

R(I) 1410 (EK(es) 4270)

Freestanding
refrigerator



R 1410



RI 1410

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Functions

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Hidden functions

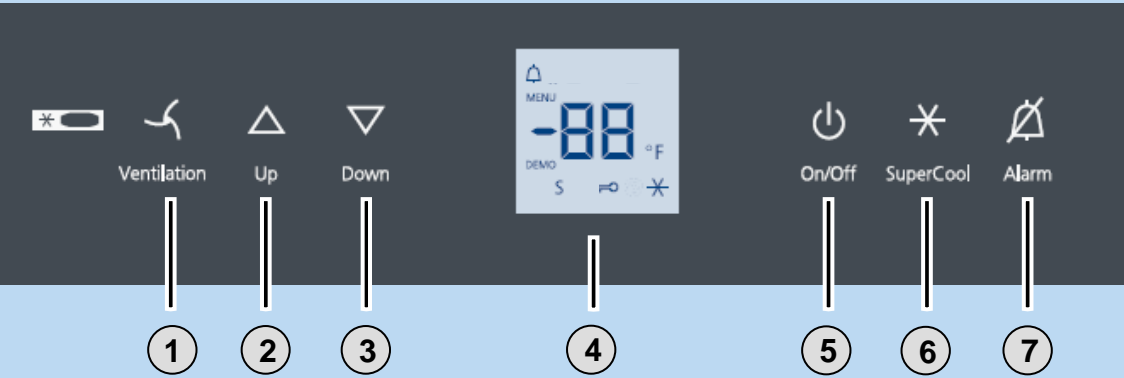
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Functions

Operating and control elements



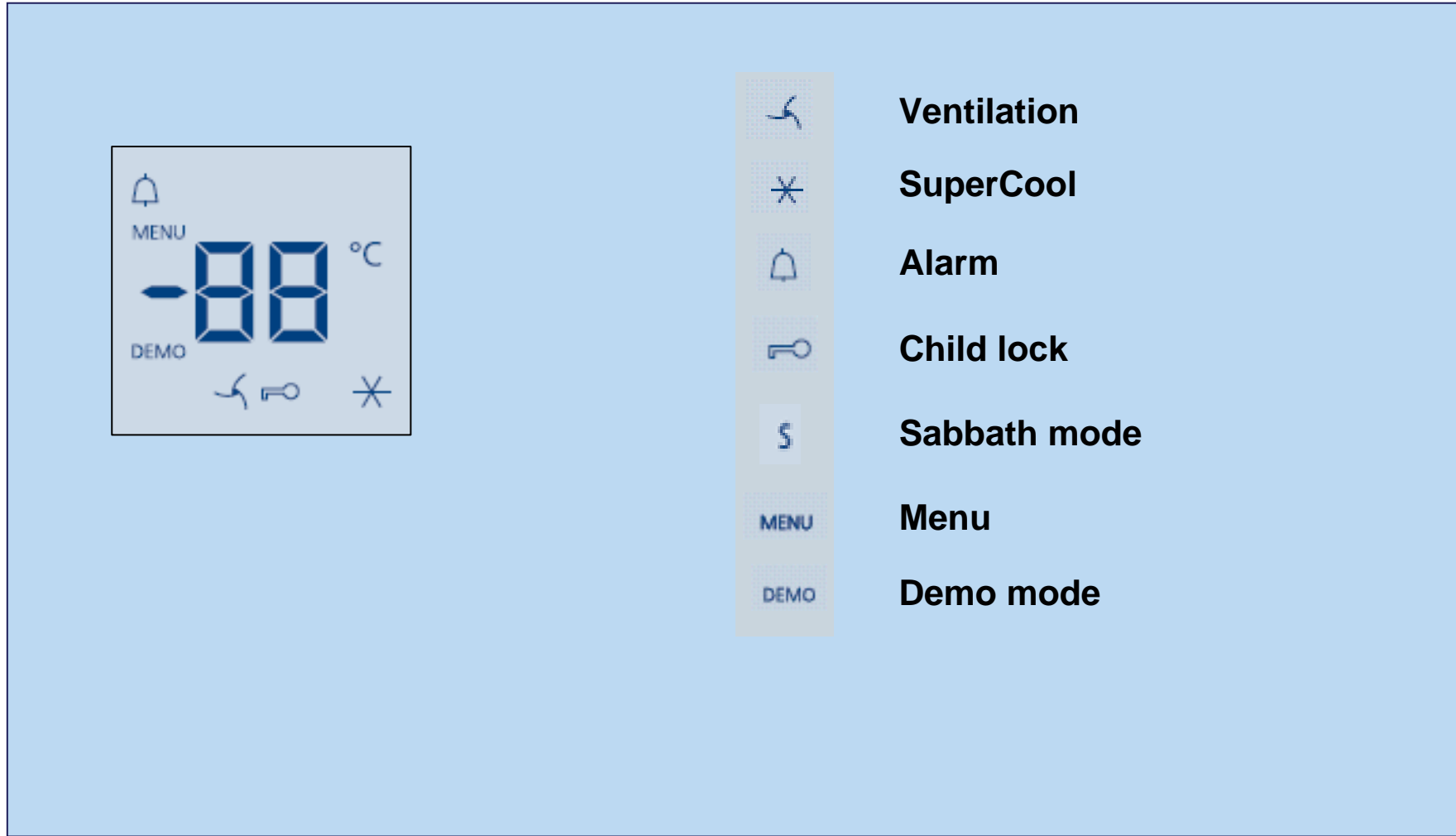
The diagram shows a control panel with a central digital display and seven numbered callouts (1-7) pointing to specific buttons. The buttons are labeled as follows:

- 1: Ventilation (button with a fan icon, lit)
- 2: Up (button with an upward-pointing triangle)
- 3: Down (button with a downward-pointing triangle)
- 4: Temperature display / function display (the central digital display showing -88 °F)
- 5: On/Off (power button)
- 6: SuperCool (button with a star icon, lit)
- 7: Alarm OFF (button with a bell icon)

Operating elements

- 1 : Ventilation function, button lit = function switched ON
- 2 : Setting button temperature higher
- 3 : Setting button temperature lower
- 4 : Temperature display / function display
- 5 : ON/OFF button
- 6 : SuperCool function, button lit = function switched ON
- 7 : Alarm OFF button

Operating and control elements



Functions at a glance

Temperature control:	Electronic
Settable temperature range:	35°F to 48°F (2°C to 9°C)
Temperature display:	Actual value, digital
Temperature alarm:	No
Door alarm:	<i>Audible</i>
Fan:	Yes
Defrosting:	Automatic
Interior light:	Yes
SuperCool:	Automatic, 35°F (2°C) for 12 hrs.

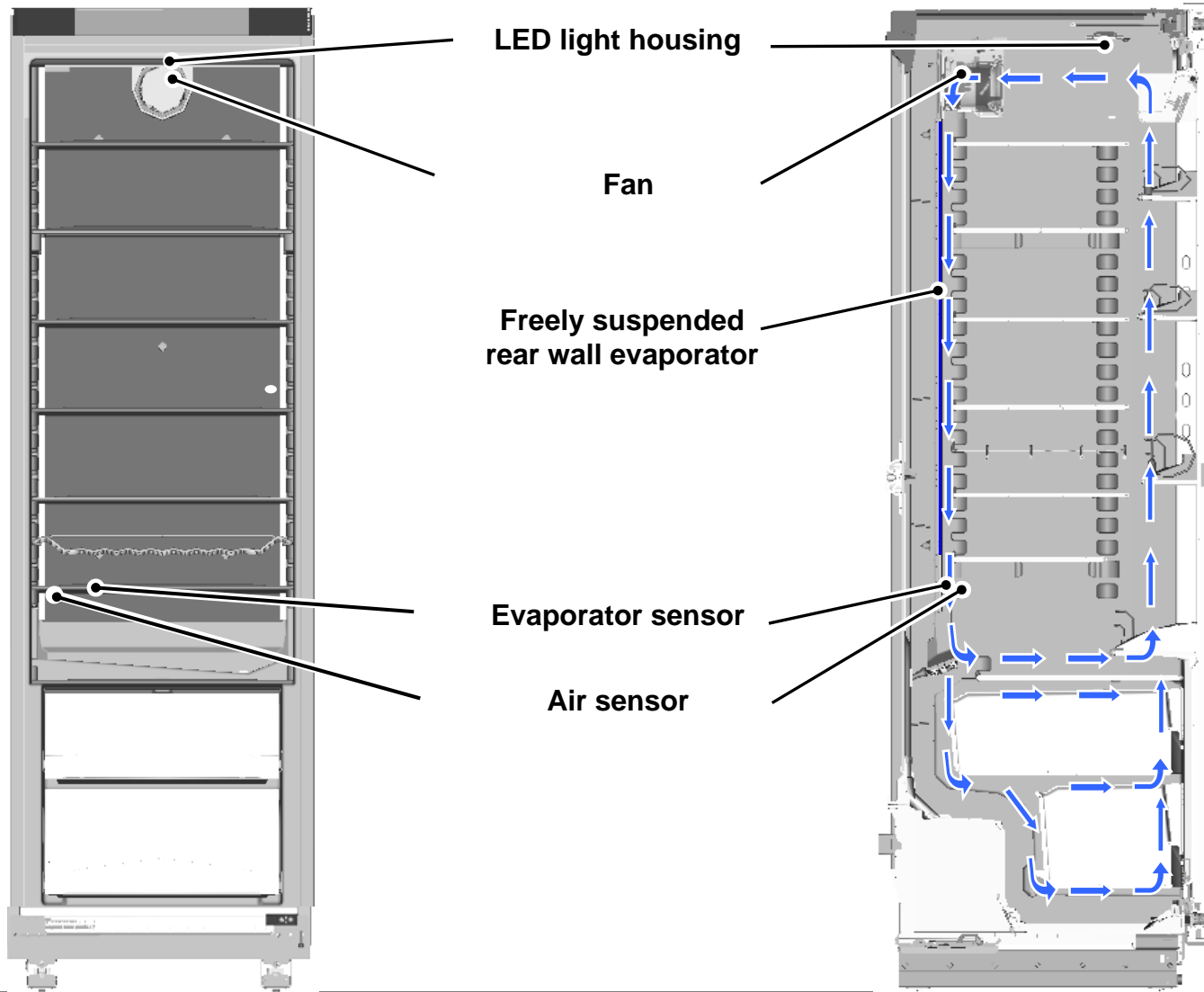
Design

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Schematic representation of the appliance



Control

Air sensor



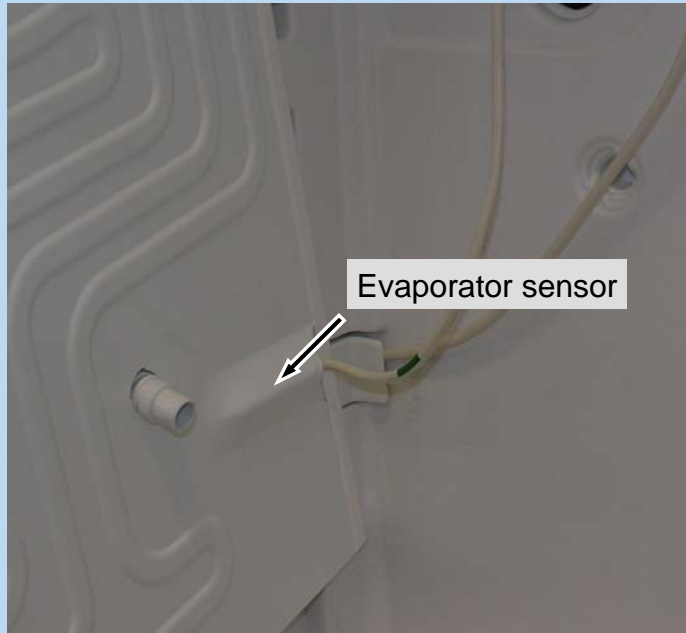
Position:

On the left-hand side, at the level of the lowest support rib

Depending on this sensor

- the compressor switches OFF
- the refrigerator compartment temperature display value is generated

Evaporator sensor



Position:

In the sensor pocket on the rear of the evaporator, at the level of the air sensor.

Depending on this sensor

- the compressor switches ON
- the defrosting phase is ended

Fan



Position:

Beneath the ceiling of the appliance.

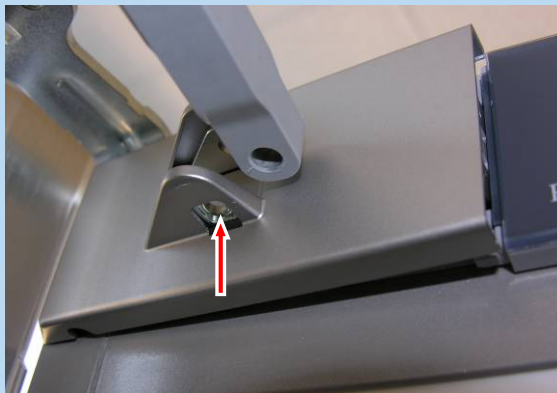
Fan ON when

- during start-up, from +59°F (+15°C) at the evaporator sensor and
- ventilation function ON and
- compressor ON and
- refrigerator compartment door is closed

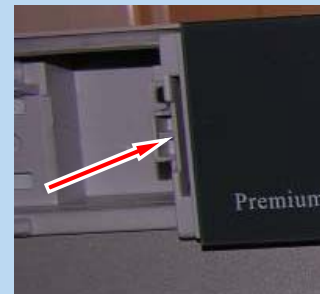
Replacement of parts

Removal of control panel

Remove covers



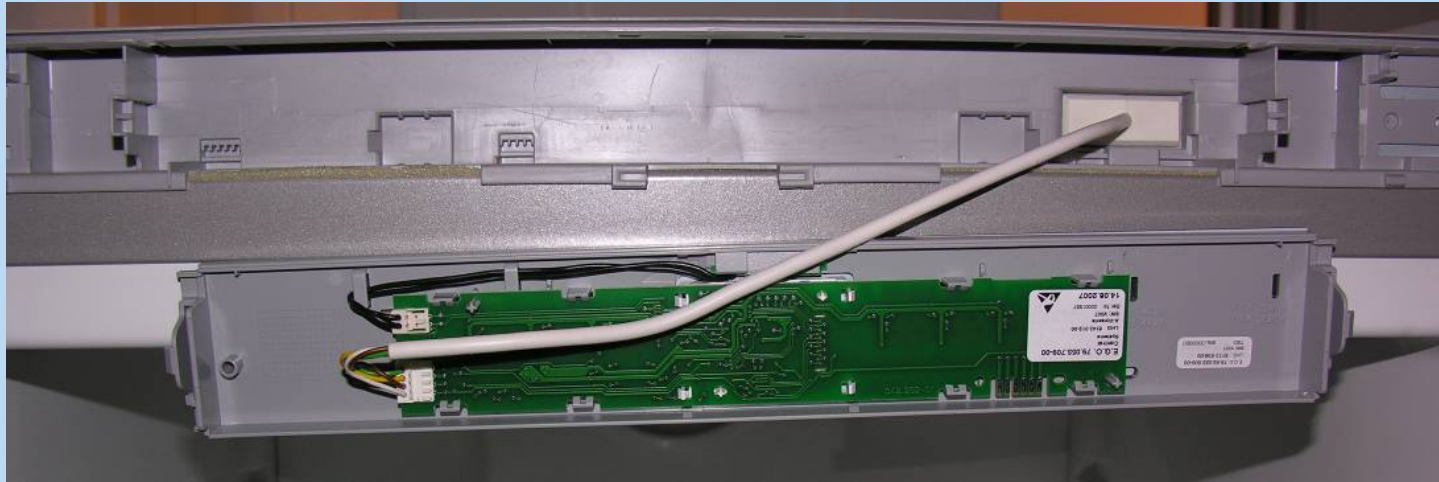
Unlock front casing



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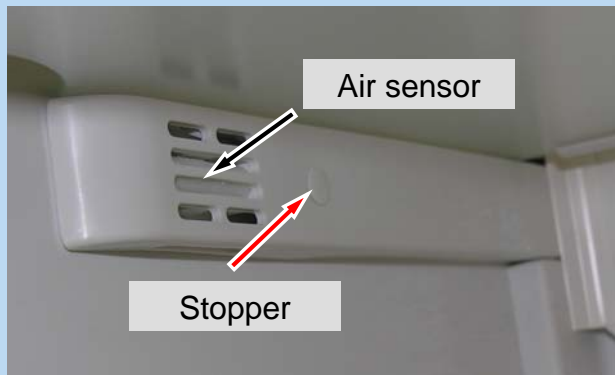
Removal of control panel

Disconnect and detach bus connector.



Note: Front panel is only replaceable as a complete unit, PCB is not separately available!

Air sensor

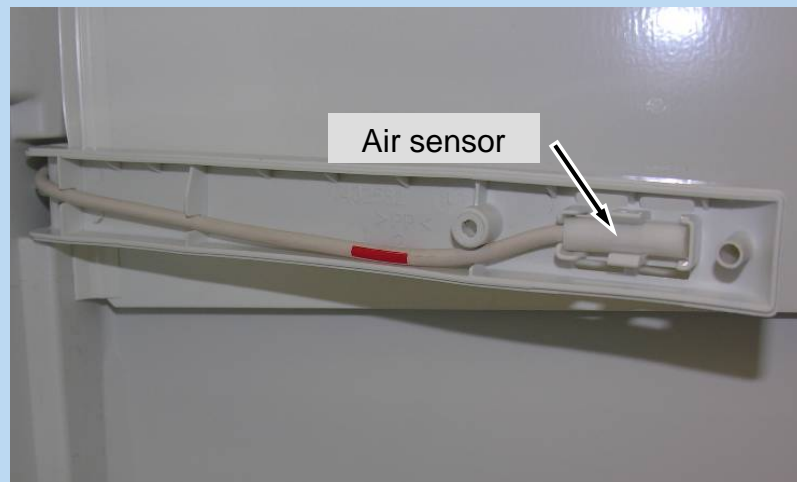


Procedure

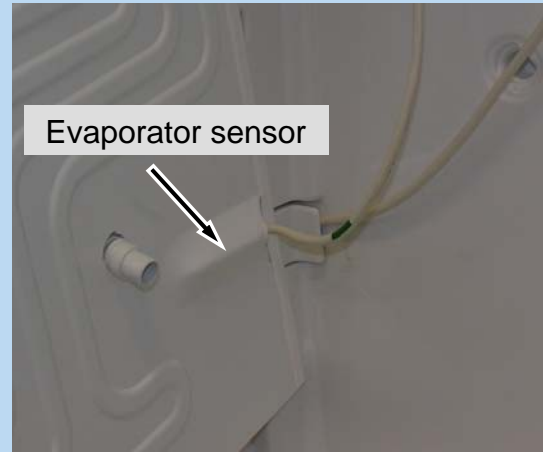
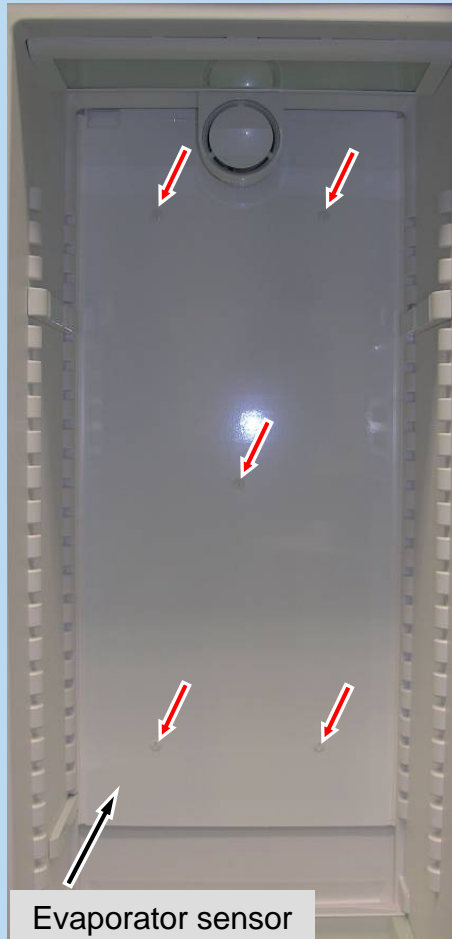
- Remove stopper
- Undo screw
- Disengage air sensor

Information on repair kit!

Sensor is cut off and repaired using the repair kit (with repair instructions).



Evaporator sensor



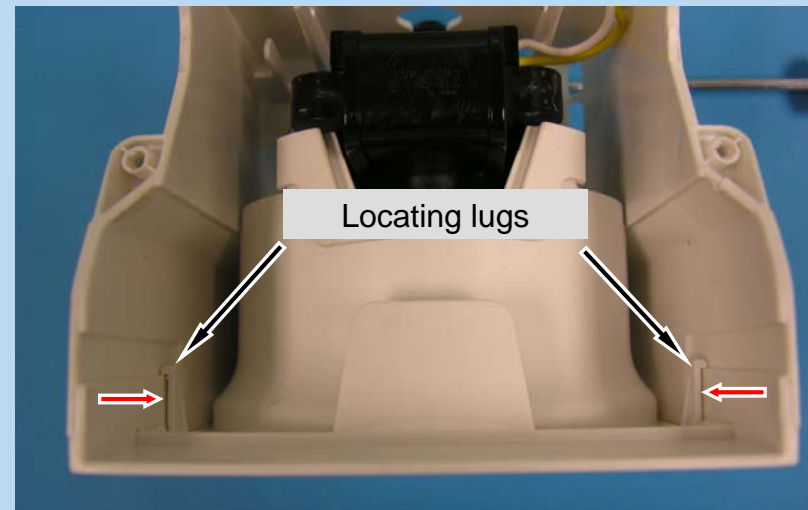
Information on repair kit!

Sensor is cut off and repaired using the repair kit (with repair instructions).

Procedure

- Detach fan.
- Undo screws holding the evaporator
- Pull the evaporator down and fold it to the left
- Pull evaporator sensor out of sensor pocket

Fan



Procedure

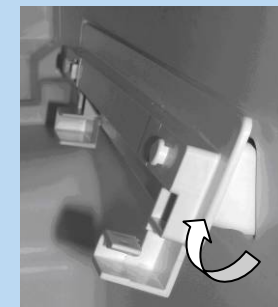
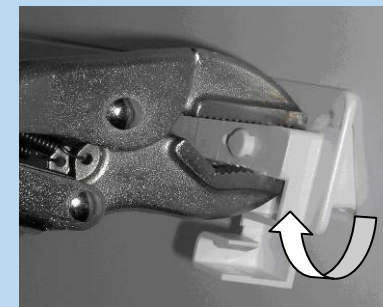
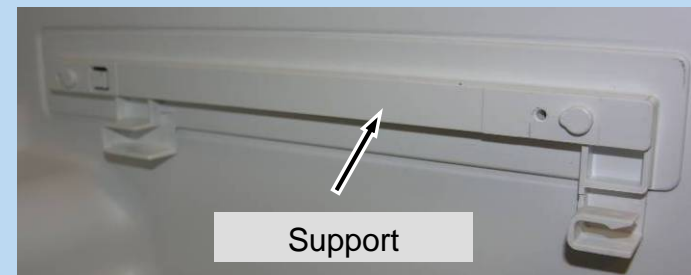
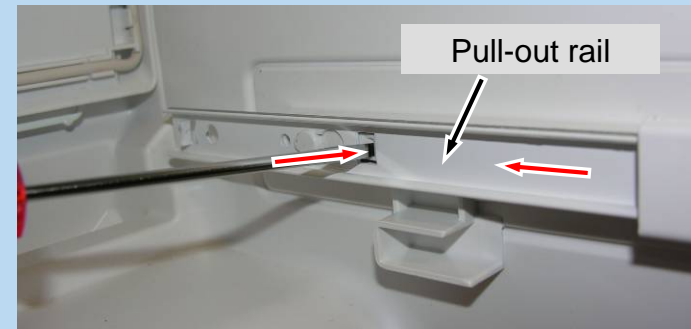
- Remove marked screws
- Disconnect fan
- Disengage locating lugs of fan cover and draw cover forwards for removal

Pull-out rails

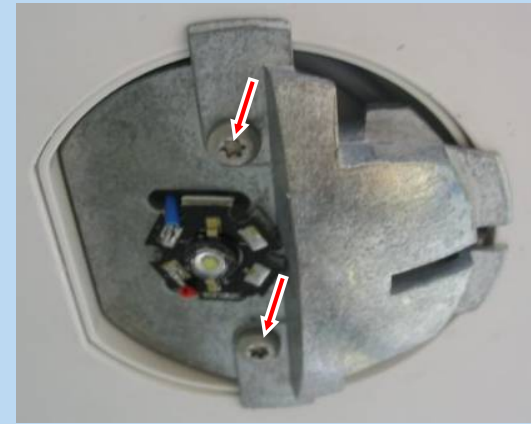


Disassembling the pull-out rail

- Undo the screw at the front, is only screw-fitted at the front
- Depress the lock and press the pull-out rail to the rear
- Support is exchangeable

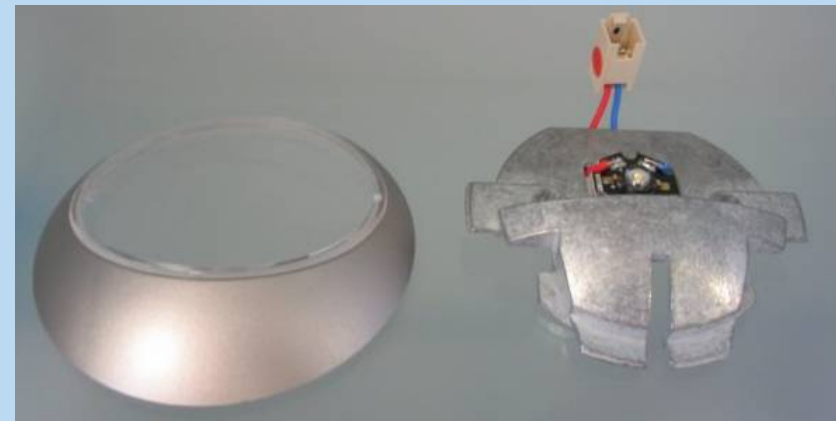


LED interior light



Procedure

- Press housing forwards
- Undo Torx screws
- Disconnect LED lighting unit



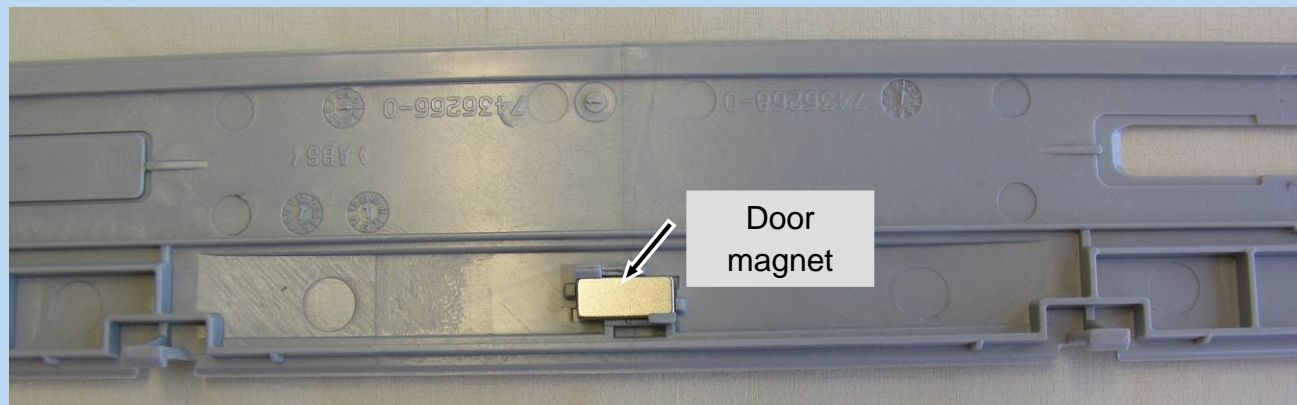
Door contact, magnet

Procedure

Disengage panel.



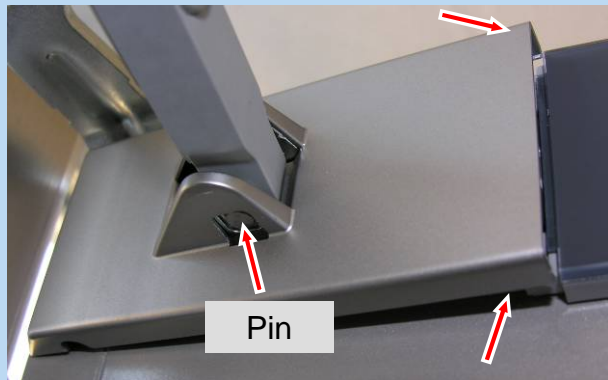
Magnet is inserted in the rear of the door panel.



Top soft stop mechanism

Procedure

Raise the panel on the right so far that the pin can be pressed up and out.



Disengage the top faceplate of the door.



Top soft stop mechanism

Procedure

Undo the screws of the soft stop unit.



RI appliances only: Soft stop unit is screwed into place together with holder.

In the case of R appliances, the soft stop unit is screwed direct, without holder.



Bottom soft stop mechanism

Procedure

- Lever the righthand side of the cover off the turn hinge in a forward direction.
- Remove hinge pin.



Disengage the top faceplate of the door.



Bottom soft stop mechanism

Procedure

Undo the screws of the soft stop unit.



RI appliances only: Soft stop unit is screwed into place together with holder

In the case of R appliances, the soft stop unit is screwed direct, without holder.



Top/bottom soft stop mechanism

Procedure

Safety device for soft stop unit.



ATTENTION

Fit safety device for soft stop unit!

Risk of crushing in the marked area.

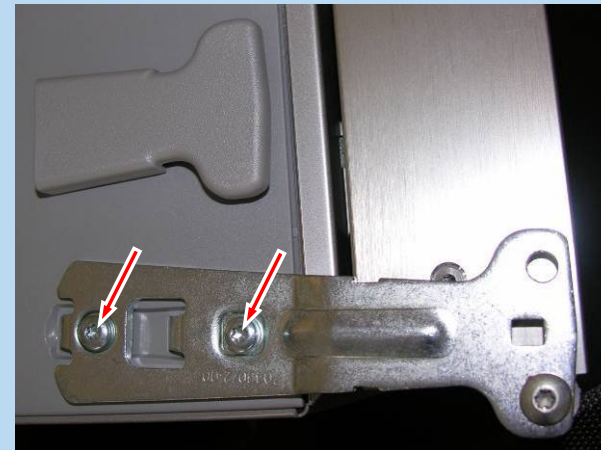
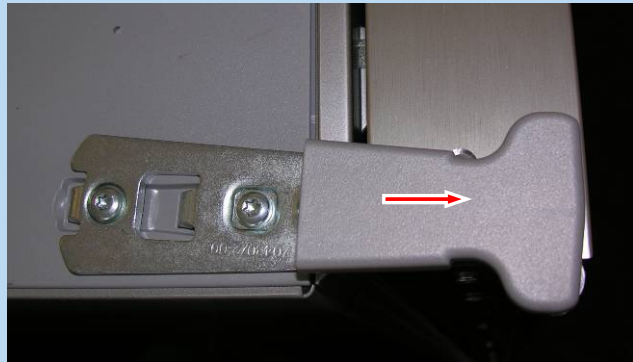
Soft stop unit with fitted safety device.



RI: Top door hinge

Procedure

Push off the cover of the turn hinge forwards.



For changing over the door hinges, transfer the



R: Top door hinge

Detach the cover in a forward direction and undo the marked screws.



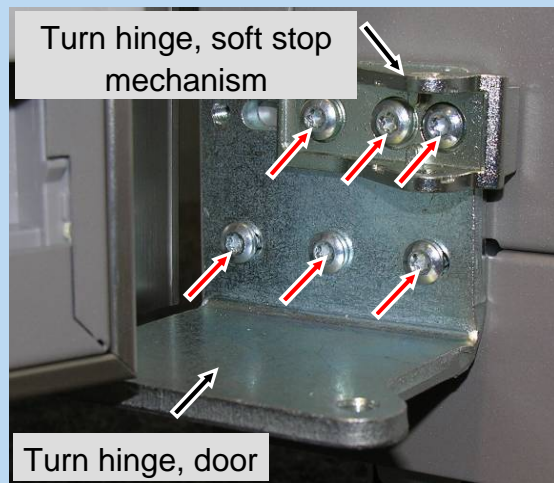
For changing over the door hinges, transfer the cover.



Bottom door hinge

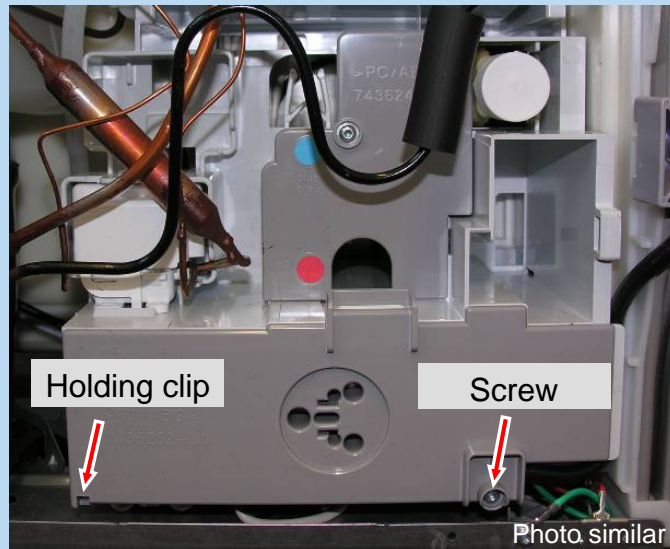
Procedure

Remove marked screws.



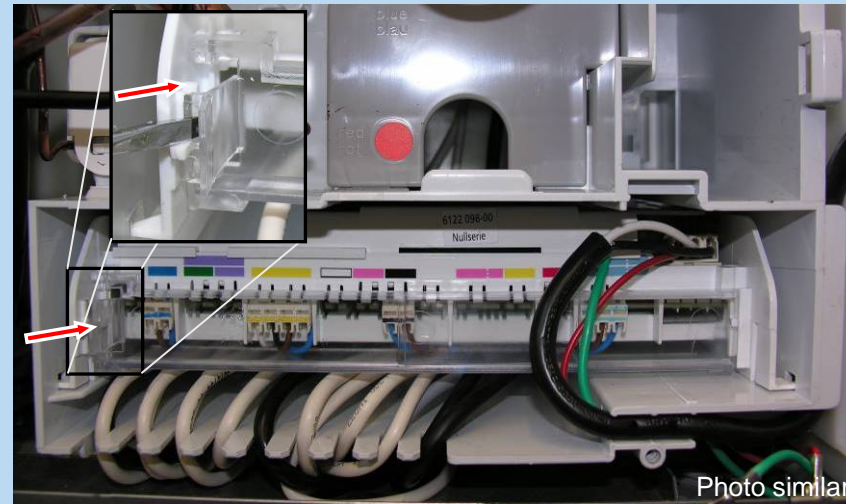
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Electronic power module



Remove cover

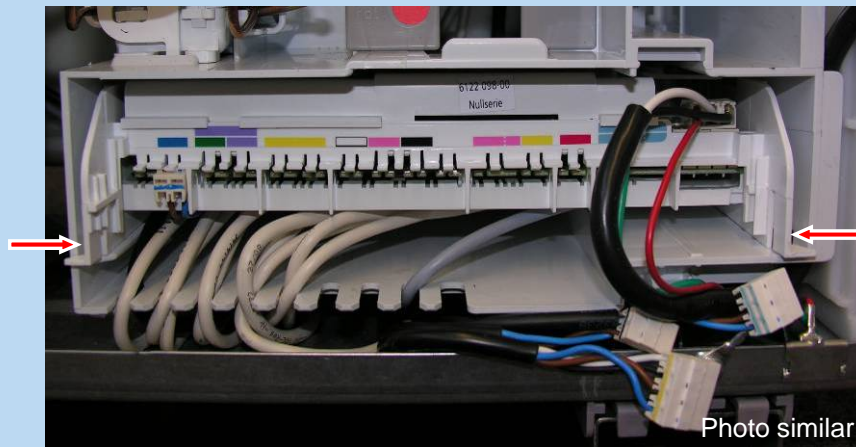
- Disengage marked retaining clips
- First draw the cover out in a downward direction and then lift it for removal



Cable clip

Disengage the cable clip at the marked location.

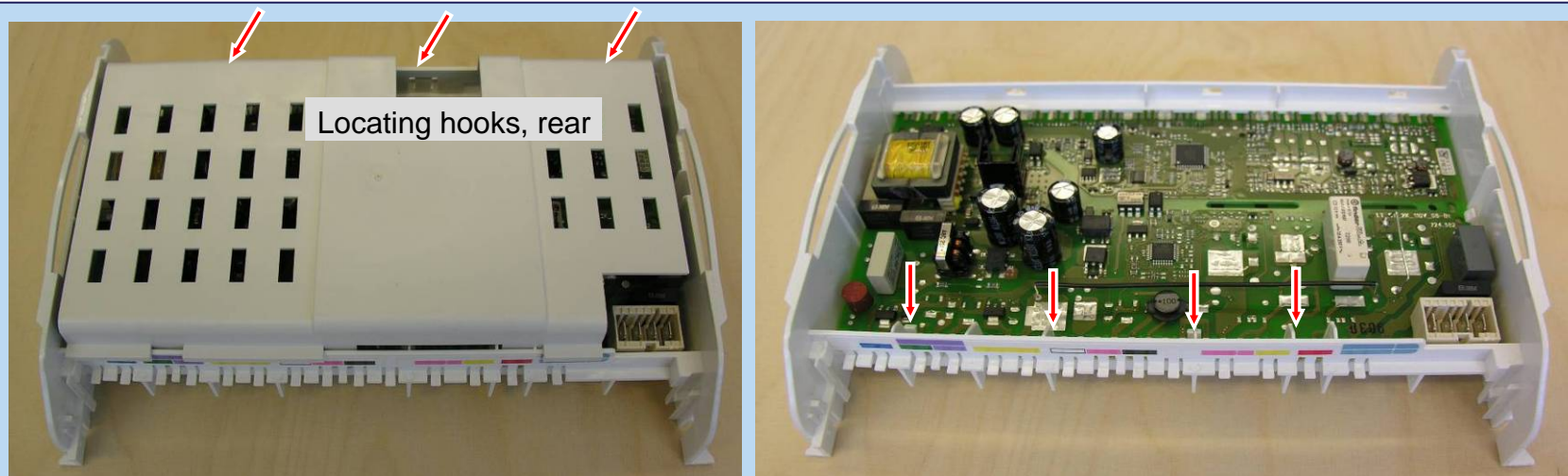
Electronic power module



To pull out slide-in unit

- Detach front PCB edge connector
- Release strain relief (screw) of the supply cable
- Disengage the plug-in unit at the marked locations and pull it forwards for removal
- Pull off rear PCB connector

Electronic power module



PCB

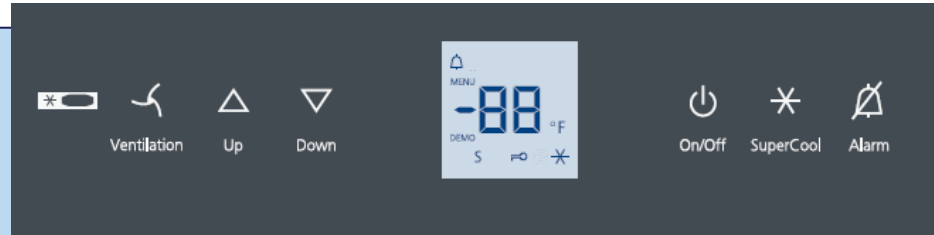
- Disengage upper part of plug-in module at the marked locating hooks and remove it
- Disengage PCB at the marked locations

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Hidden functions

Service menu

Start and selection, functions



The service menu comprises functions and testing options for the service technicians as well as activation/deactivation of a demo mode.

Start of service menu: Press "**ON/OFF**" + "**Up**" simultaneously for about 5 seconds
(Can be called only with freezer compartment buttons)

Display: **MENU** flashes

- | | | | |
|-------------------|-----------|------------------------------|---|
| Functions: | d | demo mode | : Appliance is switched ON, without refrigeration |
| | P | Panel test | : Test of display and control elements |
| | E- | Sensor test | : Request current sensor values |
| | L | Customer service mode | : Test electric loads |









Service menu overview

Service menu	Display level 1	Operation	Display level 2	Operation	Display level 3
Demo mode	Up or Down button	d	dd d1	Press SuperCool button	--
Panel test		p	P1	Press SuperCool button	Press buttons, door closed/open
Sensor test		E-	E8	Press SuperCool button	81 : Refrigerator compartment air sensor 82 : Refrigerator compartment evaporator sensor 8A : Refrigerator compartment door contact
Service mode		8	88	Press SuperCool button	80 : All OFF 81 : Compressor ON, low speed 82 : Compressor ON, high speed 85 : Light ON 87 : Fan ON

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Service menu









Demo mode

Step	Display	Operation	Display following operation	Testing option / Info
Start service menu -- Demo mode ON --				
1	Actual value	Press "Up" and "ON/OFF" simultaneously for 5 seconds	 flashes	Service menu active, Demo mode selected
3	 flashes	Press SuperCool button	 static	Demo mode ON selected
4	 static	Press SuperCool button	Set value and " Demo "	Demo mode ON
Start service menu -- Demo mode OFF--				
1	Actual value and " Demo "	Press "Up" and "ON/OFF" simultaneously for 5 seconds	 flashes, " Demo "	Service menu active
2	 flashes, " Demo "	Press SuperCool button	 static, " Demo "	Demo mode OFF selected
3	 static, " Demo "	Press SuperCool button	Actual value	Demo mode OFF
<p>The text "Demo" in the display informs of the activated demo mode. Demo mode can be deactivated only via service menu, not by OFF/ON or disconnection from the supply. Operation is switched to the mode wanted, demo mode or normal mode, as soon as "SuperCool" has been pressed.</p>				

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Service menu

Panel test

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Press "Up" and "ON/OFF" simultaneously for 5 seconds	 flashes	Service menu active
Panel test --test of sensor buttons, display elements, door sensor and beep--				
2	 flashes	Press Up button once	 flashes	Panel test selected
3	 flashes	Press SuperCool button	  static	Panel test activated
4	  static	Press SuperCool button	All symbols/segments	Display elements/ more symbols are displayed than the respective electronic unit uses.
5	All symbols/segments	Door open/closed and press all buttons one after the other (each button is confirmed by beep)	- 2-second beep - Appliance switches OFF	After the last button has been actuated, there is a two-second beep, provided the test was successful.
End	Panel test cannot be ended in step 2, for example; it has to be performed in full. Should a button/reed contact be defective, no beep sounds for confirmation and the appliance does not switch OFF. The appliance then has to be unplugged and plugged back in again.			

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
Service menu, sensor test **E-** refrigerator compartment **E8**

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Press "Up" and "ON/OFF" simultaneously for 5 seconds	d flashes	Service menu active
Sensor test mode and door contact test (sensor values without offset, appliance in control mode)				
2	d flashes	Press Up button twice	E- flashes	Sensor test mode selected
3	E- flashes	Press SuperCool button	E8 static	Sensor test mode activated
6 → 4	E8 static	Press SuperCool button	88 flashes alternately with sensor temperature	Air sensor
5	88 flashes alternately with sensor temperature	Press Up button	82 flashes alternately with sensor temperature	Evaporator sensor
4 ← 6	82 flashes alternately with sensor temperature	Press Up button	8A flashes alternately with oP or cL	refrigerator compartment door contact (oP = door open cL = door closed)
End	Press "ON/OFF" once: return to level 2.: E8 No further items selectable with this appliance Press "ON/OFF" twice: return to level 1.: E- Items: H , d , P , E- , L selectable Press "ON/OFF" three times: Return to normal/control mode			

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Service menu, service mode

refrigerator compartment

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Press "Up" and "ON/OFF" simultaneously for 5 seconds	 flashes	Service menu active
Service mode -- testing electric loads --				
2	 flashes	Press "Up" button three times	 flashes	Service mode selected
3	 flashes	Press SuperCool button	 static	Service mode activated
8 → 4	 static	Press SuperCool button	 static	All OFF
5	 static	Press Up button	 static	Compressor ON, low speed
6	 static	Press Up button	 static	Compressor ON, high speed
7	 static	Press Up button	 static	Light ON
4 ← 8	 static	Press Up button	 static	Fan ON
End	Press " ON/OFF " once: return to level 2.:  No further items selectable with this appliance Press " ON/OFF " twice: Return to normal/control mode			

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Error code

Error code	Defective component	Emergency mode
F1	Refrigerator compartment air sensor	Compressor 10 min. ON, 40 min. OFF
F2	Refrigerator compartment evaporator sensor	Compressor 10 min. ON, 40 min. OFF