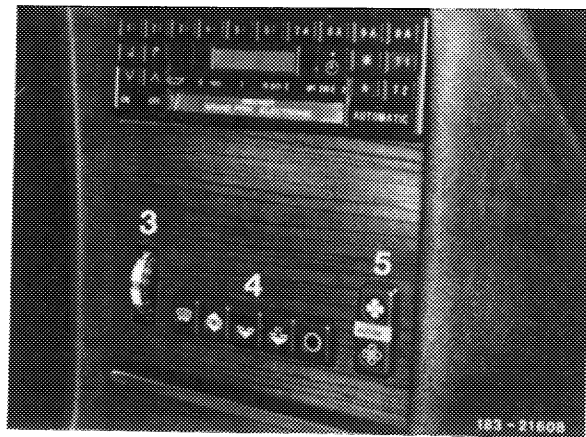


The manual test permits checking the operation of all components of automatic climate control system.

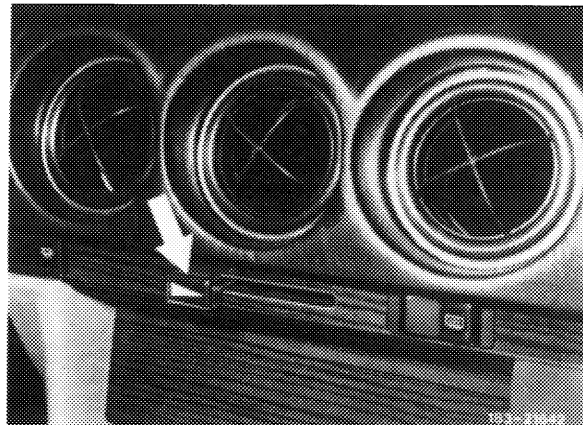
Additional tests for finding the cause of the fault are only required in the event of deviations from the functions or air outlets shown here.

Run engine at idle and at operating temperature during entire test.

- 3 Temperature dial
- 4 Pushbutton switching unit
- 5 Blower switch



Open lever (arrow) for center nozzles, except (J) (USA), as well as lever for side nozzles left and right. Remove glove box (68-140).



Note

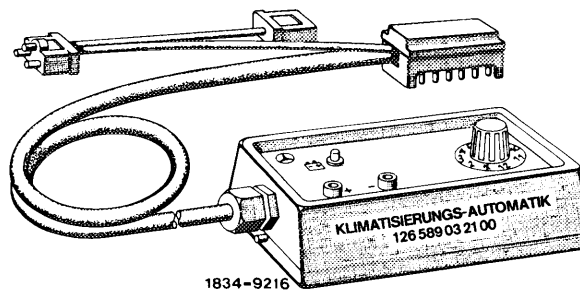
1. During electric test on 2-pole coupler of monovalve (with voltmeter, test lamp) be sure to avoid a short which may destroy the electronic switching unit for temperature control.
2. At room temperatures $> 25^{\circ}\text{C}$ the cycling of the heating water valve cannot be readily shown during 2nd and 6th test. For this purpose, the vehicle interior should be cooled down to approx. 22°C (with doors and windows, as well as sliding top closed).

Additional tests can be made with an adapter for automatic climate control 126 589 03 21 00.

3. Illustration of special operating conditions:

Only one button at a time should be pushed on principle. The operating conditions described below are therefore not included in test scope.

They are mentioned only to assist customers if such a condition has been established by chance. No damage will occur, even if the vehicle is driven for an extended period.



a) All buttons „a” – „e” not pushed:

Operating conditions similar to „c”, but the lowest automatic blower stage will then be raised to 3rd stage.

b) Button „e” pushed in combination with another button:

System always in switched-off condition.

c) Buttons „c” and „d” pushed at the same time:

Operating condition similar to „d”, but 3rd blower stage will drop to 2nd stage.

d) Buttons „b” and „c” pushed at the same time:

Operating condition similar to „b”, but 3rd blower stage will drop to 2nd stage.

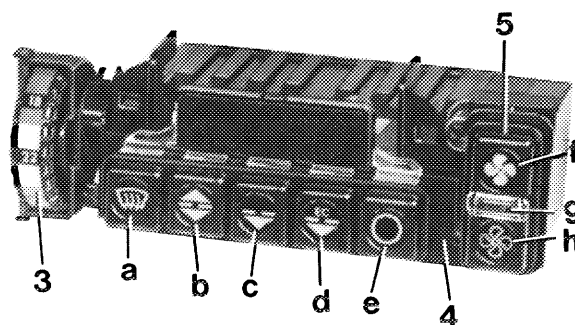
e) Buttons „a” and „b” pushed at the same time:

Operating condition similar to „a”, but legroom flaps will be additionally opened.

f) Operation of button „a” (DEF) will always predominate in relation to selector dial and blower.

g) Buttons „b” and „d” pushed at the same time:

Function similar to „b”, but compressor will be switched off.



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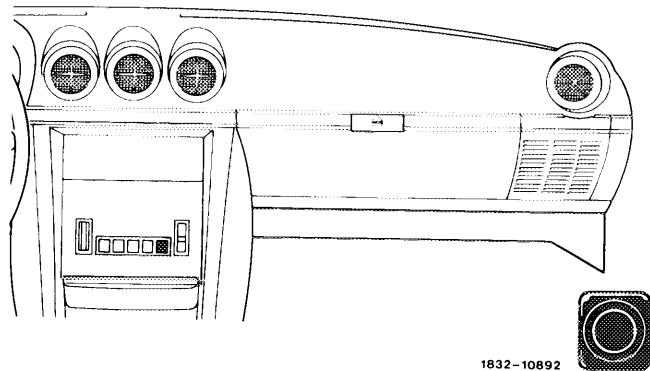
Significance of arrows in graphic displays of tests
1-13

	Arrows, large	Arrows, small
Outside air	grey	
Cooled air	black	
Heated air	white	
Air outlet (warm)		white

Test 1:

Selector dial	Function button	Blower
22 °C	„e”	„AUTOM”

- Monovalve closed.
- Recirculating pump not running.
- Compressor switched off.
- Main air flaps closed (approx. 20 % fresh air, 80 % recirculating air).
- Blower not running.

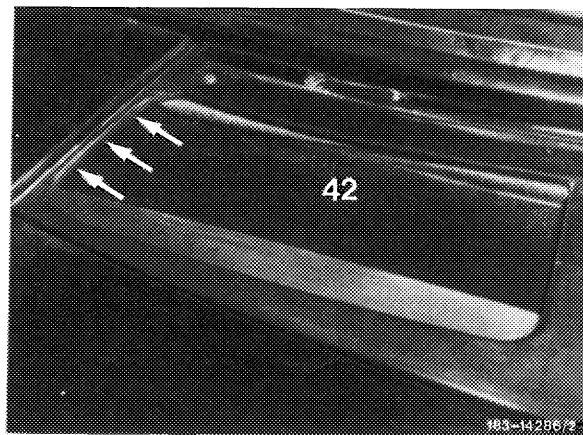


1832-10892



The electronic system is ready for operation.

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



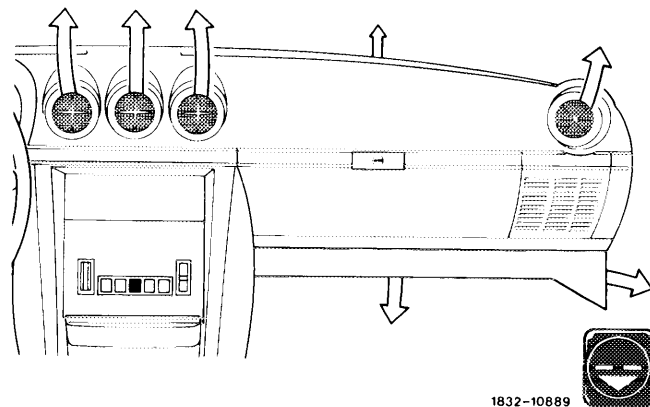
183-14256/2

Test 2:

Selector dial	Function button	Blower
22 °C	„c”	„f”

Establish condition „mode change” (overlap) by turning temperature dial slowly in upward or downward direction until legroom flaps and center nozzles (J USA only) are open.

- Monovalve cycling (every 4 to 5 seconds).
At temperatures of approx. 22 °C refer to 83-601 Note 1.
- Compressor switched on at outside temperatures > 2 °C.
- Main air flaps open (fresh air).
- Blower starts after approx. 10 seconds.
- Recirculating pump running.

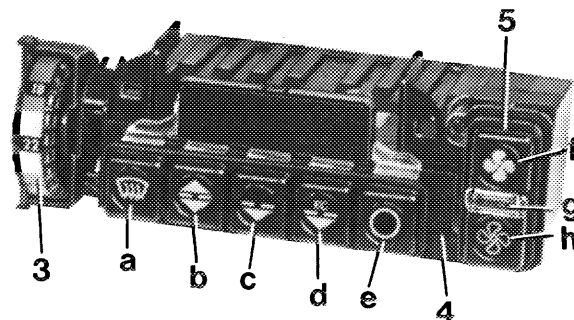


1832-10889



Control unit

- 3 Temperature dial
- 5 Blower switch
- a-e Function selection buttons
- f Max. blower stage (6th stage)
- g Automatic blower (2nd-5th stage)
- h Min. blower stage (1st stage)



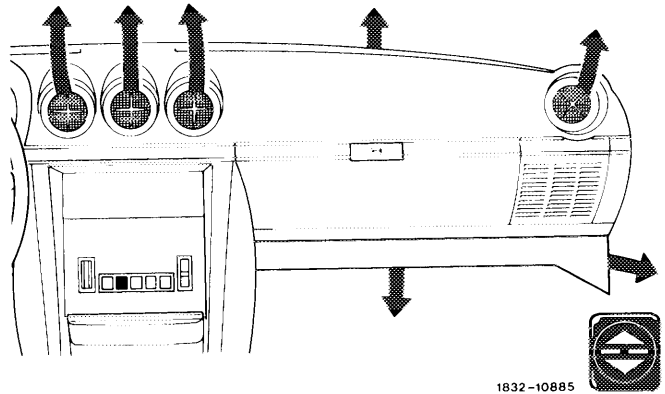
183-17660/1

Test 3:

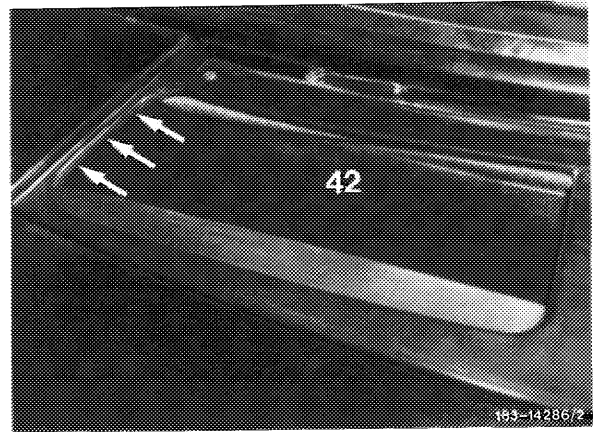
Selector dial	Function button	Blower
MIN (engaged)	„b”	„AUTOM”

- Monovalve closed.
- Recirculating pump not running.
- Compressor switched on at outside temperatures > 2 °C.
- Main air flaps closed (approx. 20 % fresh air, 80 % recirculating air).
- Blower running (6.7 A or 5th stage).

Refer to function diagram 2 b (83–604).



1832-10885



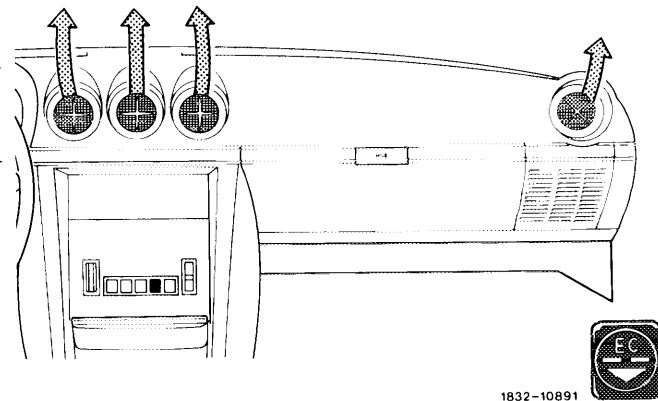
153-14286/2

Test 4:

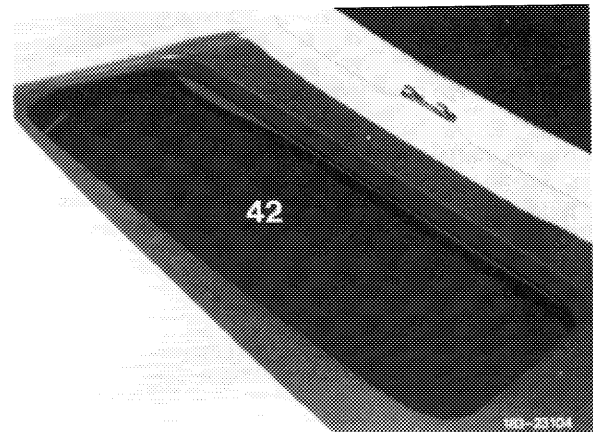
Selector dial	Function button	Blower
MIN (engaged)	„d”	„AUTOM”

- Monovalve closed.
- Recirculating pump not running.
- Compressor switched off.
- Main air flaps open (fresh air).
- Blower running (6.7 A or 5th stage).

Refer to function diagram 4a (83–604).



1832-10891



153-23104

42 Main air flap open (fresh air)

Test 5:

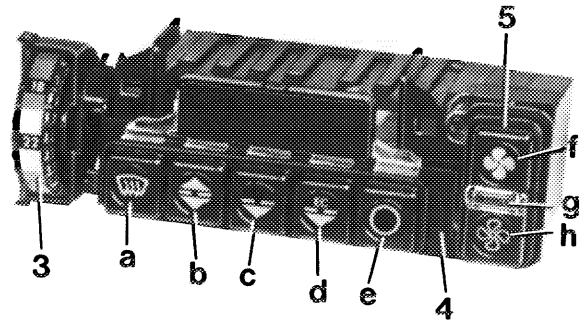
Selector dial	Function button	Blower
MIN (engaged)	„c”	„h”

- Center nozzle flap open (for **J** and **USA** version by vacuum element).
- Monovalve closed.
- Main air flaps closed (approx. 20 % fresh air, 80 % recirculating air).
- Recirculating pump not running.
- Blower running (2.4 A or 1st stage).

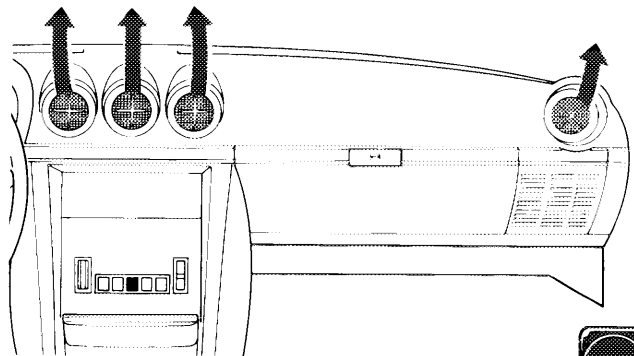
Refer to vacuum function diagram 3b (83-604).

Significance of arrows in graphic displays of tests 1-13

	Arrows, large	Arrows, small
Outside air	grey	
Cooled air	black	
Heated air	white	
Air outlet (warm)		white



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1832-10887

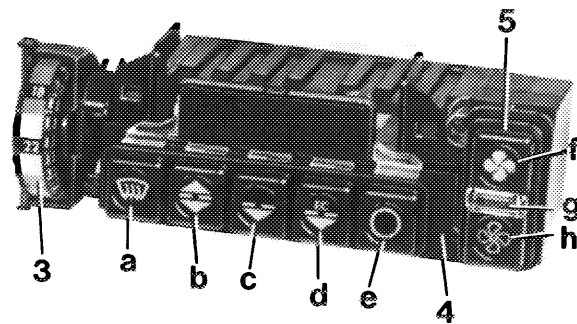
Test 6:

Selector dial	Function button	Blower
22 °C	„c”	„AUTOM”

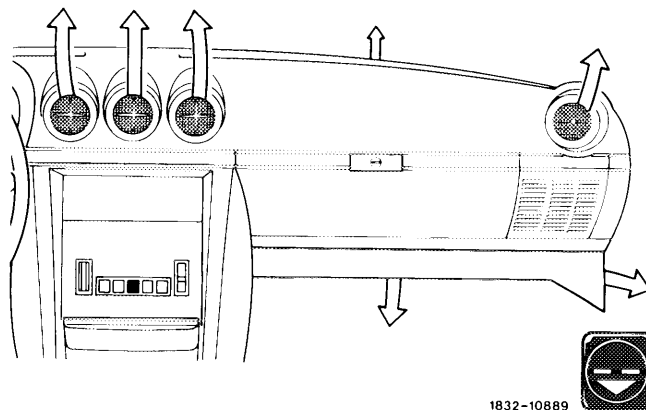
Set up condition „mode change” (overlap) by slowly turning temperature dial in upward or downward direction until legroom flaps and center nozzles (**J** **USA**) are open. Wait until blower has switched to 2.8 A or 2nd stage.

2.8 A on blower = preparation for next test!

- Monovalve cycling (every 4 to 5 seconds). At temperatures > 25 °C refer to 83-601, Note 2.
- Compressor switched on at outside temperatures > 2 °C.
- Main air flaps open (fresh air).
- Recirculating pump running.



183-17660/1

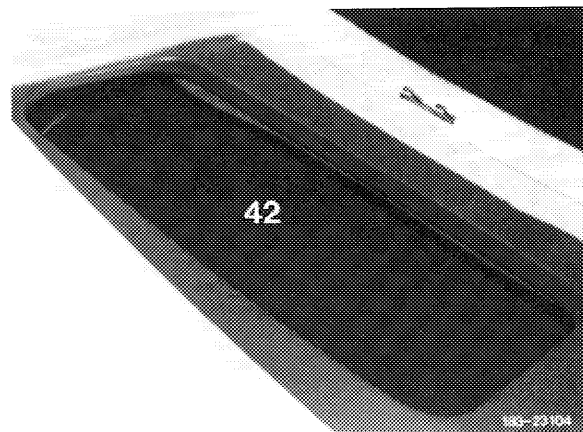


1832-10889

Test 7:

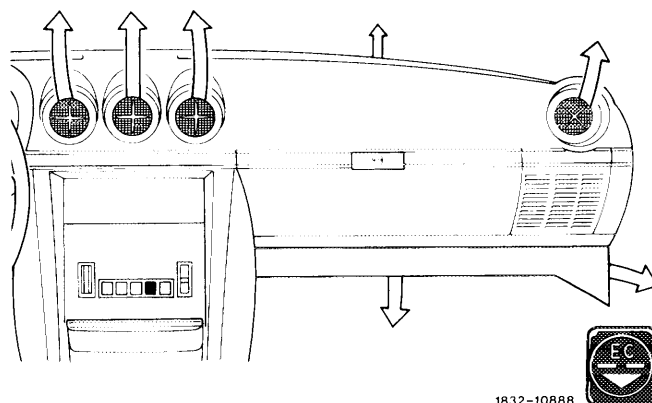
Selector dial	Function button	Blower
22 °C	„d”	„AUTOM”

- Blower switches one stage higher (from 2.8 A to 3.5 A or from 2nd to 3rd stage).
- Monovalve cycling (every 4–5 seconds).
- Compressor switched off.
- Main air flaps open (fresh air).
- Recirculating pump running.



Significance of arrows in graphic displays of tests 1–13

	Arrows, large	Arrows, small
Outside air	grey	
Cooled air	black	
Heated air	white	
Air outlet (warm)		white

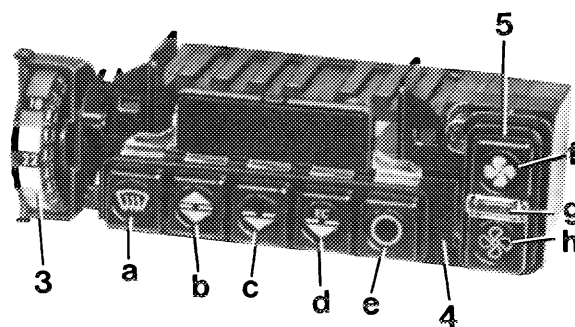


1832-10888

Test 8:

Selector dial	Function button	Blower
26 °C	„d”	„f”

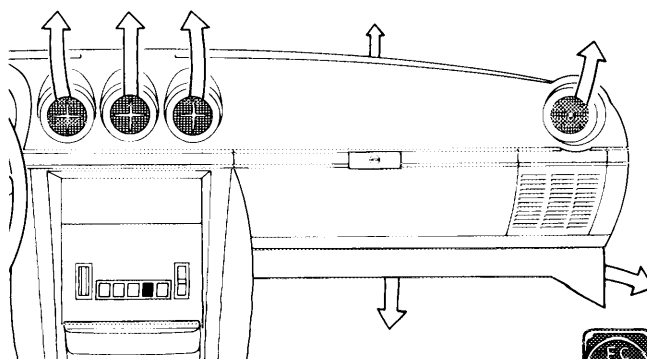
- Blower running at max. (6th stage).
- Monovalve cycling (every 4–5 seconds).
- Compressor switched off.
- Center nozzle flap closed (no air from center nozzle (J) (USA) only).
- Main air flaps open (fresh air).
- Recirculating pump running.



183-17660/1

Significance of arrows in graphic displays of test 1–13



	Arrows, large	Arrows, small
Outside air	grey	
Cooled air	black	
Heated air	white	
Air outlet (warm)		white

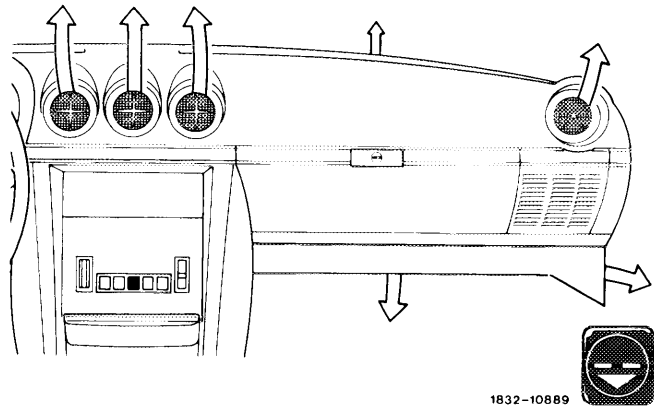


1832-10888

Test 9:

Selector dial	Function button	Blower
MAX (engaged)	„c”	„AUTOM”

- Monovalve opened.
- Recirculating pump running.
- Compressor switched on at outside temperatures > 2 °C.
- Main air flaps open (fresh air).
- Blower running (6.7 A or 5th stage).
- Center nozzle flap closed (no air from center nozzle
  only).



1832-10889

Refer to vacuum function diagram 3 (83-604).

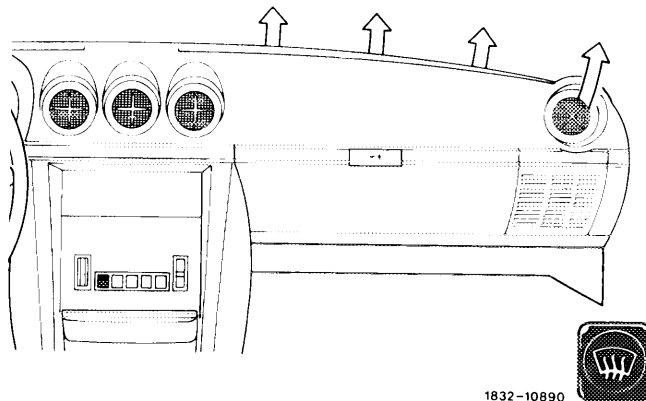
Significance of arrows in graphic displays of tests 1-13

	Arrows, large	Arrows, small
Outside air	grey	
Cooled air	black	
Heated air	white	
Air outlet (warm)		white

Test 10:

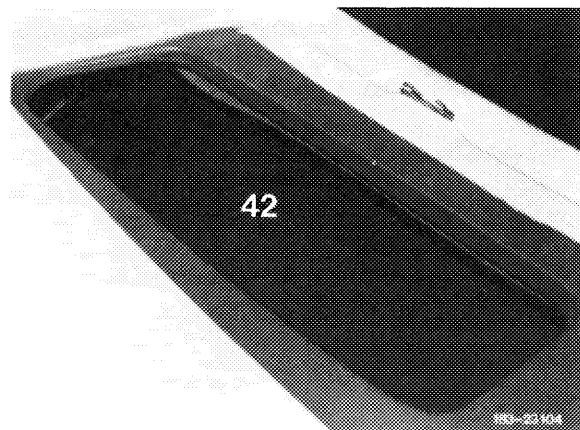
Selector dial	Function button	Blower
Optional	„a”	Optional

- Blower running at max. speed (6th stage).
- Monovalve opened.
- Recirculating pump running.
- Compressor switched on at outside temperatures > 2 °C.
- Main air flaps opened (fresh air).



1832-10890

Refer to vacuum function diagram 1 (83-604).

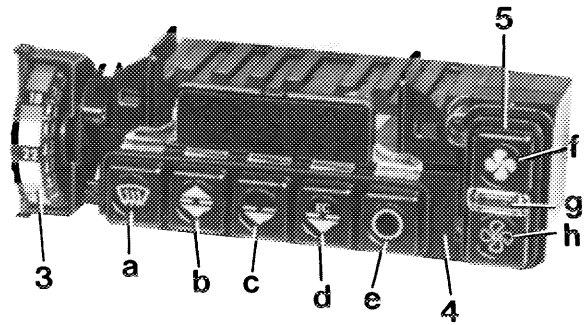


183-02104

Test 11:

Selector dial	Function button	Blower
MIN	„b”	„f”

- After switching to „b”, cold air should come immediately out of center and side nozzles.

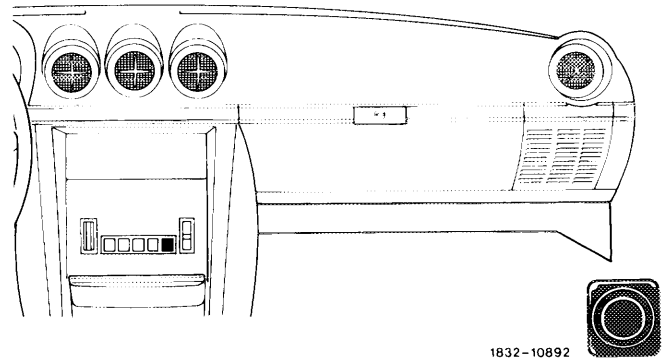


Test 12:

183-17660/1

Selector dial	Function button	Blower
22 °C	„e”	„AUTOM”

- Monovalve closed.
- Recirculating pump not running.
- Compressor switched off.
- Main air flaps closed (20 % fresh air, 80 % recirculating air).
- Blower not running.



1832-10892

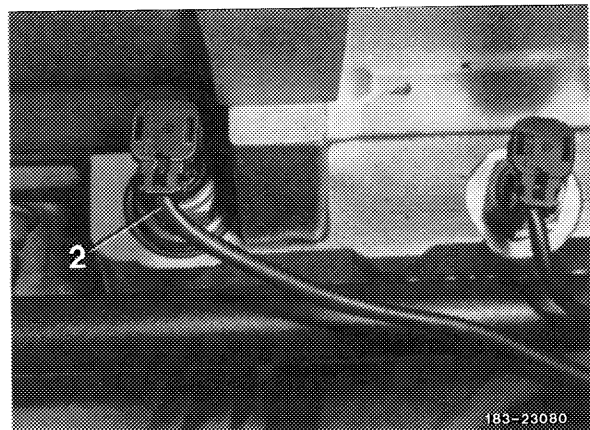
Also refer to vacuum function diagram 5 (83-604).

Test 13:

Pull coupler from cold engine lock (2).

Selector dial	Function button	Blower
MAX	„c”	„AUTOM”

2 Temperature switch (cold engine lock) engine 110

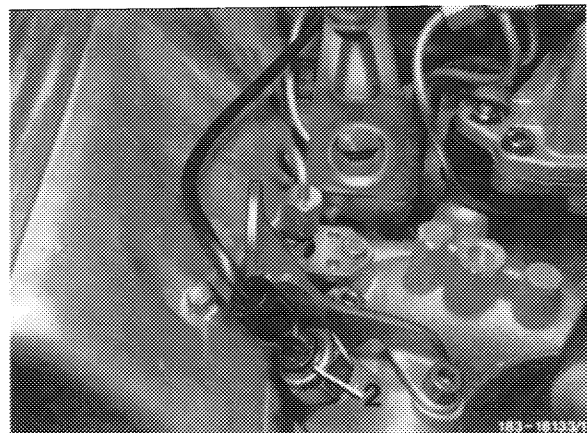


183-23080

- Main air flaps closed. (20 % fresh air, 80 % recirculating air).
- Blower not running.

Do not yet plug-on coupler of cold engine lock.

2 Temperature switch (cold engine lock) engine 116/117



183-18133/1

Test 14:

Selector dial	Function button	Blower
MIN	„c”	„AUTOM”

- Main air flaps closed
(20 % fresh air, 80 % recirculating air).
- Blower starts running after approx. 10 seconds
(2.8 A to 6.7 A or 2nd stage to 5th stage).
- Put back coupler of cold engine lock.

For all tests, also refer to electric wiring diagram.