

Service manual

GCS29NFH - GCS30NFH

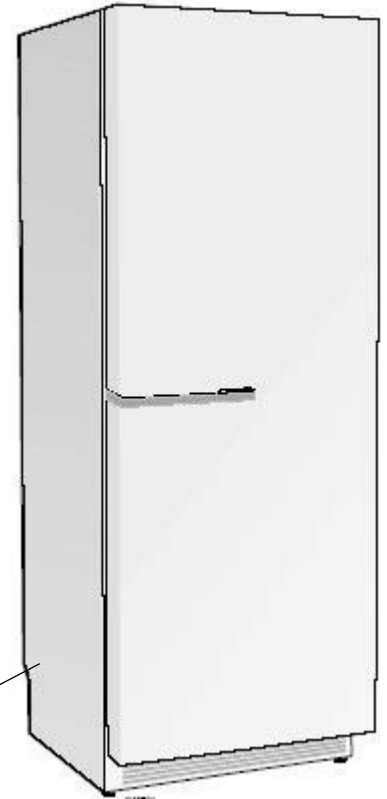
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Introduction

You are holding the service manual for the generation of touch control cooling product. There are different types of up-right no frost freezer touch series: . The following page presents the different versions, to help you identify the machine types. The variants are named differently from market to market. The type designation is the most important factor for identifying the appliances type. The type designation can be found on the label applied to the appliance which is located at the left lower side of the appliance.



2008 01 99999 - 032999999 - 03

Year

Week

Progr. nr.

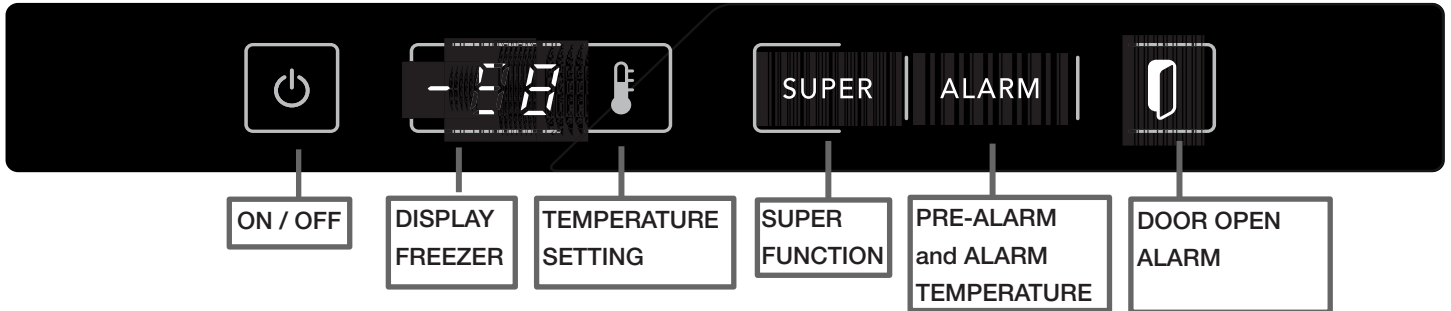
Model code

Factory id

It should be easy to service a cooling product. It is important that you, as a service technician, are given the conditions to be able to carry out work in an efficient and satisfactory way. Our hope is that this service manual is a useful tool for your daily work.

Type overview

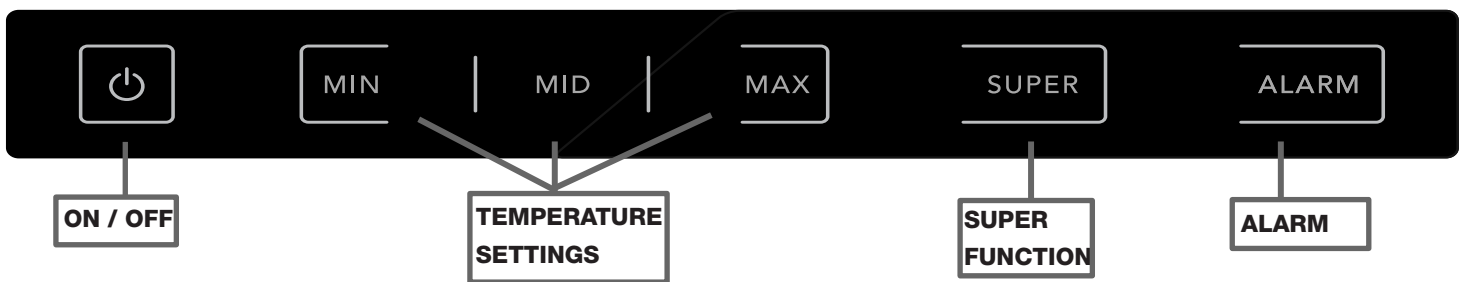
Upright no frost freezer touch display version



Appliance is provided with an electronic module touch version placed inside the control panel that allow to select various temperature positions available and within the range -16°C to -24°C .

It also allows of the fast freezing function for which the operation phase is visible by the white back light of the related icon "SUPER" on the module. The fast freezing function can be manually deactivated by touching again the activation switch or it will be automatically deactivated after 30 hours from when was started. Appliance also is provided of the freezer temperature pre-alarm function and of the temperature freezer alarm function which are described in the following paragraphs..

Upright no frost freezer touch leds version



Appliance is provided of a touch electronic module version 5 leds placed in the control panel and allow to select the various temperature positions available: "MIN, MID and MAX".

It also allows of the fast freezing function for which the operation phase is visible by the white back light of the related icon "SUPER" on the module. The fast freezing function can be manually deactivated by touching again the activation switch or it will be automatically deactivated after 30 hours from when was started.

Type overview

Internal view of the appliance



No frost radiator
in the freezer
compartment


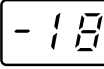






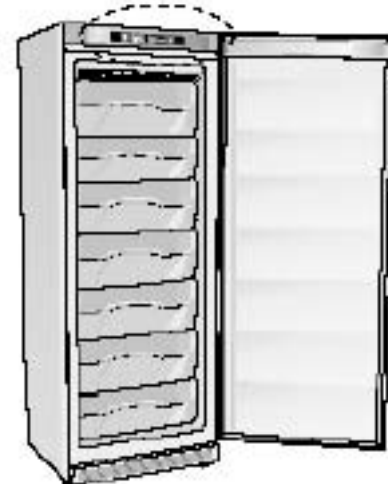
Internal view of the appliance

Option and settings touch display type

Touch display type



-  **ON / OFF**
-  **DISPLAY FREEZER**
-  **TEMPERATURE ADJUSTMENT**
-  **SUPER FUNCTION**
-  **PREALLARME E ALLARME TEMPERATURA**
-  **DOOR OPEN ALARM**



IMPORTANT WARNING


Whenever the product has been lying horizontally during transportation, it should be left to stand upright for at least six hours before it is switched on, otherwise it may be noisy when it is in operation.


IMPORTANT

Before plugging the appliance in, make sure that the power supply voltage corresponds to the value shown on the product data plate. Plug the appliance into the electricity mains supply. The display will flash, showing the default temperature set by the manufacturer (-16°C):





After a few seconds the display will show the actual temperature of the refrigerator compartment. If the symbol "--" appears on the display, the appliance is plugged in but switched off.

SWITCHING THE APPLIANCE ON

Switch the product on by touching the  symbol for at least 0.5 seconds.


During operation, the temperature inside the refrigerator appears on the display, which can indicate temperature values of between +20°C and -40°C. Temperatures of over +20°C inside the refrigerator (for example, +21°C), are indicated on the display by the letter "H". The temperature may be set to a value between -16°C and -24°C. To switch off the product, touch the  symbol for 5 seconds.

SETTING THE TEMPERATURE

The temperature may be adjusted by touching the  symbol; it may be set to a value between -16°C and -40°C. When the refrigerator is switched on, if you touch the  symbol the set temperature value will flash on the display for 6 seconds. To set a new temperature, touch the  symbol and, while the display is flashing, touch the same symbol  repeatedly until the desired temperature value has been reached; the new setting will be stored after the display has stopped flashing (6 seconds).

N.B.: an option should be selected after taking into account the frequency with which the door is opened, the temperature of the room in which the appliance is installed and the quantity of food contained inside the product. For room temperatures of between 20 to 25° C, we recommend setting the freezer temperature at -18°C.

CHECKING THE PROGRAMMED TEMPERATURE

If you touch the  symbol just once, the programmed temperature will flash on the display for 6 seconds; after this the actual temperature inside the refrigerator compartment will be displayed. The set functions remain stored in the memory of the appliance, even after they have been switched off or disconnected from the electricity supply; when they are switched back on again the temperature value set most recently will flash on the display for 6 seconds.

SUPER FUNCTION

The Super function was designed to reduce the temperature inside the refrigerator compartment in the shortest possible time; if you touch the text "SUPER" for at least 0.5 seconds the function will be activated for a period of 30 hours, during which time the text "SUPER" will be lit up in white. After this 30-hour period, the Super function will be deactivated automatically. However, if you wish to manually deactivate the function before the 30-hour period has elapsed, simply touch the text "SUPER" for at least 0.5 seconds; when the function has been deactivated the text "SUPER" will no longer be illuminated. While the appliance is operating in Super mode, all other settings are temporarily disabled. While the appliance is operating in Super mode, all other freezer compartment settings are temporarily disabled.

Option and settings touch display type

Touch display type

PRE-ALARM MODE AND FREEZER TEMPERATURE

PRE-ALARM INDICATION

The pre-alarm mode is activated when the temperature inside the freezer compartment reaches a value higher than -12°C (for example, -11°C). This may occur in the following situations:

- a large amount of unfrozen food has been placed in the freezer (see freezing modes);
- the door has been open for an extended period of time;
- the electricity supply has been cut off for a prolonged period of time;
- the appliance has malfunctioned.

The pre-alarm mode is indicated by the temperature appearing intermittently on the freezer display, by the flashing white **ALARM** symbol and by the audible alarm. The audible alarm may be disabled by touching the **ALARM** text; in this case the pre-alarm mode indicator of the flashing temperature on the display remains active and the **ALARM** text will remain lit in a fixed manner instead of flashing. The pre-alarm mode is disabled automatically, but only when the temperature of the freezer compartment falls below -12°C ; at this point the **ALARM** text will no longer be illuminated, while the temperature will stop flashing and remain lit in a fixed manner on the display.


FREEZER TEMPERATURE ALARM


The alarm function was designed with the aim of warning the user that, due to some external cause (for example, a power cut, the door has been left open, etc.) the food kept in the freezer compartment has reached a temperature higher than $+1^{\circ}\text{C}$ and has therefore completely thawed out.

In this case, the **freezer temperature alarm** mode is enabled and flashes on the display, along with the highest temperature detected inside the compartment; the **ALARM** text is illuminated in red and the audible alarm is also activated.

The display memory (maximum temperature reached) is important because, if power is cut off and then restored, the appliance will continue operating as normal; this could result in food which had previously thawed out being refrozen.

DOOR OPEN ALARM

Every time the door is opened the  symbol is illuminated in white, in a fixed manner. If the door has been open for over 2 minutes, the **DOOR OPEN** alarm is activated; it may be disabled in one of the 2 following ways:

- if the door is closed, the audible and visible alarms are deactivated;
- if the  symbol is touched, the audible alarm is deactivated but the illuminated white visible alarm signal will flash instead of being a fixed light.

MALFUNCTION MANAGEMENT

If the symbol **-E** or **E-** flashes on the display, the refrigerator will continue to operate normally for a few days but you should contact the Technical Assistance Centre as soon as possible.

Anomalies and signalling touch display type

Touch display type

Checking and procedures --- ANOMALIES MANAGING --- (troubleshooting)

SIGNAL ON THE DISPLAY: "-E" or "E-"

If display shows the flashing symbol "-E" or "E-", this means that a temperature sensor is defective:

Flashing signal "-E" indicates a defect of the defrosting sensor.

Flashing signal "E-" indicates a defect of the temperature sensor for freezer compartment.

Solution of the problem: to verify the ohm values of the defective sensor in relation to the values shown in the datasheet of the related sensor present inside this manual. (if necessary replace the sensor)

Note: In this condition the appliance runs a pre-set emergency cycle that guarantee the functioning of the appliance for some days but the defective sensor must be replaced as soon as possible.

POSSIBLE ANOMALIES OF FUNCTIONING FOR THE APPLIANCE ICE FORMATION ON NO-FROST RADIATOR

- To check the door is perfectly closed and no air could go inside the appliance across the door gasket.
 - To check the presence of the black rubber tube on the aspiration tube at the back side of the appliance and that it is well inserted on the hole at the back side wall of the appliance: to check that this point is well insulated.
 - To check for possible obstructions of the water drain tube starting from the point of exit for the bended tube at the back wall of the appliance: make sure of the presence of the curve in the drain tube and that the curve is full of water to function like a siphon to avoid air could come back inside the appliance across the water drain tube.
 - To check the electrical continuity for thermofuses by using the related procedure attached to this manual.
 - To check the right functioning for the heating element by using the related procedure attached to this manual.
 - To check the right functioning for the defrosting phase by using the related procedure for the forced activation of the defrosting phase attached to this manual.
-

Option and settings touch leds type

Touch leds type



ON / OFF



MID



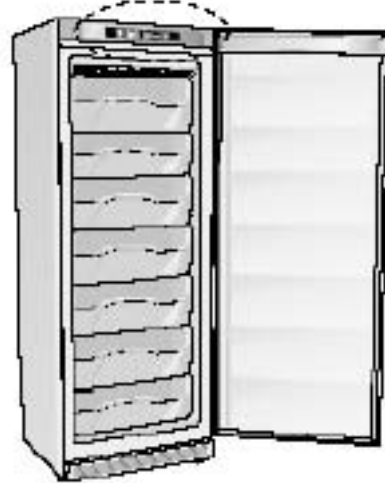
TEMPERATURE ADJUSTMENT



SUPER FUNCTION



ALARM FUNCTION




IMPORTANT WARNING


Whenever the product has been lying horizontally during transportation, it should be left to stand upright for at least six hours before it is switched on, otherwise it may be noisy when it is in operation.

IMPORTANT

Before plugging the appliance in, make sure that the power supply voltage corresponds to the value shown on the product data plate. Plug the appliance into the electricity mains supply.

SWITCHING THE APPLIANCE ON

Switch the product on by touching the  symbol for at least 0.5 seconds; activation will be confirmed by the text "MID", which will light up in white. The appliance will begin operating after 30 seconds.

To switch off the product, touch the  symbol for 5 seconds; at this stage all display texts will be turned off.

SETTING THE TEMPERATURE

3 separate temperatures may be set (indicated by the text "MIN - MID - MAX"): the text MIN indicates a warmer temperature inside the refrigerator compartment, the text MID indicates an intermediate temperature inside the refrigerator compartment and the text MAX indicates a colder temperature inside the refrigerator compartment.

To change the settings, touch the desired symbol (MIN – MID – MAX) for at least 0.5 seconds; the new setting will be confirmed by the illumination in white of the selected option.

N.B.: an option should be selected after taking into account the frequency with which the door is opened, the temperature of the room in which the appliance is installed and the quantity of food contained inside the product.

For room temperatures of between 20 - 25°C, we recommend the "MID" setting.

To switch the product off, simply touch the  symbol for at least 4 seconds.

SUPER FUNCTION

The Super function was designed to reduce the temperature inside the refrigerator compartment in the shortest possible time; if you touch the text "SUPER" for at least 0.5 seconds the function will be activated for a period of 30 hours, during which time the text "SUPER" will be lit up in white. After this 30-hour period, the Super function will be deactivated automatically. However, if you wish to manually deactivate the function before the 30-hour period has elapsed, simply touch the text "SUPER" for at least 0.5 seconds; when the function has been deactivated the text "SUPER" will no longer be illuminated. While the appliance is operating in Super mode, all other freezer compartment settings are temporarily disabled.

Anomalies and signalling touch display type

Touch display type

Checking and procedures --- ANOMALIES MANAGING --- (troubleshooting)

SIGNAL ON THE DISPLAY: "-E" or "E-"

If display shows the flashing symbol "-E" or "E-", this means that a temperature sensor is defective:

Flashing signal "-E" indicates a defect of the defrosting sensor.

Flashing signal "E-" indicates a defect of the temperature sensor for freezer compartment.

Solution of the problem: to verify the ohm values of the defective sensor in relation to the values shown in the datasheet of the related sensor present inside this manual. (if necessary replace the sensor)

Note: In this condition the appliance runs a pre-set emergency cycle that guarantee the functioning of the appliance for some days but the defective sensor must be replaced as soon as possible.

POSSIBLE ANOMALIES OF FUNCTIONING FOR THE APPLIANCE ICE FORMATION ON NO-FROST RADIATOR

- To check the door is perfectly closed and no air could go inside the appliance across the door gasket.
 - To check the presence of the black rubber tube on the aspiration tube at the back side of the appliance and that it is well inserted on the hole at the back side wall of the appliance: to check that this point is well insulated.
 - To check for possible obstructions of the water drain tube starting from the point of exit for the bended tube at the back wall of the appliance: make sure of the presence of the curve in the drain tube and that the curve is full of water to function like a siphon to avoid air could come back inside the appliance across the water drain tube.
 - To check the electrical continuity for thermofuses by using the related procedure attached to this manual.
 - To check the right functioning for the heating element by using the related procedure attached to this manual.
 - To check the right functioning for the defrosting phase by using the related procedure for the forced activation of the defrosting phase attached to this manual.
-

Components description

(freezer compartment - no frost radiator kit)

Defrosting end sensor

This sensor signals the end for defrosting-time to the electronic module.

Not restorable thermo-fuses

This is a thermic protection device that disable the electricity power for the heating element to avoid the overheat in case is reached the temperature of 72° degrees.

The device is not restorable so in case of intervention it must be replaced with a new one because if broken the heating element is not powered.

More recently made appliances can use a new kind of thermo-fuse with integrated defrosting sensor.



Not restorable thermofuses with integrated defrosting sensor.

Freezer compartment sensor

This sensor send the signal for the freezer compartment temperature: the sensor send the signal of alarm for the temperature of freezer compartment too.



Motor Fan

The fan runs in parallel to the compressor (compressor ON - motor fan ON) and it stops in case of opening of the freezer door



Not restorable thermofuses detail



Components description

(reed and magnet position)



• Reed position

On the electronic module inside the control panel is mounted the reed that receive the signal from the magnet when the door is opening: the magnet is placed inside the upper cover of the freezer door. The signal, when the freezer door is opening, stops the fan in the freezer compartment.

• Magnet position

At the internal upper part of the door cover for the freezer compartment is mounted the magnet that when move under the control panel sends the signal to the reed to stop the motorfan in the freezer compartment and to start it again at the closing of the door.



Procedure of checking in case of malfunctioning.

To check the right functioning of the reed on the electronic module for this appliance we can proceed as follows:

- When the door is opened, move a magnet the nearest possible to the reed position to check if the reed detects the signal of the magnet. The symbol "opened door" on the module must switch off when the magnet is in front of the reed and the motorfan must instead start again if compressor is running. In case that no signals are detected will be necessary to replace the reed.

Check for the presence of the magnet inside the upper cover of the door by moving another magnet or a metallic object the nearest possible to the magnet position on the door: in case of absence of the magnet inside the cover of the door no signal could be sent to the reed every time the door is closed.

Components values

(Components - datasheet)

WARNING! Values shown at the side view are exclusively related to the freezer compartment temperature sensor of this appliance.

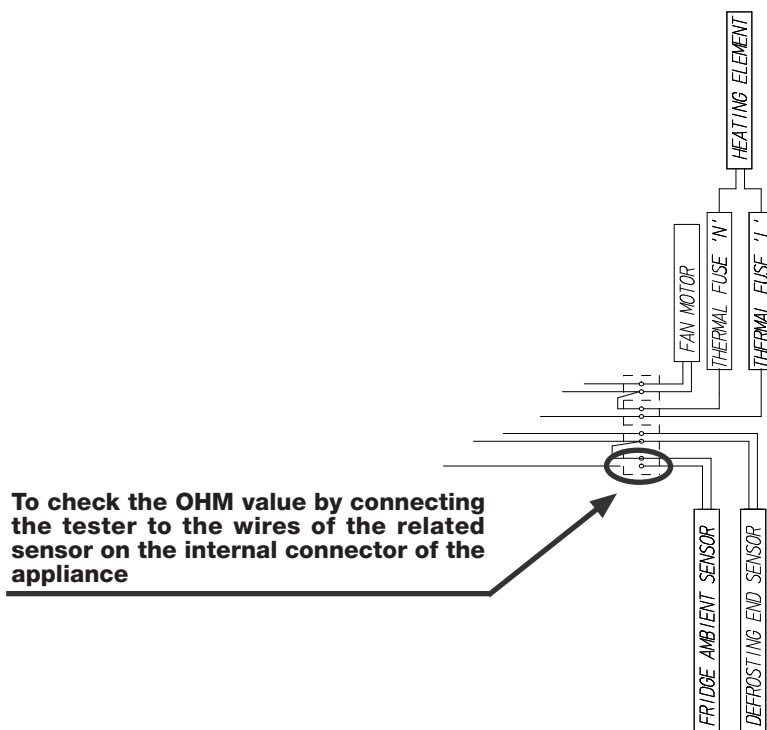
Freezer compartment temperature sensor FRD038 - F12496

OHM values detected at the related temperature

°C	△	OHM
15	±0.6	4225
14	±0.6	4426
13	±0.6	4648
12	±0.6	4863
11	±0.6	5099
10	±0.6	5348
9	±0.6	5611
8	±0.6	5888
7	±0.6	6182
6	±0.6	6491
5	±0.4	6818
4	±0.4	7164
3	±0.4	7529
2	±0.4	7916
1	±0.4	8325
0	±0.4	8758
-1	±0.4	9216
-2	±0.4	9701
-3	±0.4	10215
-4	±0.4	10759
-5	±0.4	11337
-6	±0.6	11949
-7	±0.6	12598
-8	±0.6	13288
-9	±0.6	14019
-10	±0.6	14795
-11	±0.7	15620
-12	±0.7	16497
-13	±0.7	17429
-14	±0.7	18420
-15	±0.7	19475
-16	±0.8	20596
-17	±0.8	21791
-18	±0.8	23063
-19	±0.8	24418
-20	±0.8	25862
-21	±0.9	27042
-22	±0.9	29045
-23	±0.9	30797
-24	±0.9	32668
-25	±0.9	34666
-26	±1	36800
-27	±1	39082
-28	±1	41521
-29	±1	44131
-30	±1	46921
-31	±1	49910
-32	±1	53111
-33	±1	56541
-34	±1	60218
-35	±1	64161

Verifying procedure

- Disconnect the appliance from main electricity supply.
- Place a thermometer the nearest possible to the head of the sensor to be checked.
- Find the point of connection of the sensor.
- after the temperature is stabilized so that thermometer and the compartment sensor will be at the same temperature, read the temperature shown by the thermometer previous placed near the sensor and, at the same time, check with a tester the OHM value for the sensor detectable on the sensor wires on the jst connector.
- Check the correct OHM value of the sensor relative to the real temperature verified by the thermometer by following the list of OHM values in agree with the real temperature of the sensor detected in that moment.



Components values

(Components - datasheet)

WARNING! Values shown at the side view are exclusively related to the defrosting sensor of this appliance.

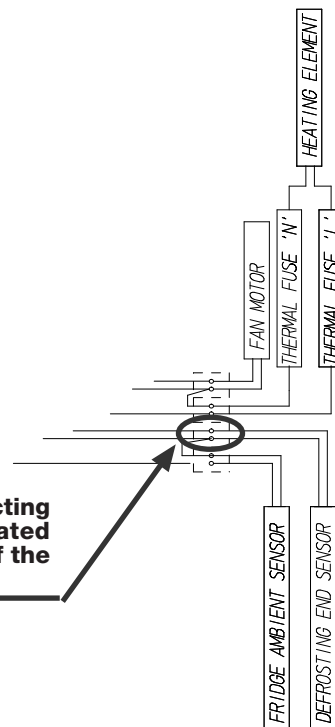
°C	△	OHM
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14	±0.6	4426
13	±0.6	4648
12	±0.6	4863
11	±0.6	5099
10	±0.6	5348
9	±0.6	5611
8	±0.6	5888
7	±0.6	6182
6	±0.6	6491
5	±0.4	6818
4	±0.4	7164
3	±0.4	7529
2	±0.4	7916
1	±0.4	8325
0	±0.4	8758
-1	±0.4	9216
-2	±0.4	9701
-3	±0.4	10215
-4	±0.4	10759
-5	±0.4	11337
-6	±0.6	11949
-7	±0.6	12598
-8	±0.6	13288
-9	±0.6	14019
-10	±0.6	14795
-11	±0.7	15620
-12	±0.7	16497
-13	±0.7	17429
-14	±0.7	18420
-15	±0.7	19475
-16	±0.8	20596
-17	±0.8	21791
-18	±0.8	23063
-19	±0.8	24418
-20	±0.8	25862
-21	±0.9	27042
-22	±0.9	29045
-23	±0.9	30797
-24	±0.9	32668
-25	±0.9	34666
-26	±1	36800
-27	±1	39082
-28	±1	41521
-29	±1	44131
-30	±1	46921
-31	±1	49910
-32	±1	53111
-33	±1	56541
-34	±1	60218
-35	±1	64161

Defrosting sensor FRD127 --- F12788

OHM values detected at the related temperature

Verifying procedure

- Disconnect the appliance from main electricity supply.
- Place a thermometer the nearest possible to the head of the sensor to be checked.
- Find the point of connection of the sensor.
- after the temperature is stabilized so that thermometer and the compartment sensor will be at the same temperature, read the temperature shown by the thermometer previous placed near the sensor and, at the same time, check with a tester the OHM value for the sensor detectable on the sensor wires on the jst connector.
- Check the correct OHM value of the sensor relative to the real temperature verified by the thermometer by following the list of OHM values in agree with the real temperature of the sensor detected in that moment.



To check the OHM value by connecting the tester to the wires of the related sensor on the internal connector of the appliance

Components values

(Components - datasheet)

WARNING! Values shown at the side view are exclusively related to the defrosting sensor with integrated thermofuses of this appliance.

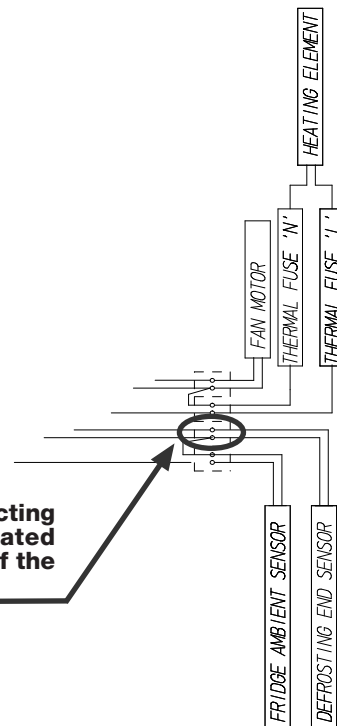
°C	△	OHM
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10	±0.6	5348
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8	±0.6	5888
7	±0.6	6182
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5	±0.4	6818
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-3	±0.4	10215
-4	±0.4	10759
-5	±0.4	11337
-6	±0.6	11949
-7	±0.6	12598
-8	±0.6	13288
-9	±0.6	14019
-10	±0.6	14795
-11	±0.7	15620
-12	±0.7	16497
-13	±0.7	17429
-14	±0.7	18420
-15	±0.7	19475
-16	±0.8	20596
-17	±0.8	21791
-18	±0.8	23063
-19	±0.8	24418
-20	±0.8	25862
-21	±0.9	27042
-22	±0.9	29045
-23	±0.9	30797
-24	±0.9	32668
-25	±0.9	34666
-26	±1	36800
-27	±1	39082
-28	±1	41521
-29	±1	44131
-30	±1	46921
-31	±1	49910
-32	±1	53111
-33	±1	56541
-34	±1	60218
-35	±1	64161

Defrosting sensor with integrated thermo-fuses FRD145 --- F12998

OHM values detected at the related temperature

Verifying procedure

- Disconnect the appliance from main electricity supply.
- Place a thermometer the nearest possible to the head of the sensor to be checked.
- Find the point of connection of the sensor.
- after the temperature is stabilized so that thermometer and the compartment sensor will be at the same temperature, read the temperature shown by the thermometer previous placed near the sensor and, at the same time, check with a tester the OHM value for the sensor detectable on the sensor wires on the jst connector.
- Check the correct OHM value of the sensor relative to the real temperature verified by the thermometer by following the list of OHM values in agree with the real temperature of the sensor detected in that moment.



To check the OHM value by connecting the tester to the wires of the related sensor on the internal connector of the appliance

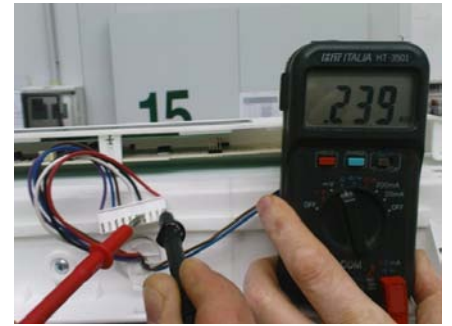
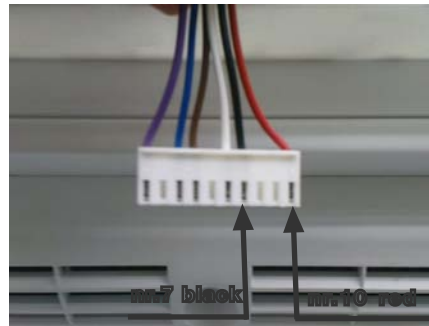
Components values

(Components - datasheet)

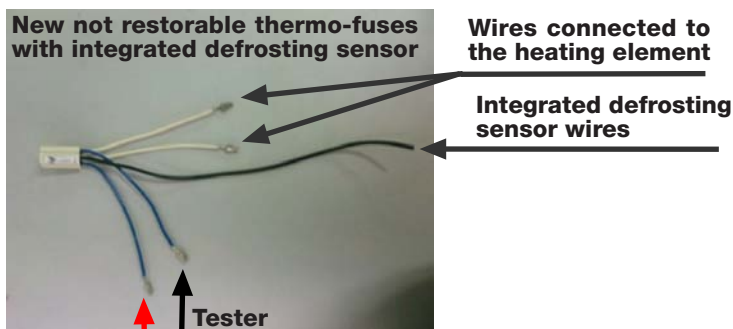
WARNING! Values shown in this page are exclusively related to the heating element and the thermo-fuses for this appliance.

Heating element and thermo-fuses OHM values

A fast checking for the right functioning of the heating element and the thermo-fuses can be done by detecting the OHM value at the 10 pin jst connector that is connected to the module in the control panel:

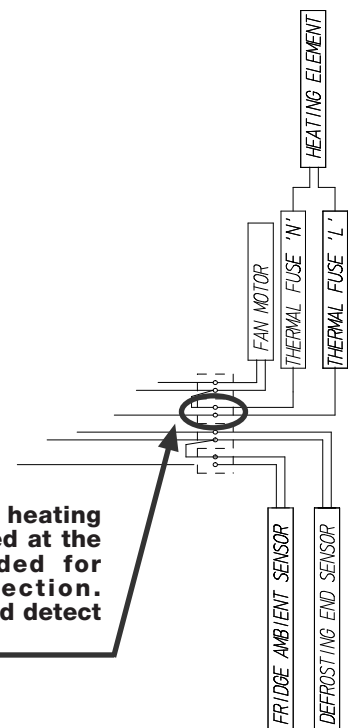


Remove the jst connector and detect the ohm value between red and black wire as shown in the picture above: if we find a value of about 240ohm it means that the heating element and the thermo-fuses are correctly running. In case we do not find any value instead, or we find a very different value, it means that the heating element or one or both the thermo-fuses, are broken.



Tester
If we find continuity between the two blue wires this means the thermo-fuses is running. Note: with thermo-fuses connected to the heating element on these wires will be detected the OHM value of the heating element

The same ohm value of the heating element can also be detected at the internal connector provided for the thermo-fuses connection. Disconnect the connector and detect the ohm value.



Manual test procedure

(Manual test procedure)

Touch display type

Autotest procedure to check the right functioning of the electronic module components

Manual test activation: Touch display type procedure GCS29-30NFH CB11...../CB17.....

1- Switch off the electronic module by touching the button Off/Standby

2- Keep touching for 4 seconds about the button "Super": a sound of a beep will confirm the access to manual test mode.

Are immediately shown in sequence on the digits all the numbers from 0 to 9 to verify the right functioning of the display and the symbol "opened door" switches on if the appliance door is opened.

3- 4- Then are automatically checked the temperature sensor of the freezer compartment and the defrosting sensor: in case of error will be shown the related message "E" provided by the data sheet in relation to the defective sensor detected. If no errors are detected the display will remain switched off and we can proceed to the following step.

5- Touch the symbol "fridge door", a beep sounds and confirm the right functioning for the freezer temperature settings button function: the led door is on.

6- Reed freezer checking:

move a magnet in front of the reed position and verify that when the magnet is in front of the reed, it will light off the "door" symbol on the display. When the magnet is removed the symbol must switch on.

(test ok, go on to the next step)

reed position



7- Check the functions "SUPER":

touch the "SUPER" button. At the touch of the button a beep sounds and confirm the right functioning for the function. It switches on the back light of the "SUPER" symbol. Touch it again to switch off. The led door is on.

8- Check the functions "ALARM": (red alarm led)

Touch the "ALARM" button. At the touch of the button a beep sounds and confirm the right functioning for the function. Will light on the back red light of the "ALARM" symbol, red alarm led is flashing, led "SUPER" is on, led door is on. (test ok, go on to the next step)

9- Check the functions "ALARM": (white alarm led)

Touch the "ALARM" button again. At the touch of the button a beep sounds and confirm the right functioning for the function. Will light on the back white light of the "ALARM" symbol, red alarm led is flashing, led "SUPER" is on, led door is on. (test ok, go on to the next step)

10- Freezer door opened symbol:

Touch the "door opened symbol" button. At the touch of the button a beep sounds and confirm the right functioning for the function. Will light on the back light of the "SUPER" symbol, red alarm led is flashing, led door is on. (test ok, go on to the next step)

Checking the electrical load signals sent by the electronic module to the various components:
note: in this phase the load to each component will be sent for a period of 2 minutes after that the manual test will exit for time-out occurred.

11- Touch the button "OFF/Stand-by": the module sends the electrical load to the compressor, display shows "CO" and the compressor start to run for about 2 minutes. Touch again the button within 2 minutes to go on to next step. (test ok, go on to the next step)

12- Touch again the button "OFF/Stand-by": the module sends the load signal to the fan, display shows "FA" and the fan starts to run for about 2 minutes. Touch again the button within 2 minutes to go on to next step. (test ok, go on to the next step)

13- Touch again the button "OFF/Stand-by": the module sends the electrical load to the heating element, display shows "HE" and the heating element starts to run for about 2 minutes. (test ok, end of autotest)

14- Touch again the button "OFF/Stand-by" for exit from manual test after 10 seconds: otherwise autotest mode automatically exit after 120 seconds of time-out

Manual test procedure

(Manual test procedure)

Touch leds type

Autotest procedure to check the right functioning of the electronic module components

Manual test activation: Touch leds type procedure GCS29-30NFH CB11...../CB17.....

- 1- Switch off the electronic module by touching the button Off/Standby
- 2- Keep touching for 4 seconds about the button "Super": a sound of a beep will confirm the access to manual test mode. Led "MIN" will light on.
- 3- Touch the button "MID" symbol: At the touch of the button a beep sounds and confirm the right functioning for the function. Led "MID" will light on. (test ok, go on to the next step)
- 4- Touch the button "MAX" symbol: At the touch of the button a beep sounds and confirm the right functioning for the function. Led "MAX" will light on. (test ok, go on to the next step)
- 5- Touch the button "SUPER" symbol: At the touch of the button a beep sounds and confirm the right functioning for the function. Led "SUPER" will light on. (test ok, go on to the next step)
- 6- Touch the button "ALARM" symbol: At the touch of the button a beep sounds and confirm the right functioning for the function. Led "ALARM" will light on. (test ok, go on to the next step)
- 7- Touch the symbol OFF/Standby: it is checked the right functioning for the freezer compartment sensor: if a defect is detected it is shown the error by simultaneous flashing of the leds "MIN, MID and MAX". otherwise, if no error is found, no light will be on and we can touch the OFF/Standby button to go on to the next step.
- 8- This step will check for the right functioning of the defrosting sensor: if a defect is detected it is shown by the flashing in sequence of the leds "MIN, MID and MAX": otherwise, if no defect is found, no light will be on and we can touch the OFF/Standby button to go on to the next step.

Checking the right function of the buttons:

- 9- touch the "MIN" symbol: a beep sounds to confirm the right function of the button. (test ok, go on to the next step)
- 10- touch the "MID" symbol: a beep sounds to confirm the right function of the button. (test ok, go on to the next step)
- 11- touch the "MAX" symbol: a beep sounds to confirm the right function of the button. (test ok, go on to the next step)
- 12- touch the "SUPER" symbol: a beep sounds to confirm the right function of the button. (test ok, go on to the next step)
- 13- touch the "ALARM" symbol: a beep sounds to confirm the right function of the button. (test ok, go on to the next step)
- 14- Checking the right functioning for freezer door reed: close and open the freezer door: a beep sounds. (test ok, go on to the next step)

Reed freezer checking:

Touch again the button "OFF/Standby" and within 5 seconds move a magnet in front of the reed position a sound of a beep will confirm the reading signal for the magnet. This step ends within 10 seconds.



Checking the electrical load signals sent by the electronic module to the various components:

note: in this phase the electrical load to each component will be sent for a period of 2 minutes after that the manual test will exit for time-out occurred.

- 15- Touch the button "OFF/Standby": At the touch of the button a beep sounds and confirm the right functioning for the function. the module sends the electrical load to the compressor, "MIN" led will light on and compressor starts to run for about 2 minutes. (test ok, go on to the next step)
- 16- Touch again the button "OFF/Standby": At the touch of the button a beep sounds and confirm the right functioning for the function. the module sends the electrical load to the fan, "MID" led will light on and fan starts to run for about 2 minutes. (test ok, go on to the next step)
- 17- Touch again the button "OFF/Standby": At the touch of the button a beep sounds and confirm the right functioning for the function. the module sends the electrical load to the heating element, "MAX" led will light on and heating element starts to run for about 2 minutes. (test ok, go on to the next step)

A further pressure on the button OFF/Standby will exit the manual test: otherwise, exit from manual test mode automatically happens after 120 seconds of time-out.

Dismounting procedure

(upper door and support removing procedure)



upper door view



rotate the support in counterclockwise sense: the door will be free and we can remove it.



support turned lateral view



support removed:



to assemble the door: place the plastic washer on the pin before to lock the support:



Assemble the door to the pin and place the support on the provided hole on the cell:

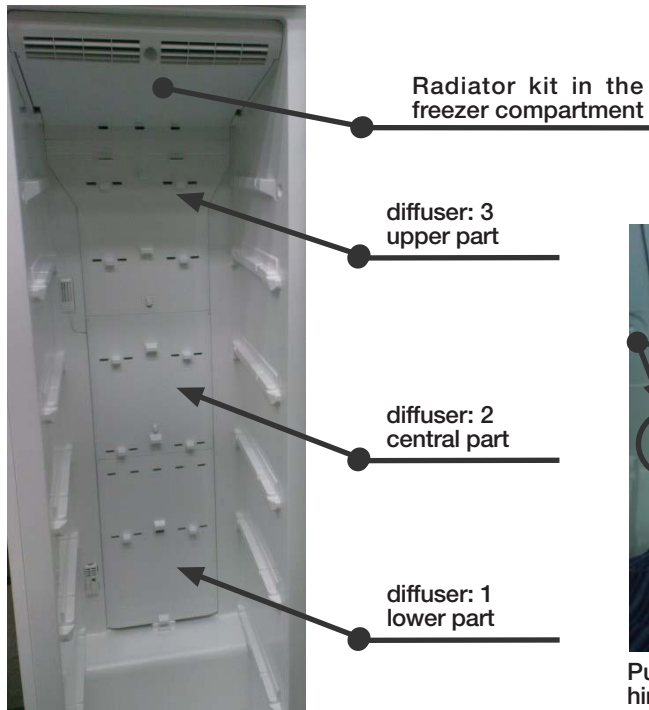


rotate the support up to lock it

Dismounting procedure

(no frost radiator kit area access)

No frost radiator kit opening



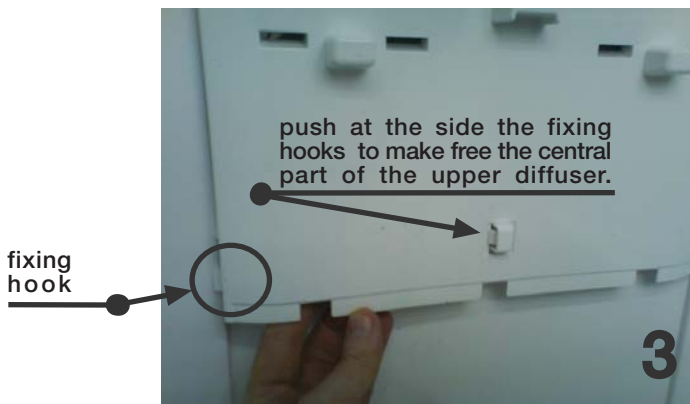
Pull the lower panel towards himself to make free the fixing hooks at the lateral side.



Lift the lower panel towards himself by the lower part so to make free the fixing hook between the diffuser parts. (central diffuser part) . Do the same to remove the diffuser central part.

To access the radiator kit it needs to remove before all the diffuser parts starting from the lower part up to the upper part

diffuser upper part: central fixing hook



Fixing hooks at the upper part of the upper diffuser immediately near the radiator kit.



Dismounting procedure

(no frost radiator kit area access)

No frost radiator kit opening

1- After have removed the diffuser parts go to the back side of the appliance:
Apply a protection to the condenser upper part to avoid damages for the hands and remove the drain pipe mounted on the back wall of the appliance by moving a little it both to the left and to the right and then pulling it to take it off from the cabinet

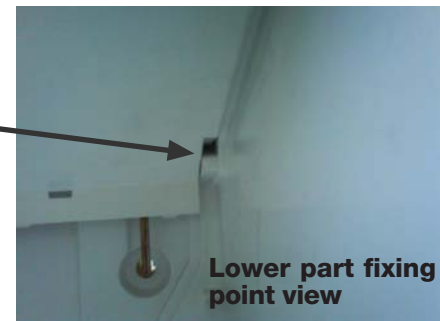
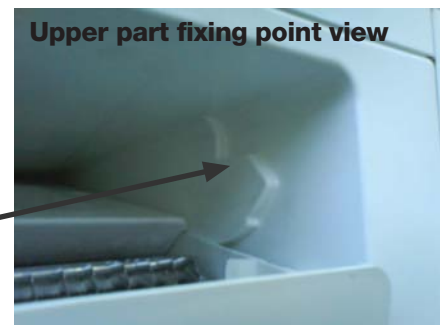


Condenser border on which to apply the protection before to dismount the drain pipe.

To extract the radiator kit from the cabinet pull it towards himself after have removed the pipe at the back side of the appliance and the fixing upper screw.



2 - align the arrow by rotating a quarter of a round the plastic exagonal screw placed inside the hole:
then pull the radiator kit to make it free from the fixing points.



Dismounting procedure

(no frost radiator kit area access)

No frost radiator kit opening

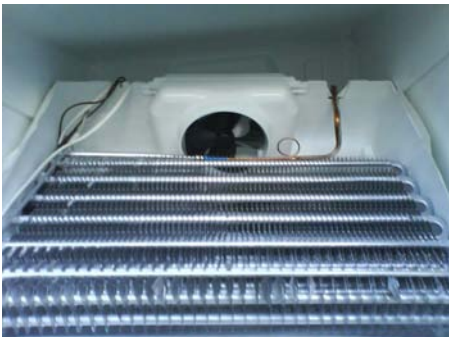
The opening of the radiator kit can now be done obviously only in a partial way because the suction pipe is still connected to the compressor. Anyway now it is possible to work on the radiator while is kept inside the appliance and we can replace the possible defective parts and we can inspect the radiator kit.

Radiator kit opened on the cabinet



Insulation removing

To dismount the insulation remove the fixing adhesive strips placed on both the sides of the radiator kit.



Insulation removed view:

Upper conveyer removed view



Exit point of suction tube



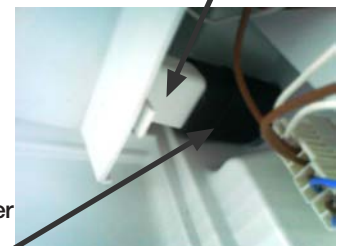
Internal cable connector

Radiator kit Back side view

Right positioning for cable and suction tube



Water drain tube



Black rubber pipe

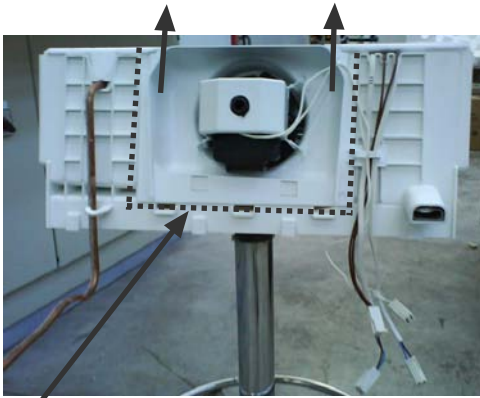
Important note

When we reassemble the radiator kit on the cabinet make sure that the water drain tube is perfectly inserted inside the black rubber tube on the cabinet.

Dismounting procedure

(no frost radiator kit - motorfan replacing)

Motorfan replacing



Joint support for motorfan

Motor fan is mounted on his support inserted in a joint on the radiator kit from which can be removed by pulling it towards the upper part: this action will allow easier operation to replace the motorfan and his components in case of fault.

fixing hook detail



Motorfan position on the radiator kit

Motorfan removing from radiator kit



Fixing hook detail at the lower border of the radiator kit



Motorfan back side view

Dismounting procedure

(no frost radiator kit - motorfan replacing)



3

Remove the fan by manually pull it from the central point.



4

Fan removed view



5

Remove the back side support making free the fixing hooks at both lateral sides of the support.



6

Internal rubber support with motorfan removed: view



7

Back side rubber support with motorfan removed: view

Dismounting procedure

Handle: Installation/replacing



1 - ASKO step 2 Handle view



4 - Unscrew at the lateral side



2 - Fixing screw at the lower side (view)



5 - remove the handle



3 - Unscrew at the lower side



6 - remove the handle support

Dismounting procedure

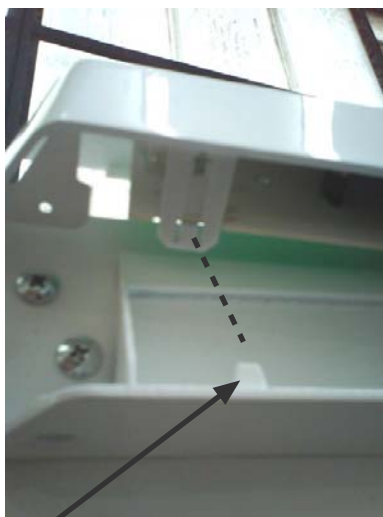
Electronic module: Installation/replacing



1 -remove the closing cap of the hole's screw which are pressure mounted: then remove the fixing screws at both the lower sides of the control panel.



2 -lift the control panel to make free the fixing hooks at the lower side of the control panel support.



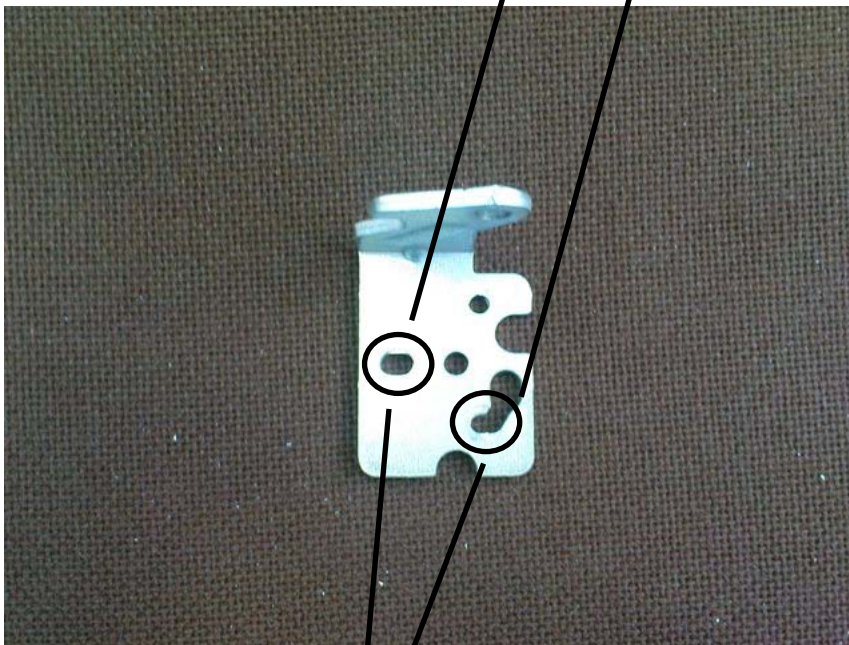
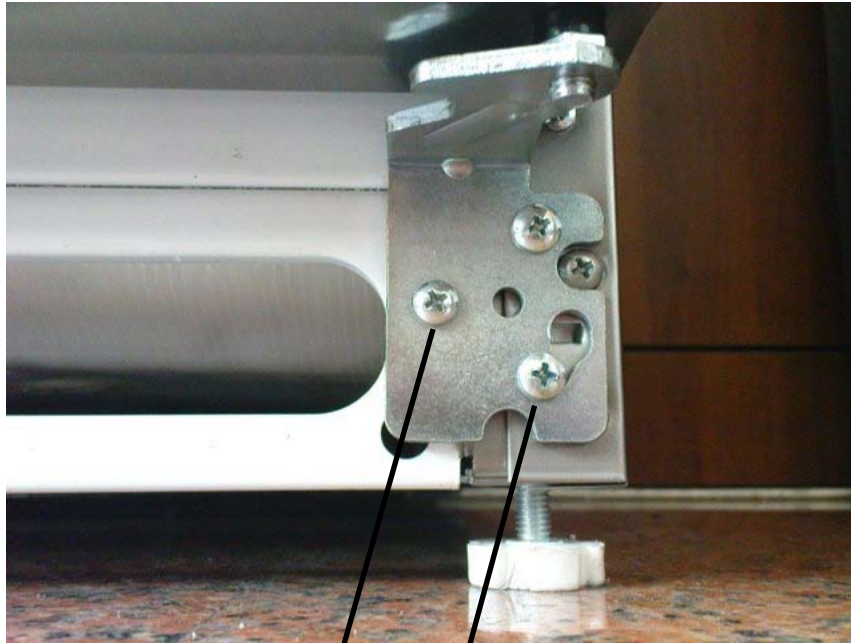
Frontal fixing hook inside the support



Back side hook border

Lower Hinge regulating (door alignment)

Door alignment is possible by regulating the lower hinge fixing the screw in the optimal position.

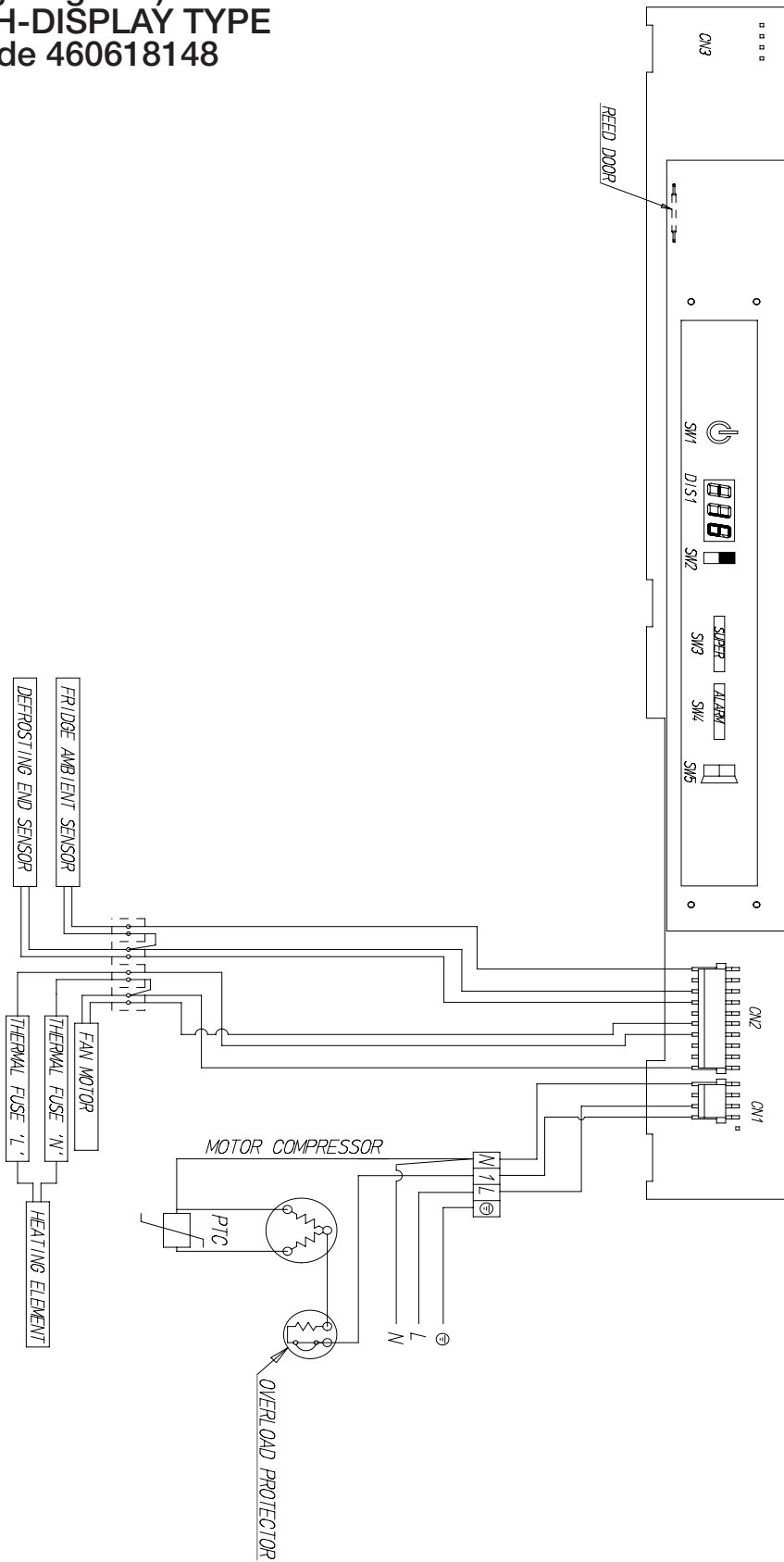


Door alignment
regulating holes

Wiring diagram

(Wiring diagram)
TOUCH-DISPLAY TYPE
 ref. code 460618148

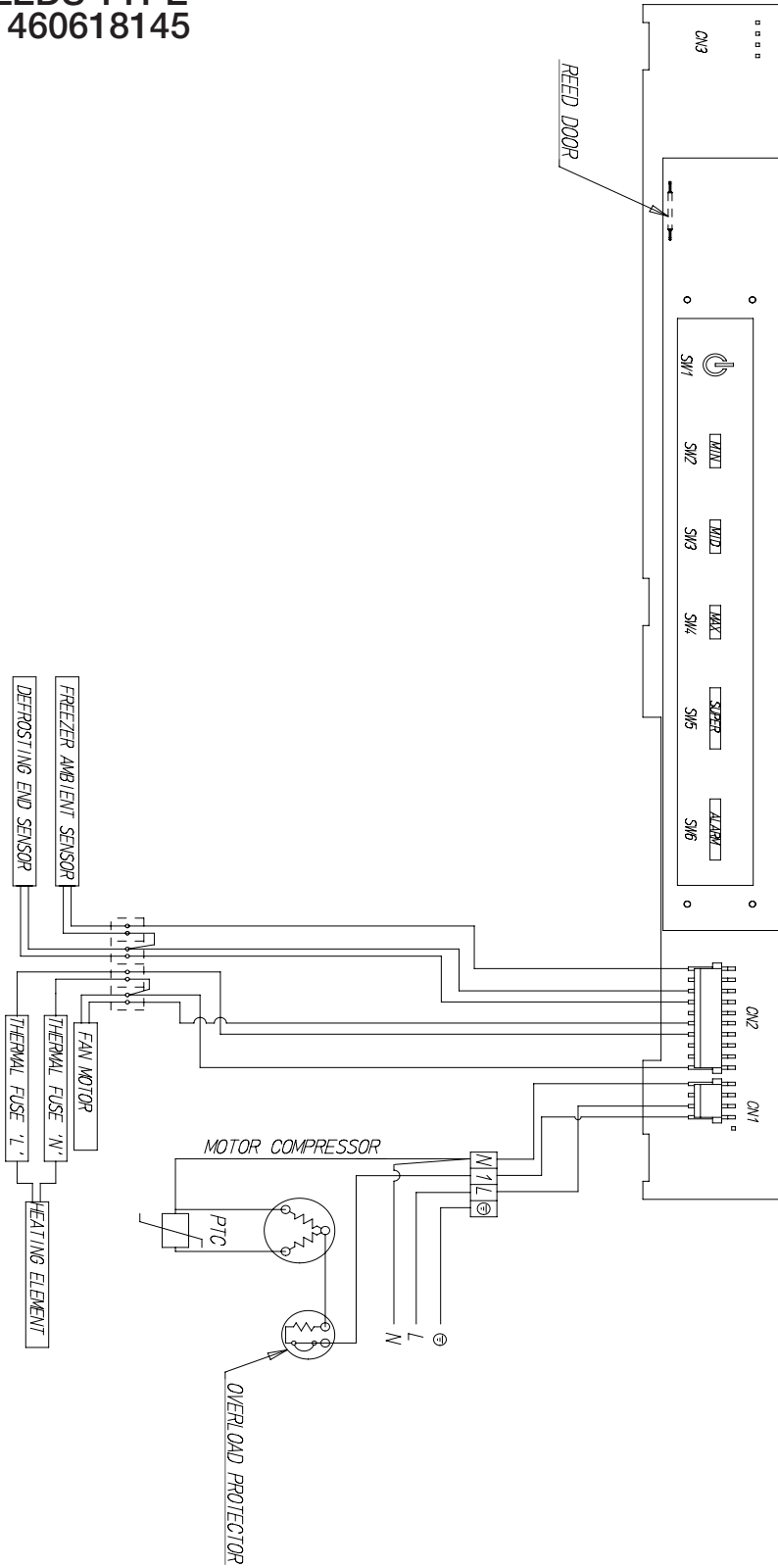
WIRING DIAGRAM GCS29NFH TOUCH DISPLAY

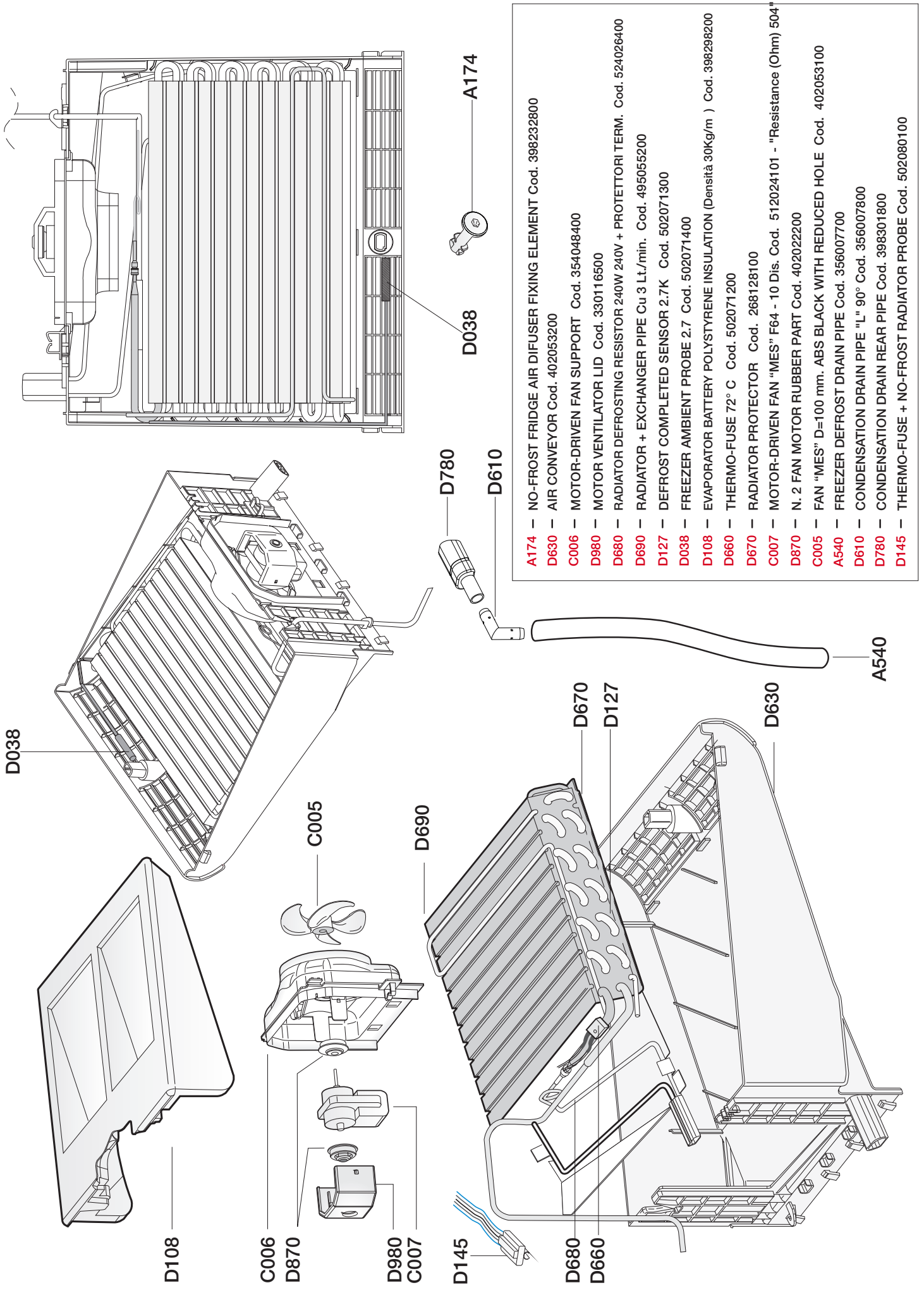


Wiring diagram

(Wiring diagram)
TOUCH-LEDS TYPE
ref. code 460618145

WIRING DIAGRAM GCS29NFH - GCS30NFH TOUCH LED





- A174** — NO-FROST FRIDGE AIR DIFUSER FIXING ELEMENT Cod. 398232800
- D630** — AIR CONVEYOR Cod. 402053200
- C006** — MOTOR-DRIVEN FAN SUPPORT Cod. 354048400
- D980** — MOTOR VENTILATOR LID Cod. 330116500
- D680** — RADIATOR DEFROSTING RESISTOR 240W 240V + PROTETTORI TERM. Cod. 524026400
- D690** — RADIATOR + EXCHANGER PIPE Cu 3 Lt./min. Cod. 495055200
- D127** — DEFROST COMPLETED SENSOR 2.7K Cod. 502071300
- D038** — FREEZER AMBIENT PROBE 2.7 Cod. 502071400
- D108** — EVAPORATOR BATTERY POLYSTYRENE INSULATION (Densità 30Kg/m) Cod. 398298200
- D660** — THERMO-FUSE 72° C Cod. 502071200
- D670** — RADIATOR PROTECTOR Cod. 268128100
- C007** — MOTOR-DRIVEN FAN "MES" F64 - 10 Dis. Cod. 512024101 - "Resistance (Ohm) 504"
- D870** — N. 2 FAN MOTOR RUBBER PART Cod. 402022200
- C005** — FAN "MES" D=100 mm. ABS BLACK WITH REDUCED HOLE Cod. 402053100
- A540** — FREEZER DEFROST DRAIN PIPE Cod. 356007700
- D610** — CONDENSATION DRAIN PIPE "L" 90° Cod. 356007800
- D780** — CONDENSATION DRAIN REAR PIPE Cod. 398301800
- D145** — THERMO-FUSE + NO-FROST RADIATOR PROBE Cod. 502080100