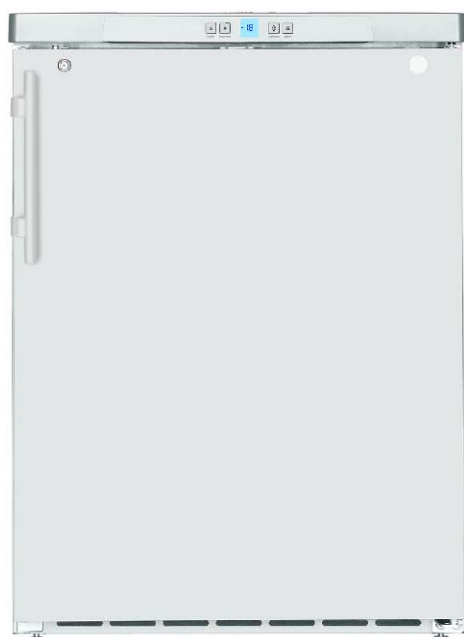


Appliance Documentation

GGU 15.. from Index 21

Commercial freezer, suitable for under-worktop installation



GGU 1550



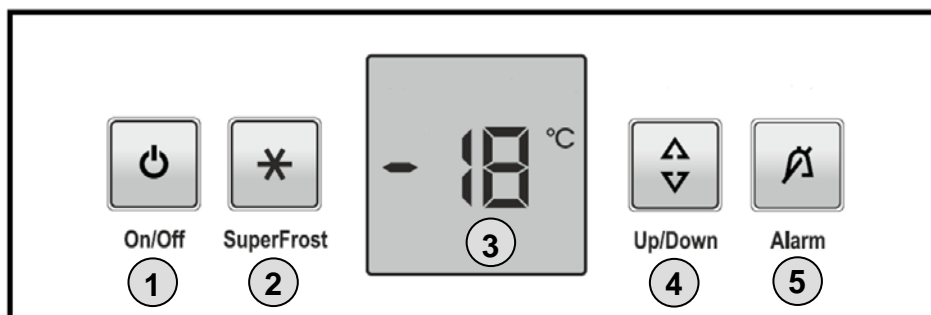
GGU 1550



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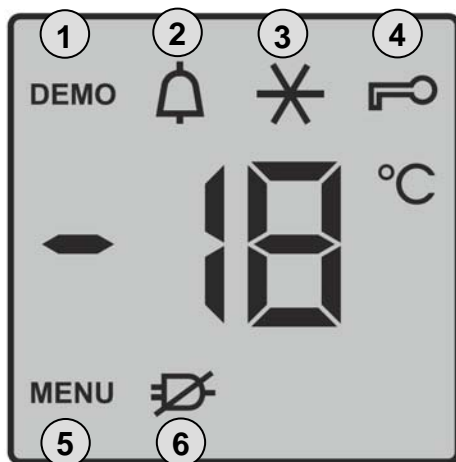
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1.0 Operating and control elements



- 1 ON/OFF button
- 2 SuperFrost function
- 3 Temperature display
- 4 Temperature setting button
- 5 Alarm OFF button for audible alarm

1.1 Control elements



- 1 Demo mode active
- 2 Temperature alarm active
- 3 SuperFrost switched on
- 4 Child lock active
- 5 Service mode active
- 6 Temperature too high due to power failure

2.0 Functions at a glance

Control:	Electronics
Temperature display:	Actual value
Temperature range:	-9°C to -26°C
Temperature alarm:	Visual and audible
Door alarm:	Audible
Fan:	Not featured
Defrosting:	Manual
Interior light:	Not featured
Service menu:	Featured
Compressor:	Standard
Solenoid valve cooling circuit:	Not featured

3.0 Description of appliance

The GGU 15.. models are statically cooled freezers with wire tube evaporator. Because of the low appliance height of 83cm, the models are also suitable for under-worktop installation!

The temperature is controlled by an air sensor.

3.1 Sensor position

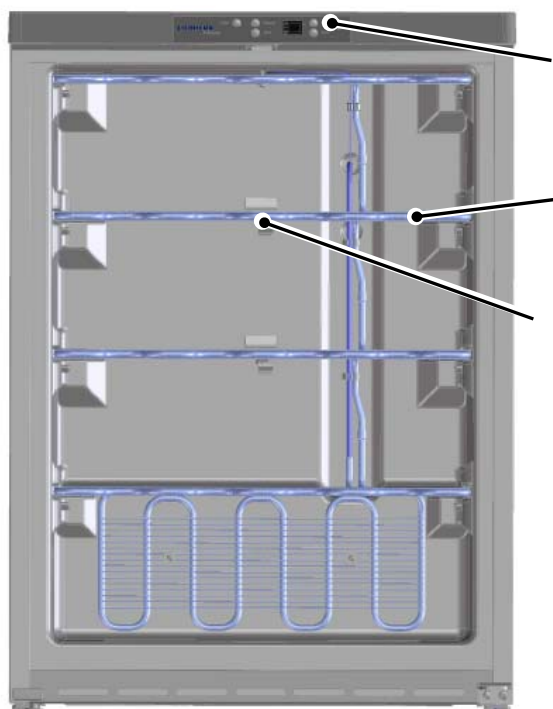


Fig. 3.1/ 1

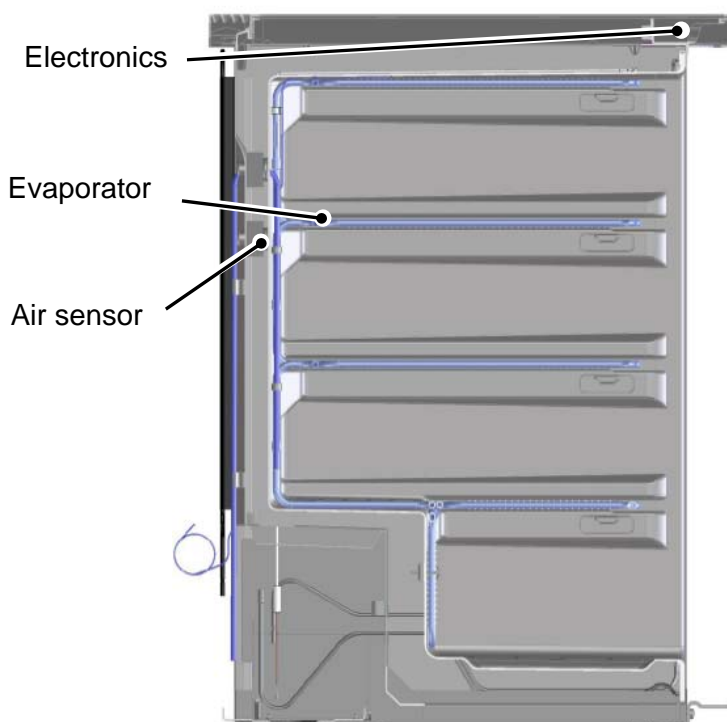


Fig. 3.1/ 2

4.0 Main components and their functions

4.1 Electrical components and functions

Electronics	
Type:	Series 6 electronic control system
Components:	Integral PCB
Setting range:	-9° C to -26° C
Display range:	-32°C to -1°C
Functions	
SuperFrost:	<p><u>SuperFrost activated (quantity-controlled):</u></p> <p>The appliance is set to a notional target value (11°C colder than target value, but to a maximum of -32°C, i.e. compressor runs almost continuously) and switches off earlier (min. 30 hours) or later (max. 65 hours) depending on the stored quantity.</p> <p><u>SuperFrost deactivated:</u></p> <p>The appliance sets itself to the set value.</p>
Temperature alarm:	<p>When: Target value: -9°C to -22°C Alarm value: 4K warmer than target value.</p> <p> Target value: -25°C and -26°C Alarm value: -20°C SuperFrost alarm value: -20°C.</p> <p>Audible: 4 beeps (suppressed upon start-up)</p> <p>Visual: flashing temperature display</p> <p>Alarm is output with a 60-minute delay when the air sensor has reached the alarm value (e.g. set value: -18° C, actual value at -14° C for 60 minutes → alarm).</p> <p>On start-up, the temperature display flashes until the switch-off value is reached, the audible alarm is suppressed.</p>
Door alarm:	<p>When: Door open for longer than 3 minutes.</p> <p>Audible: 3 beeps</p>
Child lock:	<p>Activation is via the customer menu.</p> <ul style="list-style-type: none"> - When the child lock is activated, the ON/OFF button and the temperature setting button are inactive. - The remaining functions are available for unrestricted use.
Defrosting:	Manual
Sensors	
Air sensor:	<p>Position: Clipped in behind the 2nd. evaporator level.</p> <p>Function: Switches the compressor ON and OFF.</p>

Switches

Door switch:	Position:	In front panel.	
	Type:	Semi-conductor component on the PCB	
	Contact type:	Closing mechanism	
	Function:	Activation via magnet on the door, magnet is interchangeable.	
<u>Switching signal when:</u>			
	Door closed:	Door alarm	OFF
	Door open:	Door alarm	ON

Consumers / Loads

Compressor:	Function:	ON:	Air sensor switch-on value.	
		OFF:	Air sensor switch-off value.	
		Special features:	On-delay time (8 min.) must have elapsed.	

4.2 Refrigeration components and functions

Compressor:	1 standard compressor, R600a		
Evaporator:	Type of appliance:	Wire tube evaporator.	
	Type of installation:	Between baskets or drawers	
	Injection point:	Top	
	Flow sequence:	From top to bottom.	
Frame heater:	Position:	Foamed in in the frame area.	
	Type:	Fluid heater	
Condenser:	Type of appliance:	Lamellar condenser	
	Type of installation:	Freely suspended at the rear	

5.0 Assembly instructions / Parts replacement

5.1 Electronics

Front panel:

- Remove screws (Fig. 5.1/ 1).
- Pull down front panel and disconnect cables (Fig. 5.1/ 2 and Fig. 5.1/ 3).

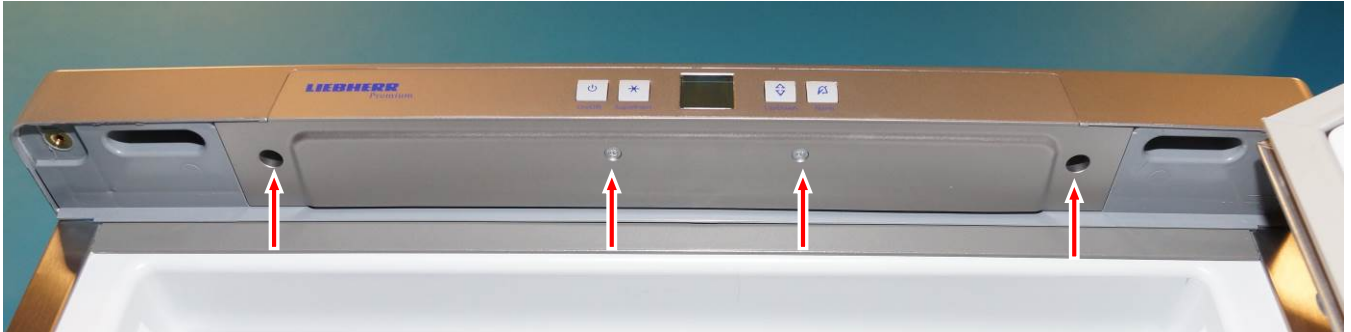


Fig. 5.1/ 1



Fig. 5.1/ 2



Fig. 5.1/ 3

PCB holder: - Unclip PCB holder from front panel.

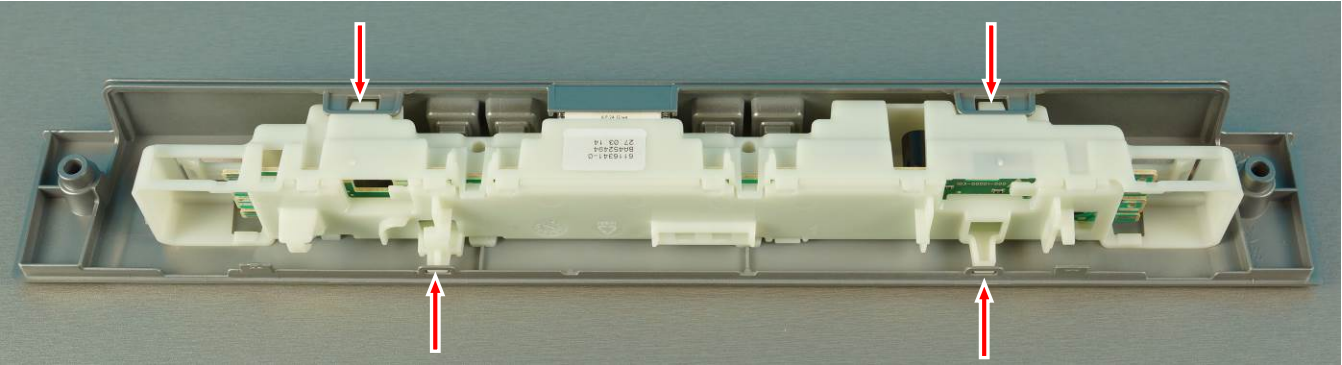


Fig. 5.1/ 4

Cover: - Unclip cover.

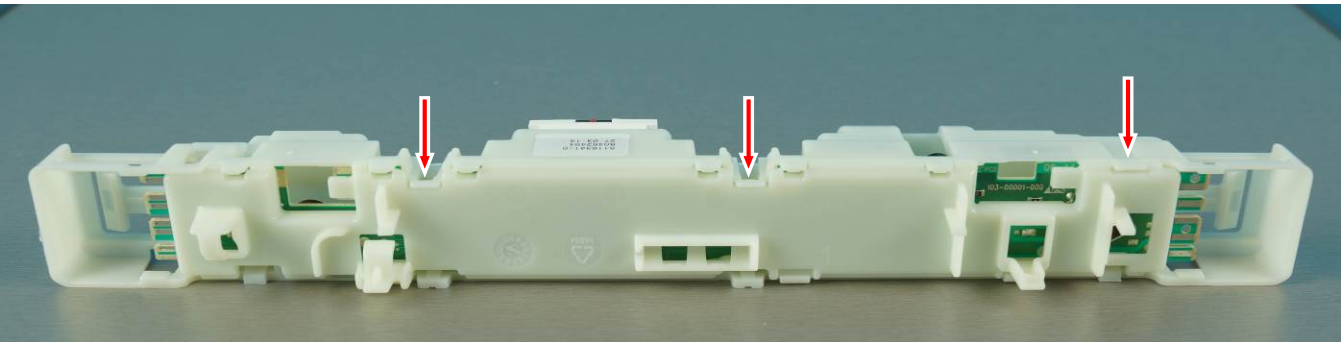


Fig. 5.1.1/ 5

PCB: - Unclip PCB from holder.

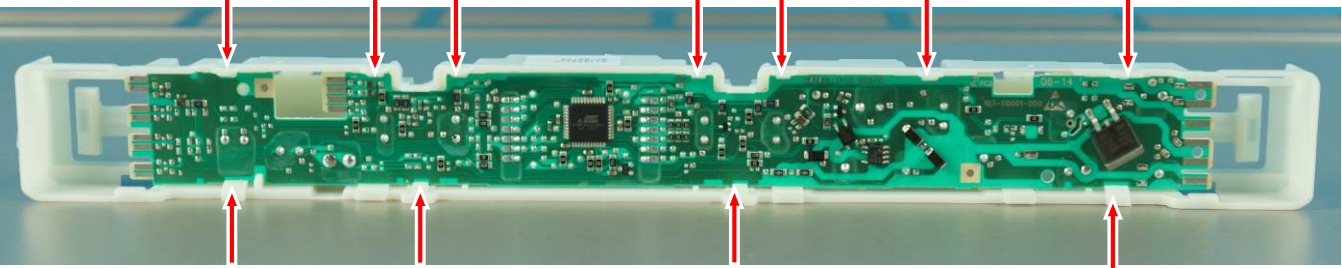


Fig. 5.1/ 6

All individual parts:

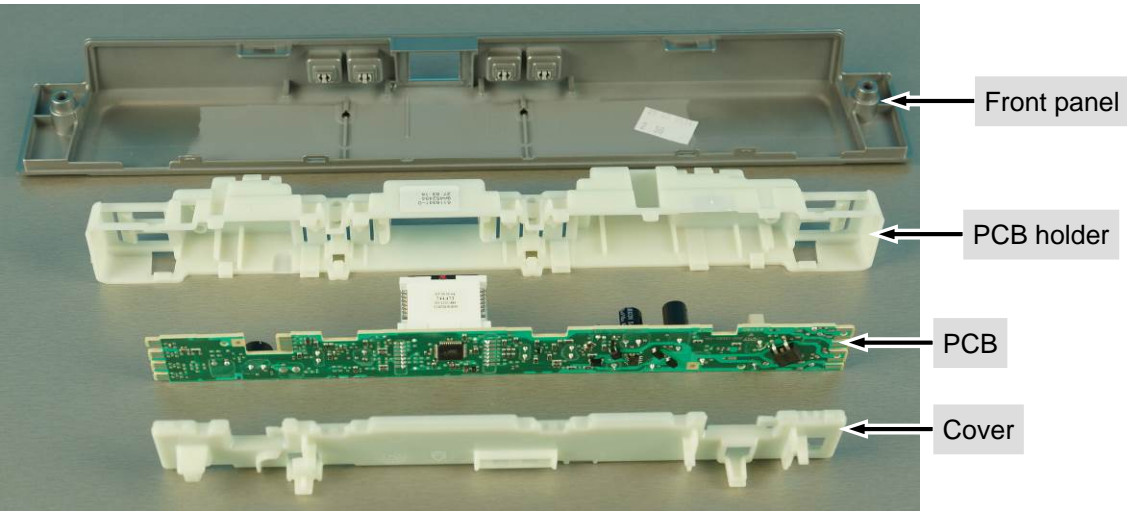


Fig. 5.1/ 7

5.2 Air sensor

Air sensor:

- Take the sensor out of the holder (note position) and thread it out through the rear wall.
- When installing, take care to ensure that the sensor is clipped into the right position (Fig. 5.2/ 2)
- After the sensor cable has been foamed into the worktop, the new sensor must be bonded on the reverse (instructions included with new sensor!).



Fig. 5.2 / 1



Fig. 5.2 / 2

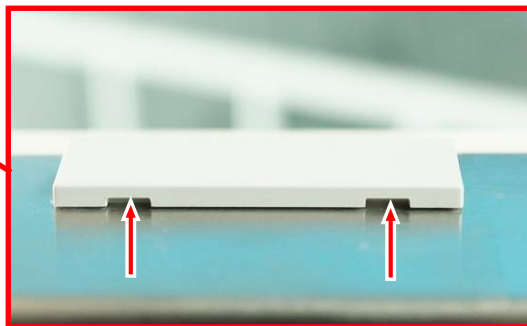
5.3 Door magnet

Cover:

- Unclip the cover.



Fig. 5.3/ 1



Magnet:

- Pull out magnet.



Fig. 5.3 / 2

6.0 Technical data

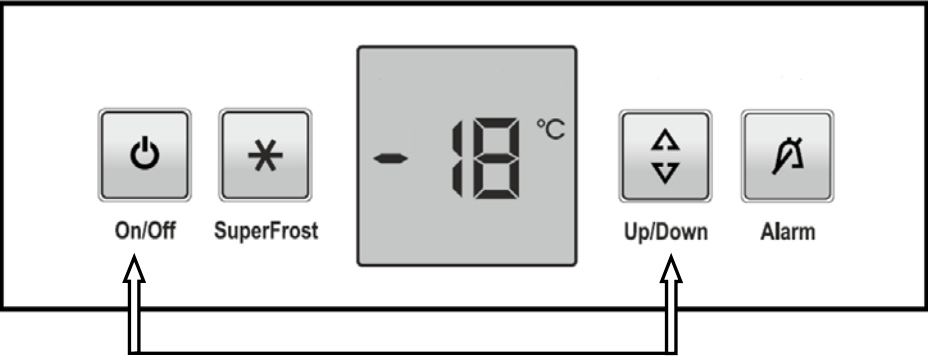
Sensor values:

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 Service menu

The service menu may only be used by service technicians.











Activate service menu: Appliance must be switched on.
Press “ON/OFF” + “Up/Down” simultaneously for approx. 5 seconds







7.1 Brief overview of service menu

Service menu		Menu	Action	Submenu	Action	Function elements selection
Demo mode	Up/Down button ↓/↑	d	1x SF	d0	1x SF	Demo mode OFF
				d1		Demo mode ON
Panel test (operating)		P	1x SF	P1	1x SF	Press sensor buttons
Sensor test		E-	1x SF	E1	1x SF	3 : Air sensor 8 : Door contact
Service mode	Up/Down button ↓/↑	L-	1x SF	L1	1x SF	Up-/Down Button ↓/↑ 0 : All OFF 1 : Compressor ON

7.2 Demo mode

Step	Display	Action	Display following action	Testing option / Info
Start service menu --Demo mode ON--				SF = SuperFrost
1	Actual value	Press “Up/Down” and “ON/OFF” simultaneously for 5 seconds	 flashes	Demo mode selected
2	 flashes	Press “SF” once	 static	Demo mode ON selected
3	 static	Press “SF” once	Set target value and “Demo”	Demo mode ON
Start service menu --Demo mode OFF--				
1	Target value and “Demo”	Press “Up/Down” and “ON/OFF” simultaneously for 5 seconds	 flashes and “Demo”	Service menu active
2	 flashes and “Demo”	Press “SF” once	 static and “Demo”	Demo mode OFF selected
3	 static and “Demo”	Press “SF” once	Actual value	Demo mode OFF
<p>The text “Demo” in the display indicates the activated demo mode. Demo mode can only be deactivated via the service menu, not by OFF/ON or disconnection from the power supply. Operation switches to the desired mode, either demo mode or normal mode, as soon as “SuperFrost” has been pressed.</p>				

7.3 Panel test

Step	Display	Action	Display following action	Testing option / Info
Start service menu				SF = SuperFrost
1	Actual value	Press “Up/Down” and “ON/OFF” simultaneously for 5 seconds	 flashes	Service menu active
Operating element test -- test of sensor buttons, display elements, door sensor and beep --				
2	 flashes	Press “Up/Down” once	 flashes	Panel test selected
3	 flashes	Press “SF” once	 static	Panel test activated
4	 static	Press “SF” once	All symbols/segments	Display elements/ More symbols are displayed than are used by the respective electronic control system!
5	All symbols and segments	- Press all buttons in sequence (every operation is acknowledged by a beep) - Door open/closed	- Beep for 2 seconds - Appliance switches OFF	Beep sounds only when test was successful.
Termination	<p>Operating element test cannot be terminated, e.g. in step 2, it has to be performed in full. If a button is defective, no beep is output for 2 sec and the appliance does not switch off. The appliance then has to be unplugged and plugged back in again.</p>			

7.4 Sensor test (temperature display)



Step	Display	Action	Display following action	Testing option / Info
Start service menu				SF = SuperFrost
1	Actual value	Press "Up/Down" and "ON/OFF" simultaneously for 5 seconds	flashes	Service menu active
Sensor test and door contact test (sensor values without offset, appliance in control mode)				
2	flashes	Press "Up" twice	flashes	Sensor test mode selected
3	flashes	Press "SF" once	static	Sensor test mode activated
4	static	Press "SF" once	Flashes alternately with sensor temperature	Air sensor
	Flashes alternately with sensor temperature	Press "Up/Down" once	flashes alternately with or	Door contact (oP=Door open, cL=Door closed)
Termination	Press "ON/OFF" once: Return to level 2 . No further items are selectable with this appliance. Press "ON/OFF" twice: Return to level 1 . Points: , , , selectable Press "ON/OFF" three times: Return to normal/control mode			

7.5 Service mode

Step	Display	Action	Display following action	Testing option / Info
Start service menu				SF = SuperFrost
1	Actual value	Press "Up" and "ON/OFF" simultaneously for 5 seconds	flashes	Service menu active
Service mode -- testing electric loads--				Power input
2	flashes	Press "Up" three times	flashes	Service mode selected
3	flashes	Press "SF" once	static	Service mode activated
5 → 4	static	Press "SF" once	static	All OFF
5	static	Press "Up" once	static	Compressor ON
Termination	Press "ON/OFF" once: Return to level 2 . No further items are selectable with this appliance. Press "ON/OFF" twice: Return to normal/control mode			

8.0 Table of error codes

Error code	Defective component	Emergency mode
F3	Air sensor	In the case of a sensor error the appliance goes into continuous mode.