actual and desired temperature.

The installed check valve (arrow) in lower housing section of monovalve makes sure that the heat exchanger is not filled with hot coolant when the engine is stopped (monovalve „open").

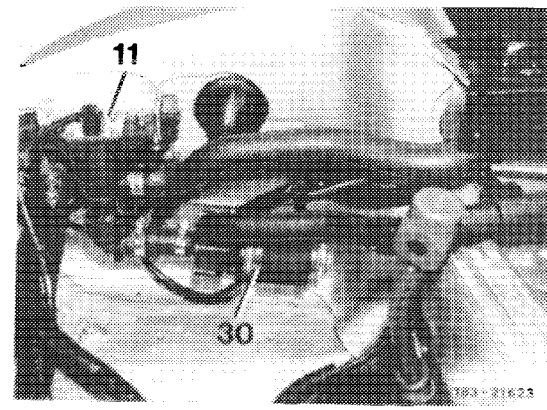


Monovalve

183-22101

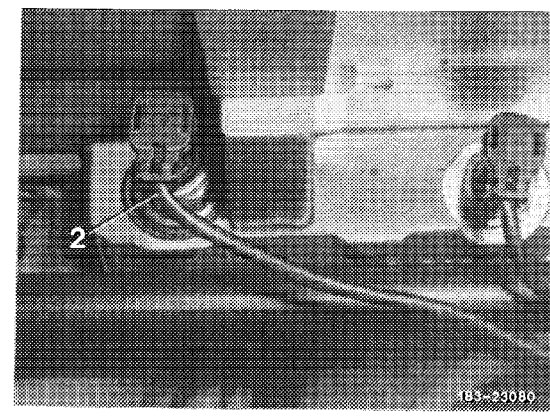
The recirculating pump (30) serves to maintain a uniform coolant flow through heat exchanger even at low engine speeds (Fig.). During control operation, the pump is switched on by the signal „legroom flaps open".

Electric activation is by way of control unit.

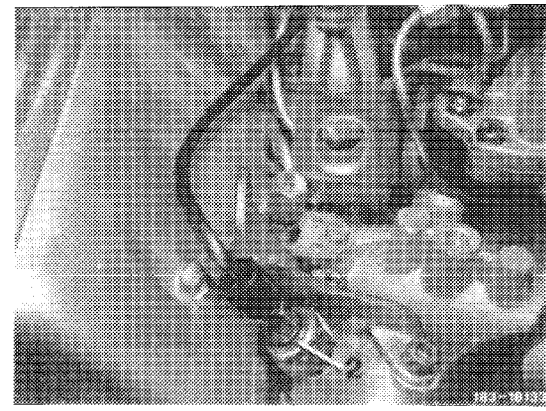


Layout of monovalve and recirculating pump at front right in engine compartment

The temperature switch (2) (cold engine lock) prevents the system from starting at a coolant temperature below 33 °C in functions „c" and „d" and thereby prevents that undesired, cold air is blown against passengers.



2 Layout of temperature switch (cold engine lock) engine 110



2 Layout of temperature switch (cold engine lock) engine 116/117

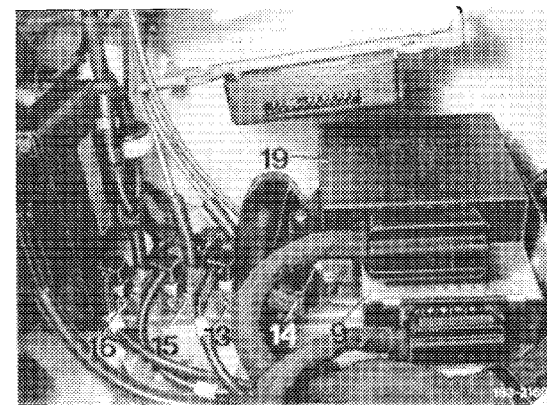
E. Electronic switching unit for temperature and blower control with electric wiring diagram

The resistance values of the in-car temperature sensor, the temperature sensor for heat exchanger and the nominal value potentiometer (temperature dial) are processed in electronic switching unit for temperature control.

The switching unit (9) for temperature control regulates acoording to requirements:

a) flow through heat exchanger via monovalve,

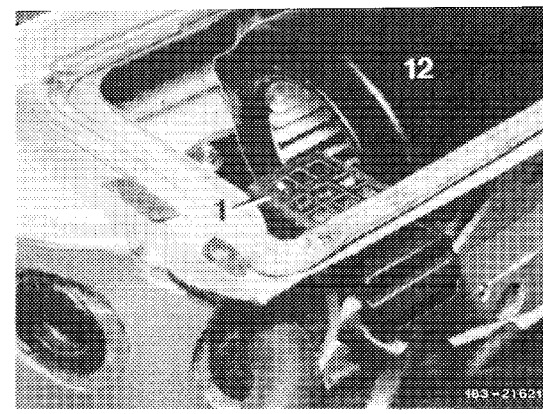
b) change of mode, that is, switching from „cooling" to „heating" and vice versa, during which in accordance with pertinent in-car temperature conditions, tempered air may simultaneously flow out of legroom nozzles as well as out of center nozzles (overlap).



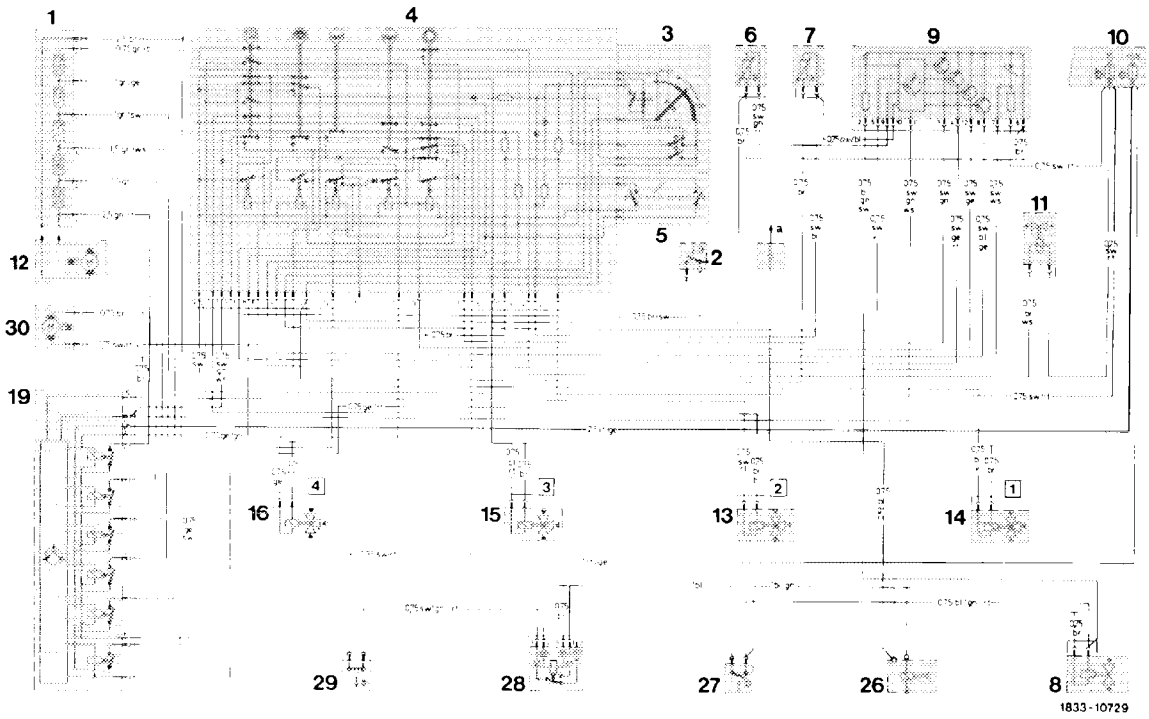
9 Electronic control unit for temperature control
19 Electronic switching unit for blower control

c) position of main air flaps in fresh air – recirculating air

d) the switching unit for blower control (19) controls the blower stages via series-resistance group (1).



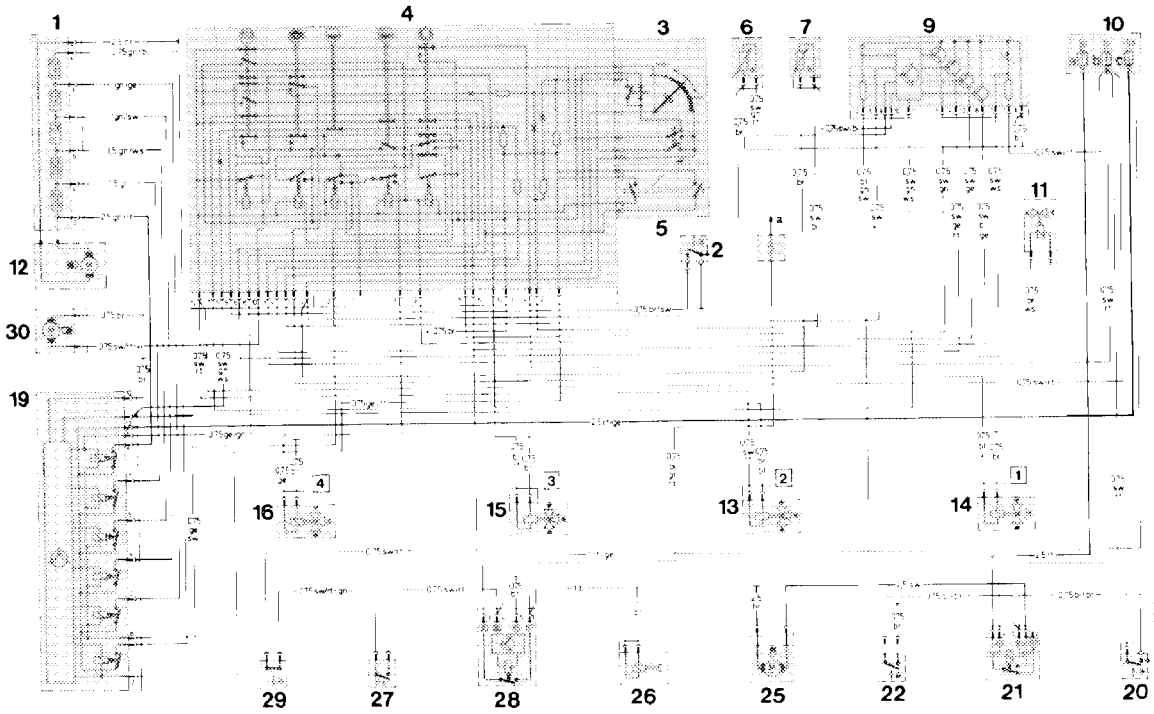
1 Series-resistance group for blower
12 Blower



Electric wiring diagram automatic climate control, 6-cylinder engine

1 Series-resistance group
2 Temperature switch cold engine lock
3 Temperature dial
4 Pushbutton switch unit
  a Defrosting
  b Top + bottom
  c Normal (air conditioning on)
  d EC (air conditioning off)
  e Off
5 Blower switch
6 Temperature sensor for heat exchanger
7 In-car temperature sensor
8 Switchover valve for stabilization
9 Electronic switching unit for temparature control
10 Fuse box
  b Fuse 7: 8 amps
  c Fuse 6: 16 amps
11 Monovalve
12 Blower motor
13 Switchover valve for defroster nozzle flaps (short stroke)
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for main air flaps
19 Electronic switching unit for blower control
26 Electromagnetic clutch refrigerant compressor
27 Pressure switch refrigerant compressor
28 Relay refrigerant compressor
29 ETR switch
30 Recirculating pump

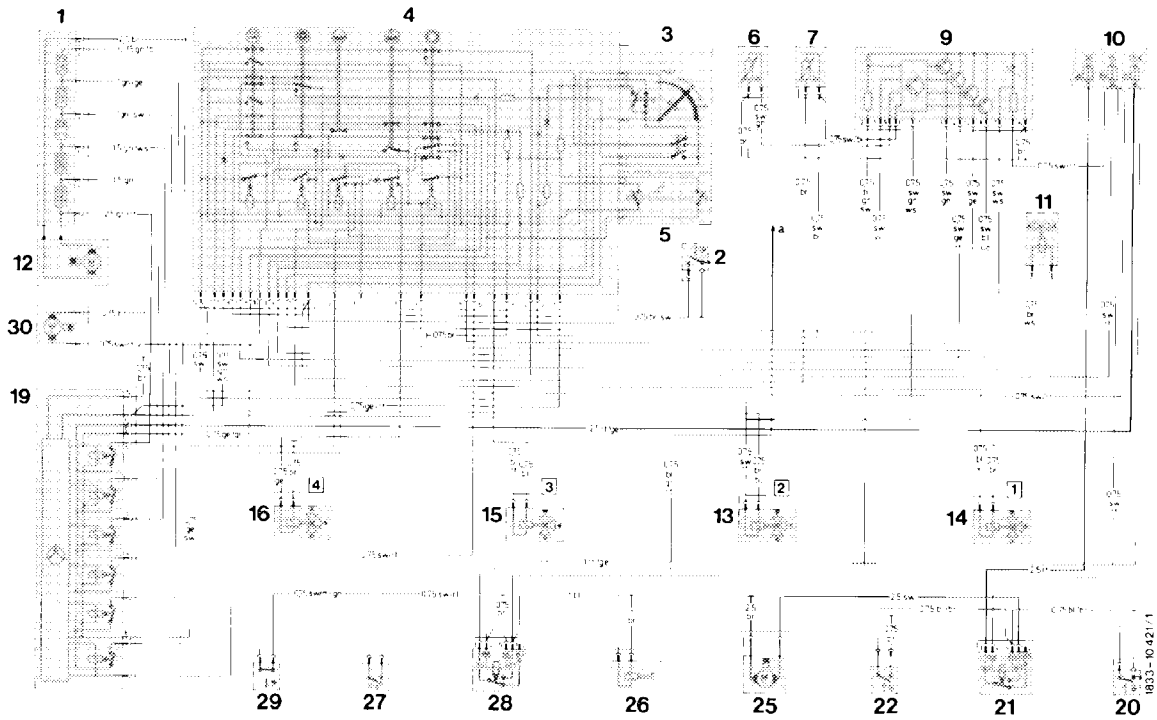
a Signal refrigerant compressor for decel shutoff



Electric wiring diagram automatic climate control, 8-cylinder engine and (J) (USA) starting model year 1983

1 Series-resistance group
2 Temperature switch cold engine lock
3 Temperature dial
4 Pushbutton switch unit
  a Defrosting
  b Top + bottom
  c Normal (air conditioning on)
  d EC (air conditioning off)
  e Off
5 Blower switch
6 Temperature sensor for heat exchanger
7 In-car temperature sensor
9 Electronic switching unit for temperature control
10 Fuse box
  a Fuse 2: 16 amps up to 08/82
    Fuse 12: 16 amps starting 09/82
  b Fuse 7: 8 amps
  c Fuse 6: 16 amps
11 Monovalve
12 Blower motor
13 Switchover valve for defroster nozzle flaps (short stroke)
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for main air flaps
19 Electronic switching unit for blower control
20 Temperature switch 100 °C for auxiliary fan
21 Relay auxiliary fan
22 Temperature switch 52 °C for auxiliary fan
25 Auxiliary fan
26 Electromagnetic clutch refrigerant compressor
27 Pressure switch refrigerant compressor
28 Relay refrigerant compressor with delay
29 ETR switch
30 Recirculating pump

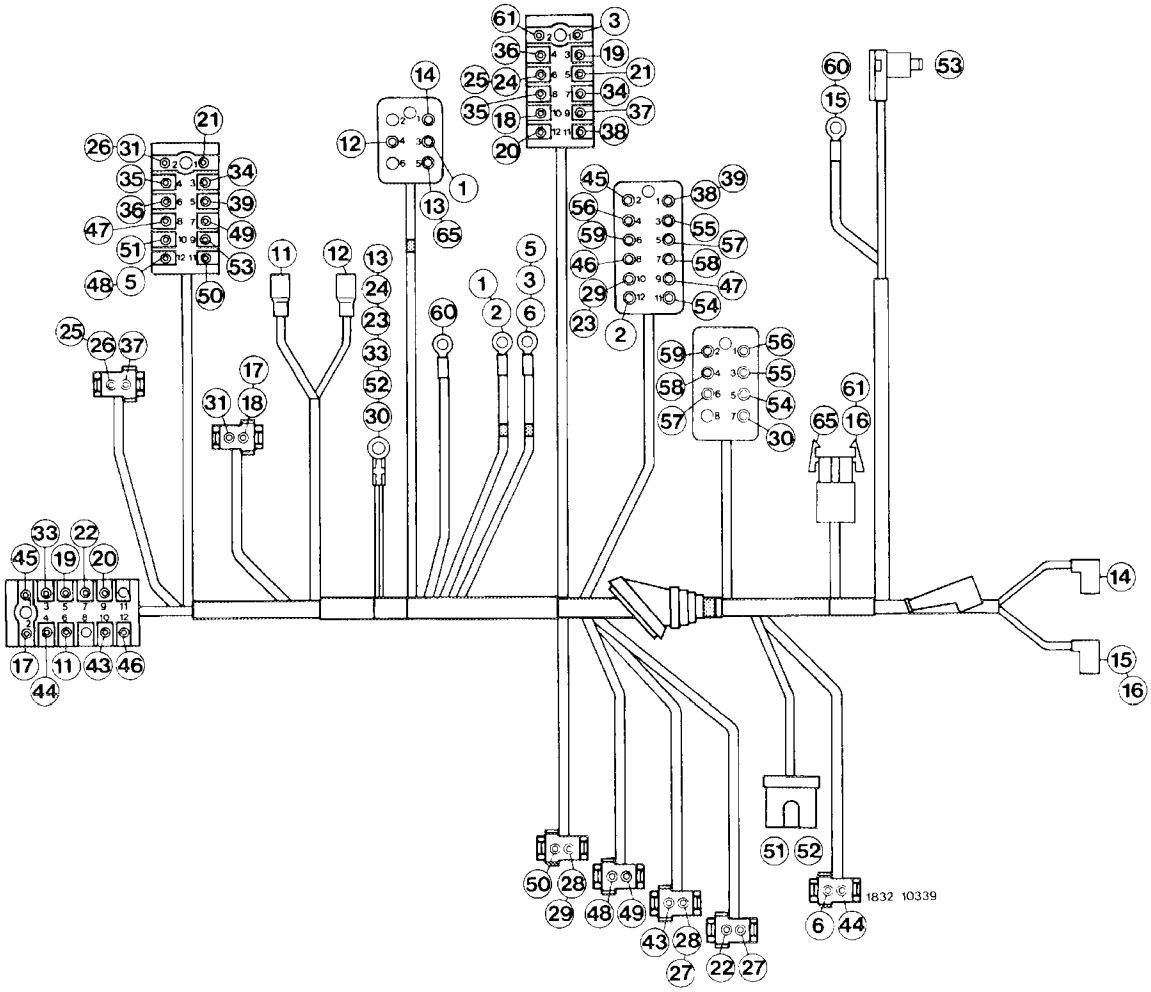
a Signal for refrigerant compressor for idle speed control



Electric wiring diagram automatic climate control (J) (USA) up to model year 1982

1 Series-resistance group
2 Temperature switch cold engine lock
3 Temperature dial
4 Pushbutton switch unit
  a Defrosting
  b Top + bottom
  c Normal (air conditioning on)
  d EC (air conditioning off)
  e Off
5 Blower switch
6 Temperature sensor for heat exchanger
7 In-car temperature sensor
9 Electronic switching unit for temperature control
10 Fuse box
  a Fuse 2: 16 amps
  b Fuse 7: 8 amps
  c Fuse 6: 16 amps
11 Monovalve
12 Blower motor
13 Switchover valve for center and defroster nozzle flaps (short stroke)
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for main air flaps
19 Electronic switching unit for blower control
20 Temperature switch 100 °C auxiliary fan
21 Relay auxiliary fan
22 Temperature switch 52 °C for auxiliary fan
25 Auxiliary fan
26 Electromagnetic clutch refrigerant compressor
27 Pressure switch refrigerant compressor
28 Relay refrigerant compressor
29 ETR switch
30 Recirculating pump

a Line not connected



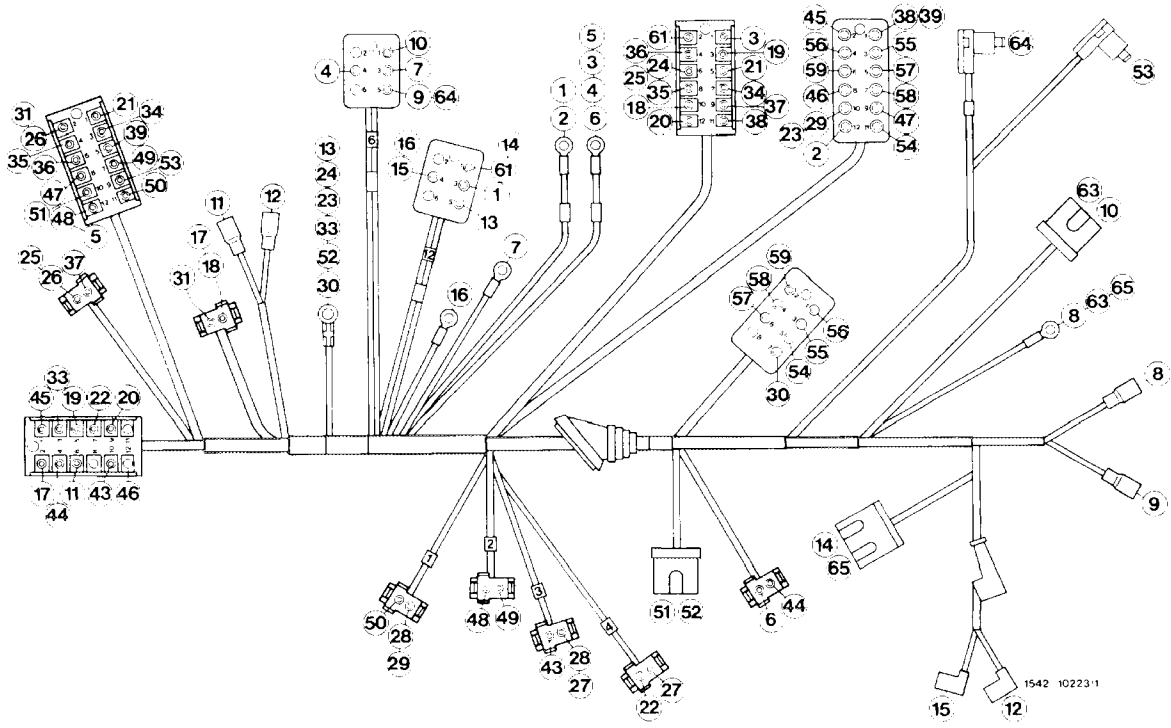
Electric additional harness, 6-cylinder engine

Color code of auxiliary harness automatic climate control

Line No.	Electric line from	to	Color code	Cross section mm^2
1	Fuse 6, terminal 15 X	Relay refrigerant compressor terminal 30	red/yellow	1.0
2	Fuse 6, terminal 15 X	Switching unit blower terminal 12	red/yellow	2.5
3	Fuse 7, terminal 15	Switching unit temperature control terminal 1	black/red	0.75
5	Fuse 7, terminal 15	Pushbutton switch left, terminal 12	black/red	0.75
6	Fuse 7, terminal 15	Monovalve	black/red	0.75
11	Pushbutton switch right terminal 6	ETR switch	black/red	0.75
12	ETR switch	Relay refrigerant compressor terminal 86	black/red/green	0.75
13	Ground	Relay refrigerant compressor terminal 85	brown	0.75
14	Relay refrigerant compressor terminal 87	Pressure switch refrigerant compressor	blue	1.0
15	Pressure switch refrigerant compressor	Refrigerant compressor	blue/green	1.0
16	Pressure switch refrigerant compressor	Switchover valve rpm stabilization	blue/green/red	0.75
17	Pushbutton switch right terminal 2	In-car temperature sensor	black/blue	0.75
18	Switching unit temperature control terminal 10	In-car temperature sensor	black/blue	0.75
19	Switching unit temperature control terminal 3	Pushbutton switch right terminal 5	black/green	0.75
20	Switching unit temperature control terminal 12	Pushbutton switch left terminal 1 Terminal 9	black/purple	0.75
21	Switching unit temperature control terminal 5	Pushbutton switch left terminal 1	black/purple	0.75

Color code of auxiliary harness (continued)

Line No.	Electric line from	to	Color code	Cross section mm^2
22	Pushbutton switch right terminal 7	Switchover valve 4	yellow	0.75
23	Ground	Switching unit blower terminal 10	brown	0.75
24	Ground	Switching unit temperature control terminal 6	brown	0.75
25	Switching unit temperature control terminal 6	Temperature sensor heat exchanger	brown	0.75
26	Temperature sensor heat exchanger	Pushbutton switch left terminal 2	brown	0.75
27	Switchover valve 3	Switchover valve 4	brown	0.75
28	Switchover valve 1	Switchover valve 3	brown	0.75
29	Switching unit blower terminal 10	Switchover valve 1	brown	0.75
30	Ground	Resistance group terminal 7	brown	2.5
31	In-car temperature sensor	Pushbutton switch left terminal 2	brown	0.75
33	Ground	Pushbutton switch right terminal 3	brown	0.75
34	Switching unit temperature control terminal 7	Pushbutton switch left terminal 3	black/white	0.75
35	Switching unit temperature control terminal 8	Pushbutton switch left terminal 4	black/blue/ yellow	0.75
36	Switching unit temperature control terminal 4	Pushbutton switch left terminal 6	black/yellow/red	0.75
37	Switching unit temperature control terminal 9	Temperature sensor heat exchanger	black/green/red	0.75
38	Switching unit temperature control terminal 11	Switching unit blower terminal 1	black/green/ white	0.75
39	Switching unit blower terminal 1	Pushbutton switch left terminal 5	black/green/ white	0.75
43	Pushbutton switch right terminal 10	Switchover valve 3	blue/red	0.75
44	Pushbutton switch right terminal 4	Monovalve	brown/white	0.75
45	Pushbutton switch right terminal 1	Switching unit blower terminal 2	yellow/red	0.75
46	Pushbutton switch right terminal 12	Switching unit blower terminal 8	yellow/black	0.75
47	Pushbutton switch left terminal 8	Switching unit blower terminal 9	yellow/green	0.75
48	Pushbutton switch left terminal 12	Switchover valve 2	black/red	0.75
49	Pushbutton switch left terminal 7	Switchover valve 2	brown/blue	0.75
50	Pushbutton switch left terminal 11	Switchover valve 1	blue/purple	0.75
51	Pushbutton switch left terminal 10	Recirculating pump	black/red/purple	0.75
52	Ground	Recirculating pump	brown	0.75
53	Pushbutton switch left terminal 9	Cold engine lock	brown/black	0.75
54	Switching unit blower terminal 11	Resistance group stage 1 terminal 5	green/blue	0.75
55	Switching unit blower terminal 3	Resistance group stage 2 terminal 3	green/yellow	1.0
56	Switching unit blower terminal 4	Resistance group stage 3 terminal 1	green/black	1.0
57	Switching unit blower terminal 5	Resistance group stage 4 terminal 6	green/white	1.5
58	Switching unit blower terminal 7	Resistance group stage 5 terminal 4	green	1.5
59	Switching unit blower terminal 6	Resistance group stage 6 terminal 2	green/red	2.5
60	Signal refrigerant compressor for decel shutoff	Refrigerant compressor	blue/grey/red	0.75
61	Switching unit for temperature control terminal 2	Switchover valve rpm stabilization	blue/green/ black	0.75
65	Relay refrigerant compressor terminal 85	Switchover valve rpm stabilization	brown	0.75



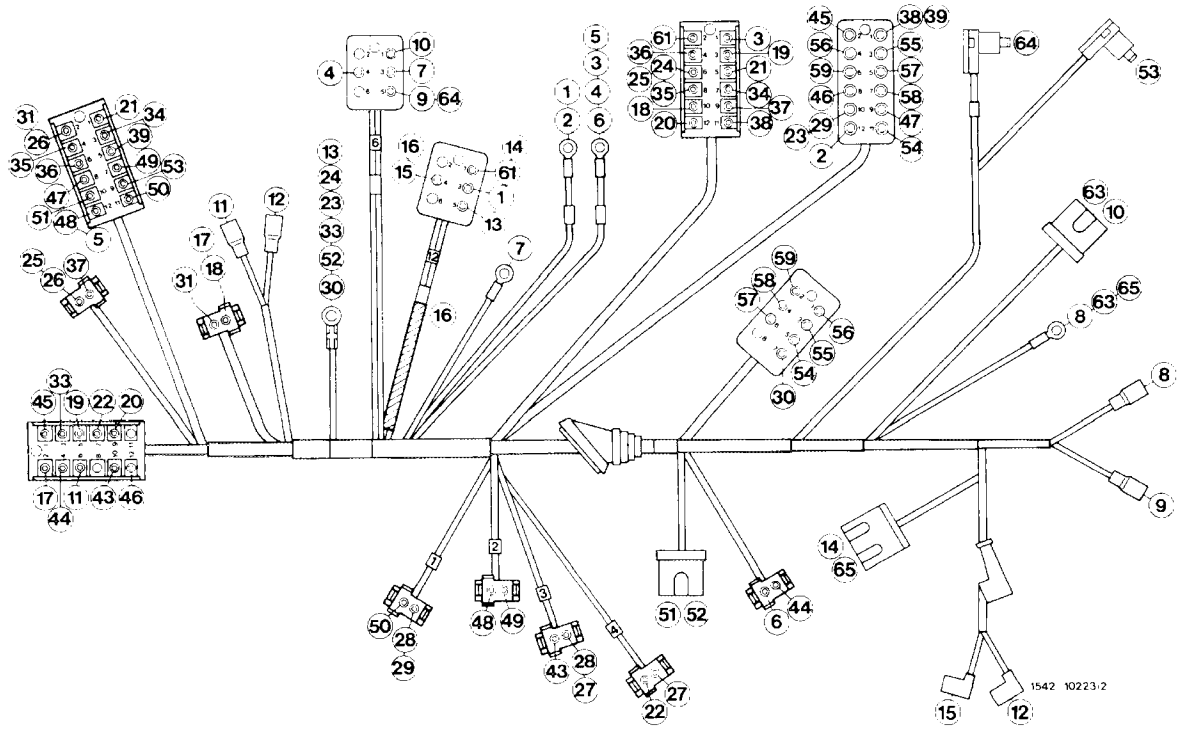
Electric auxiliary harness, 8-cylinder engine

Color code of auxiliary harness automatic climate control and (J) (USA) starting model year 1983

Line No.	Electric line from	to	Color code	Cross section mm^2
1	Fuse 6, terminal 15 X	Relay refrigerant compressor terminal 30	red/yellow	1.0
2	Fuse 6, terminal 15 X	Switching unit blower terminal 12	red/yellow	2.5
3	Fuse 7, terminal 15	Switching unit temperature control terminal 1	black/red	0.75
4	Fuse 7, terminal 15	Relay auxiliary fan terminal 86	black/red	0.75
5	Fuse 7, terminal 15	Pushbutton switch left terminal 12	black/red	0.75
6	Fuse 7, terminal 15	Monovalve	black/red	0.75
7	Fuse 2 (up to 08/82), terminal 30 Fuse 12 (starting 09/82), terminal 30	Relay auxiliary valve terminal 30	red	2.5
8	Ground	Temperature switch 52 °C	brown	0.75
9	Temperature switch 52 °C	Relay auxiliary fan terminal 85	blue/brown	0.75
10	Relay auxiliary fan terminal 87	Auxiliary fan	black	2.5
11	Relay auxiliary fan terminal 87	ETR switch	black/red	0.75
12	ETR switch	Pressure switch refrigerant compressor	black/red/green	0.75
13	Ground	Relay refrigerant compressor terminal 85	brown	0.75
14	Relay refrigerant compressor terminal 87	Refrigerant compressor	blue	1.0
15	Pressure switch refrigerant compressor	Relay refrigerant compressor terminal 86	black/red	0.75
16	Signal refrigerant compressor for idle speed control	Relay refrigerant compressor terminal 86	blue/green/red	0.75
17	Pushbutton switch right terminal 2	In-car temperature sensor	black/blue	0.75
18	Switching unit temperature control terminal 10	In-car temperature sensor	black/blue	0.75
19	Switching unit temperature control terminal 3	Pushbutton switch right terminal 5	black/green	0.75
20	Switching unit temperature control terminal 12	Pushbutton switch right terminal 9	black/yellow	0.75
21	Switching unit temperature control terminal 5	Pushbutton switch left terminal 1	black/purple	0.75
22	Pushbutton switch right terminal 7	Switchover valve 4	yellow	0.75

Color code of auxiliary harness (continued)

Line No.	Electric line from	to	Color code	Cross section mm^2
23	Ground	Switching unit blower terminal 10	brown	0.75
24	Ground	Switching unit temperature control terminal 6	brown	0.75
25	Switching unit temperature control terminal 6	Temperature sensor heat exchanger	brown	0.75
26	Temperature sensor heat exchanger	Pushbutton switch left terminal 2	brown	0.75
27	Switchover valve 3	Switchover valve 4	brown	0.75
28	Switchover valve 1	Switchover valve 3	brown	0.75
29	Switching unit blower terminal 10	Switchover valve 1	brown	0.75
30	Ground	Resistance group terminal 7	brown	2.5
31	In-car temperature sensor	Pushbutton switch left terminal 2	brown	0.75
33	Ground	Pushbutton switch right terminal 3	brown	0.75
34	Switching unit temperature control terminal 7	Pushbutton switch left terminal 3	black/white	0.75
35	Switching unit temperature control terminal 8	Pushbutton switch left terminal 4	black/blue/yellow	0.75
36	Switching unit temperature control terminal 4	Pushbutton switch left terminal 6	black/yellow/red	0.75
37	Switching unit temperature control terminal 9	Temperature sensor heat exchanger	black/green/red	0.75
38	Switching unit temperature control terminal 11	Switching unit blower terminal 1	black/green/white	0.75
39	Switching unit blower terminal 1	Pushbutton switch left terminal 5	black/green/white	0.75
43	Pushbutton switch right terminal 10	Switchover valve 3	blue/red	0.75
44	Pushbutton switch right terminal 4	Monovalve	brown/white	0.75
45	Pushbutton switch right terminal 1	Switching unit blower terminal 2	yellow/red	0.75
46	Pushbutton switch right terminal 12	Switching unit blower terminal 8	yellow/black	0.75
47	Pushbutton switch left terminal 8	Switching unit blower terminal 9	yellow/green	0.75
48	Pushbutton switch left terminal 12	Switchover valve 2	black/red	0.75
49	Pushbutton switch left terminal 7	Switchover valve 2	brown/blue	0.75
50	Pushbutton switch left terminal 11	Switchover valve 1	blue/purple	0.75
51	Pushbutton switch left terminal 10	Recirculating pump	black/red/purple	0.75
52	Ground	Recirculating pump	brown	0.75
53	Pushbutton switch left terminal 9	Cold engine lock	brown/black	0.75
54	Switching unit blower terminal 11	Resistance group stage 1 terminal 5	green/blue	0.75
55	Switching unit blower terminal 3	Resistance group stage 2 terminal 3	green/yellow	1.0
56	Switching unit blower terminal 4	Resistance group stage 3 terminal 1	green/black	1.0
57	Switching unit blower terminal 5	Resistance group stage 4 terminal 6	green/white	1.5
58	Switching unit blower terminal 7	Resistance group stage 5 terminal 4	green	1.5
59	Switching unit blower terminal 6	Resistance group stage 6 terminal 2	green/red	2.5
61	Relay refrigerant compressor terminal 87	Switching unit temperature control terminal 2	blue/green/black	0.75
63	Auxiliary fan	Ground	brown	2.5
64	Temperature switch 100 °C	Relay auxiliary fan terminal 85	blue/brown	0.75
65	Ground	Refrigerant compressor	brown	1.0



Color code of auxiliary harness automatic climate control, (J) (USA) up to model year 1982

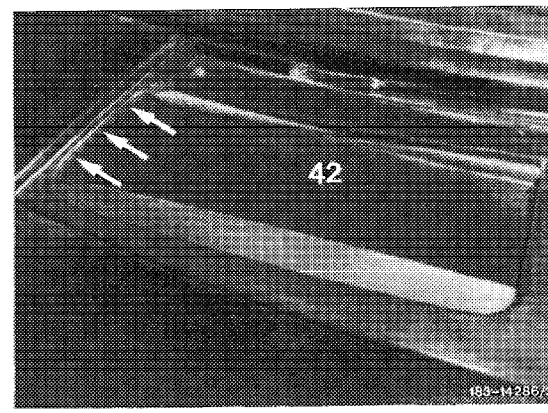
Line No.	Electric line from	to	Color code	Cross section mm^2
1	Fuse 6, terminal 15 X	Relay refrigerant compressor terminal 30	red/yellow	1.0
2	Fuse 6, terminal 15 X	Switching unit blower terminal 12	red/yellow	2.5
3	Fuse 7, terminal 15	Switching unit temperature control terminal 1	black/red	0.75
4	Fuse 7, terminal 15	Relay auxiliary fan terminal 86	black/red	0.75
5	Fuse 7, terminal 15	Pushbutton switch left terminal 12	black/red	0.75
6	Fuse 7, terminal 15	Monovalve	black/red	0.75
7	Fuse 2, terminal 30	Relay auxiliary fan terminal 30	red	2.5
8	Ground	Temperature switch 52 °C	brown	0.75
9	Temperature switch 52 °C	Relay auxiliary fan terminal 85	blue/brown	0.75
10	Relay auxiliary fan terminal 87	Auxiliary fan	black	2.5
11	Pushbutton switch right terminal 6	ETR switch	black/red	0.75
12	ETR switch	Pressure switch refrigerant compressor	black/red/green	0.75
13	Ground	Relay refrigerant compressor terminal 85	brown	0.75
14	Relay refrigerant compressor terminal 87	Refrigerant compressor	blue	1.0
15	Pressure switch refrigerant compressor	Relay refrigerant compressor terminal 86	black/red	0.75
16	Relay refrigerant compressor terminal 86	Cable shoe (laced)	blue/green/red	0.75
17	Pushbutton switch right terminal 2	In-car temperature sensor	black/blue	0.75
18	Switching unit temperature control terminal 10	In-car temperature sensor	black/blue	0.75
19	Switching unit temperature control terminal 3	Pushbutton switch right terminal 5	black/green	0.75
20	Switching unit temperature control terminal 12	Pushbutton switch right terminal 9	black/yellow	0.75
21	Switching unit temperature control terminal 5	Pushbutton switch left terminal 1	black/purple	0.75
22	Pushbutton switch right terminal 7	Switchover valve 4	yellow	0.75
23	Ground	Switching unit blower terminal 10	brown	0.75
24	Ground	Switching unit temperature control terminal 6	brown	0.75
25	Switching unit temperature control terminal 6	Temperature sensor heat exchanger	brown	0.75

Color code of auxiliary harness (continued)

Line No.	Electric line from	to	Color code	Cross section mm^2
26	Temperature sensor heat exchanger	Pushbutton switch left terminal 2	brown	0.75
27	Switchover valve 3	Switchover valve 4	brown	0.75
28	Switchover valve 1	Switchover valve 3	brown	0.75
29	Switching unit blower terminal 10	Switchover valve 1	brown	0.75
30	Ground	Resistance group terminal 7	brown	2.5
31	In-car temperature sensor	Pushbutton switch left terminal 2	brown	0.75
33	Ground	Pushbutton switch right terminal 3	brown	0.75
34	Switching unit temperature control terminal 7	Pushbutton switch left terminal 3	black/white	0.75
35	Switching unit temperature control terminal 8	Pushbutton switch left terminal 4	black/blue yellow	0.75
36	Switching unit temperature control terminal 4	Pushbutton switch left terminal 6	black/yellow/ red	0.75
37	Switching unit temperature control terminal 9	Temperature sensor heat exchanger	black/green/red	0.75
38	Switching unit temperature control terminal 11	Switching unit blower terminal 1	black/green/ white	0.75
39	Switching unit blower terminal 1	Pushbutton switch left terminal 5	black/green/white	0.75
43	Pushbutton switch right terminal 10	Switchover valve 3	blue/red	0.75
44	Pushbutton switch right terminal 4	Monovalve	brown/white	0.75
45	Pushbutton switch right terminal 1	Switching unit blower terminal 2	yellow/red	0.75
46	Pushbutton switch right terminal 12	Switching unit blower terminal 8	yellow/black	0.75
47	Pushbutton switch left terminal 8	Switching unit blower terminal 9	yellow/green	0.75
48	Pushbutton switch left terminal 12	Switchover valve 2	black/red	0.75
49	Pushbutton switch left terminal 7	Switchover valve 2	brown/blue	0.75
50	Pushbutton switch left terminal 11	Switchover valve 1	blue/purple	0.75
51	Pushbutton switch left terminal 10	Recirculating pump	black/red/purple	0.75
52	Ground	Recirculating pump	brown	0.75
53	Pushbutton switch left terminal 9	Cold engine lock	brown/black	0.75
54	Switching unit blower terminal 11	Resistance group stage 1 terminal 5	green/blue	0.75
55	Switching unit blower terminal 3	Resistance group stage 2 terminal 3	green/yellow	1.0
56	Switching unit blower terminal 4	Resistance group stage 3 terminal 1	green/black	1.0
57	Switching unit blower terminal 5	Resistance group stage 4 terminal 6	green/white	1.5
58	Switching unit blower terminal 7	Resistance group stage 5 terminal 4	green	1.5
59	Switching unit blower terminal 6	Resistance group stage 6 terminal 2	green/red	2.5
61	Relay refrigerant compressor terminal 87	Switching unit temperature control terminal 2	blue/green/black	0.75
63	Auxiliary fan	Ground	brown	2.5
64	Temperature switch 100 °C	Relay auxiliary fan terminal 85	blue/brown	0.75
65	Ground	Refrigerant compressor	brown	1.0

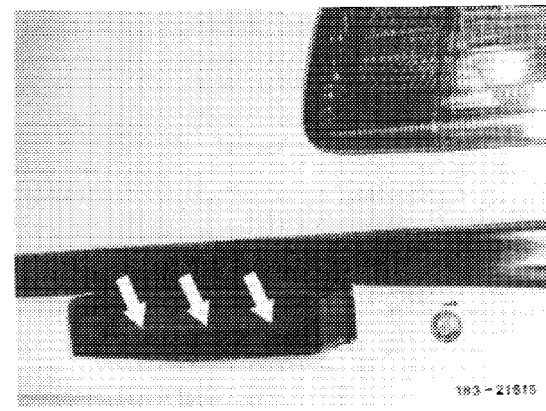
F. Air path and control of air flaps with vacuum function diagram

The fresh air inlet is via lefthand and righthand main air flap, which are located in front of windshield and are actuated by two vacuum elements each.

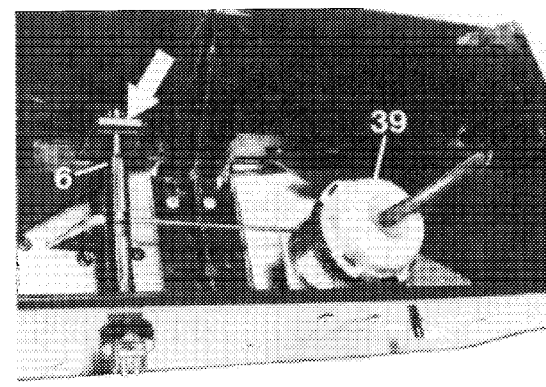


42 Layout main air flap left (arrows ar showing inlet for approx. 20 % fresh air)

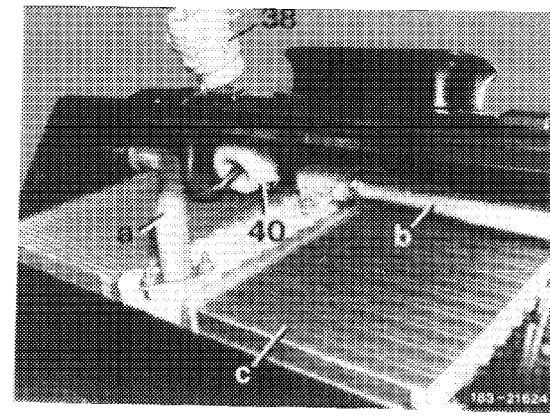
The spent air from passenger compartment is routed via trunk, so that the trunk itself is vented and remains cooler in summer when using the air conditioning or automatic climate control, and is heated during the winter. Venting is through openings with check flaps at left and right laterally in trunk, concealed by bumper. In this range – between bumper and body – is a low vacuum. The venting system is designed to guarantee that no express pressure will show up inside vehicle even at high driving speed, in combination with top. The standard venting system in coupe top remains unchanged.



Vent layout with check flaps



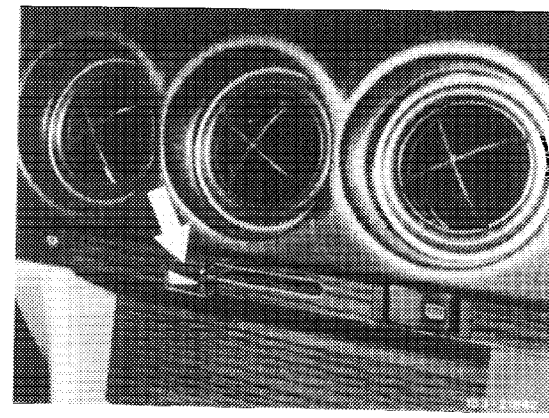
Layout vacuum element (39) for legroom flaps in air duct center



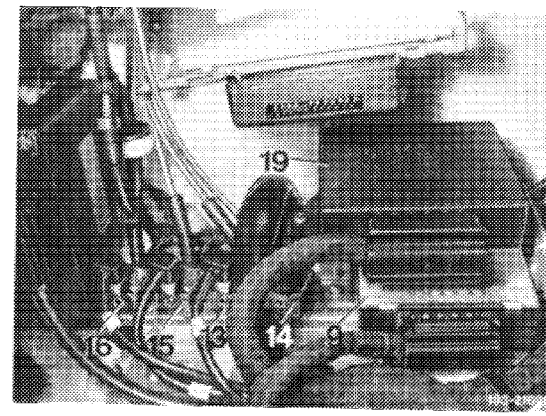
Layout vacuum element for defroster nozzles and center nozzles

38 Vacuum element defroster nozzles
40 Vacuum element center nozzles (J) (USA only)

The flap for center nozzles is operated manually (arrow), except on Japan and USA version through vacuum element (40). During heating mode the flap should be manually closed, since otherwise warm air will flow out at center nozzles. The flaps for lateral nozzles are also manually operated.

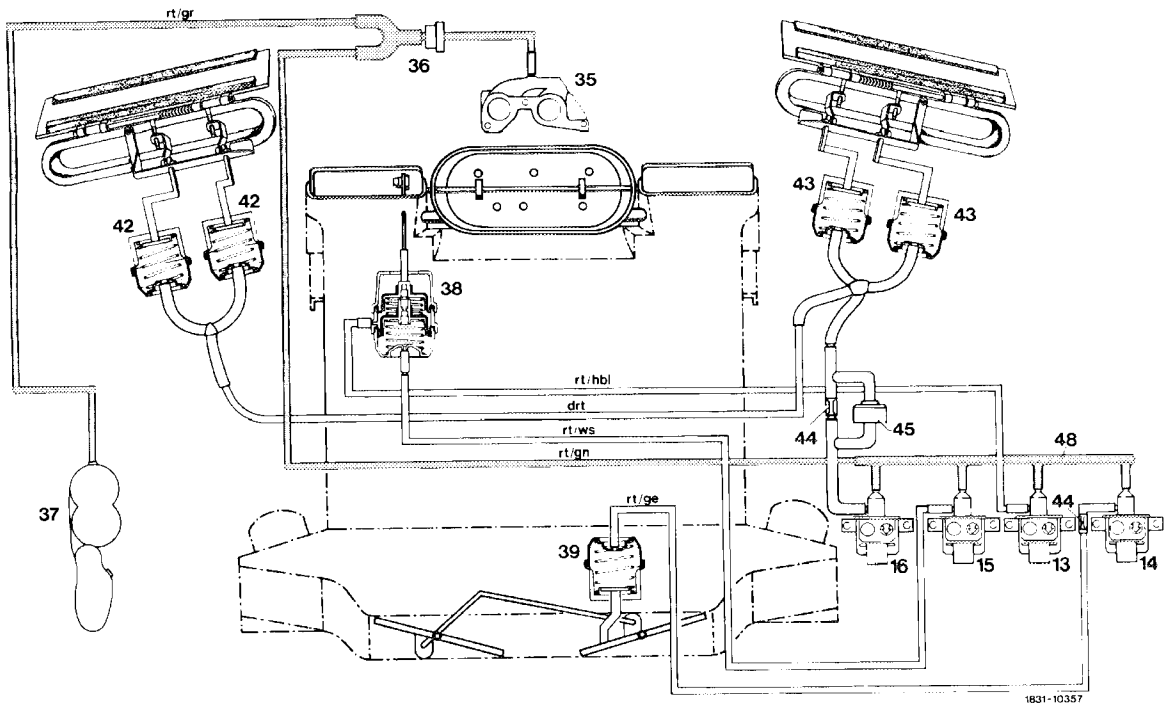


All switchover valves (13 to 16) are switching to passage when energized and are activating the vacuum elements directly with vacuum.



Layout of switchover valves

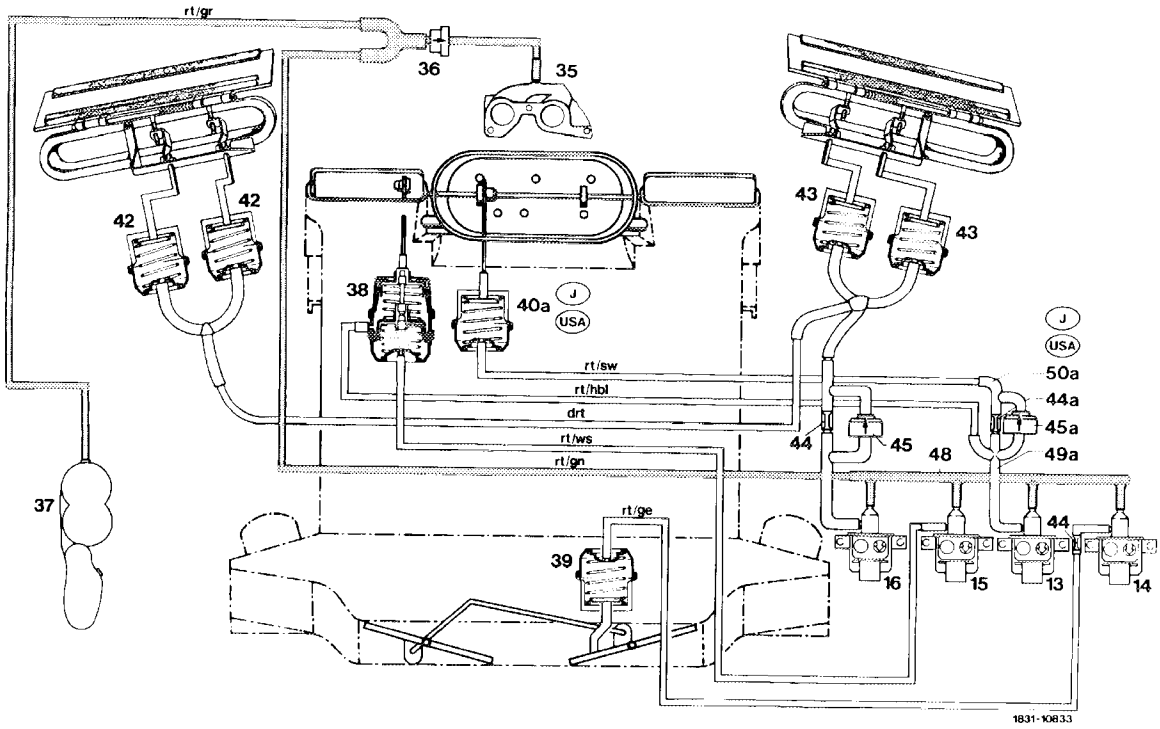
13 Switchover valve for defroster nozzle flaps (short stroke) and center nozzle flap, (J) (USA) only
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for main air flaps



Vacuum diagram automatic climate control up to 09/82, except (J) (USA)

13 Switchover valve for defroster nozzle flaps (short stroke)
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for vaccum elements of main air flaps
35 Vacuum connection on intake manifold
36 Check valve
37 Vacuum reservoir
38 Vacuum element for defroster nozzle flaps (flaps „open")
39 Vacuum element for legroom flaps (flaps „closed")
42 Vacuum element for main air flap left (flap „closed")
43 Vacuum element for main air flap right (flap „closed")
44 Throttle (orifice)
45 Check valve
48 5-point distributor
49 4-point distributor
50 3-point distributor

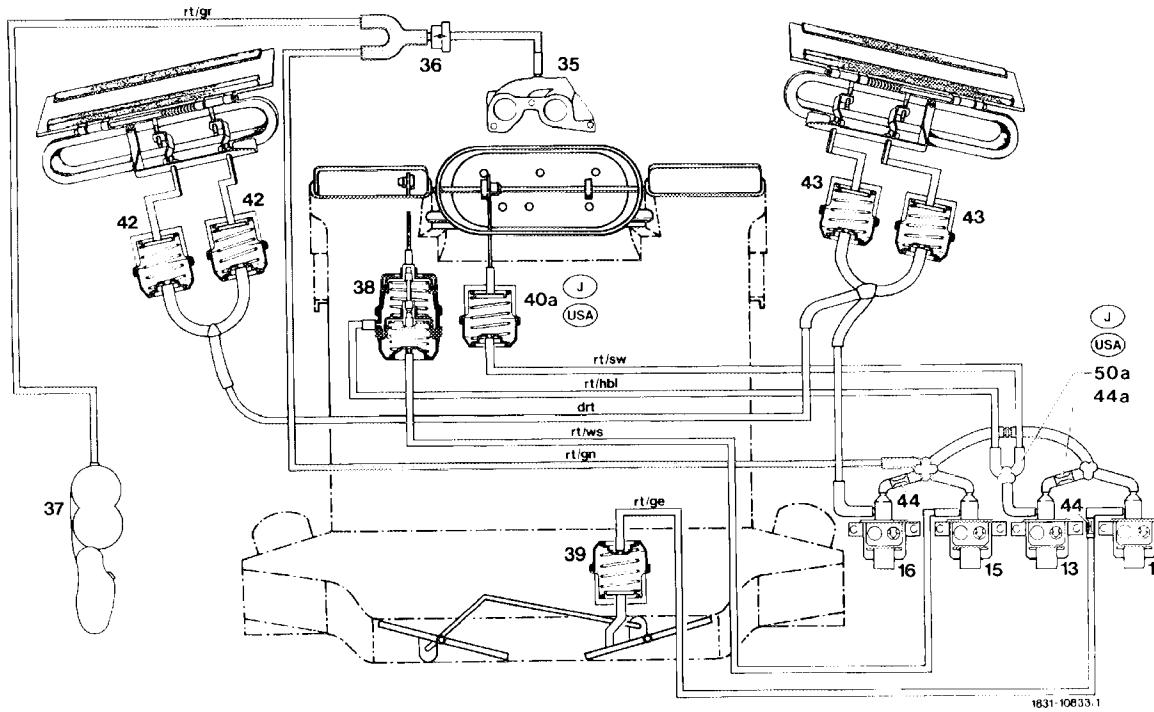
Color code of vacuum lines
bl = blue
ge = yellow
gn = green
gr = grey
rt = red
ws = white
hbl = light blue
drt = dark red



Vacuum diagram automatic climate control up to 09/82, (J) (USA)

13 Switchover valve for center and defroster nozzle flaps (short stroke)
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for vacuum elements of main air flaps
35 Vacuum connection on intake manifold
36 Check valve
37 Vacuum reservoir
38 Vacuum element for defroster nozzle flaps (flaps „open")
39 Vacuum element for legroom flaps (flaps „closed")
40a Vacuum element for center nozzle flap (flap „closed")
42 Vacuum element for main air flap left (flap „closed")
43 Vacuum element for main air flap right (flap „closed")
44 Throttle (orifice)
45 Check valve
48 5-point distributor
49 4-point distributor
50 3-point distributor

Color code of vacuum lines
bl = blue
ge = yellow
gn = green
gr = grey
rt = red
ws = white
hbl = light blue
drt = dark red
sw = black



Vacuum diagram automatic climate control starting 10/82

13 Switchover valve for defroster nozzle flaps (short stroke)
14 Switchover valve for legroom flaps
15 Switchover valve for defroster nozzle flaps (long stroke)
16 Switchover valve for vacuum elements of main air flaps
35 Vaccum connection on intake manifold
36 Check valve
37 Vaccum reservoir
38 Vacuum element for defroster nozzle flaps (flaps ,,open'')
39 Vacuum element for legroom flaps (flaps ,,closed'')
40a Vacuum element for center nozzle flap (flap ,,closed''), (J) (USA) only
42 Vacuum element for main air flap left (flap ,,closed'')
43 Vacuum element for main air flap right (flap ,,closed'')
44 Throttle (orifice)
45 Check valve
48 5-point distributor
49 4-point distributor
50 3-point distributor

Color code of vacuum lines
bl = blue
ge = yellow
gn = green
gr = grey
rt = red
ws = white
hbl = light blue
drt = dark red