

## Appliance Documentation

### **IKS ..10, ..20 / IK ..00 / EK ..10**

from Index 20

### **IKS ..14, ..24 / IK ..04 / EK ..14**

from Index 20, with 4-star freezer compartment

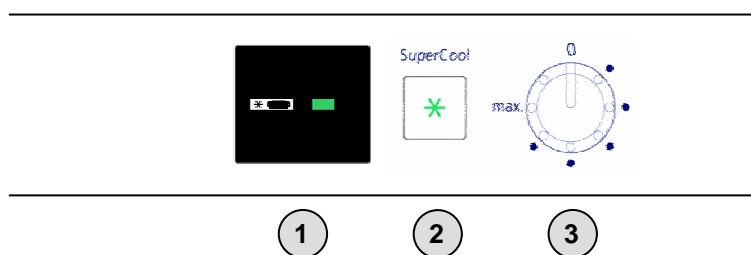
Refrigerator for integrated use/built-in refrigerator with series 1  
electronic control system  
(S = door slider)



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## 1.0 Operating and control elements



### Refrigerator compartment

- 1 : Status display
- 2 : SuperCool function, button lit = function switched on.
- 3 : Control button

## 2.0 Functions at a glance

|                              |  |
|------------------------------|--|
| <b>Control:</b>              | Electronic control system  |
| <b>Temperature display:</b>  | No   |
| <b>Temperature alarm:</b>    | No   |
| <b>Door alarm:</b>           | No   |
| <b>Defrosting:</b>           | Refrigerator compartment: automatic<br>Freezer compartment: manual |
| <b>Interior light:</b>       | Yes  |
| <b>SuperCool:</b>            | Automatic (+1°C / 6 hrs.)  |
| <b>Service menu:</b>         | Start by button combination  |
| <b>Refrigerating system:</b> | 1 compressor   |

### 3.0 Description of the appliance

The appliances are switched on by the control button; this is indicated by a green status display LED. The temperature is set between 0 and max. by the control button. The temperature is controlled by an evaporator sensor.

The **IK(S) / EK ...0** are refrigerators for integrated use with a **freely suspended** rear wall evaporator.

The **IK(S) / EK ...4** are refrigerators for integrated use with a **foamed-in** rear wall evaporator and a 4-star freezer compartment.

Appliance designation:

- IKS** : Refrigerator for integrated use with door slider assembly
- IK** : Refrigerator for integrated use with door-on-door system
- EK** : Built-in refrigerator with decor frame

#### 3.1 Schematic diagram IK(S)/EK ...0, without 4-star freezer compartment

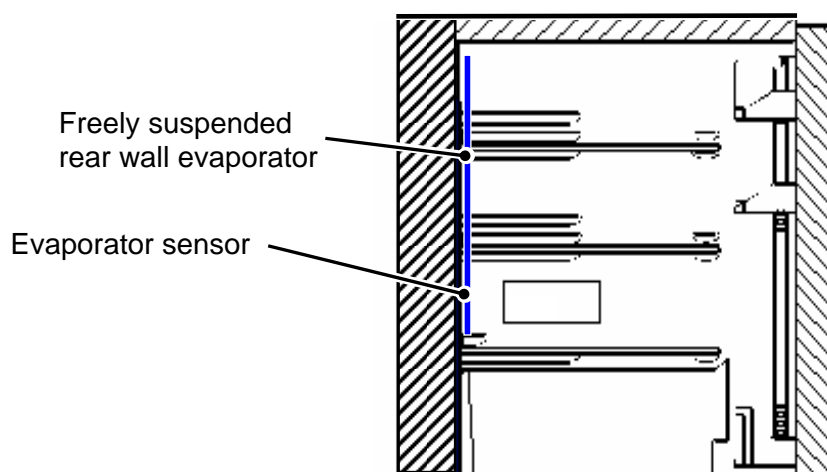


Fig. 3.1

#### 3.2 Schematic diagram IK(S)/EK ...4, with 4-star freezer compartment

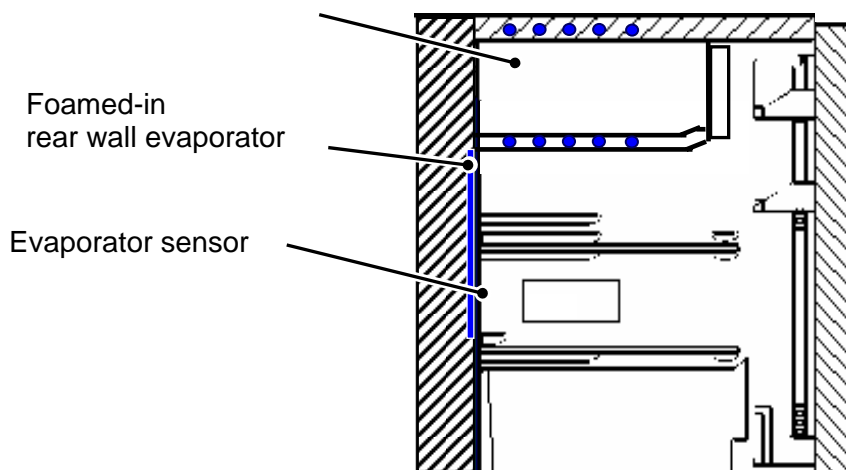


Fig. 3.2

## 4.0 Control and functional components

### 4.1 Refrigerator compartment

|                                |   |  |
|--------------------------------|---|--|
| <b>Electr. control system:</b> | Series 1 electronic control system: integral PCB.   |  |
| <b>Setting range:</b>          | 1st point:<br>max.:   | warmest temperature<br>coldest temperature   |
| <b>Display range:</b>          | No display  |  |
| <b>Door alarm:</b>             | No  |  |
| <b>Interior light:</b>         | Position:   | Inside right.  |
|                                | Function:   | - Is switched on as soon as refrigerator compartment door is opened.<br>- Is switched off after door has been open for 15 minutes.   |
| <b>Reed PCB:</b>               | Position:   | In front panel.  |
|                                | Function:   | Switches the interior light on when the door is opened.  |
| <b>Evaporator sensor:</b>      | Position:   | <b>In IK(S)/EK ...0:</b> In the sensor pocket on the rear of the evaporator.<br><b>In IK(S)/EK ...4:</b> In sensor holder on compartment liner rear wall.  |
|                                | Function:   | Switches the compressor on/off.  |
| <b>SuperCool:</b>              | With SuperCool the appliance switches to the coldest control setting for 6 hours.<br><b>In IK(S)/EK ...4:</b> The freezer compartment becomes correspondingly colder. |  |
| <b>Defrosting:</b>             | Automatic during standstill phase of the compressor.  |  |
| <b>Compressor:</b>             | Function:   | <b>ON:</b> - refrigerator compartm. evaporator sensor switch-on value<br>Note: On-delay time (8 mins.) must have elapsed.<br><b>OFF:</b> - refrigerator compartm. evaporator sensor switch-off value |

### 4.2 Freezer compartment

|                                |   |  |
|--------------------------------|---|--|
| <b>Electr. control system:</b> | See 4.1 Refrigerator compartment.             |  |
| <b>Setting range:</b>          | Dependent on refrigerator compartment setting |  |
| <b>Display range:</b>          | No display                                    |  |
| <b>Defrosting:</b>             | Manual.                                       |  |
| <b>Compressor:</b>             | See 4.1 Refrigerator compartment -compressor- |  |

## 5.0 Refrigeration circuit

|  |  |
|--|--|
| <b>Evaporator:</b>                         | IK(S)/EK ...0: Freely suspended evaporator.  |
|  | IK(S)/EK ...4: Foamed-in rear wall evaporator + foamed-in wound around freezer compartment evaporator.   |
| <b>Injection point/<br/>flow sequence:</b> | IK(S)/EK ...0: Introduction of refrigerant in refrigerator compartment evaporator top left.  |
|  | IK(S)/EK ...4: Introduction of refrigerant in freezer compartment evaporator 1st winding at the front, then transition to the refrigerator compartment evaporator.<br>Entry into refrigerator compartment evaporator: top right.<br>Exit from refrigerator compartment evaporator into the suction line: top left. |
| <b>Compressor:</b>                         | 1 standard compressor.<br>On-delay time of 8 mins.   |

## 6.0 Assembly instructions

### 6.1 Evaporator sensor

#### 6.1.1 Appliances without 4-star freezer compartment

- Evaporator sensor:**
- Remove glass shelves and glass shelf supports.
  - Undo screws of the evaporator suspension (see Fig. 6.1.1/ 1)
  - Swing evaporator to the left.
  - Pull off the strip about 20 cm, starting from the bottom (see Fig. 6.1.1/ 2).
  - Pull evaporator sensor out of sensor pocket.

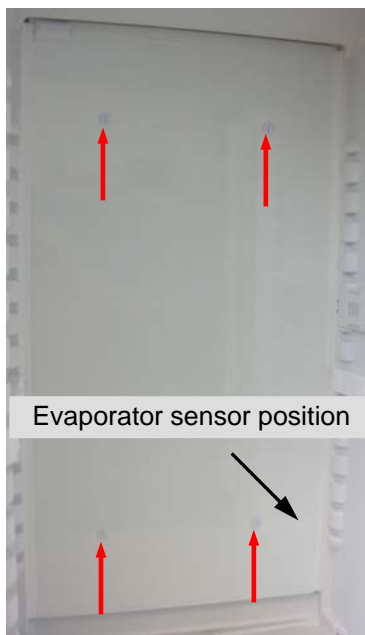


Fig. 6.1.1/ 1

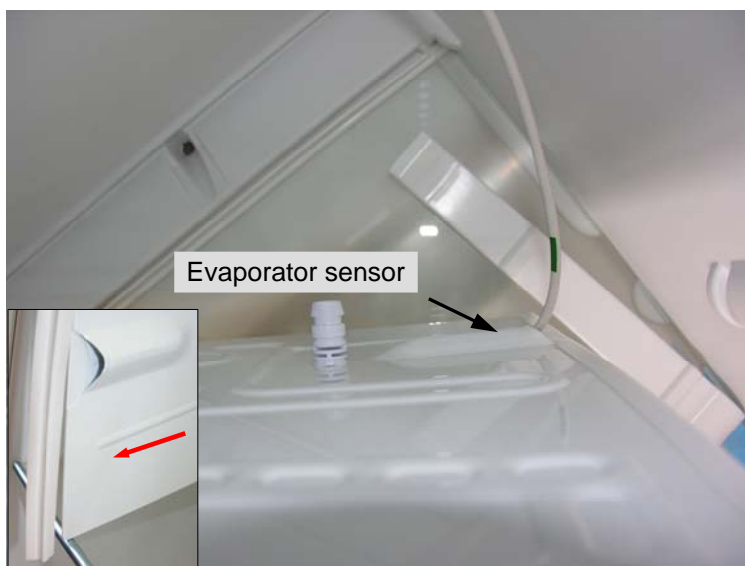


Fig. 6.1.1/ 2 View from the top behind the evaporator

#### 6.1.2 Appliances with 4-star freezer compartment

- Evaporator sensor:**
- Unclip evaporator sensor cover at the marked point and remove it.
  - Undo screw of the evaporator sensor fastening (see Fig. 6.1.2/ 2)
  - Unclip evaporator sensor from the fastening plate.



Fig. 6.1.2/ 1 Cover

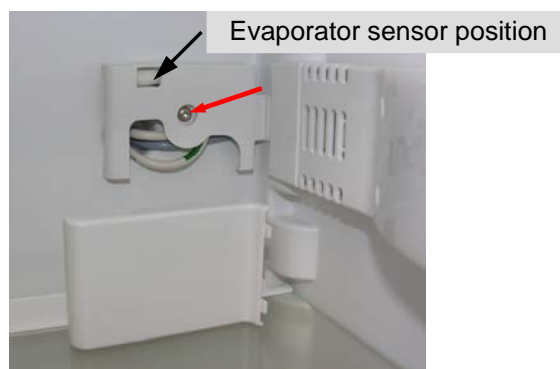


Fig. 6.1.2/ 2 Position

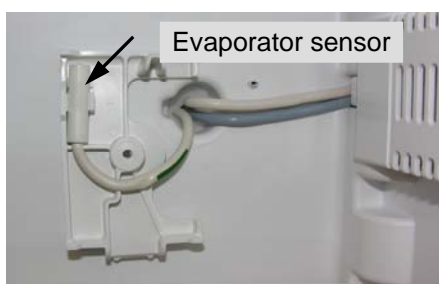


Fig. 6.1.2/ 3 Evaporator sensor holder

## 6.2 Interior light

- Pull off light cover.
- Unscrew marked screws on the light housing.

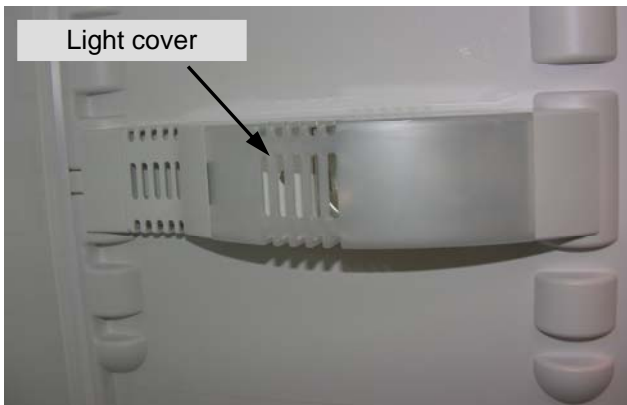


Fig. 6.2/ 1

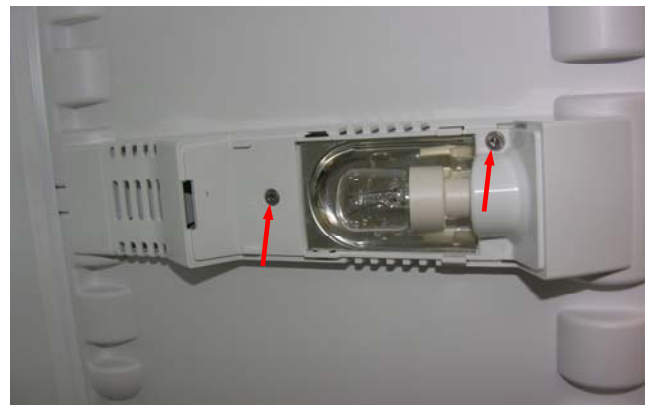


Fig. 6.2/ 2



### 6.3 Integral PCB

**Covers:** Disengage covers at the marked points.

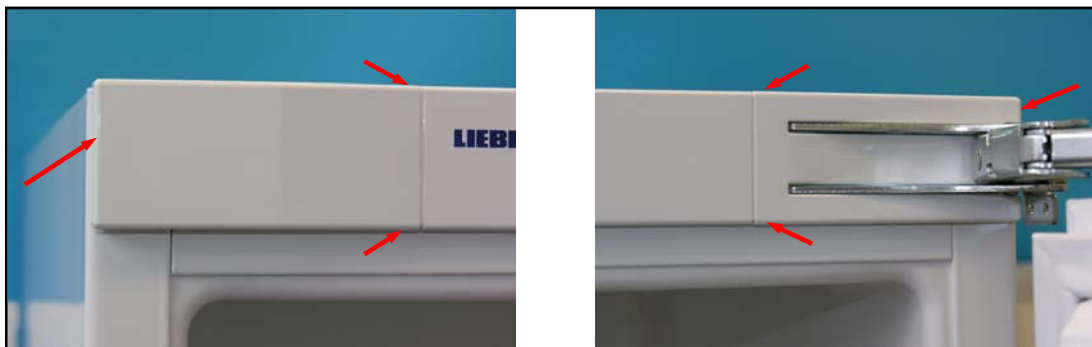


Fig. 6.3/ 1

**Front panel:** Unlock locating lugs at the left and right of the front casing.



Fig. 6.3/ 2

**PCB carrier:**

- Draw out front casing in a forward direction and uncover the cables.
- Unlock PCB at the marked locations and remove.

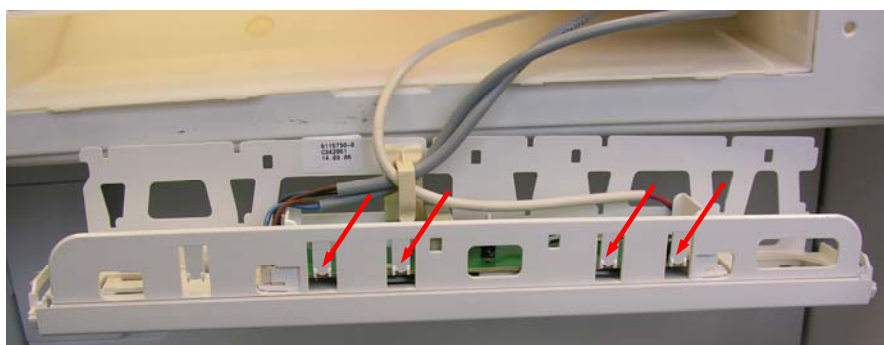


Fig. 6.3/ 3

## 6.4 Door magnet

**Magnet holder:** Press marked locating lugs together and detach magnet holder upwardly.

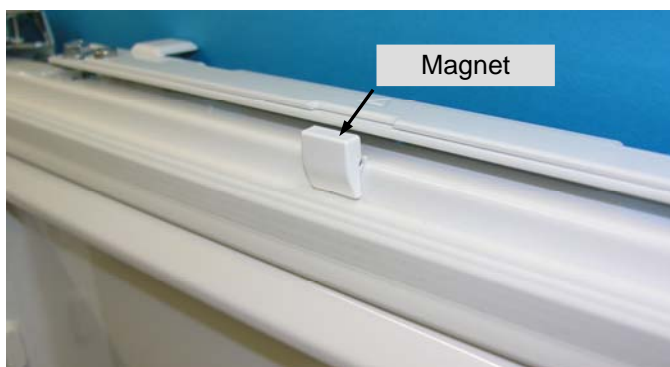


Fig. 6.4/ 1



Fig. 6.4/ 2

## 6.5 Support rails for sectioned glass shelves

**Rails:** These plastic rails support the sectioned glass shelves. The marking **R** for right and **L** for left is impressed inside. The toothed profile has to rest against the underside of the supporting ribs of the compartment liner.

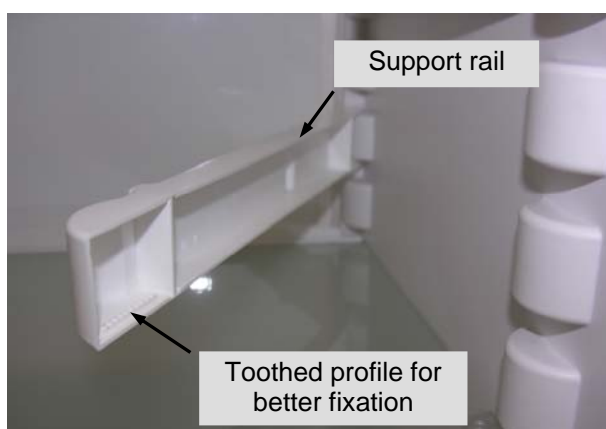


Fig. 6.5/ 1



Fig. 6.5/ 2

## 7.0 Technical data

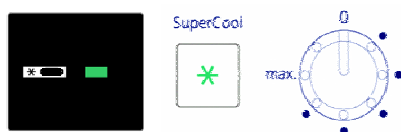
**Interior light:** Wattage: 25 watts  
Voltage: 230 volts

**Sensor values:** Evaporator sensor

| Temperature °C | Resistance value kOhm |
|----------------|-----------------------|
| +35            | 3.1                   |
| +30            | 3.8                   |
| +25            | 4.7                   |
| +20            | 5.9                   |
| +15            | 7.3                   |
| +10            | 9.3                   |
| +5             | 11.9                  |
| 0              | 15.3                  |
| -5             | 19.8                  |
| -10            | 25.9                  |
| -15            | 34.1                  |
| -20            | 45.3                  |
| -25            | 60.8                  |
| -30            | 82.3                  |
| -35            | 112.8                 |

## 8.0 Service menu

The service menu may be used only by customer service technicians.



### **Start the service menu:**

Keep SuperCool depressed and turn the control button to the right until SuperCool LED flashes.

**Menu options:** (Are displayed by flashing of the status LED + SuperCool LED)

The menu items are stepped through by turning the control button to the right.

- 1 flash : No function.
- **2 flashes** : **Demo mode**
- **3 flashes** : **Service mode**
- 4 flashes : No function.
- 5 flashes : No function.

Menu items are called by pressing the SuperCool button.

### 8.1 Demo mode

- Keep SuperCool depressed and turn the control button to the right until SuperCool LED flashes.
- Now turn until the status LED repeatedly flashes twice.
- **2 flashes** = demo mode is deactivated.  
To activate the demo mode, press SuperCool button.
- **2 fast flashes** = demo mode is activated.  
To deactivate the demo mode, press SuperCool button.
- If no change is wanted, do not press SuperCool, but set the control button to "0".
- When the demo mode is active, the compressor is not addressed.

**Attention:** The demo mode **cannot** be deactivated by power OFF/ON. This is possible only via the service menu.

### 8.2 Service mode

- Keep SuperCool depressed and turn the control button to the right until SuperCool LED flashes.
- Now turn until the status LED repeatedly flashes three times.
- Actuate SuperCool button, service mode is active.
- Carry out operating panel test (here the SuperCool button, the control button and the reed switch are tested, in addition all LEDs must have lit at least once).
- Open and close refrigerator compartment door. LEDs light up alternately.
- Turn control button from "0" to "max". LEDs light up alternately.
- Actuate SuperCool button. LEDs light up alternately.
- After the SuperCool button has been pressed, operation is switched to the load steps, indicated by the status LED and SuperCool LED flashing alternately. All the loads can be individually addressed with the SuperCool button.

#### **Status LED alternately with SuperCool-LED**

- **1 flash:** No load addressed
- **3 flashes:** Compressor ON
- **6 flashes:** Light ON
- **End: Turn control button to "0"**

## 9.0 Table of error codes

| Error code  | Defective component                                   | Emergency operation     |
|---|---|-------------------------|
| <b>SuperCool</b> LED flashes<br>+<br><b>Status</b> LED flashes<br>2 times | <b>Evaporator sensor for refrigerator compartment</b> | 10 min. ON, 40 min. OFF |