GGPv ..20/70
GKPv ..20/70
BGPv ..20/70
BKPv ..20/70

ProfiLine

Bakery and catering appliances

GGPv 6570

BKPv 6520

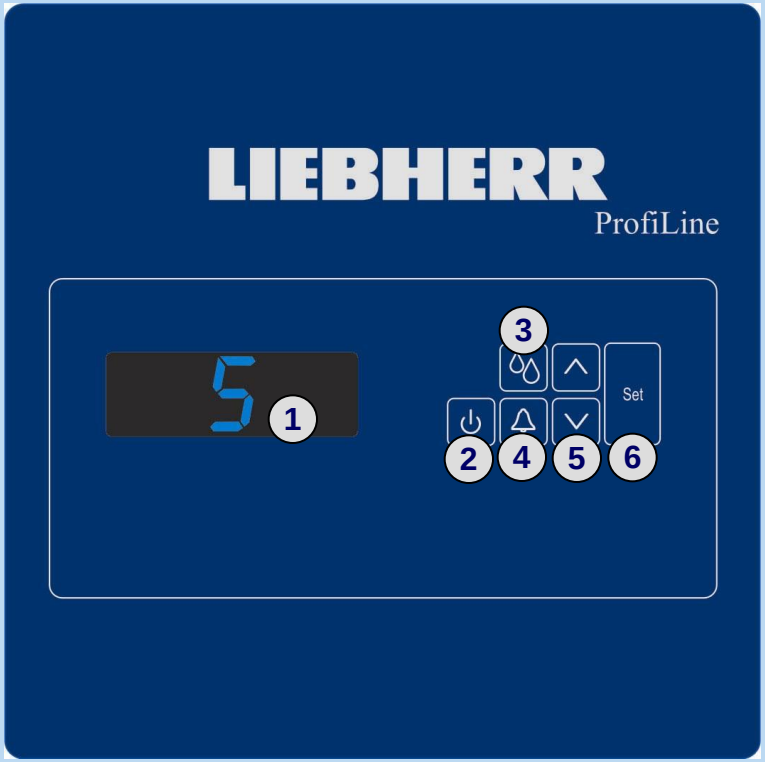
Functions

Functions at a glance

LIEBHERR

• **Temperature control:**	electronic
• **Temperature range:**	GGPv 65, BGPv: -10°C to -35°C
	GGPv 14: -10°C to -26°C
	GKPv: +1°C to +15°C
	BKPv: -5°C to +15°C
• **Temperature display:**	digital
• **Temperature alarm:**	visual and audible
• **Door alarm:**	visual and audible
• **Interior compartment cooling:**	dynamic
• **Defrosting:**	automatic
• **Interior light:**	no
• **Potential-free contact**	yes
• **HACCP:**	no
• **Interface:**	no

Controls



1 : Display for temperature display and controls

2 : On/off button

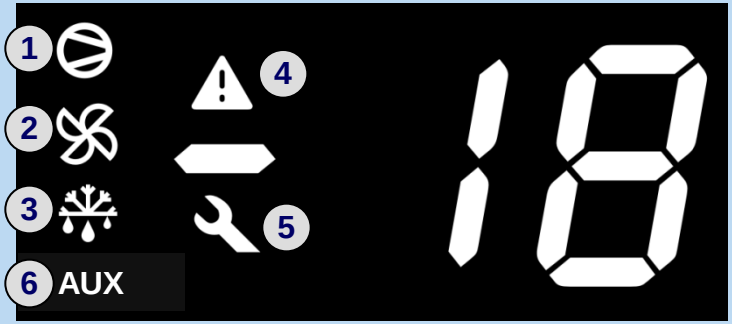
3 : Humidity circuit (for GKPv and BKPv)

4 : Alarm-Off button

5 : Temperature control buttons

6 : Set button (enter)

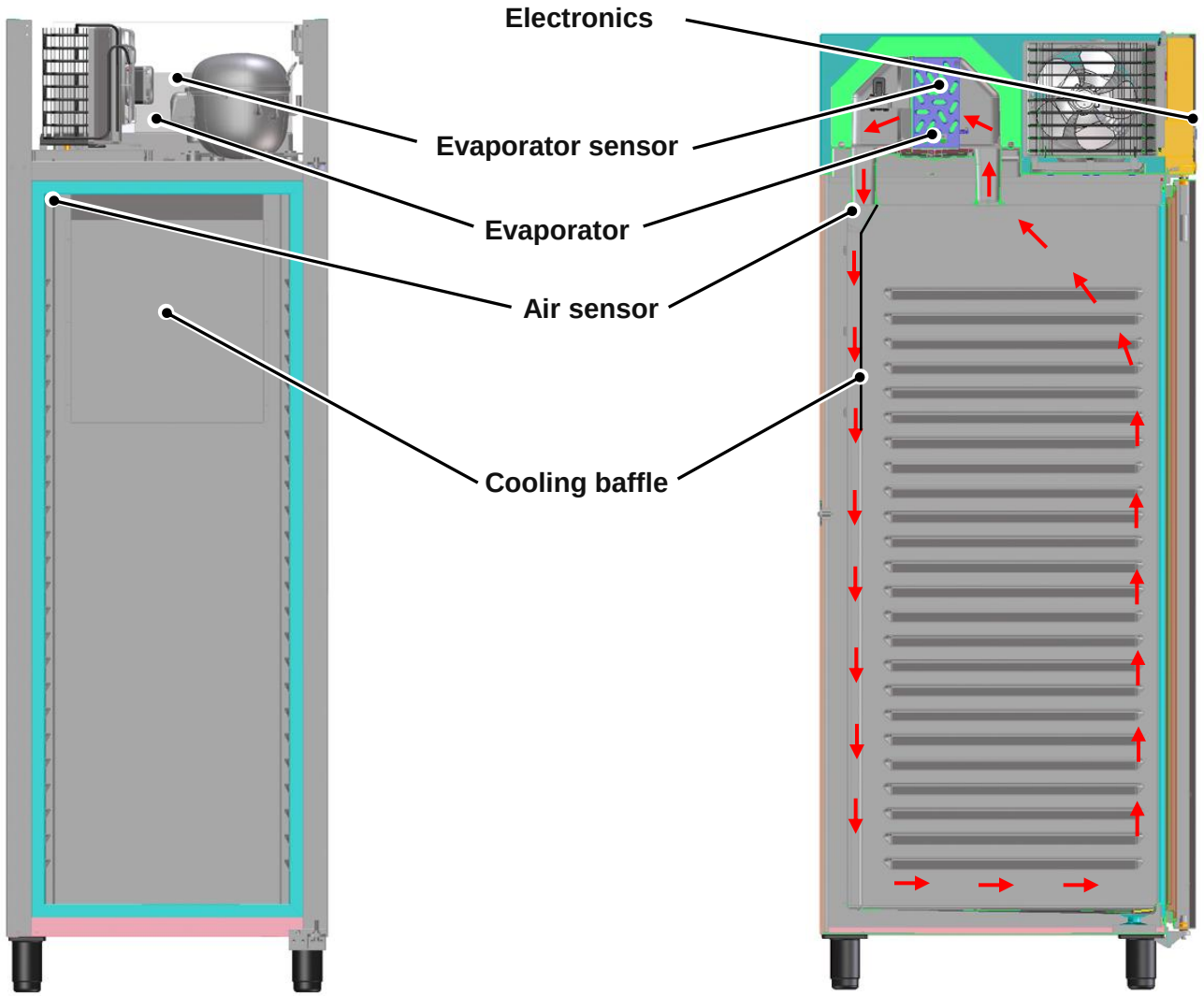
Meaning of the controls



1 : LED lit	Compressor running
1 : LED flashes	Switch-on delay of compressor active.
2 : LED lit	Evaporator fans running.
2 : LED flashes	Switch-on delay of fans active (e.g. after defrosting).
3 : LED lit	Defrosting phase active.
3 : LED flashes	Switch-on delay of defrosting active (e.g. with defrosting request during compressor downtime).
4 : LED lit	Alarm (e.g. door open, temperature too warm)
5 : LED lit	Error (e.g. in the case of sensor defect)
6 : LED lit	Auxilary contact activated (e.g. higher relative humidity, heaters).

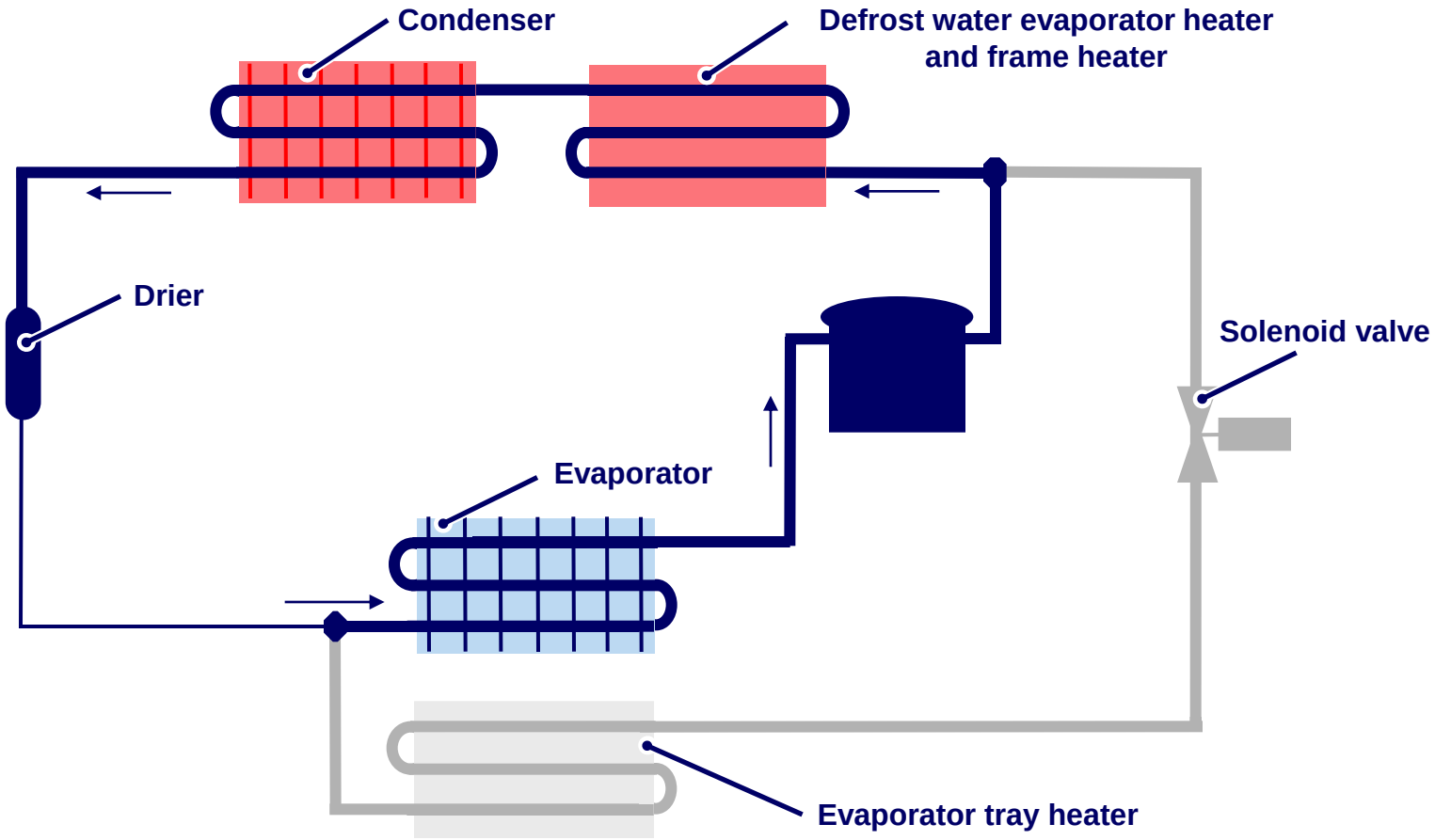
Design

Principle of operation



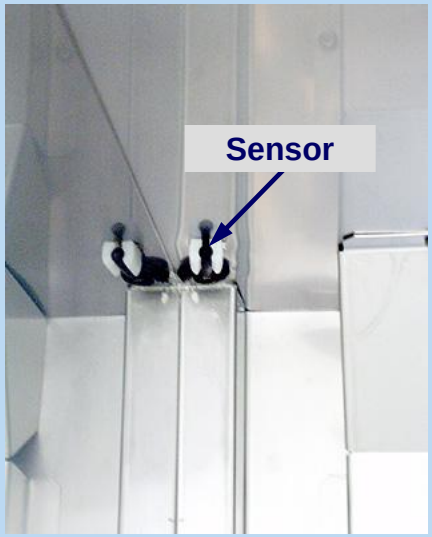
Schematic diagram refrigeration technology

Compressor on – solenoid valve closed (at GGPv, BGPv, BKPv)



Control

Air sensor



Position:

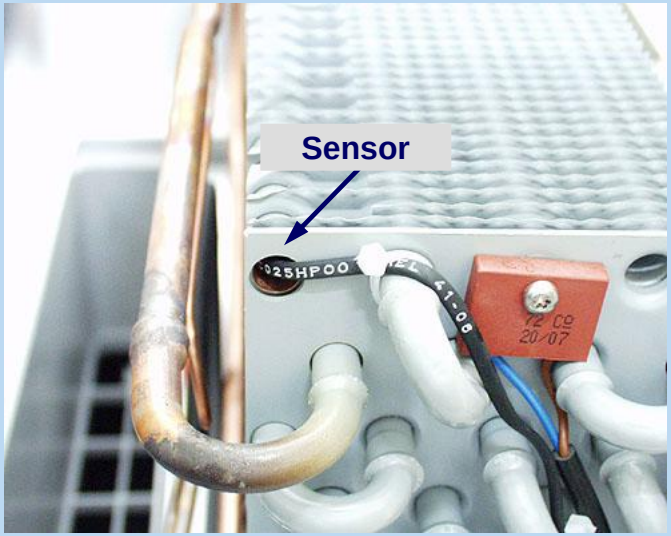
In top left-hand corner of interior at back.

Depending on this sensor

- the compressor switches ON and OFF.
- the temperature display is formed.
- the temperature alarm is initiated.

Evaporator sensor

GGPv, BGPv, BKPv



Position:

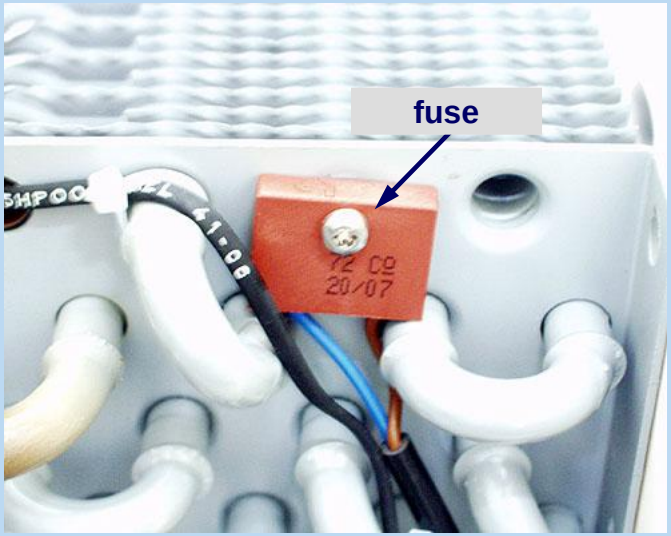
On the intake side, pushed half way into the evaporator at top

Depending on this sensor

- the defrosting phase is ended (at +10 C).

Temperature fuse

GGPv, BGPv, BKPv *(up to index 10C)*



Position:

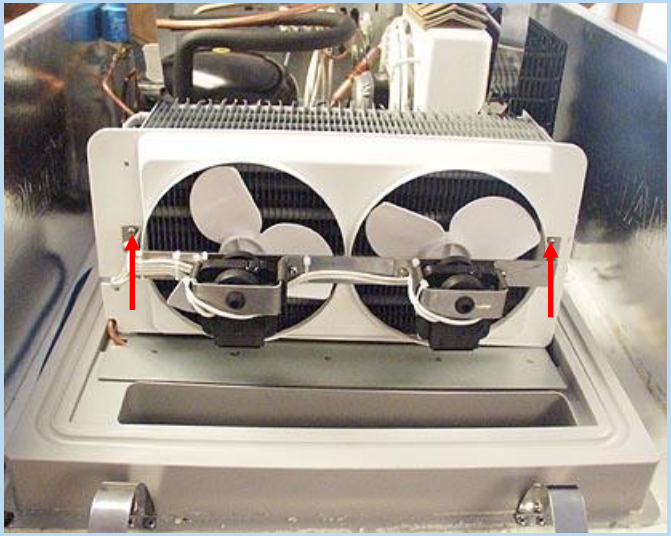
At the frontside of the evaporator

Depending on this fuse

- the power supply for the compressor gets interrupted (at +72 C).

The fuse is only for protection - must be replaced

Evaporator fans



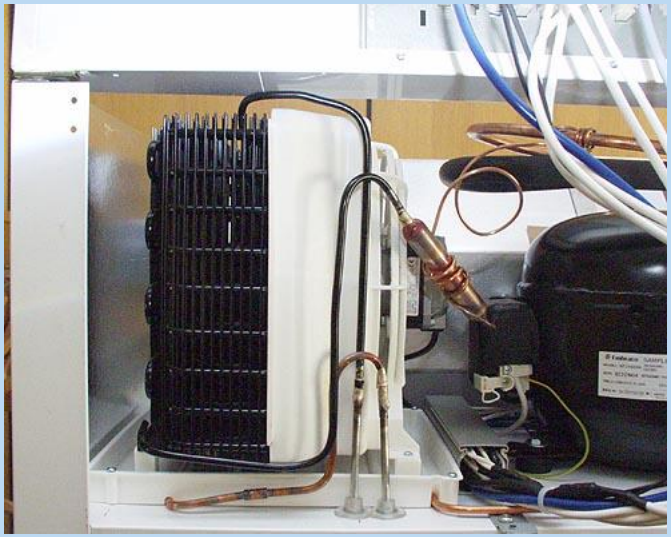
Position:

Attached to the evaporator together with the air funnel

The two fans

- of GKPv and BKPv run depending on selected humidity either permanently, in parallel with the compressor or from time to time during the compressor rest time
- of GGPv and BGPv run permanently.
- generally switch off when the door is open.

Condenser fan



Position:

Attached to the condenser together with the air funnel

The fan

- runs in parallel with the compressor.

Defrosting

GKPv

Activation:

- The defrosting phase is automatically initiated all 6 hours.
- The defrosting phase can also be manually initiated by pressing the “down” button.

Function:

- The compressor switches off, the evaporator fans continue to run and extract the air from the interior via the evaporator.

- The defrost water is collected in the evaporator tray and fed into the defrost water evaporating tray through a drain tube (siphon). During the next cooling phase, this tray is heated with hot gas and the water evaporates.

End:

After the set defrosting period (30 minutes) has expired, the compressor begins to operate again.

Defrosting

GGPv, BGPv, BKPv

Activation:

- The defrosting phase is automatically initiated after 4 hours accumulated compressor operation.
- The defrosting phase can also be manually initiated by pressing the “down” button.

Function:

- Hot gas defrosting (see next slide)
- The defrost water is collected in the evaporator tray and fed into the defrost water evaporating tray through a drain tube (siphon). During the next cooling phase, this tray is heated with hot gas and the water evaporates.

End:

- The defrosting phase is generally ended thermally (+10°C).

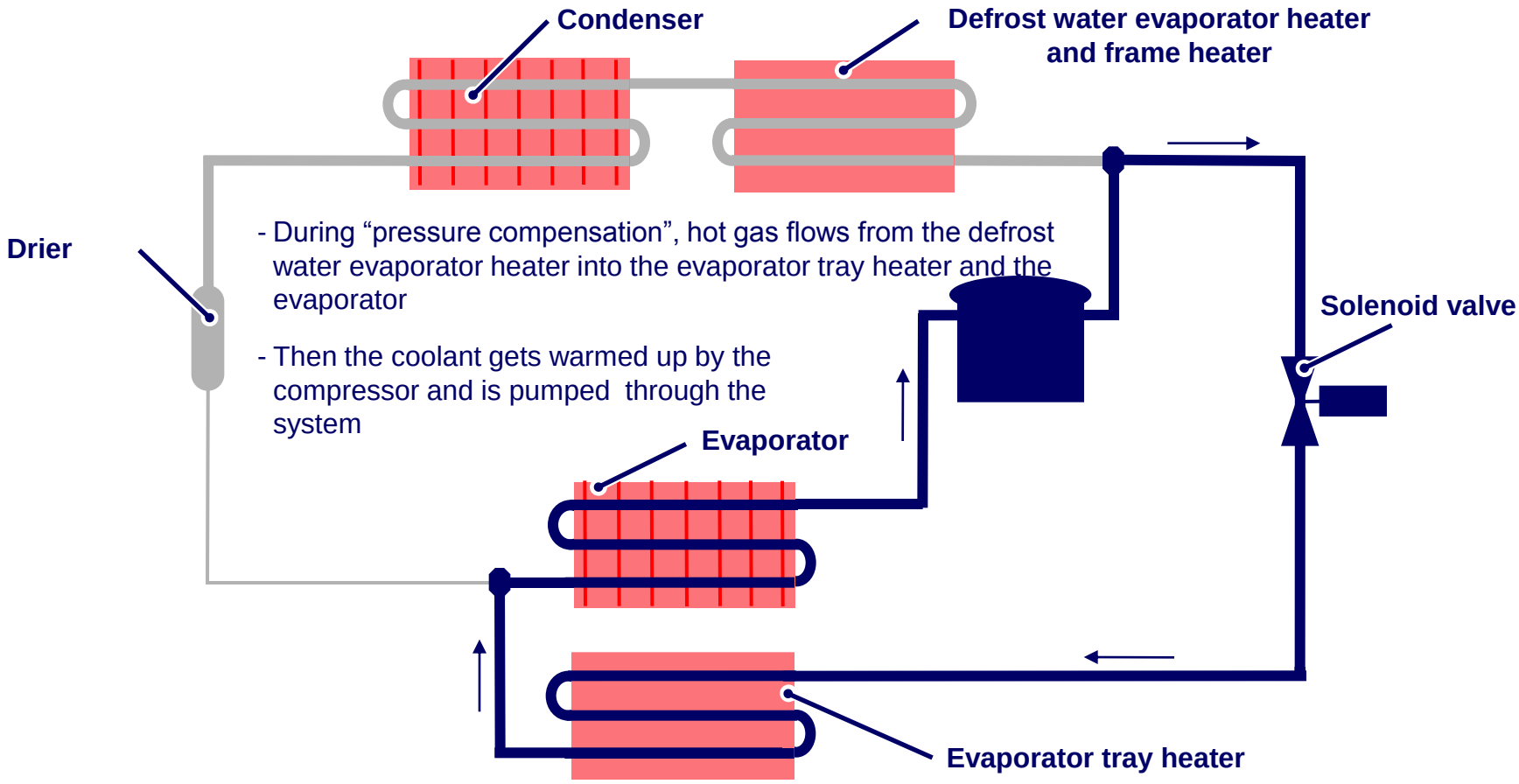
  After 8 minutes *(from idx. 40A after 10 or 13 minutes),* defrosting would be stopped where necessary.
- After a drain down time of 10 minutes, the compressor starts up.
- The evaporator fans start up with a delay 5 minutes.

Note:

The intake opening and the drain tube to the evaporator tray are electrically heated on the GGPv and BGPv.

Schematic diagram hot gas defrosting

Compressor on – solenoid valve open (bei GGPv, BGPv, BKPv)



Solenoid valve

Position:

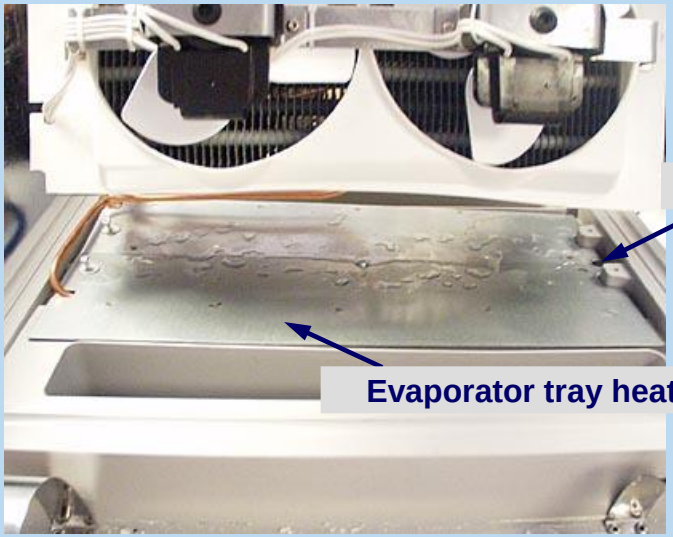
Attached to the right-hand upright side wall

Function:

The solenoid valve opens a bypass so that hot gas is pumped directly through the evaporator tray and the evaporator.

Evaporator tray heater

GGPv, BGPv, BKPv



Position:

Attached to the tray

Function:

The tray heater is heated with hot gas during the defrosting phase so that the water can flow into the drain tube.

Defrost water evaporator tray

Position:

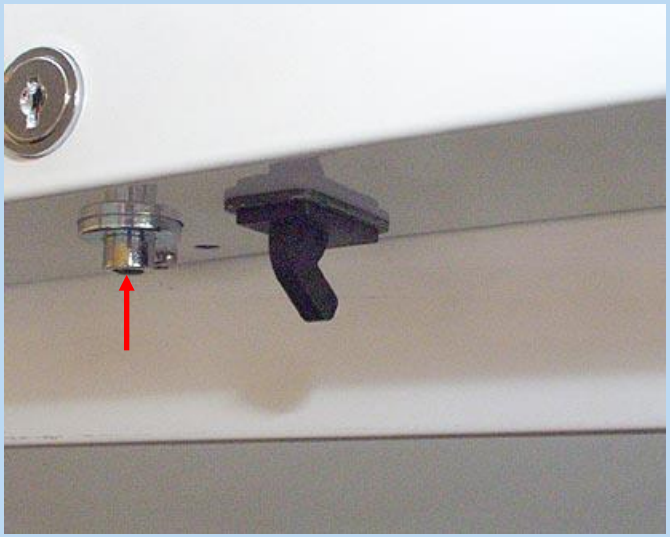
Tray is installed below the condenser.

Function:

In the cooling phases, the tray is heated with hot gas so that the water collected during the defrosting phase evaporates.

Parts replacement

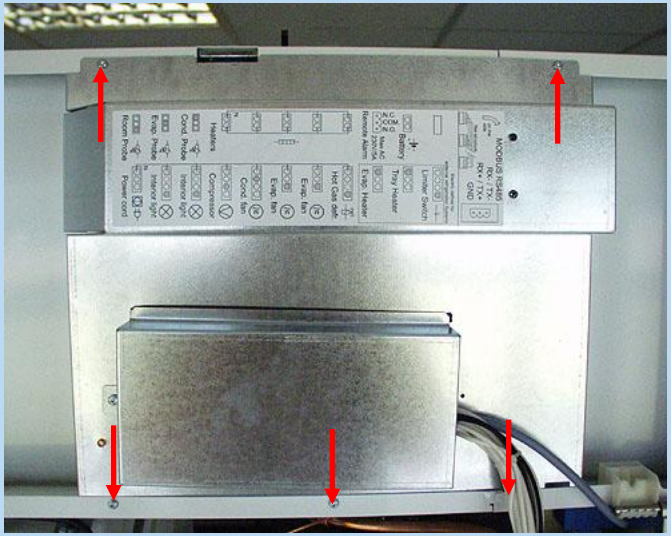
Replacing the electronics



Procedure

- Remove screw on the underside and lift up the housing to open.

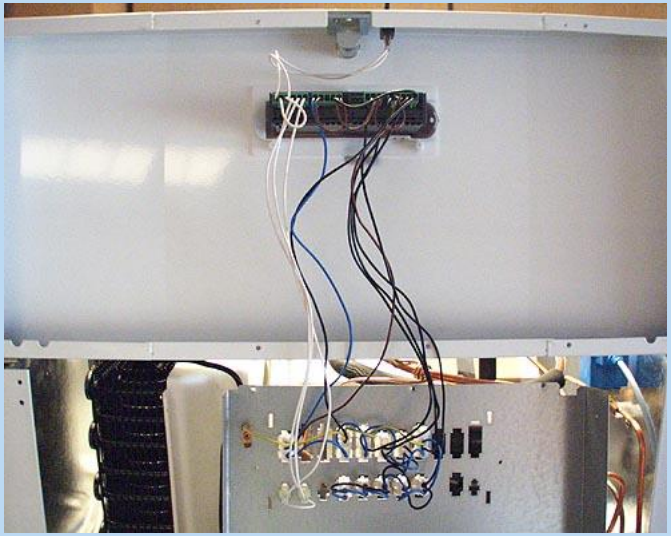
Replacing the electronics

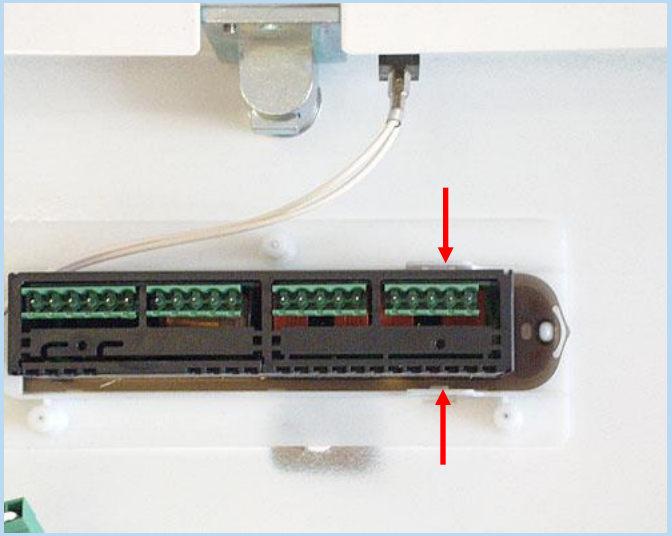


Procedure

- Disconnect plug, remove fixing screws of the cover and take cover off.

Replacing the electronics

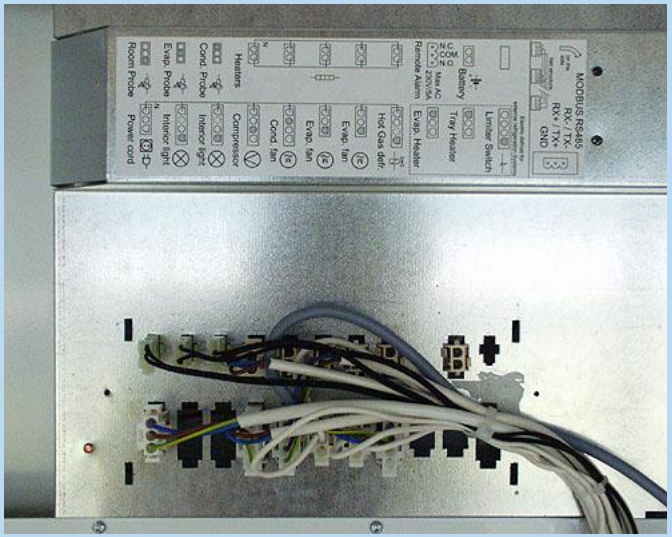




Procedure

- Disconnect plug of the electronics.
- Unclip electronics from holder.

Replacing the air sensor

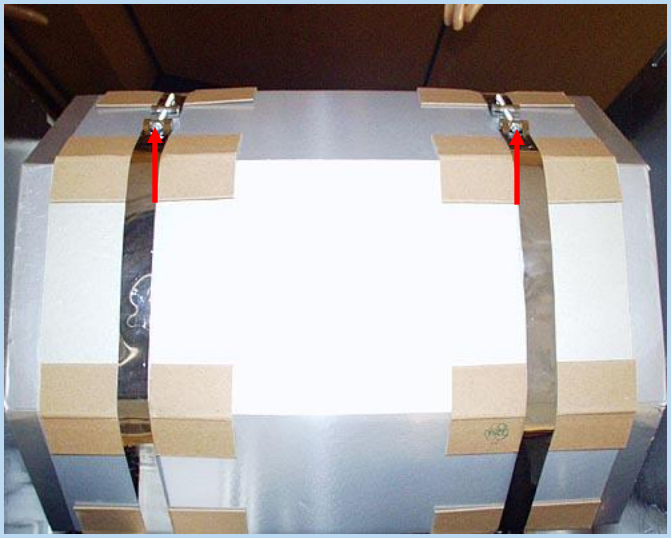


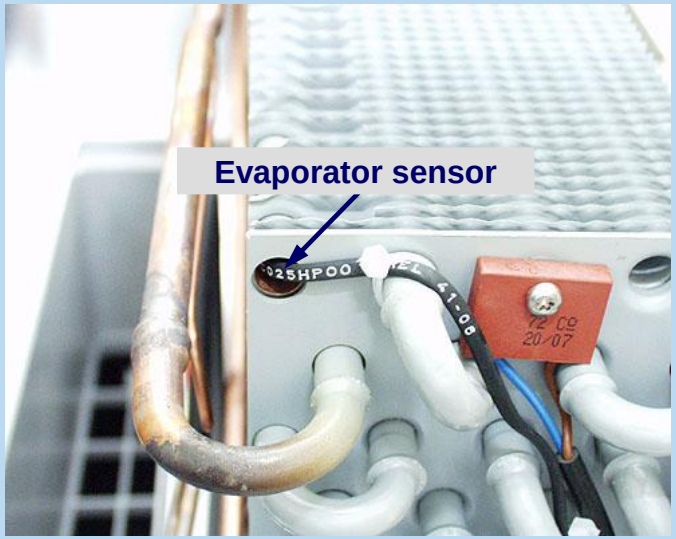
Procedure

- Disconnect sensor cable from the distributor board.
- Unclip sensor and pull through the conduit.
- By mounting the new sensor regard to make a loop with the cable (see the picture)

Replacing the evaporator sensor

GGPv, BGPv, BKPv



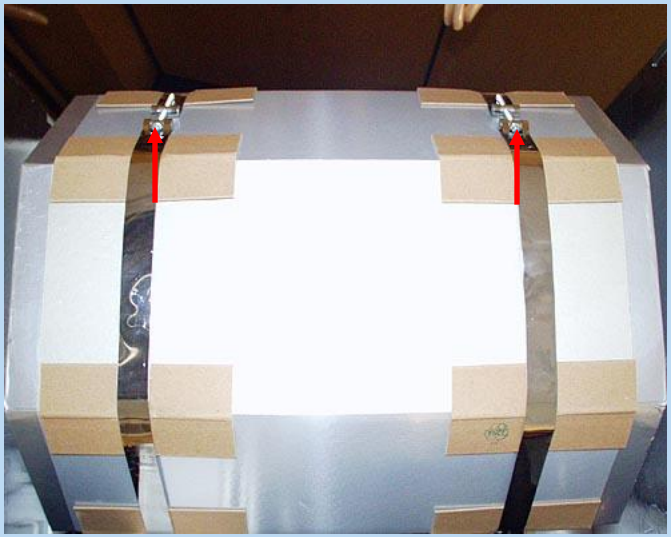


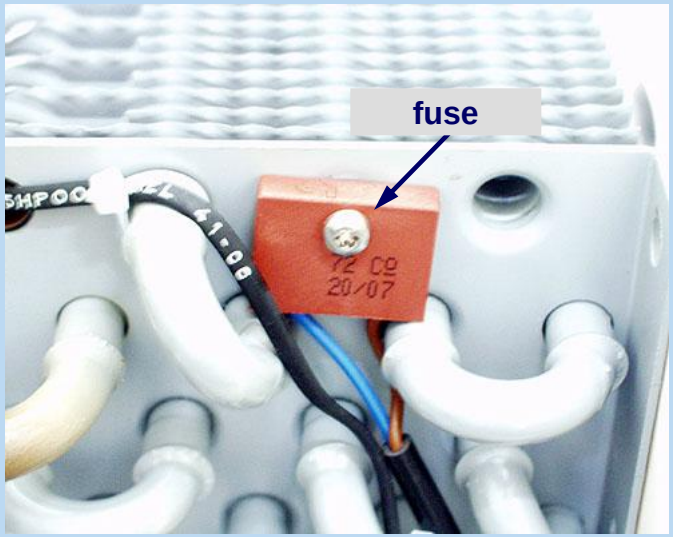
Procedure

- Undo screws and tightening straps. Remove evaporator cover.
- Pull sensor out of evaporator and disconnect from the distributor board.
- When installing, ensure that the sensor is pushed half way into the evaporator and is fixed with a cable tie.
- When installing the cover, ensure that it seals correctly all the way round.

Replacing the fuse

GGPv, BGPv, BKPv

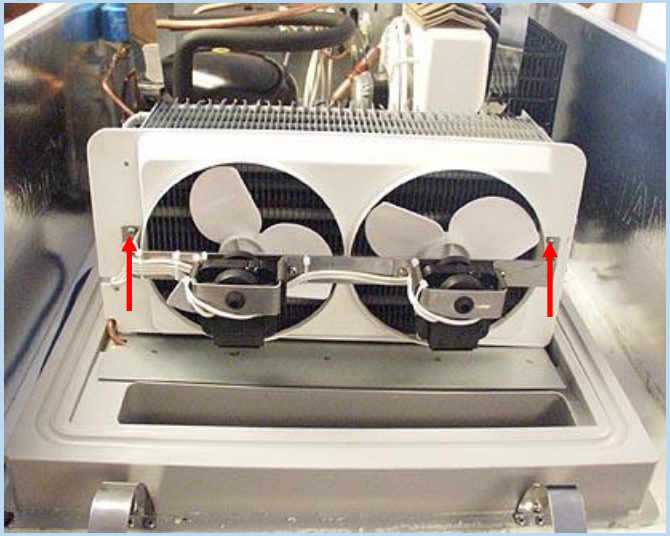




Procedure

- Undo screws and tightening straps. Remove evaporator cover.
- disconnect the fuse from the evaporator.
- When installing the cover, ensure that it seals correctly all the way round.

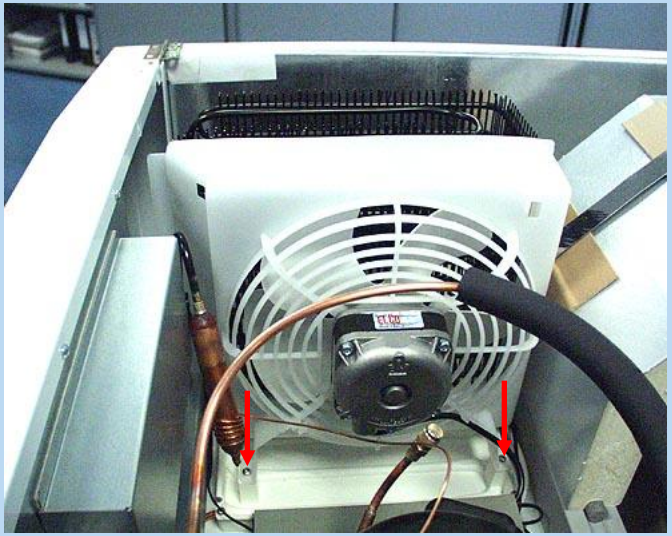
Replacing the evaporator fans

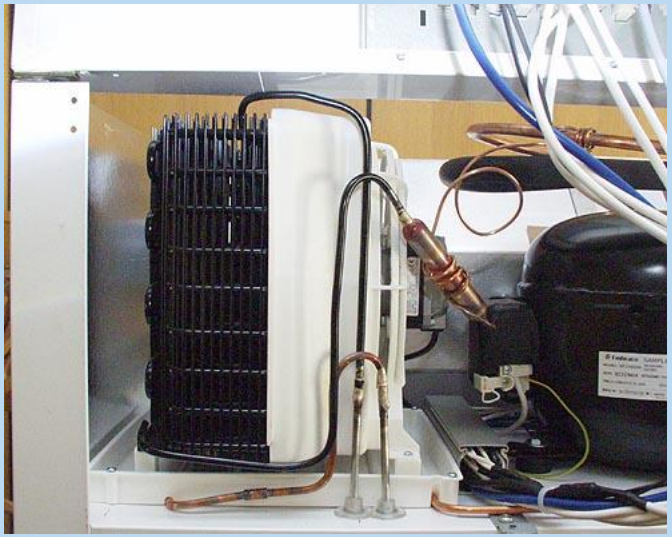


Procedure

- Remove evaporator cover.
- Undo screws of the fan holder and remove fans.

Replacing the condenser fan





Procedure

- Remove fixing screws of the fan holder.
- Detach holder from condenser at the top and remove.
- Unscrew motor holder.

Replacing the solenoid valve

Procedure

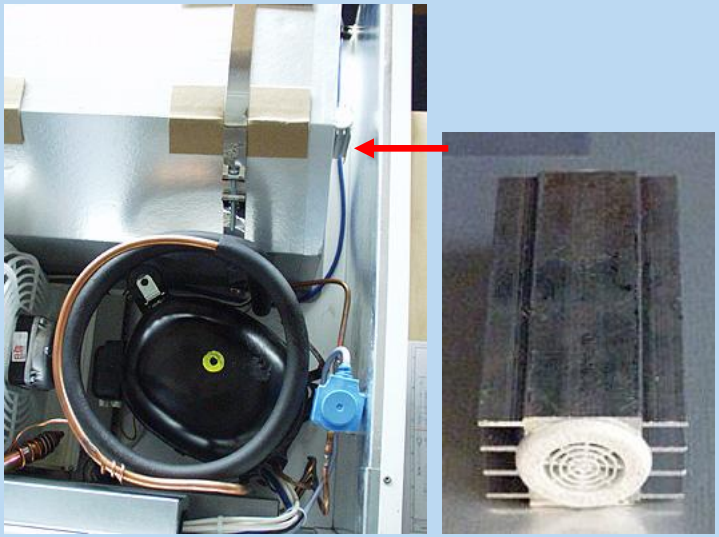
- The coil of the solenoid valve can be removed upwardly
  (i.e. in the event of an electrical fault, no intervention in the cooling circuit is necessary!).

Special features

Difference to ProfiPremiumLine

- Different electronics (e.g. not HACCP)
- Different temperature range for refrigerators
- No door opener
- Rear wall made of zinc-coated sheet
- No stainless steel grid shelves

Pressure compensation valve



Position:

On the left-hand side of the evaporator cover

Function:

The pressure compensation valve enables fast pressure compensation. The valve is heated via the aluminium fins, so that no electrical heating is necessary.

Hidden functions

Evaporator temperature

The temperature of the evaporator can be called in the first parameter level

- Keep the **alarm button** depressed for **5 seconds**.
- Press the "down" button the number of times needed until "d/1" is displayed.
- Press "Set" button

-> The temperature of the evaporator sensor is shown in the display

Min/Max function

The coldest and warmest inside temperature can be called in the first parameter level

- You reach the first parameter level by pressing the "Alarm" button (5 seconds).

- Press the "down" button the number of times needed until the "rt" parameter is displayed.
-> After the "Set" button has been pressed, the **period** in which the inside temperature was measured is displayed.

- Press the "down" button the number of times needed until the "rL" parameter is displayed.
-> After the "Set" button has been pressed, the **coldest inside temperature** within the period is displayed.

- Press the "down" button the number of times needed until the "rH" parameter is displayed.
-> After the "Set" button has been pressed, the **warmest inside temperature** within the period is displayed.

Deleting the stored values:

- You reach the first parameter level by pressing the "Alarm" button (5 seconds).

- Press the "down" button the number of times needed until the "rt" parameter is displayed.
-> After the "Set" button has been pressed, the period in which the inside temperature was measured is displayed.

- Keep the "Down" button depressed for five seconds -> rES appears in the display.

codes

code	part	buzzer/potential-free contact	situation at emergency
E0	air sensor	ON/ON	emergency action
E1	evaporator sensor	ON/ON	normal action
EE	electronic	ON/ON	no action
EF	electronic	ON/ON	no action

Zustandsmeldungen

code	situation	buzzer/potential-free contact
HI	temperature to warm	ON/ON
LO	temperature to cold	ON/ON
Ed1	defrost ended by timeout	OFF/OFF
dA	door open	ON/ON
dFb	defrosting started manually	
dFE	defrosting started automatically	
ON	appliance on	
OFF	appliance off	