Doyon Artisan

Instruction Manual

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1 | Oven technical information

OVEN MANUFACTURER:

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Oven with control panel 9080

2 | Connections to be made to the oven (control panel 9080)

2.1 STEAM, WATER, DRAIN AND ELECTRICAL CONNECTIONS

STEAM OUTPUT

To ensure a successful baking process, the steam output must be independent from the exhaust output.
Install an aluminum tube of 80mm in diameter to separate the steam output from the exhaust output.

WATER INPUT

The connection of water to the oven should have the following characteristics:

- A pressure between **4**3 and 5**0 PSI**;
  - · If pressure is below this figure install a water pressure booster pump.
  - · If pressure is above this figure, install a pressure regulator.
- It is advisable to apply a water softener before connecting the water to the oven, in order to avoid sedimentation of limestone in the steam parts, as this will prolong its life and improve its effectiveness.

DRAIN

Connect the drain to the sewage system. The connection must be lower than the oven prover bath (when applicable).

ELECTRICAL POWER INPUT

The client should install an individual circuit breaker that meets the oven power **data plate** specifications.

Fig. 1.1
Power cable.

Fig. 1.2
Water input.

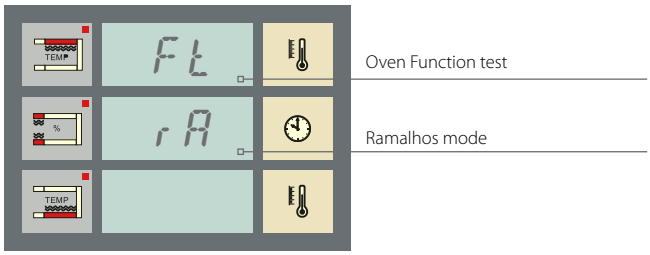
Fig. 1.3
Drain.

3 | First time heating process (control panel 8090)

When the oven is turned on for the first time it will automatically enter Ramalhos mode and show the message: **Funtion Test** and **First Heating** on the display of the control panel. You can use the [+] and [−], buttons to select one of the operation options shown alternately on the display:

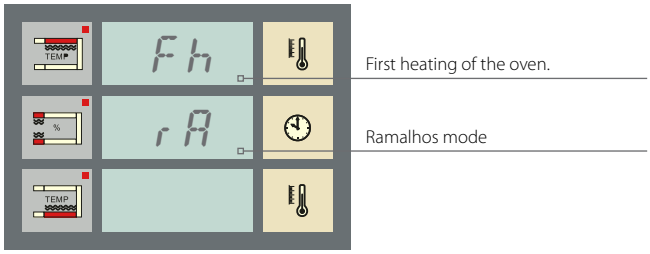
1) **Function Test**:

It is used to check the oven is functioning properly after installation. During this phase the oven temperature will not surpass 50º C. To initiate the function test press the [🔔] button.

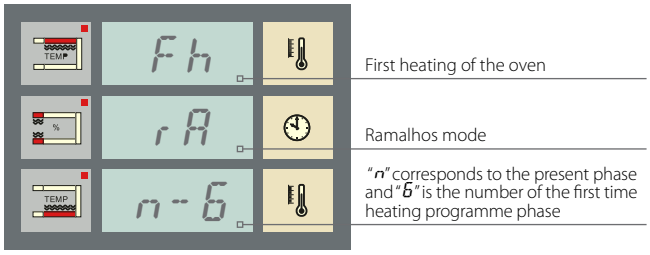


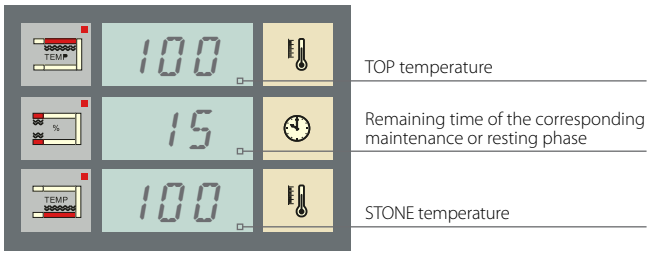
> **Note**
>
> To return to Ramalhos mode, press the [⏻] button to turn the oven off and on again.

2) **First time heating the oven**



Heating the oven for the first time is extremely important to ensure its future proper functioning and avoid structural problems. The first heating programme must be executed in full and only after it has been completed does the control panel enter normal operation mode. If there is a power cut, the programme will restart in the last temperature recorded with a 25ºC margin. To start this programme press the [🔔] button.





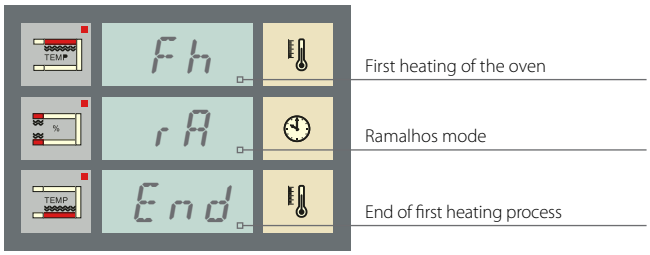
The whole process will be managed automatically by the control panel.

Throughout the process the display will alternately show different information, namely:

> **Note**
>
> The first heating process may take up to 6 hours.

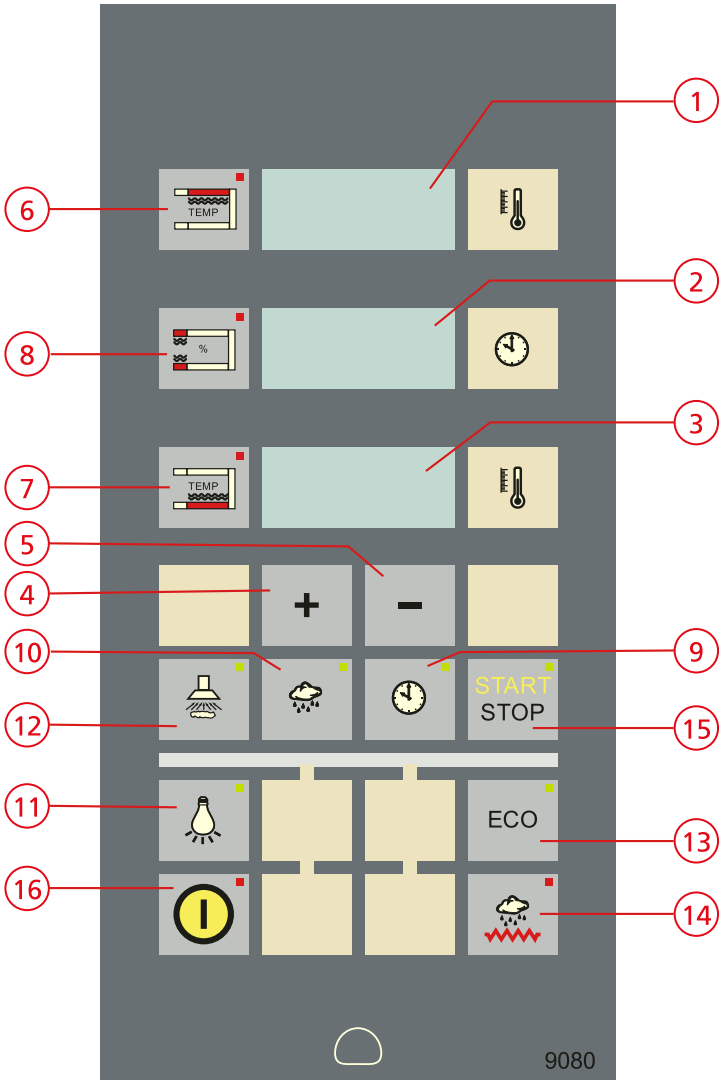
END OF FIRST HEATING PROCESS

Once all stages of the first heating programme are completed the control panel will show the following information:



Finally press [🔔], you may now start the baking cycle.

4 | Description display of control panel 9080



1. TOP DISPLAY
2. CLOCK DISPLAY
3. STONE DISPLAY
4. BUTTON TO INCREASE NUMBERS
5. BUTTON TO DECREASE NUMBERS
6. TOP TEMPERATURE BUTTON
7. STONE TEMPERATURE BUTTON
8. BUTTON FOR FRONT-TOP POWER AND FRONT-STONE
9. CLOCK BUTTON
10. STEAM INJECTION BUTTON
11. LIGHT BUTTON
12. EXHAUST BUTTON
13. ECO BUTTON
14. BUTTON TO HEAT THE STEAM GENERATOR
15. CYCLE BUTTON
16. ON BUTTON

4.1 OPERATION OF CONTROL PANEL 9080

The control panel will automatically carry out a series of actions which ease the baking process. The actions that you would have to carry out throughout a baking cycle, namely start the timer, inject steam, change the baking temperature, are done automatically and you only needs to press the cycle button on the control panel.

SETTING THE TEMPERATURE

Press the TOP or STONE button to access temperature selection for TOP and STONE. The correspondent display and button will flash. Use the  and  buttons to select the desired value and validate by pressing the corresponding flashing button (TOP or STONE).

SETTING THE ELECTRIC POWER FOR FRONT-TOP AND FRONT-STONE

Lightly press the  button to select the electric power for FRONT-TOP and FRONT-STONE. The value for FRONT-TOP electric power is seen on the TOP display in % over the TOP electric power. To validate press the  button. Following, the value for FRONT-STONE is seen on the STONE display in % over the STONE value.

SETTING THE BAKING TIME

Lightly press the  button to select the desired baking time in minutes. The clock button and display will flash. Following, set the time and confirm by pressing the  button again.

STEAM INJECTION

Press the  button for 2-3 seconds to have steam injection.

STEAM READY

 button. When the steam button  is flashing it means that it is not possible to inject steam as the temperature is still below the required value.

As soon as the button stops flashing, the steam injection sys-tem is ready to inject steam and the baking cycle can start.

END OF BAKING WARNING MESSAGE

You can program the duration of the "end of baking" warning message in seconds. Press the  button for two seconds and the pilot light and superior display will flash. The display will show the actual duration of the warning message. Define the desired duration and save by pressing the  button again.

When the baking cycle starts, the timer will show the remaining time until 0 is reached. An acoustic signal indicating the end of the baking cycle will be heard. This signal is activated intermittently by the relay and is on for the pre-set period of time. Press any button to cancel the warning.

If the baking cycle is not stopped when the baking time is over, the timer will continue to add time and the oven will continue baking.The clock will be intermittent to alert you to this situation. In the following 2nd, 4th, 6th, 8th and 10th minutes the control panel will activate a brief intermittent warning sound. In the 10th minute the control panel ends the baking cycle automatically.

4.2 ADDITIONAL FUNCTIONS

OVEN LIGHT 

Enables one to turn the oven light on and off.

EXHAUST BUTTON 

Enables one to turn the oven exhaust system on and off.

ECONOMISER BUTTON 

This control panel has a system that reduces instant consumed electric power (Economiser) and ensures that the instant consumed electric power does not surpass 50% of the electric power installed in the chamber.

To select the desired ECO value, you must press the 

button. This button will be lit while it is activated.

The maximum consumption value in Kw is indicated whenever the economiser is activated. It indicates a value which will not surpass the value set in the control panel with regard to the total value that you can define.

BUTTON TO HEAT THE STEAM GENERATOR 

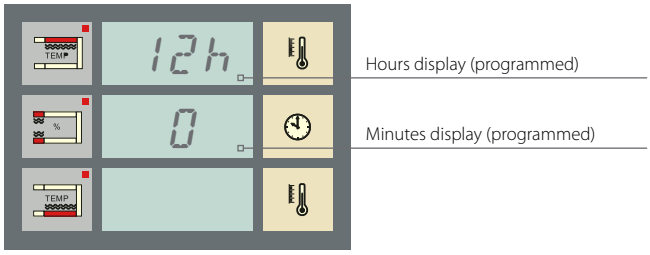
This button activates the steam generator.

If this function is off the generator is also off and does not heat steam or enable steam injection to occur. When the steam generator is activated you will hear an acoustic sound and the button  lights up.

You may see the actual temperature of the steam generator by pressing the button  , for two seconds.

4.3 PROGRAMMING AUTOMATIC START-UP

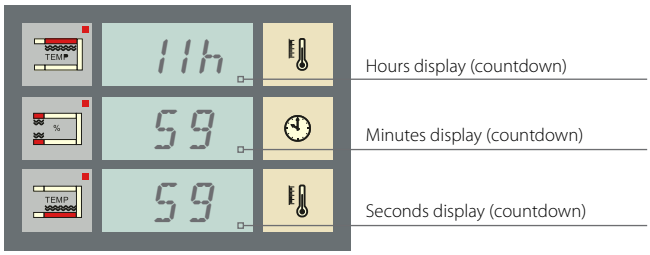
The automatic start-up enables the control panel to turn on the oven automatically after a certain period of time. In this case there is no need to press the ⏻ button manually.
The maximum period of time that you can set for the automatic start-up in hours/minutes is 99h59.
To activate the automatic start-up, press the ⏻ button for more than 2 seconds.
The display will show the hours and minutes set by you. For example 12 hours and 0 minutes.



If the time shown on the display is not changed, the countdown for the next automatic start-up will start automatically in 5 seconds.
To change the time of the automatic start-up, press + or − button.
Initially you are given the option to change the hours. Press the ⏻ button to validate and save your alteration. Next, the minutes indicator will start flashing. Alter the minutes following the same procedure used for the hours..

. The programmed time is saved and will be displayed whenever you access the automatic start-up feature.

After validating the minutes, the countdown for the automatic start-up begins.



Throughout this process the ⏻ button and the h letter on the hour display will flash.
When the timer reaches 0, the control panel will turn on automatically.
During the countdown:

- Should you wish to change the remaining time, press the ⏻ button for two seconds and follow the previous indications.
- Press the ⏻ button lightly to cancel the automatic start-up and turn the control panel on.
- In the event of a power cut, the automatic start-up will restart from the moment it took place, i.e.. will continue on for the amount of time the power cut lasted.

4.4 SUGGESTED TEMPERATURES

BREAD				PASTRIES			
TOP	FRONT-TOP	FRONT-STONE	STONE	TOP	FRONT-TOP	FRONT-STONE	STONE
500°f	+ 10%	+ 5%	450°f	410°f	+ 10%	+ 5%	375°f

4.5 BREAKDOWN WARNING MESSAGES

Some breakdowns will activate a warning message that shows up on some displays. The warning relay will also be activated until the breakdown is acknowledged and a button is pressed. The warning relay will then be deactivated but the warning message will continue showing on the display until the problem is solved. Breakdowns deactivate all heating outputs of the control panel. Following is a list of possible breakdowns:

Code / Message	Problem	Solution
E1 TOP display 	The TOP thermocouple is ruptured or reversed.	Call for technical assistance.
E2 STONE display 	The STONE thermocouple is ruptured or reversed.	Call for technical assistance.
E3 TOP display 	The STEAM thermocouple is ruptured or reversed.	Call for technical assistance.
E10 TOP display 	The control panel temperature is set too high.	Check if the temperature of the control panel is too high or call for technical assistance.
E11 TOP display 	The oven temperature is set too high.	Call for technical assistance.

4.6 SOLUTIONS TO PROBLEMS

Breakdowns	Problem	Solution
· The light in one of the chambers does not turn on	1. Light bulbs are burnt out.	1. Substitute the burnt out light bulbs.
· None of the lights in any of the chambers turn on	1. Light and transformer protection breakers are off. 2. Light bulbs are burnt out.	1. Call for technical assistance.
· The oven is on and the heating temperature has been selected but the oven will not heat up	1. Oven's internal breakers are off.	1. Call for technical assistance.
· The bread is baked on the inside but not on the outside	1. Oven is too hot .	1. Reduce the oven temperature a little.
· The bread is well baked but does not rise as it should	1. Oven is not hot enough.	1. Increase the oven temperature a little.
· There are sprinkles of water visible on the oven stones	1. Water pressure is greater than 3.5 kg.	1. Try to ensure that the water pressure is less than 3.5 kg. (If necessary, install a pressure regulator).
· There is not enough steam output	1. Water pressure is less than 3.0 kg.	1. Increase pressure so that it is equal to or greater than 3.0 kg. (If necessary apply a water pump).
· The baking throughout the oven is not uniform	1. Phase is missing.	1. Check that the 3 phases are well inserted or request technical assistance.
· The chamber has no bath.	1. Breaker is off. 2. Solenoid is jammed. 3. Resistance is damaged.	1. Call for technical assistance.
· The chamber panel does not turn on	1. Unplugged. 2. Panel is damaged.	1. Call for technical assistance.
· "PAR" rupture: top, stone or steam	1. Top, stone or steam probe is damaged.	1. Substitute probe that is 1.0 m from the top or stone. If it is the steam probe it is at a distance of 2.5 m.

Note

If following the instructions in the solutions provided above does not solve your problem, or if a different problem emerges, request technical assistance from Ramalhos.

5 | Oven Maintenance (control panel 9080)

5.1 GENERAL CLEANING OF THE OVEN

The oven must be cleaned on a regular basis and whenever needed to prevent the formation of crusts that cannot be easily removed.
Cleaning must be done as follows:

1. Never soak the oven electrical or electronic parts in water. Do not use abrasive products (sandpaper, etc) as they may scratch the oven.
2. Use an appropriate cleaning product to clean stainless steel surfaces.
3. Use a damp cloth to clean the external surfaces (except for the control panel).

Note

Do not use water jets to clean the oven.

5.2 TIGHTENING THE SPRINGS AND DOOR STOPS

Adjust compensation springs on the doors. Follow instructions below.

Fig. 2.1
Loosen the screws on the left side panel.

Fig. 2.2
Remove protection isolation.

Fig. 2.3
…until the springs and door stop are showing.

Fig. 2.4
Tighten springs.

Fig. 2.5
Tighten door stop.

5.3 MAINTENANCE OF GLASS DOORS

CLEANING THE GLASS DOORS

With time the glass doors build up sediments. Therefore, they must be cleaned on a regular basis.
Use warm water (between 30-40ºC) to clean the glass. It should **not be cleaned with cold water** as the temperature differential may cause the glass to break. A suitable detergent may also be used.

REPLACING THE GLASS OF THE DOORS

Proceed as follows to replace the glass of the doors:

1. Remove the glass by unscrewing the screws (**see fig. 3**)
2. Place the new glass in the right position.
3. Tighten the screws (to prevent the glass from breaking, the screws should not be too tight).

Fig. 3
Loosen the screws to substitute glass.

Follow the same procedure to replace the inner glass. Use a high temperature silicone to seal the inner glass.

5.4 SUBSTITUTING LIGHT BULBS

Light bulbs can only be substituted with bulbs that are **12 Volts; 20 Watts**, if not, the lighting system can be damaged

Fig. 4.1
Loosen the screws on the right panel.

Fig. 4.2
Loosen the light bulb socket holder.

Fig. 4.3
Remover the socket.

Fig. 4.4
Substitute light bulb.

Importante note

Before starting to substitute the light bulbs, unplug the oven from the electric socket.

Warning

Do not look directly at the light bulbs when they are turned on.

5.5 CHANGING STONE

Fig. 5.1
Loosen lower frame screws.

Fig. 5.2
Remove frame.

Fig. 5.3
Remove stone.

5.6 CLEANING THE STEAMERS (OPTION)

Fig. 6.1
Loosen the back steam output.

Fig. 6.2
Loosen the back panel.

Fig. 6.3
Loosen the water input tube.

Fig. 6.4
Loosen the oval flange.

Fig. 6.5
Remove the filter and clean the limestone from all of the openings.

By putting the filter back in its original position, it is necessary to check the connecter and if it is damaged it must be replaced.

Important

This should be done biannually.

5.7 CLEANING THE SOLENOID

When the solenoid allows water to pass it is necessary to clean its interior.

Fig. 7.1
Loosen the nut (remove it).

Fig. 7.2
Remove the coil.

Fig. 7.3
Loosen the nut against the solenoid.

Fig. 7.4
Carefully remove the piston.

It is also possible that the seal is damaged (fig. 7.5). In this case, it is necessary to substitute the part.

Fig. 7.5
Check if the piston is damaged or dirty, clean or substitute it. Reassemble the solenoid and open the water valve.

Note

Water source connected to the oven should always be shut off when cleaning the solenoids.

5.8 TABLE OF MAINTENANCE FREQUENCY

Maintenance	Frequency	How to do it
· Steamers	Biannually	See page 13 (cleaning steamers).
· Stones	Daily	Vacuum all of the stones.
· Chambers	Weekly	Should be heated up to baking temperature especially when they have been stopped for a long time in order to avoid oxidation.
· Cleaning the outside of the oven	Weekly	Use warm water (30ºC to 40ºC) and avoid using abrasive products. On electronic panels avoid using water and any type of liquid. Do not use water jets.
· Glass and doors	Monthly	Clean with warm water and cleaning products when removed from door. Avoid using iron fillings or sandpaper to keep glass from getting scratched.

MAINTENANCE WARNINGS

Notwithstanding the fulfilment of the aforementioned deadlines, the oven has a system that warns the operator of the need to carry out periodic maintenance. This warning is a general preventative warning. For such, the shorter term maintenance tasks must be carried out regardless of there being a warning signal.

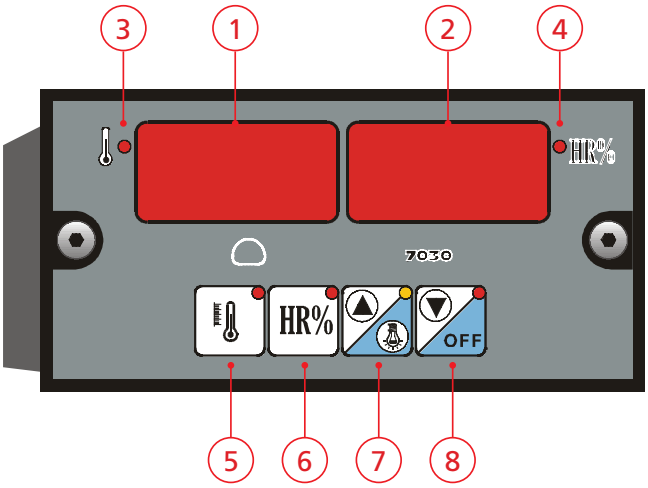
This warning shows up with the message  on the display. This message will be shown on the display as long as the condition that triggered the warning persists.

After the maintenance process has been concluded, the warning must be cancelled as it will reappear in a programmed manner.

In order to do so, proceed as follows:

1. Press the + button for 3 seconds to access the parameter  .
2. Press the + button for 3 seconds to reset the number of hours remaining until the next maintenance warning appears.
3. Press the START STOP button to validate and exit the menu.

6 | Description of the front panel of the proofer control panel



① TEMPERATURE DISPLAY
Digital display for viewing prover temperature.

② HUMIDITY DISPLAY
Digital display for viewing prover humidity.

③ PROVER HEATING PILOT LIGHT
Turns on the resistances to heat the prover to the desired temperature.

④ HUMIDITY PILOT LIGHT
Activates the production of humidity to reach the desired level of humidity inside the prover.

⑤ TEMPERATURE BUTTON
This button has two functions. Pressing once allows for the editing of the temperature inside the prover. A prolonged pressing will turn the heating ON or OFF. If the led button is lit, the heating is turned on.

⑥ HUMIDITY BUTTON HR%
This button has two functions. Pressing once allows for the editing of the humidity level inside the prover. A prolonged pressing will turn the production of humidity ON or OFF. If the led button is lit, humidity is being produced.

⑦ INCREASE VALUE AND LIGHT BUTTON
This button has two functions. The button when pressed after the buttons or HR% , will increase the value shown on the display.
The button pressed without previously pressing these buttons will turn on the prover light. If the button is lit, it means the light has been turned on.

⑧ DECREASE VALUE AND OFF BUTTON OFF
The button when pressed after the buttons HR% or OFF , will decrease the value shown on the display.
If you press the button for more than 2 seconds, the control panel will be turned ON or OFF. If the led button is lit, it means the control panel has been turned off.

6.1 PROGRAMMING THE CONTROL PANEL OF THE PROVER

With the control panel ON, select the desired temperature and humidity levels. The control panel will maintain these parameters until they have been changed by the user.

- ON: If the control panel is turned off (OFF), press the OFF button for 2 seconds or more to turn it on. It will assume the previously programmed temperature and humidity levels.

- INCREASE OR DECREASE value: To modify the parameters for humidity or temperature, briefly press the corresponding button and the value will appear on the display. In order to alter this value use the buttons ▲ or OFF to increase or decrease the respective value. To validate the selected value, briefly press the button corresponding to the value that was altered once again.

- REGULATING THE PROVER TEMPERATURE: To turn the temperature regulator ON or OFF, press the button for 2 seconds. If the led light is on, the temperature regulator is turned on.

- REGULATING THE HUMIDITY: The humidity can only be regulated when the led light of the button HR% is turned on. To turn the humidity control panel ON or OFF, press this button for 2 seconds.

- OFF: When the button OFF is pressed for 2 seconds or more, the control panel goes from ON to OFF. When OFF, the led light of the button remains on. In this situation, the displays, outputs and buttons are turned off with the exception of the light that can be turned on to allow for its cleaning.

6.2 MAINTENANCE OF THE PROVER

CLEANING THE SEPTIC BOX

Remove the water from the container on a monthly basis.

6.3 POSSIBLE BREAKDOWNS OF THE PROVER CONTROL PANEL

If a breakdown is detected, the error will appear on the temperature screen. The table below shows the solutions to the different breakdowns

Error message	Causes	Solution
bPt	Temperature probe.	Call for technical assistance.
bHr	Humidity sensor.	Call for technical assistance.
bnl	Lack of water.	Turn the prove off and on again.
bAg	Water temperature sensor.	Call for technical assistance.