

# Service manual

## GO Combi



**WARNING**

*Read the instructions before using the machine.*



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# General information

## Target group

This document is aimed at service technicians who have been trained in installing and servicing the oven. The oven must only be installed and serviced by qualified service technicians.

## Technical changes

This document is subject to changes without notice.

## More documentation

You find more documentation about the oven at our website. For more information, see the back page.

## Permissions

Log in as "Technician" to have the necessary rights to be able to change the oven setup, use the test functions, update software, etc. See section "Accessing the settings menu".

## Screen dumps

The screen dumps in this manual are based on a 10-1/1 GN oven with core probe.

## Symbols used in this document



### DANGER

Dangerous situation which will, if not avoided, result in death or serious personal injury.



### WARNING

Dangerous situation which may, if not avoided, result in death or serious personal injury.



### CAUTION

Dangerous situation which will, if not avoided, result in minor or moderate personal injury.



### SIGNAL WORD

Description of the hazard

- Action to avoid the hazard.

### IMPORTANT!

If these instructions are not observed, it may result in malfunction or damage to the oven.



Tips and advice that makes the work easier.



A red or grey circle with a diagonal bar indicates that an action must not be taken or must be stopped.



A blue or grey circle with a white graphical symbol indicates that an action must be taken.

## Safety information



Read this document before using, installing or servicing the product. Installation and operation must comply with local regulations and accepted codes of good practice.



All maintenance and repair must be carried out by qualified installation and service technicians only. Installation and/or service by others than qualified technicians may result in injury to the operator and/or damage to the oven.

## General safety instructions



The oven must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by the utility to avoid a hazard due to inadvertent resetting of the thermal cut-out.



**DANGER**

Risk of fire or explosion

- Do not store flammable liquids or gases close to the oven.



**DANGER**

Risk of injury

- Follow the instructions in this manual carefully.
- Make sure this manual is freely available to everyone working with the oven and for later reference.

## Safety instructions before use



**DANGER**

Risk of electric shock

- Install an approved plug or safety switch close to the oven to ensure that the oven can be disconnected during installation and repair.
- The safety switch must be compliant with applicable national and local requirements.
- In case of Stackit arrangements, install a safety switch on each oven.



**DANGER**

Risk of squeezing

- Always install a roll-in oven on a level flat floor.
- Always use the parking brake on roll-in trolleys.



**DANGER**

Risk of electric shock

- Pay attention to the colour coding of the wiring; yellow/green is the earth connection and blue is neutral.



**DANGER**

Risk of electric shock

- Provide the oven with additional electrical protection in accordance with applicable rules and regulations.
- Use a type F or type B RCD 30 mA.



**WARNING**

Risk of drawing-in or trapping

- Always make sure no humans or animals are unintentionally in the cavity before starting the oven.



**DANGER**

Risk of squeezing

- Never lift the oven from the left-hand side.

## Safety instructions during use



**CAUTION**

**Risk of crushing**

- Always close the door with one hand on the handle to avoid crushing you fingers.

## Safety instructions during maintenance and service



**DANGER**

**Risk of electric shock**

- Disconnect the oven from the power source during service and when replacing spare parts.
- Make sure that the service technician can see that the power plug is disconnected at all times during maintenance and repair.



**DANGER**

**Risk of electric shock**

- After maintenance and service, perform an electrical inspection in compliance with local and national rules and regulations.



**WARNING**

**Risk of cutting or severing**

- Be very careful, if you need to remove the baffle plate in front of the fan wheel during service or maintenance.



**CAUTION**

**Risk of slipping**

- Be careful when you remove the used HydroShield water filter as it is heavy and filled with water.



**CAUTION**

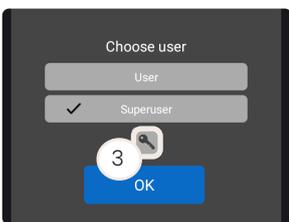
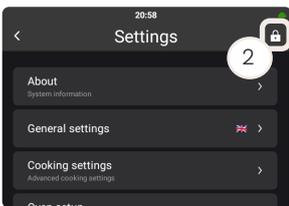
**Risk of burn injury**

- Cool down the oven before servicing or maintaining the oven.
- Use personal protective gloves if you perform maintenance or repair in a hot cavity.

# Setting the oven

## Accessing the settings menu

1. Touch "Settings" in the home screen menu.
2. Touch the locked icon.
3. Touch the key icon.
4. Enter the code for the access rights needed.



User role	Permissions	Code
"User"	Access to the user menu.	-
"Superuser"	Access to the user and superuser menu.	876412
"Technician"	Access to the user, superuser and technician menu.	576021

Table 1

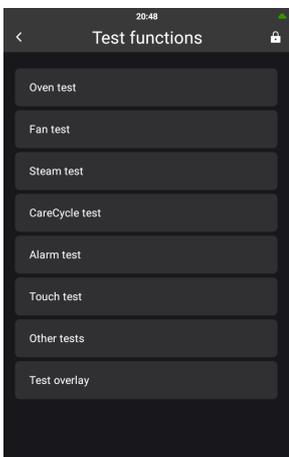
Log in as "Technician" to have the necessary rights to be able to change the oven setup, use the test functions, update software, etc. When you have finished using the "Technician" permissions, restart the oven to reset the access level to "Superuser".

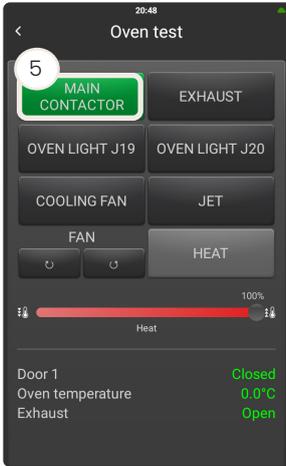
## Using the test functions

The test functions are useful for faultfinding. You can test the below-mentioned functions.

- Oven
- Fan
- Steam
- CareCycle
- Alarm
- Touch
- Other
- PassThrough
- Test overlay

Remember to activate the main contactor to be able to test the functions.



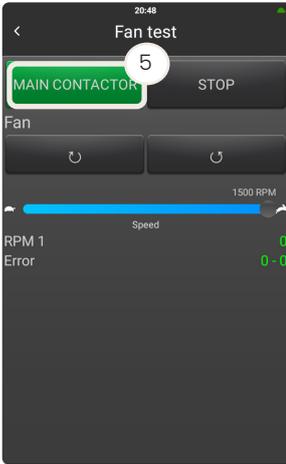


### Testing the oven

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Test functions".
4. Touch "Oven test".
5. Touch "Main contactor".
6. Touch the buttons with the name of the function you want to test.

Value	Description
"Door 1"	Displays whether the door is open or closed. If you are testing a Passthrough oven, there will be both a "Door 1" and "Door 2".
"Oven temperature"	Displays the current temperature in the oven.
"Exhaust"	Displays whether the exhaust is open or closed.

Table 2

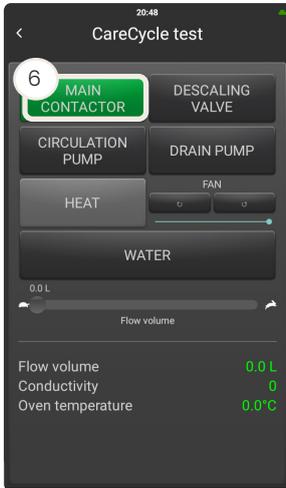


### Testing the fan function

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Test functions".
4. Touch "Fan test".
5. Touch "Main contactor".
6. Touch the buttons with the name of the function you want to test.

Value	Description
"RPM 1"	Displays the rpm of the upper fan.
"RPM2"	Displays the rpm of the lower fan.
"Error"	Displays if there is an error on the upper or lower fan.

Table 3

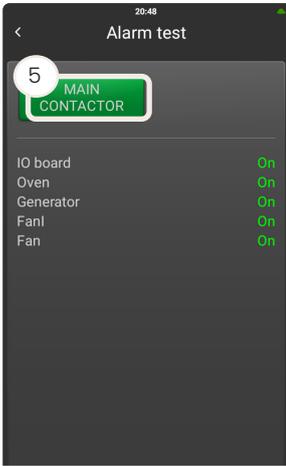


### Testing the CareCycle functions

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Test functions".
4. Touch "Water test".
5. Touch "Main contactor".
6. Touch the buttons with the name of the function you want to test.

Value	Description
"Conductivity"	The conductivity of the water used for washing.
"Oven temperature"	The current oven temperature.

Table 4

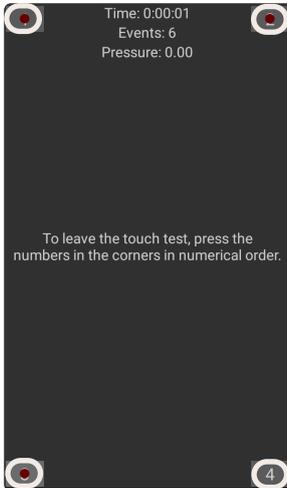


### Testing the alarm functions

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Test functions".
4. Touch "Alarm test".
5. Touch "Main contactor".
6. Touch the buttons with the name of the function you want to test.

Value	Description
"IO board"	Displays whether the alarm is on or off. If it is off, check the bus.
"Oven"	Displays whether the alarm is on or off. If it is off, check the thermo switch in the oven.
"FanI"	Displays whether the alarm is on or off. If it is off, check the thermo switch on the fan motor.
"FanII"	Displays whether the alarm is on or off. If it is off, check the thermo switch on the fan motor.

Table 5



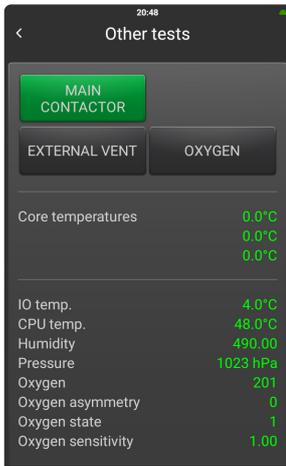
## Testing the touch display function

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Test functions".
4. Touch "Touch test".
5. Press a finger to the screen and drag it in any direction.



If there are any dead spots in the touch display, you will see a delay or markings that are not related to the markings made by your finger.

6. To leave the touch test, press the numbers in the corners in numerical order.



## Testing the “Other test” function

1. Touch “Settings” in the home screen menu.
2. Touch “Oven setup”.
3. Touch “Test functions”.
4. Touch “Other test”.

Value	Description
“Core temperatures”	Display the temperature of each of the three core probe sensors.
“IO temp.”	Displays the temperature of the IO board. The temperature increases if the cooling fan is broken, or the filter is blocked.
“CPU temp.”	Displays the temperature of the controller. The temperature increases if the cooling fan is broken, or the filter is blocked.
“Humidity”	Displays the humidity in the oven.
“Pressure”	Displays the pressure which is used to calculate the humidity.
“Oxygen”	Displays the oxygen level in the oven in relation to the humidity.
“Oxygen asymmetry”	A value that indicates if the oxygen sensor is degrading and needs to be changed.
“Oxygen sensor state”	A value from 0-3 that indicates the state of the oxygen sensor. The sensor can be 0 = off, 1 = on, 2 = pump of and 3 = off.
“Oxygen sensitivity”	Value that can be read after calibration.

Table 6

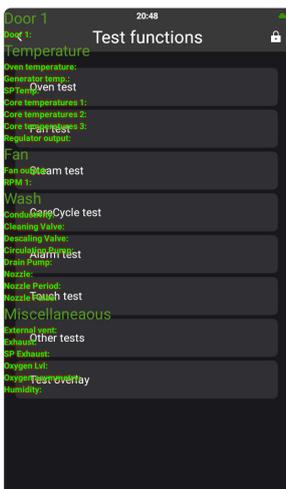


## Testing the PassThrough function

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Test functions".
4. Touch "PassThrough test".

Value	Description
"Displayed time"	Shows the time that is displayed on the PassThrough display.
"Restart button"	Displays if the button on the PassThrough display has been pushed.
"IO temp."	Displays the temperature on the PassThrough IO board.
"Door status"	Displays if the door is open or closed.
"Touch sensitivity"	Displays the sensitivity of the PassThrough button.

Table 7

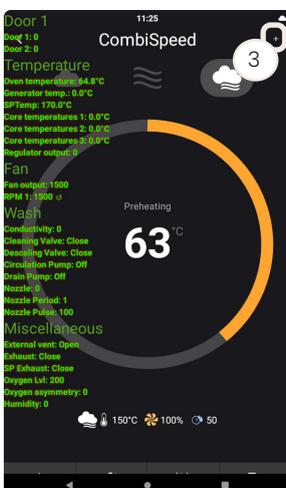


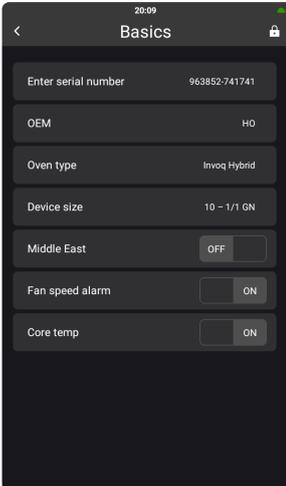
## Displaying the test overlay function

The test overlay function gives you an overview of the current values of the oven.

You can also view the test overlay function from the "Manual" menu.

1. Log in as "Technician" with the code 576021.
2. Touch "Manual" in the home screen menu.
3. Touch "+" to view the test overlay function.
4. Touch "+" again to remove the view.



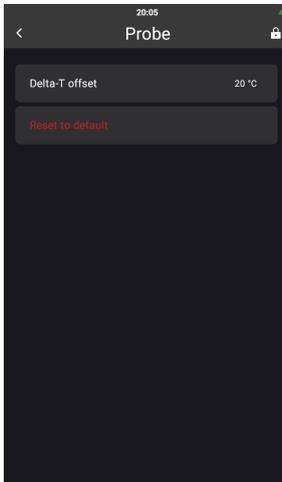


## Setting the oven setup

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Basics".

Value	Description
"Enter serial number"	Enter the serial number of the oven, which you find on the rating plate on the oven.
"OEM"	Select between the different private label customers.
"Oven type"	Select between the different oven types.
"Device size"	Select between the different oven sizes.
"Middle East"	If the value is set to "ON", you only have access to recipes without pork.
"Fan speed alarm"	If the value is set to "OFF", you do not receive any alarms if the fan is faulty.
"Core temp."	Set the value to "ON" if you use a core probe.

Table 8

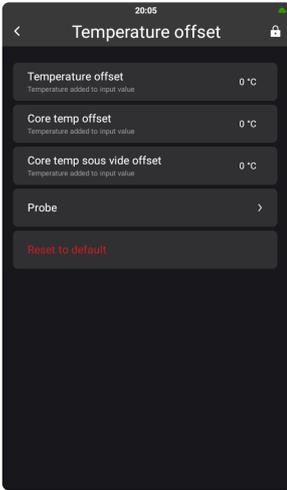


## Adjusting the temperatures

1. Touch "Settings" in the home screen menu.
2. Touch "Cooking settings".
3. Touch "Temperature offset".
4. Touch "Probe".
5. Touch "Delta-T offset".
6. Select the preferred offset.



Touch "Reset to default" to restore the factory settings on this page.

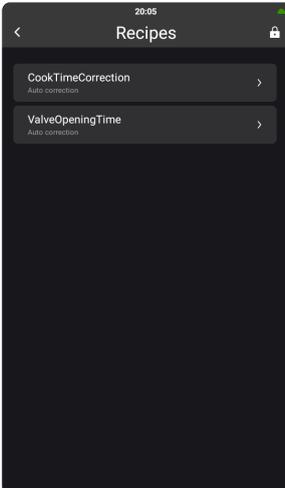


## Changing the temperature offsets

1. Touch "Settings" in the home screen menu.
2. Touch "Cooking settings".
3. Touch "Temperature offsets".
4. Make the relevant changes.

Value	Description
"Temperature offset"	Set the temperature, which is added to the input value.
"Core temp offset"	Set the temperature, which is added to the input value. If the temperature is showing a temperature at 98°C, but is actually 100°C, you should set the offset to "2".
"Core temp sous vide offset"	Set the temperature, which is added to the input value.
"Probe"	Set the Delta-T offset.

Table 9

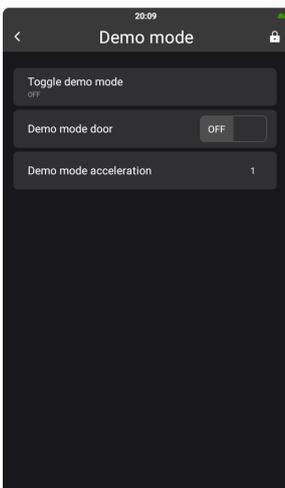


### Changing the recipes cooking settings

1. Touch "Settings" in the home screen menu.
2. Touch "Cooking settings".
3. Touch "Recipes".
4. Make the relevant changes.

Value	Description
"CookTimeCorrection" (CTC)	In this menu, you can do the following: <ul style="list-style-type: none"> <li>• Toggle the CookTimeCorrection on/off.</li> <li>• Set the temperature delta before activation (CTC tolerance).</li> <li>• Set the outside tolerance adjustment percentage (CTC tolerance).</li> </ul>
"ValveOpeningTime" (VOT)	You can toggle the ValveOpeningTime on/off.

Table 11



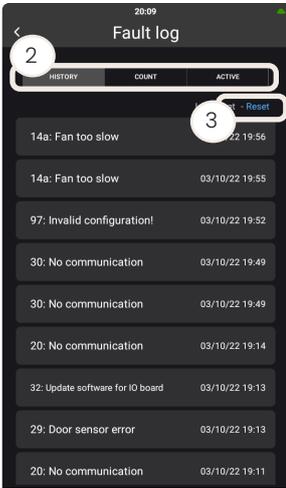
### Enabling the "Demo mode" function

Use the demo mode function for demonstration purposes. In demo mode, the heating elements and the steam generator will not be switched on when the oven is running.

1. Touch "Settings" in the home screen menu.
2. Touch "Oven setup".
3. Touch "Demo mode".

Value	Description
"Toggle demo mode"	Toggle the demo mode function on and off.
"Demo mode door"	Toggle the demo mode door on and off.
"Demo mode acceleration"	This function speeds up the time in demo mode. 1 = time x 1 (1 second = 1 second). 5 = time x 5 (1 second = 0.2 seconds).

Table 10



## Resetting the fault log

You can reset the fault log in case there is an active error, which is the case, if there is a warning icon in the upper right-hand side of the user interface.

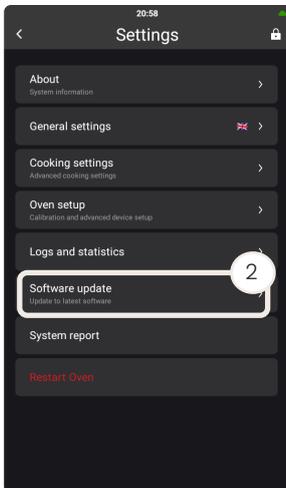
1. Touch the warning icon the home screen menu.
2. Select either "History", "Count" or "Active".
3. Touch "Reset" to reset the fault log counter, if necessary.

Value	Description
"History"	A chronological overview of the fault logs on the oven.
"Count"	A summary of the faults that have been on the oven.
"Active"	Displays any active faults on the oven.

Table 12



For more information about the error types, see the faultfinding manual.



# Updating software

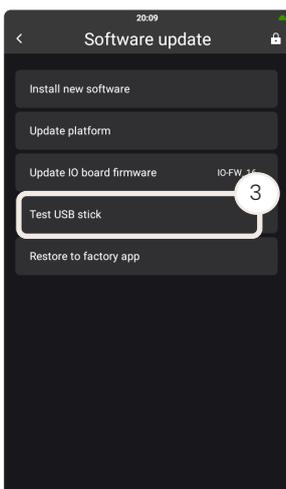
## Updating software

The latest software version is available on our website. To update the software, you need a USB stick.

### Verifying the USB stick

Before you download the latest software to the USB stick, make sure that the oven recognises the USB stick.

1. Go to "Settings" in the home screen menu.
2. Touch "Software update".
3. Touch "Test USB stick".
4. If the USB stick is supported, you will be asked if all folders on the USB stick should be set up.



### Downloading the software

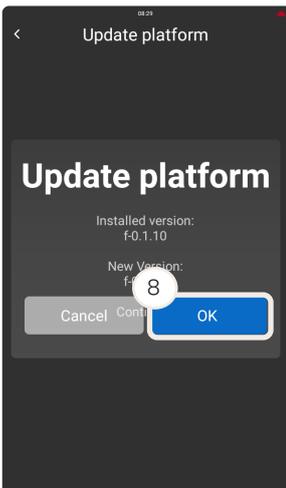
1. Verify the USB stick. See "Verifying the USB stick" on page 25.
2. Go to the website. For more information, see the back page.
3. Select the "Software" menu.
4. Click the file you want to download.
5. Wait until the download is complete. This may take several minutes.
6. Copy the downloaded zip file to the "PlatformUpdate" folder inside the "Invoq" folder on the USB stick.



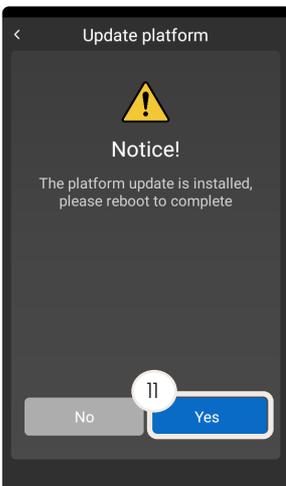
### Updating software with USB stick

1. Follow the instructions in "Verifying the USB stick" and "Downloading the software".
2. Insert a USB stick on the right-hand side of the oven.
3. Touch "Settings" in the home screen menu.
4. Log in as "Technician". The password is 576021.
5. Touch "Settings".
6. Touch "Software update".
7. Touch "Update platform".
8. Confirm that it is the correct software that will be installed.
9. The update starts.

**IMPORTANT!** Do not interrupt the update procedure. The update will take approximately five minutes.



10. When the update is completed, it will prompt if the oven can be restarted to complete the update.
11. Touch "Yes" to restart the oven.



# Opening the service accesses



DANGER

Risk of electric shock

- Disconnect the oven from the power source during service and when replacing spare parts.
- Make sure that the service technician can see that the power plug is disconnected at all times during maintenance and repair.



CAUTION

Risk of burn injury

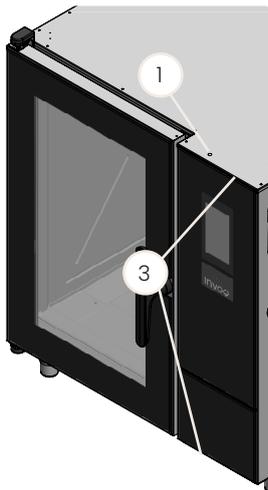
- Cool down the oven before servicing or maintaining the oven.
- Use personal protective gloves if you perform maintenance or repair in a hot cavity.



DANGER

Risk of electric shock

- After maintenance and service, perform an electrical inspection in compliance with local and national rules and regulations.

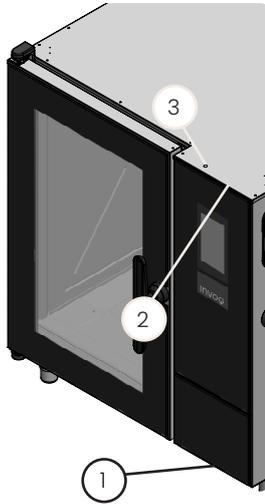


## Opening the front panel

1. Remove the silicone protection plug from the hole in the top of the front panel.
2. Use a screw driver to loosen the spring.
3. Grab the front panel with both hands at the top and bottom.
4. Pull out the front panel.
5. Reinsert the silicone protection plug.

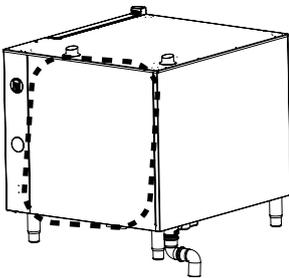
**IMPORTANT!**

Always reinsert the silicone protection plug. Otherwise, the oven is not compliant with IPX5.



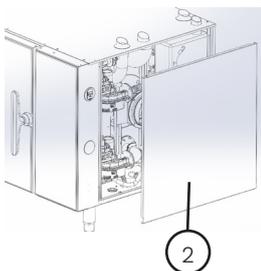
### Closing the front panel

1. Lift the bottom of the front panel and place it.
2. Hold the bottom of the front panel while pushing the top of the front panel in place.
3. Check that the silicone protection plug is in place. Otherwise, insert a new one.



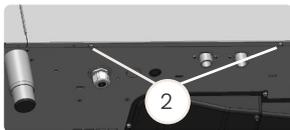
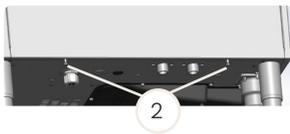
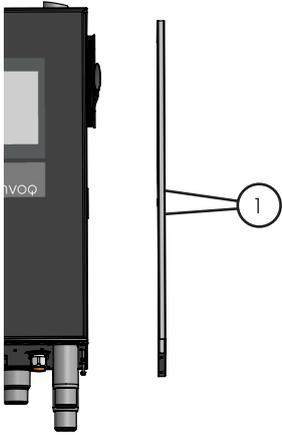
### Dismounting the side panel

1. Loosen the two screws beneath the oven.
2. Lift up and pull out the side panel.



## Mounting the side panel

1. Fit the side panel in the two hooks on the right-hand side.
2. Position the side panel.
3. Fasten the two screws beneath the oven.



## Replacing parts



DANGER

Risk of electric shock

- Disconnect the oven from the power source during service and when replacing spare parts.
- Make sure that the service technician can see that the power plug is disconnected at all times during maintenance and repair.



CAUTION

Risk of burn injury

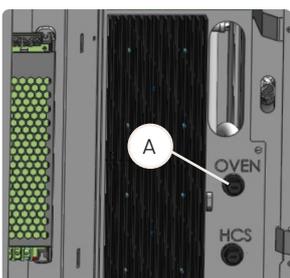
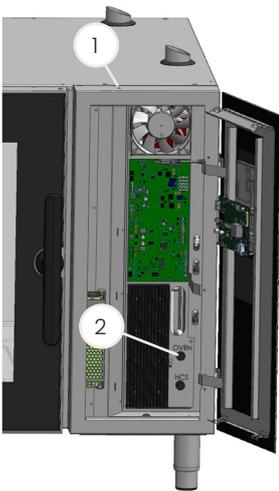
- Cool down the oven before servicing or maintaining the oven.
- Use personal protective gloves if you perform maintenance or repair in a hot cavity.



DANGER

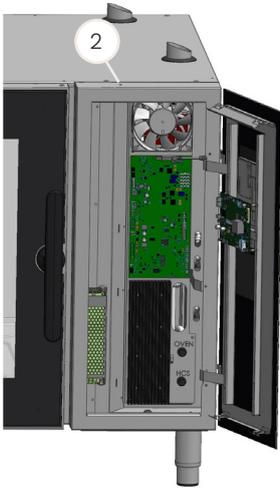
Risk of electric shock

- After maintenance and service, perform an electrical inspection in compliance with local and national rules and regulations.



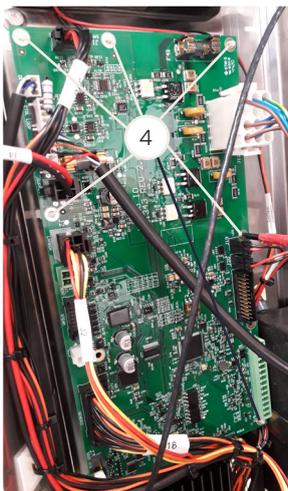
## Resetting the thermo switch for the oven cavity

1. Open the front panel. See section "Opening the front panel".
2. Remove the plastic cover with a flatheaded screwdriver.
3. Push the button (A) with a screwdriver until it clicks to reset the thermo switch.
4. Replace the plastic cover.
5. Close the front panel. See section "Closing the front panel"



## Replacing the IO board

1. Turn of the power to the oven.
2. Open the front panel. See section "Opening the front panel".



3. Dismount all cables.
4. Dismount the six clips and the screw.
5. Replace the IO board.
6. Follow the procedure in reverse order



## Replacing the controller

1. Turn off the power to the oven.
2. Open the front panel. See section "Opening the front panel".
3. Dismount the three cables.

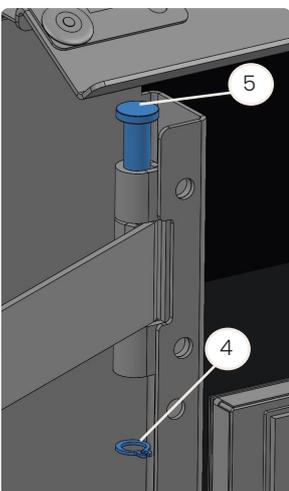


4. Pinch the four white plastic screws to remove them.
5. Replace the controller.
6. Mount the three cables.
7. Follow the procedure in reverse order.

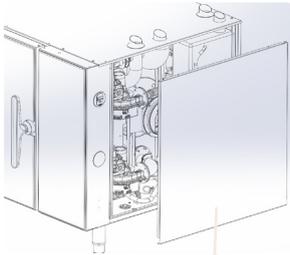


## Replacing the front panel

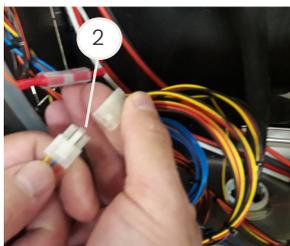
1. Turn off the power to the oven.
2. Open the front panel. See section "Opening the front panel".
3. Dismount the cables from the controller.



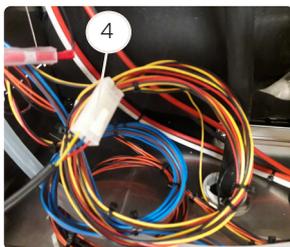
4. Dismount the locking rings on the upper and lower hinges on the inside of the oven door.
5. Pull out the pins.
6. Replace the front panel.
7. Follow the procedure in reverse order.



1



2



4

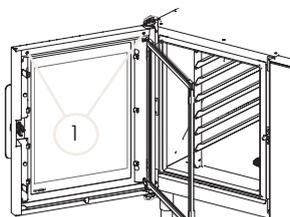
## Replacing the door sensor

1. Dismount the side panel. See section "Dismounting the side panel".
2. Disconnect the door sensor.
3. Pull out and replace the door sensor.



Tie a cord to the old door sensor cable and use it to drag in the new door sensor.

4. Connect the door sensor.
5. Mount the side panel. See section "Mounting the side panel".
6. Calibrate the door sensor. See section "Calibrating the door sensor" in the user manual.

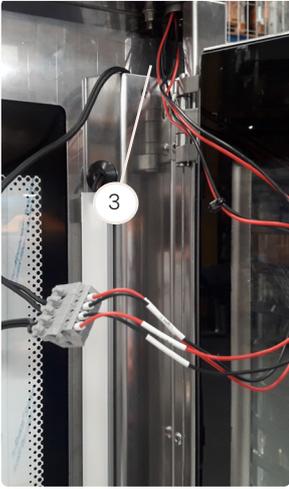


1

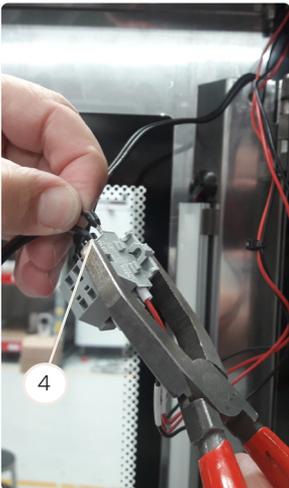


## Replacing the LED fixture

1. Open the oven door.
2. Remove the two screws.



3. Remove the metal bracket.



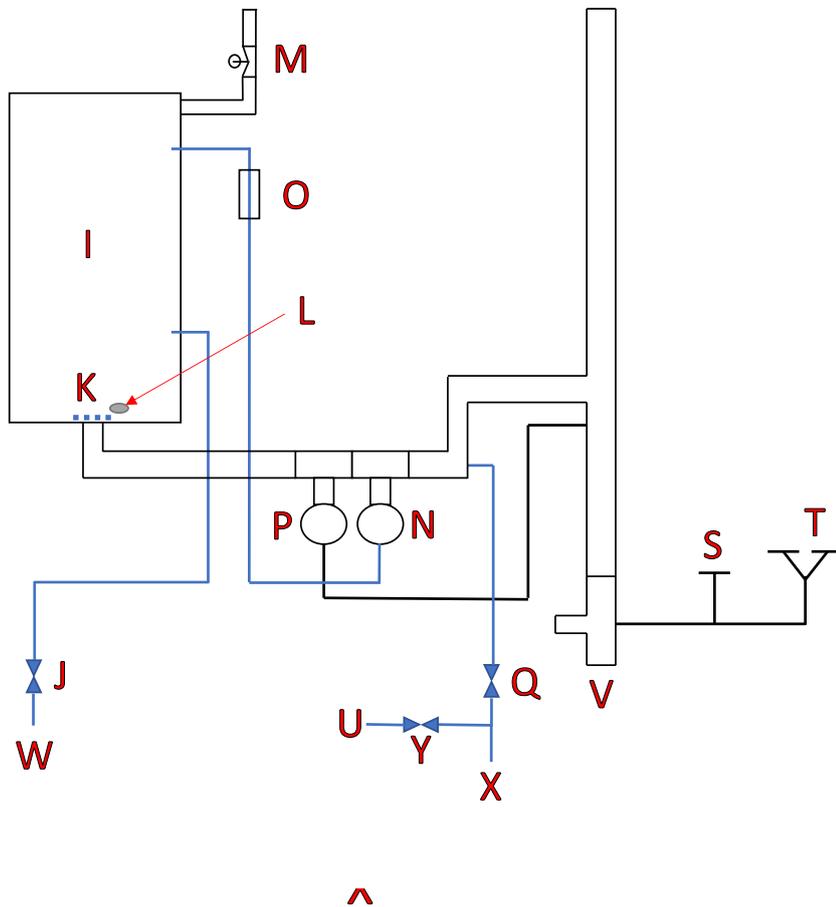
4. Pull out the cable.



5. Dismount the cable.
6. Dismount the LED fixture.
7. Replace the LED fixture and cable.
8. Follow the procedure in reverse order.

# Technical data

## Water layout



Position	Description	
I	Oven cavity	
J	Valve	Water to injection steam
K	Drain	
L	CareCycle Clean and CareCycle Descale	
M	Valve	Steam out of oven cavity
N	Pump	Washing of the oven cavity
O	Conductivity sensor	Water from washing pump
P	Pump	Emptying of drain
Q	Valve	Water to washing cycle
S	Single door	
T	PassThrough door	
U	Hand shower	
V	Drain outlet	
W	Water inlet**	Treated water
X	Water inlet	
Y	Ball valve	Valve mounted on hand shower

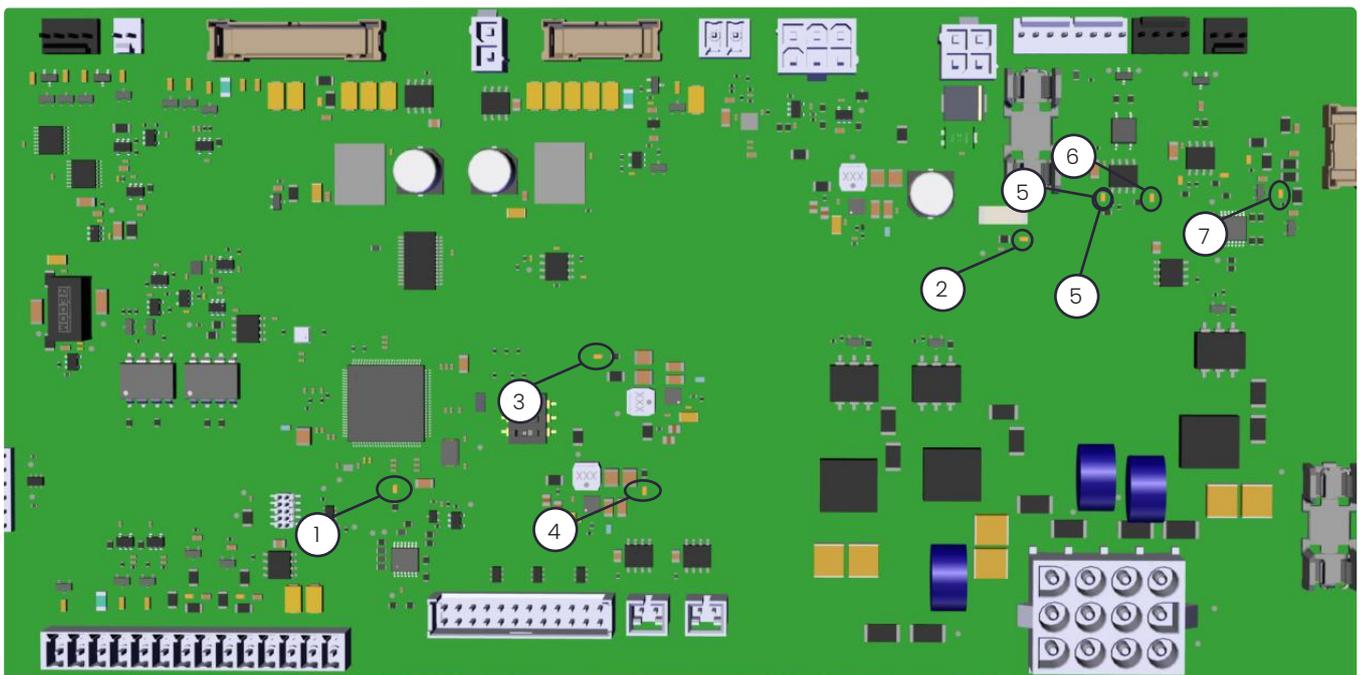
Table 13

## IO board LEDs

Description and connection of the LEDs on the IO board, which gives an overview of the LEDs and their function.

Pos.	No.	Description
1	D15	Power
2	D20	24V
3	D22	3.3 V
4	D25	5.0 V
5	D37	RS485 RX
6	D38	RS485 TX
7	D41	Cavity safety OK

Table 14



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