Appliance Documentation

GG 52..
G 5216

Freezer for commercial use

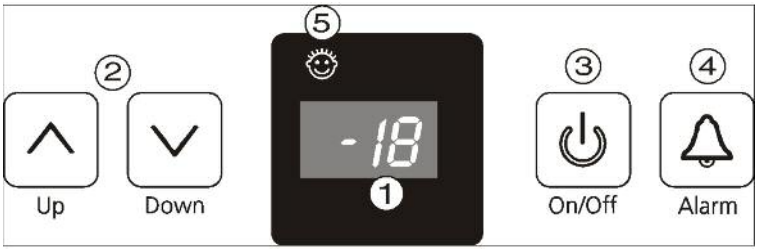
GG 5210

G 5216

Contents

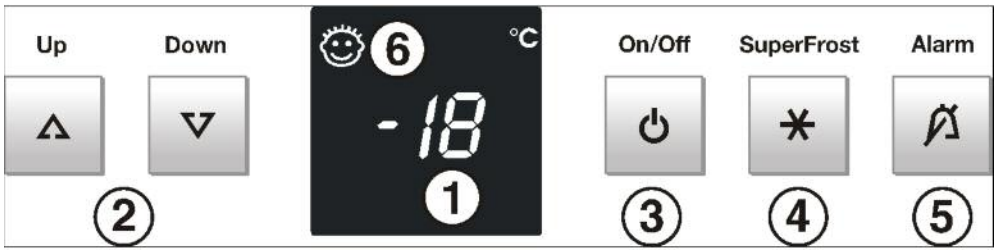
1.0 Operating and control elements

1.1 GG 52..



1 : Temperature display
2 : Temperature setting buttons
3 : On/Off button
4 : Alarm OFF button
5 : Display for activated child proofing

1.2 G 5216



1 : Temperature display
2 : Temperature setting buttons
3 : On/Off button
4 : SuperFrost button, button lit = function switched on
5 : Alarm OFF button
6 : Display for activated child proofing

2.0 Functions at a glance

Control:	Electronic control system
Temperature display:	Actual value
Temperature range:	-14°C to -28°C
Temperature alarm:	Visual and audible
Door alarm:	Audible
Fan:	Not present
Defrosting:	Manual
Interior light:	Not present
Service menu:	Present
Compressor:	Standard
Solenoid valve-refrigeration circuit:	Not present

3.0 Description of the appliance

The GG 52.. and G 5216 models are statically cooled freezers with wire-on-tube evaporator.

The temperature is controlled by an air sensor.

3.1 Sensor positions, schematic diagram

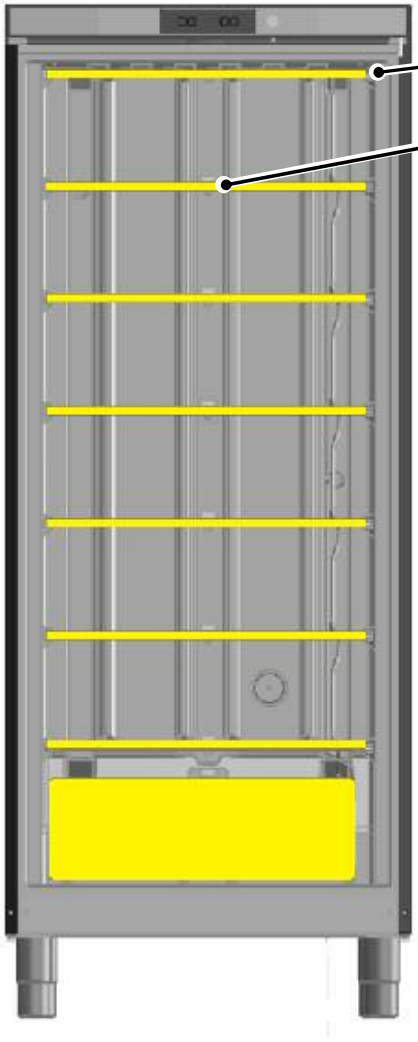


Fig. 3.1/ 1: GG 52..

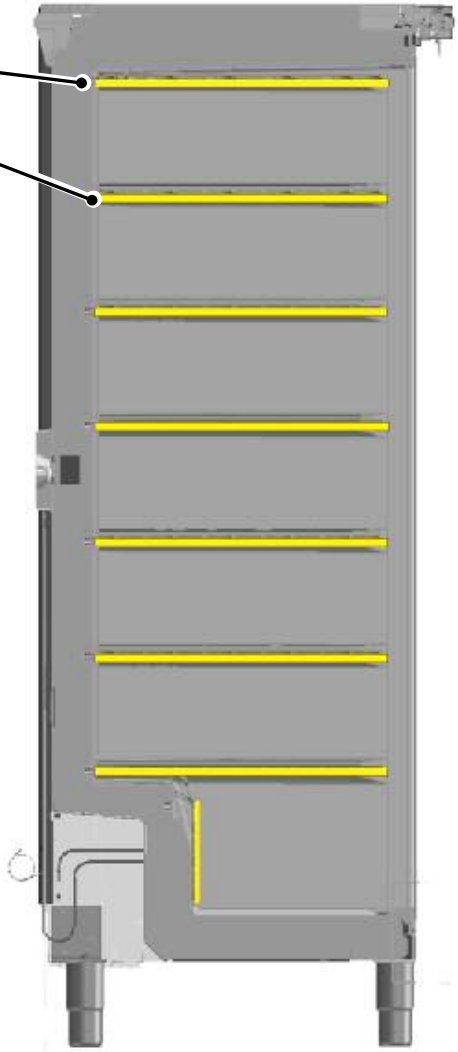


Fig. 3.1/ 2: GG 52..

4.0 Main components and their functions

4.1 Electrical components and functions

Electronic control system	
Type:	Series 6 electronic control system:
Components:	Integral PCB
Setting range:	-14°C to -28°C
Display range:	-50°C to -1°C
Functions	
SuperFrost: (only G 5216)	**Superfrost activated (quantity-controlled):** The appliance sets itself to a notional setpoint value (-39°, i.e. the compressor operates practically permanently) and switches off earlier (30 hours minimum) or later (65 hours maximum) depending on the amount of food placed inside. **SuperFrost deactivated:** The appliance sets itself to the set value.
Temperature alarm:	When: Set value: -14°C to -24°C Alarm value: 4K warmer than set value. Set value: -25°C to -28°C Alarm value: -20°C. SuperFrost alarm value: -20°C. Audible: 4 beeps (suppressed during initial operation). Visual: Flashing temperature display. Alarm is given with a 20-minute delay when the air sensor has reached the alarm va (e.g. set value: -18°C, actual value for 20 minutes at –14°C → alarm). During initial operation the temperature display flashes until the switch-off value is reached, the audible alarm is suppressed.
Door alarm:	When: Door open longer than 3 minutes. Audible: 3 beeps.
Child proofing: (only GG 52..)	The function is activated via the customer menu (see 7.1). When the child proofing is activated, the ON/OFF button and the temperature setting buttons are inactive. The remaining functions are available for unrestricted use.
Child proofing: (only G 5216)	The function is activated via the customer menu (see 8.1). When the child proofing is activated, the ON/OFF button is inactive. The remaining functions are available for unrestricted use.
Defrosting:	Manual
Sensor	
Air sensor:	Position: Clipped into place behind the 2nd evaporator stage. Function: Switches compressor ON and OFF.

Switch			
Door switch:	Position:	In front panel.	
	Type:	Reed PCB	
	Contact type:	Make contact	
	Function:	Activation via magnet on the door, magnet replaceable.	
		Switching signal when:	
		door closed:	door alarm OFF
		door open:	door alarm ON
Loads			
Heater for pressure compensating valve:	Position:	Wound around the valve.	
	Function:	Prevents the pressure compensating valve from freezing up - at index 20 permanently active - from index 20A parallel to the compressor	
	Note:	At G 5216 from index 20B or. 20F, at GG 5210 from index 20J or. 21A. at GG 5260 from Index 20I or. 21A a new pressure compensating valve (without electrical heater) is in use.	
Compressor:	Function:	**ON:** Air sensor switch-on value.	
		OFF: Air sensor switch-off value.	
		Special features:	On-delay time (8 mins.) must have elapsed.

4.2 Refrigeration components and functions

Compressor:	1 standard compressor.	
Evaporator:	Design:	Wire-on-tube evaporator.
	Type of installation:	Between the baskets/drawers
	Injection point:	Top
	Flow sequence :	From top to bottom.
Frame heater:	Position:	Foamed-in in the frame zone.
	Type:	Liquid heater
Condenser:	Design:	Lamellar condenser
	Type of installation:	Suspended freely at the rear

4.3 Other features

4.3.1 Door closing mechanisms

At an opening angle between 0 and 90°, the hinge bush slides over the oblique curve of the hinge bolt so that the door closes automatically. At an opening angle larger than 90°, the door stays open.

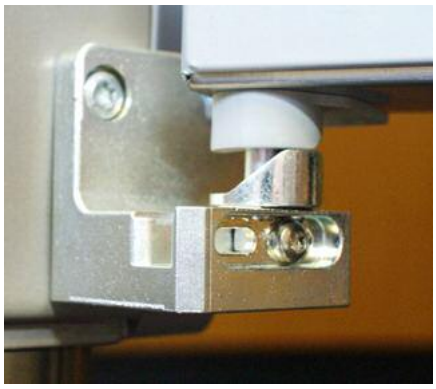


Fig. 4.3.1/ 1 Opening angle > 90°

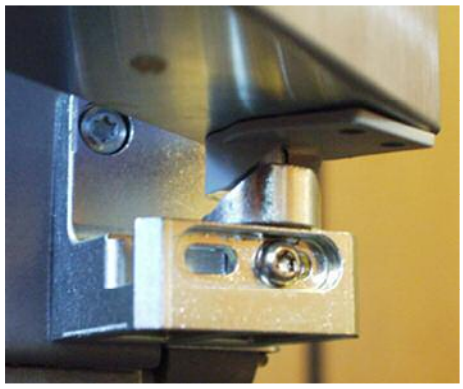


Fig. 4.3.1/ 2 Opening angle < 90°

Fig. 4.3.1/ 3 Opening angle = 0°

4.3.2 Pressure compensating valve

The pressure compensating valve is situated behind the second row of baskets from the bottom, in the rear wall

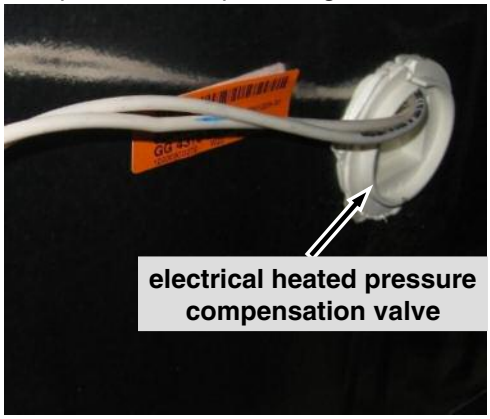


Fig. 4.3.2 / 1

Fig. 4.3.2 / 2

Since Sept. 2009 the new pressure compensation valve (without electrical heater) is in use (see chapter 4.1).

4.3.3 Adjustable feet only GG 52..

The adjustable feet are screwed on from underneath with an Allen screw. A reinforcing bracket is screwed into place for each of the two rear adjustable feet to increase their stability.

Fig. 4.3.4/ 1 Adjustable feet

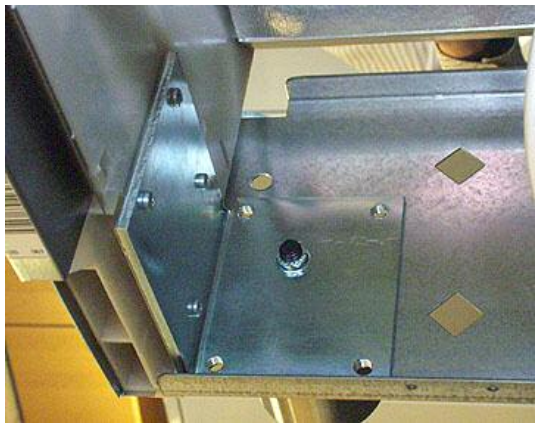


Fig. 4.3.4/ 2 Reinforcement for rear adjustable foot

5.0 Assembly instructions / replacement of parts

5.1 Electronic control system

Covers: Unclip covers on the underside of the front housing.

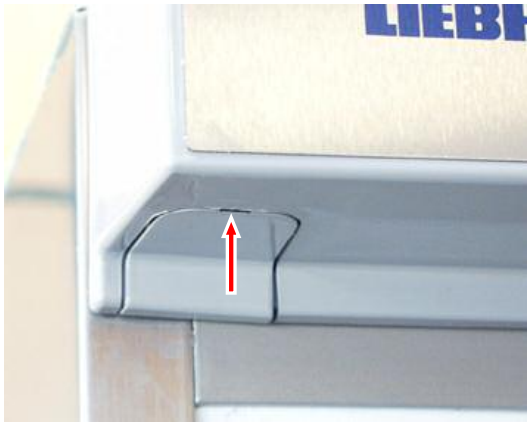


Fig. 5.1/ 1

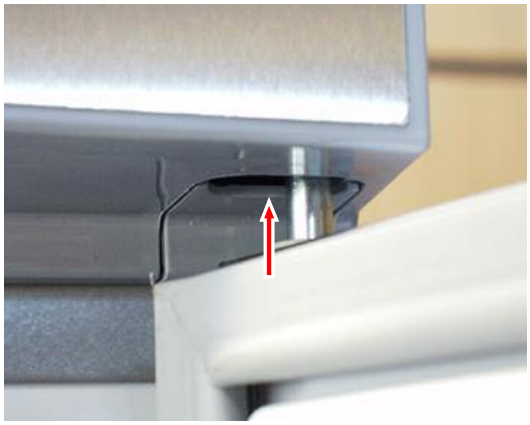


Fig. 5.1./ 2

Bolt: Undo screw and remove bolt.

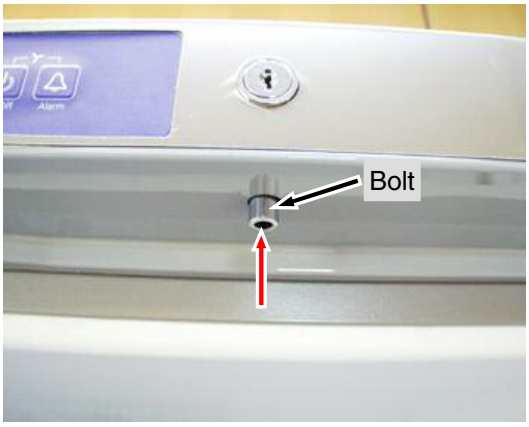


Fig. 5.1 / 3

PCB carrier:
- Draw front housing forwards and lift it up.
- Remove PCB edge connector and unclip PCB carrier from the front housing.

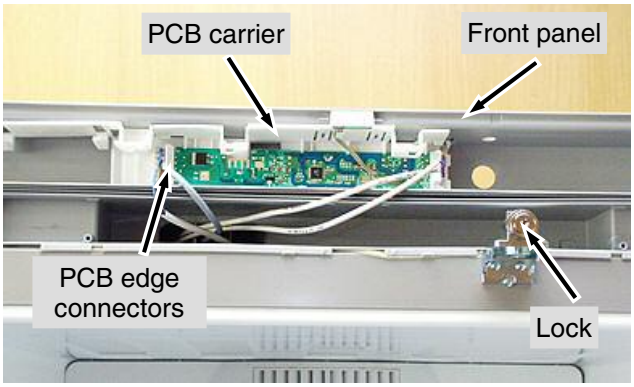


Fig. 5.1/ 4

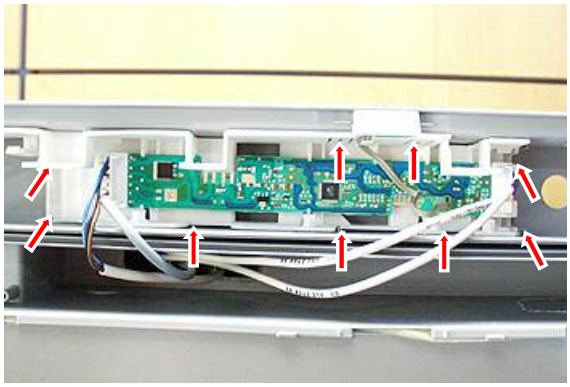


Fig. 5.1./ 5

PCB: Release marked locks and remove PCB from the PCB carrier.

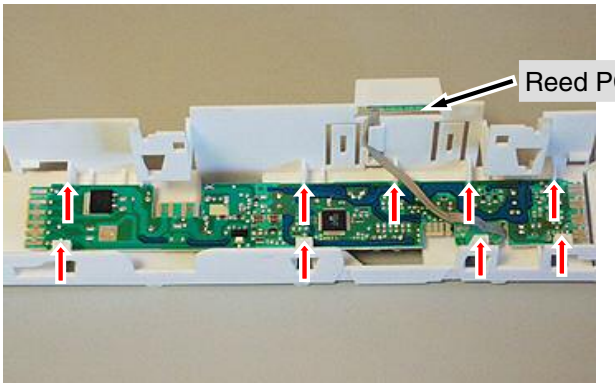


Fig. 5.1 / 6

5.2 Air sensor

Air sensor:
- Remove sensor from the holder and extricate it through the rear wall.
- During assembly, pay attention that the sensor is clipped into place in the correct position.

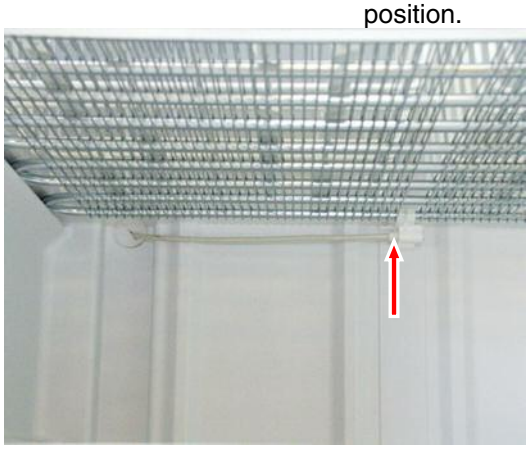


Fig. 5.2 / 1

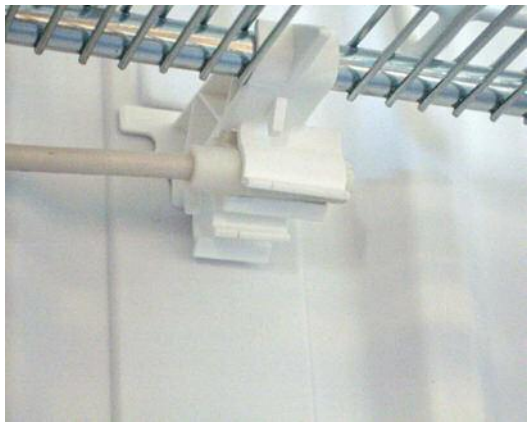


Fig. 5.2. / 2

5.3 Pressure compensating valve **(valid only for electrical heated valve – see chapter 4.3.2)**

Valve:
- Detach cover (only slipped on) and remove valve.
- The cable is connected directly to the compressor terminal board. (at index 20 permanently active, from index 20A parallel to the compressor)

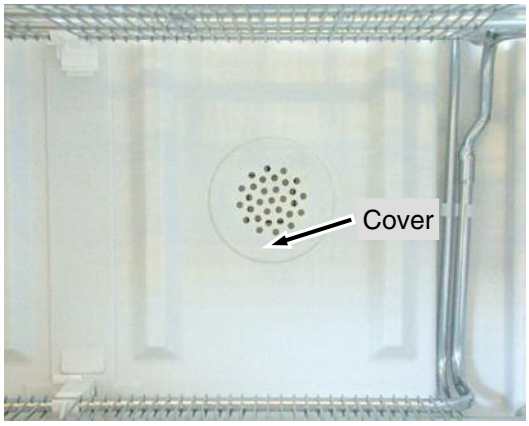


Fig. 5.3 / 1

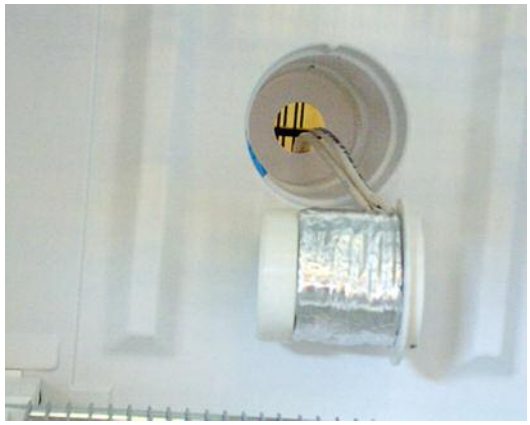


Fig. 5.3 / 2

6.0 Technical data

Heater for pressure compensating valve:

Wattage: 5.8 watts

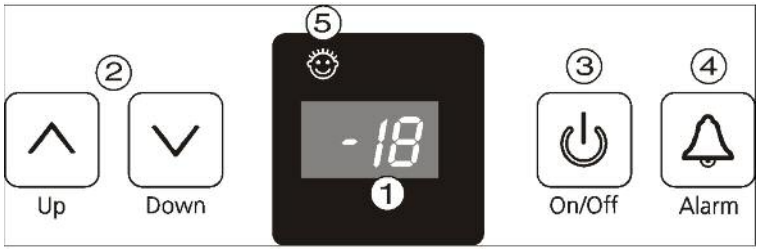
Voltage: 230 volts

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

7.0 Hidden functions in GG 52..

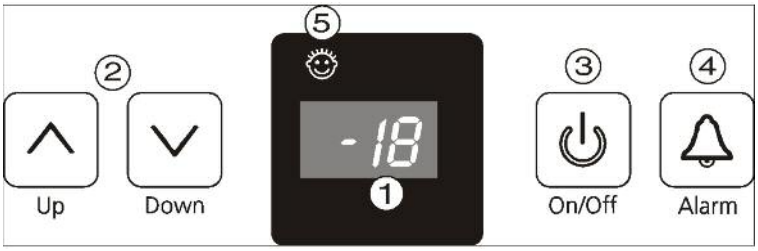


7.1 Customer menu

Step	Display	Operation	Display following operation	Info
1	Actual value	Hold down "Alarm" button for 3 seconds	c	Activation customer menu
2a	c	Press "Alarm"	c0	Child proofing deactivated
2a	c0	Press "up"	c1	Activate child proofing
2a	c1	Press first "Alarm", then „On/Off“	Actual value	Child proofing ON
2b	c	Press "Alarm"	c1	child proofing activated
2b	c1	Press "down"	c0	Deactivate Child proofing
2b	c0	Press first "Alarm", then „On/Off”	Actual value	Child proofing OFF
3	c	Press "up"	h	Choosing display brightness
3	h	Press „Alarm“	h1 to h5	Adjust Display brightness
3	h1 to h5	Select stage of brightness wanted with "Up" and confirm with "Alarm"	h	Display brightness saved
3	h	Press “On/Off”	Actual value	Display brightness adjusted

7.2 Service menu

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



7.2.1 Demo mode

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Press ON/OFF and "Alarm" simultaneously for 3 seconds.	"d1"	Service menu activation
Demo mode (Demo mode can be deactivated only via service menu, not by OFF/ON)				
2a	**"d1" flashes**	Press "Alarm"	Set value	**Demo mode ON**
2b	**"d0" flashes**	Press "Alarm"	Current actual value	**Demo mode OFF**
Operation is switched to the mode wanted, demo mode or normal, as soon as "Alarm" has been actuated.				

7.2.2 Service mode

Step	Display	Operation	Display following operation	Testing option / Info
Start service menu				
1	Actual value	Press ON/OFF and "Alarm" simultaneously for 3 seconds.	"d1"	Service menu activation
Service mode -- test display LED, buttons, door contact				
1	"d1" flashes	Press "Up"	"L" flashes	Service mode selected
2	"L" flashes	Press "Alarm"	"rd" flashes	Service mode activated
3	"rd" flashes	Door open and closed	All LEDs and the display (88) light up	Door contact, LEDs
4	All LEDs and the display (88) light up *	Press all the buttons	2 seconds audible alarm "L0" lights up	Buttons

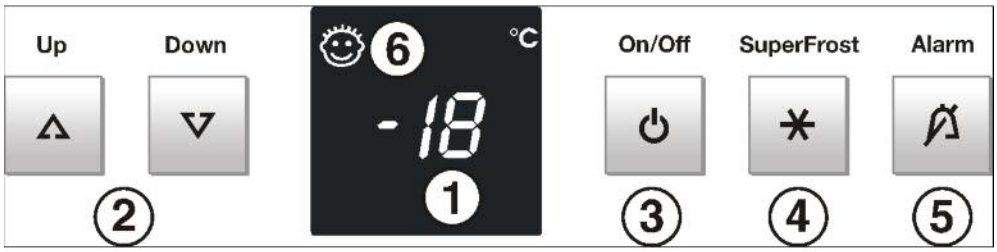
Service mode -- testing electric loads--				
5	"L0" shines		"L0" shines	All OFF
6	"L0" shines	Press "up"	"L1" shines	**Compressor ON**
Return to step 5 is brought about by pressing the "Up" button again.				
End		Press "On/Off"		

7.2.3 Sensor menu

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Hold down "Alarm" and press "On/Off" at the same time	d1	Service menu activation
2	d1	Press "Up" until "E" flashes.	E	Sensor selection
3a	**E**	Press "Alarm"	E3 in alternation with the respective temperature	Air sensor
3b	**E3**	Press "Up"	E8	Reed contact
4	**E8**	Open/close door	Displays door status 1 open, 0 closed	
As soon as "Alarm" is pressed, you reach the higher-level menu (d1, L, F).				

8.0 Hidden functions in G 5216

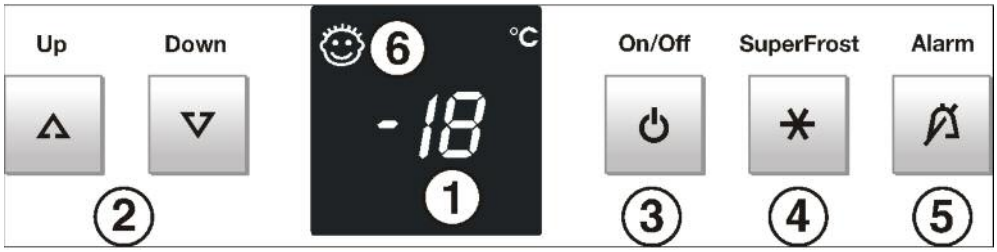
8.1 Customer menu



Step	Display	Operation	Display following operation	Info
1	Actual value	Press "SuperFrost" button for 3 seconds.	c	Activation customer menu
2a	c	Press "SuperFrost"	c0	Child proofing deactivated
2a	c0	Press "up"	c1	Activate child proofing
2a	c1	Press first "SuperFrost", then „On/Off“	Actual value	Child proofing ON
2b	c	Press "SuperFrost"	c1	child proofing activated
2b	c1	Press "down"	c0	Deactivate Child proofing
2b	c0	Press first "SuperFrost", then „On/Off”	Actual value	Child proofing OFF
3	c	Press "up"	h	Choosing display brightness
3	h	Press „SuperFrost“	h1 to h5	Adjust Display brightness
3	h1 to h5	Select stage of brightness wanted with "Up" and confirm with "SuperFrost"	h	Display brightness saved
3	h	Press “On/Off”	Actual value	Display brightness adjusted

8.2 Service menu

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



8.2.1 Demo mode

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Press "SuperFrost" and "ON/OFF" simultaneously for 3 seconds	"d1" flashes	Service menu activation
Demo mode (Demo mode can be deactivated only via service menu, not by OFF/ON.)				
2a	**"d1" flashes**	Press "SuperFrost"	Set value	**Demo mode ON**
2b	**"d0" flashes**	Press "SuperFrost"	Current actual value	**Demo mode OFF**
Operation is switched to the mode wanted, demo mode or normal, as soon as "SuperFrost" has been actuated.				

8.2.2 Service mode

Step	Display	Operation	Display following operation	Testing option / Info
Start service menu				
1	Actual value	Press "SuperFrost" and "ON/OFF" simultaneously for 3 seconds	"d1" flashes	Service menu activation
Service mode **-- Test display LED, buttons, door contact**				
1	"d1" flashes	Press "Up"	"L" flashes	Service mode selected
2	"L" flashes	Press "SuperFrost"	"rd" flashes	Service mode activated
3	"rd" flashes	Door open and closed	All LEDs and the display (88) light up	Door contact, LEDs
4	All LEDs and the display (88) light up *	Press all the buttons	2 seconds audible alarm "L0" lights up	Buttons

Service mode -- testing electric loads--				
5	"L0" shines	Press "up"	"L1" shines	All OFF
6	"L1" shines	Press "up"	"L1" shines	**Compressor ON**
Return to step 6 is brought about by pressing the "Up" button again.				
End		Press "On/Off"		

8.2.3 Sensor menu

Step	**Display**	**Operation**	**Display following operation**	**Testing option / Info**
Service menu start				
1	Actual value	Hold down "SuperFrost" and press "On/Off" at the same time	d1 flashes	Service menu activation
2	d1	Press "Up" until "E" flashes.	E	Sensor selection
3a	**E**	Press "SuperFrost"	E3 in alternation with the respective temperature	Sensor
3b	**E3**	Press "Up"	E8	Reed contact
4	**E8**	Open/close door	Displays door status 1 open, 0 closed	
As soon as "SuperFrost" is pressed, you reach the higher-order menu (d1, L, F).				

9.0 Table of error codes

Error code	**Defective component**	**Emergency operation**
"F3" flashes	Air sensor	**Continuous operation**