Appliance Documentation

GGU 15.. from Index 20

Commercial freezer, suitable for under-worktop installation

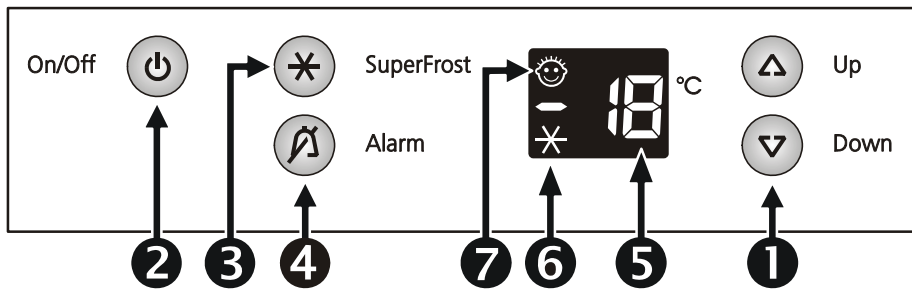
GGU 1550   **GGU 1500**

Contents

1.0   Operating and control elements

1 : Temperature setting buttons
2 : ON/OFF button
3 : SuperFrost button, button lit = function activated
4 : Alarm OFF button
5 : Temperature display
6 : Display for activated SuperFrost function
7 : Display for activated child lock

2.0   Functions at a glance

Control:	Electronic
Temperature display:	Actual value
Temperature range:	-9°C to -26°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 GGU 15.. models are statically cooled freezers with wire tube evaporators. As the appliances are only 83 cm high, the models are also suitable for under-worktop installation!

The temperature is controlled by an air sensor.

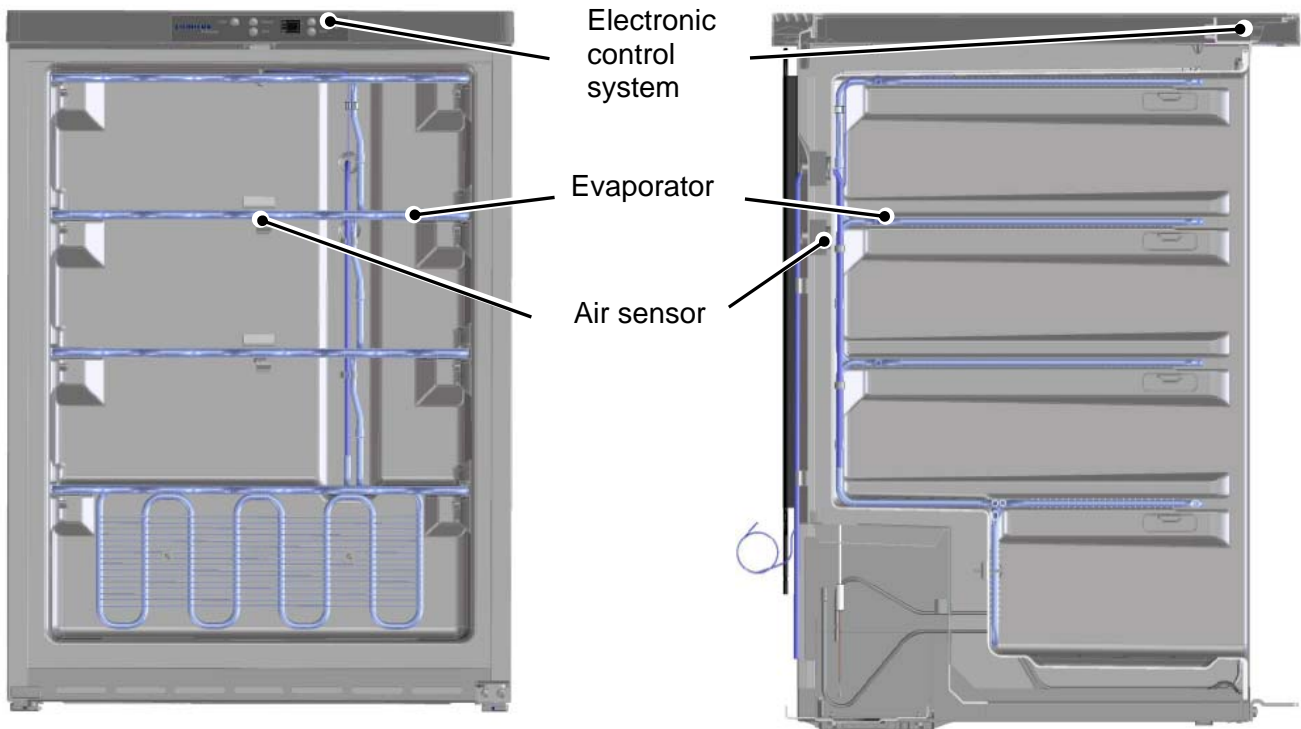## 3.1   Sensor positions, schematic diagrams

Electronic control system

Evaporator

Air sensor

Fig. 3.1/ 1: GGU 15..   **Fig. 3.1 / 2:** GGU 15..

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:	-9°C to -26°C
Display range:	-50° C to -1° C

Functions	
SuperFrost:	**SuperFrost activated (quantity-controlled):** The appliance sets itself to a fictitious set value (-30°, i.e. the compressor operates practically continuously) and switches off earlier (min. 30 hours) or later (max. 65 hours) depending on the quantity put into storage. **SuperFrost deactivated:** The appliance sets itself to the set value.

Temperature alarm:	When:	Set value: Alarm value:	-9°C to -22°C 4K warmer than set value.
		Set value: Alarm value:	-25° C and -26° C -20°C
		SuperFrost alarm value:	-20°C
	Audible:	4 beeps (suppressed during initial operation).	
	Visual:	Flashing temperature display	
	Alarm is set off with a delay of 60 minutes when the air sensor has reached the alar value (e.g. set value: -18° C, actual value at -14° C for 60 minutes → alarm). During start-up the temperature display flashes until the switch-off value is reached, the audible alarm is suppressed.		

Door alarm:	When:	Door is open longer than 1 minute.
	Audible:	3 beeps

Child lock:	Activation via the customer menu (see 8.1). When the child lock is activated, the ON/OFF button is inactive. The remaining functions can be used without hindrance.

Defrosting:	Manual

Sensor		
Air sensor:	Position:	Clipped in behind the 2nd evaporator level.
	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			
Compressor:	Function:	**ON:**	Air sensor switch-on value.
		OFF:	Air sensor switch-off value.
		Special features:	On-delay time (8 minutes) must have elapsed.

4.2 Refrigeration components and functions

Compressor:	1 standard compressor	
Evaporator:	Design:	Wire 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 region of the frame.
	Type:	Liquid heater
Condenser:	Design:	Lamellar condenser
	Type of installation:	Suspended at the back

5.0   Assembly instructions / replacement of parts

5.1   Electronic control system

Front panel: - Press the locating lugs at the left and right upwards and then forwards!
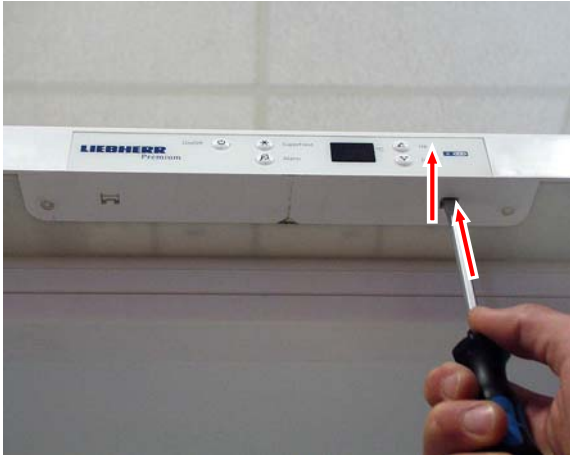   - Control panel disengages!

Fig. 5.1/ 1
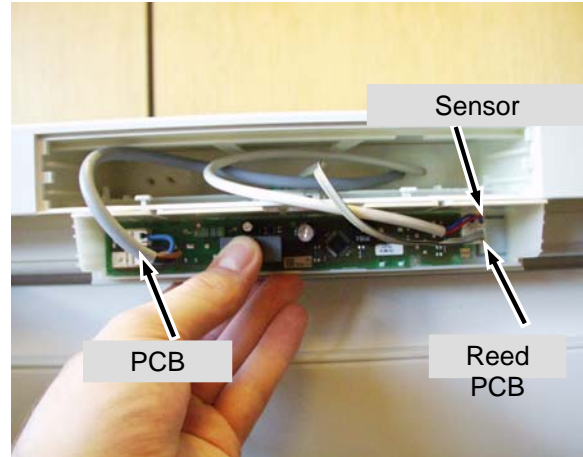
Fig. 5.1/ 2

PCB: - Carefully disengage the PCB and raise it!
                              - Carefully disengage the PCB!
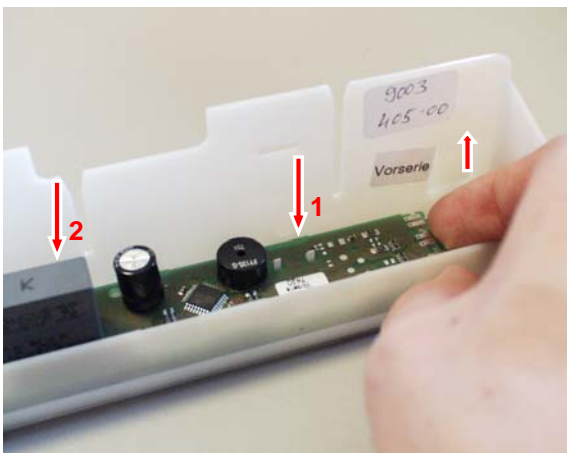
Fig. 5.1/ 3
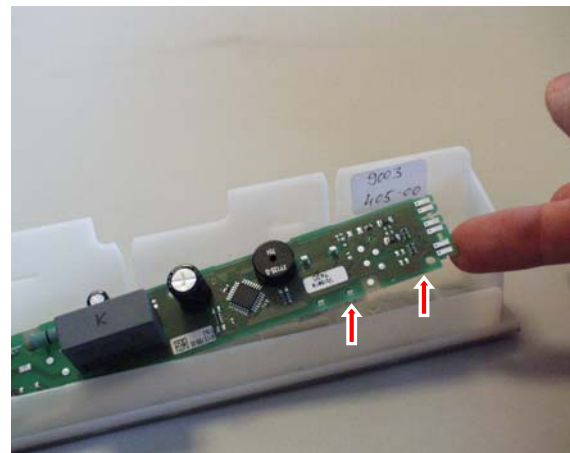
Fig. 5.1/ 4

5.2   Air sensor

Air sensor: - Remove the sensor from the holder (note position) and extricate it through
                                     the real wall.
                                   - During assembly pay attention that the sensor is clipped into place in the
                                     right position.
                                   - As the sensor cable is foamed-in in the tabletop, the new sensor has to be
                                     pieced together at the back
                                     (instructions accompany the new sensor!).
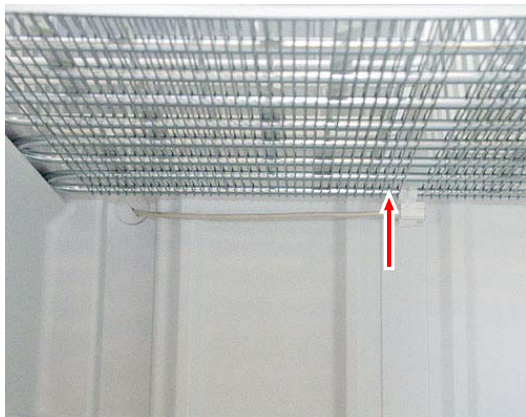
Fig. 5.2 / 1
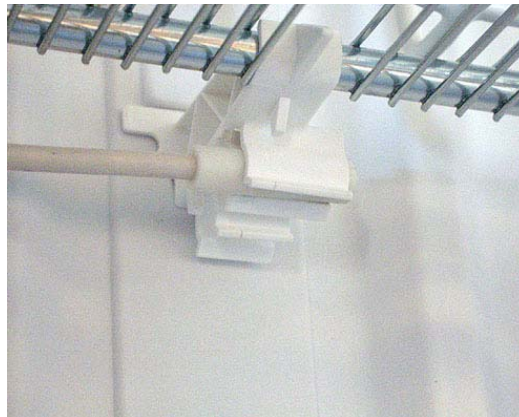
Fig. 5.2 / 2

6.0   Technical data

Sensor values: Air 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

7.1   Customer menu

7.1.1
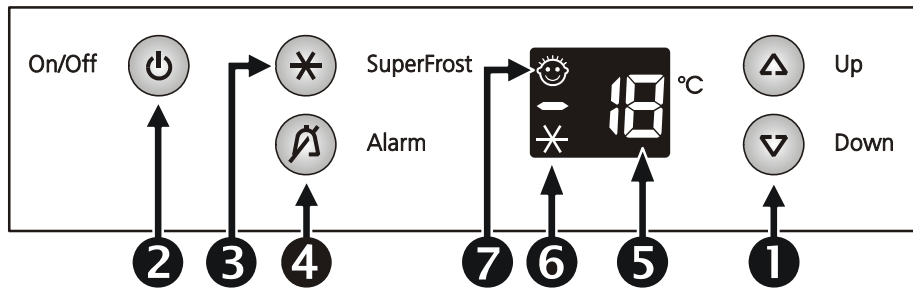
Step	Display	Operation	Display following operation	INFO
1	Actual value	Hold down "SuperFrost" for 3 seconds	C	Activation customer menu
2a	c	Press "SuperFrost"	c0	Child lock deactivated
2a	c0	Press "Up"	c1	Child lock activation
2a	c1	Press "SuperFrost" once and "ON/OFF" once	Actual value	Child lock ON
2b	c	Press "SuperFrost"	c1	Child lock activated
2b	c1	Press "Down"	c0	Child lock deactivation
2b	c0	Press "SuperFrost" once and "ON/OFF" once	Actual value	Child lock OFF
3	c	Press "Up"	h	Display brightness selection
3	h	Press "SuperFrost"	h1 to h5	Display brightness adjustment
3	h1 to h5	Select the brightness stage wanted using "Up" and confirm with "SuperFrost"	h	Display brightness changed
3	h	Press "SuperFrost" once and "ON/OFF" once	Actual value	Display brightness set

7.2   Service menu

The service menu may be used by service technicians only.
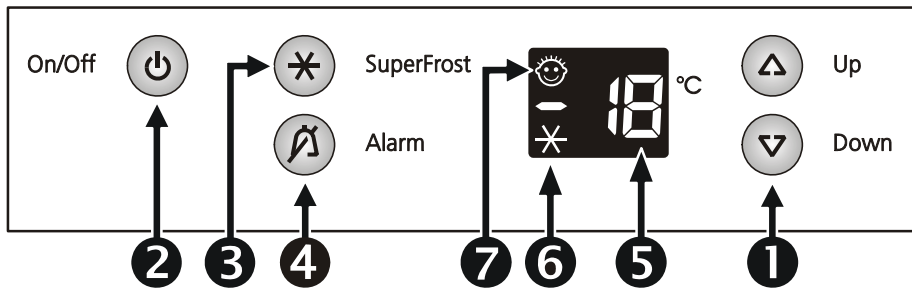
7.2.1   Demo mode

Until february 2009:

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 mode, as soon as "SuperFrost" has been pressed.				

From march 2009:

Step	Display	Operation	Display following operation	Testing option / Info
Service menu start				
1	Actual value	Press "SuperFrost" and "ON/OFF" simultaneously for 3 seconds	„L" flashes	Service menu activation
Activation of Demo mode (Demo mode can be deactivated only via service menu, not by OFF/ON.)				
2a	„L" flashes	Press „Up"	„d" flashes	Demo mode menu
3a	„d" flashes	Press „SuperFrost"	„d0" (only 0 flashes)	Demo mode menu
4a	„d0" (only 0 flashes)	Press „Up"	„d1" (only 1 flashes)	Demo mode menu
5a	„d1"(only 1 flashes)	Press „SuperFrost"	Set value	**Demo mode ON**
Deactivation of Demo mode				
2b	„L" flashes	Press „Up"	„d" flashes	Demo mode-Menü
3b	„d" flashes	Press „SuperFrost"	„d1" (only 1 flashes)	Demo mode-Menü
4b	„d1" (only 1 flashes)	Press „Down"	„d0" (only 0 flashes)	Demo mode-Menü
5b	„d0"(only 0 flashes)	Press „SuperFrost"	Current actual value	**Demo mode OFF**

7.2.2   Service 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
Service mode -- testing display LEDs, 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) shine	Door contact, LEDs
4	All LEDs and the display (88) shine *	Press all the buttons	2 seconds audible alarm "L0" shines	Buttons
Service mode -- testing electric loads--				
5	"L0" shines			All OFF
6	"L1" shines	Press "Up"	"L1" shines	**Compressor ON**
Return to step 6 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	OFF	Hold down "SuperFrost" and simultaneously press "ON/OFF"	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	
The higher-level menu (d1, L, F) is reached as soon as "ON/OFF" is pressed.				

8.0   Table of error codes

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

8.0   Table of error codes

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