

# Instrumentation Baking cycle

CE

Touch screen **controller**  
TFT



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## 4.1 Descrizione

The new touch-screen controller allows complete, intuitive and efficient control of all oven functions.

According to one's needs, it is possible to work in AUTOMATIC or MANUAL mode.

In AUTOMATIC mode you can save up to 99 recipes, each one subdivided into 8 different working stages. While MANUAL mode, even maintaining all safety and diagnostic functionalities of AUTOMATIC mode, does not use recipes and therefore baking commands and settings are not saved but entered directly on screen.

The software also includes weekly programming for automatic switch on and off of the oven.

The system comes with a LAN port for online connection and a USB port to import/export data and recipes.

Some of the main characteristics of the controller follow:

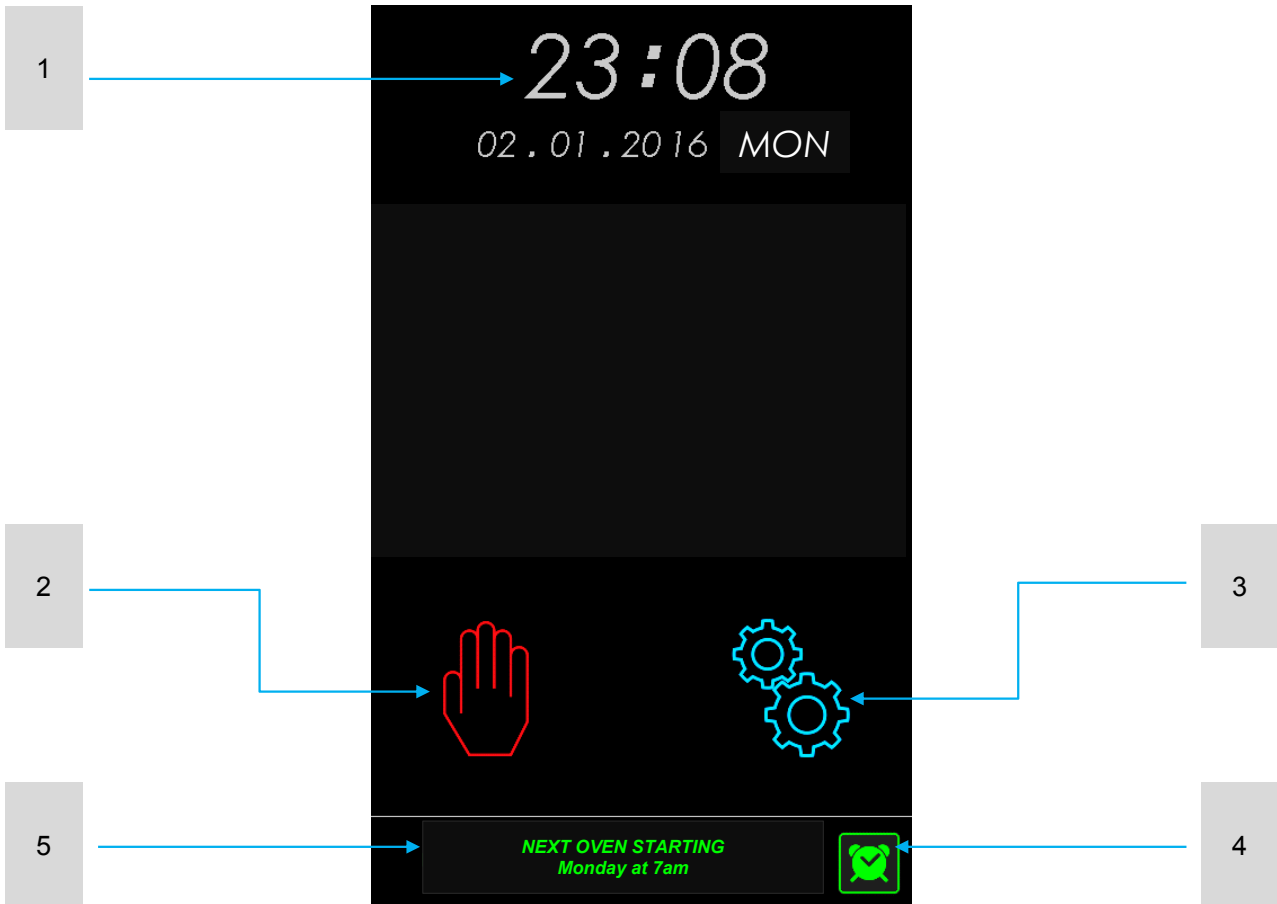
- TFT LCD colour graphic display, 7 inch
- resistive touch-screen
- protection level IP66
- 480x800 resolution
- LAN connection
- USB port 2.0



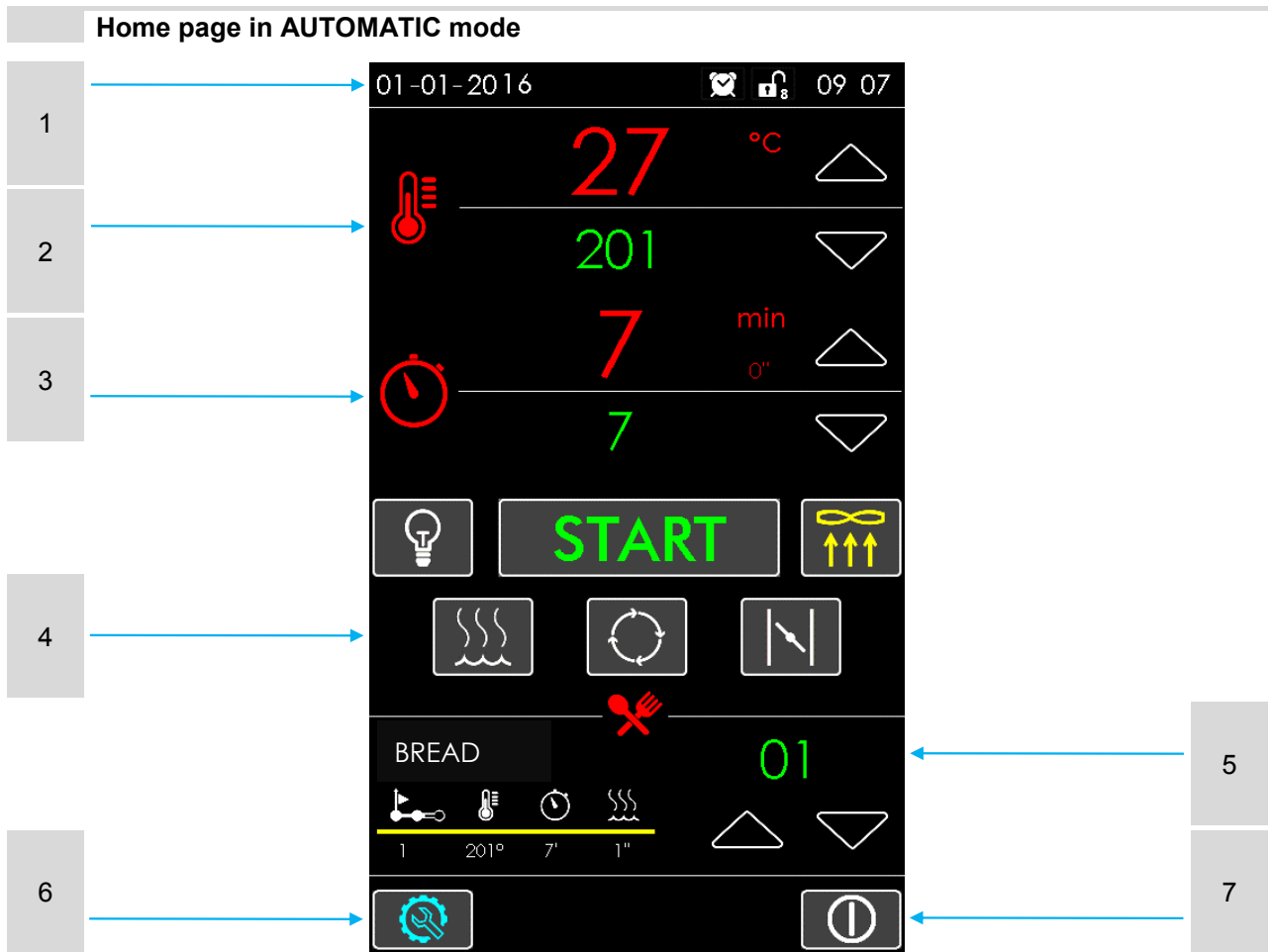
**Read this document carefully before using the equipment and follow instructions.  
Keep this document with the equipment for future consultation.  
Only use the equipment in compliance with these instructions.**

## 4.2 Instrumentation

### Home Page



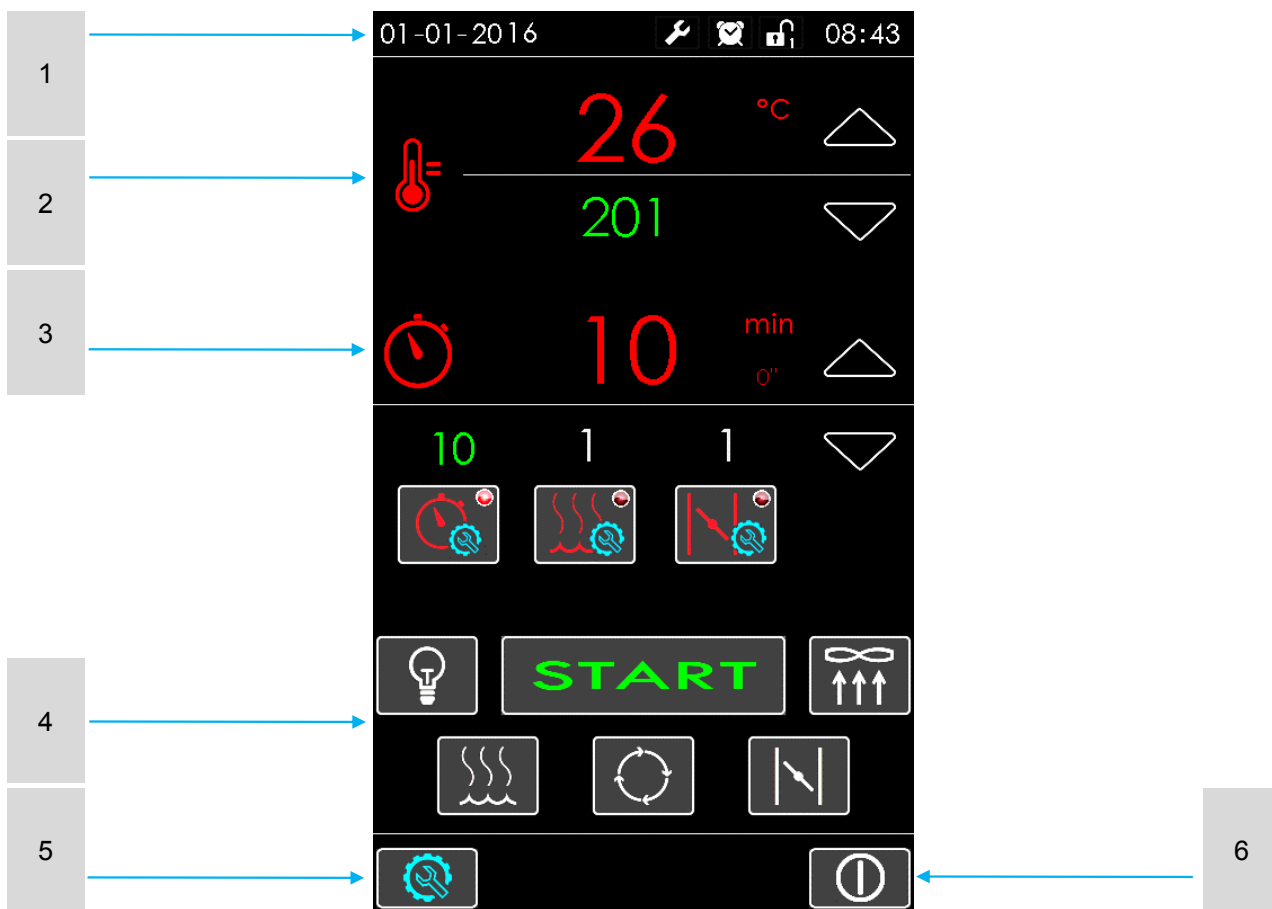
- 1 CLOCK AND DATING
- 2 STARTING BUTTON IN MANUAL MODE
- 3 STARTING BUTTON IN AUTOMATIC MODE
- 4 AUTOMATIC STARTING PROGRAMMING BUTTON
- 5 AUTOMATIC STARTING PROGRAMMING MESSAGE



- 1 **TOP BAR**- this zone displays general information such as the time and other more specific information on the oven status
- 2 **THERMOREGULATOR**- this display section manages the temperature. The red display indicates the temperature detected , the green display indicates the set-point temperature. The arrow keys allow changing the set-point temperature (change effective only for the current baking cycle, but does not change the recipe). The “thermometer” icon indicates that burner or heating elements are functioning (with notches sliding, heater is active)
- 3 **TIMER**- this display section shows baking time. The red display shows baking time countdown. The green display indicates the set time. The arrow keys allow changing the time counting (during baking cycle you can increase or decrease the remaining time, appearing on the red display). The “stop watch” icon displays passing of baking time (the moving hand indicates that time count is active)
- 4 **KEYPAD**- this series of buttons allows to work directly on the most used oven functionalities
- 5 **RECIPES**- This display section manages recipes, here you can choose the recipe to activate and display its details, but not edit it.
- 6 **SETTINGS BUTTON**- allows to access management of recipes, programming of oven automatic startings, diagnostics services or panel settings.  
Accessible only via password
- 7 **ON-OFF BUTTON**- use this button to switch oven off and return to home page.

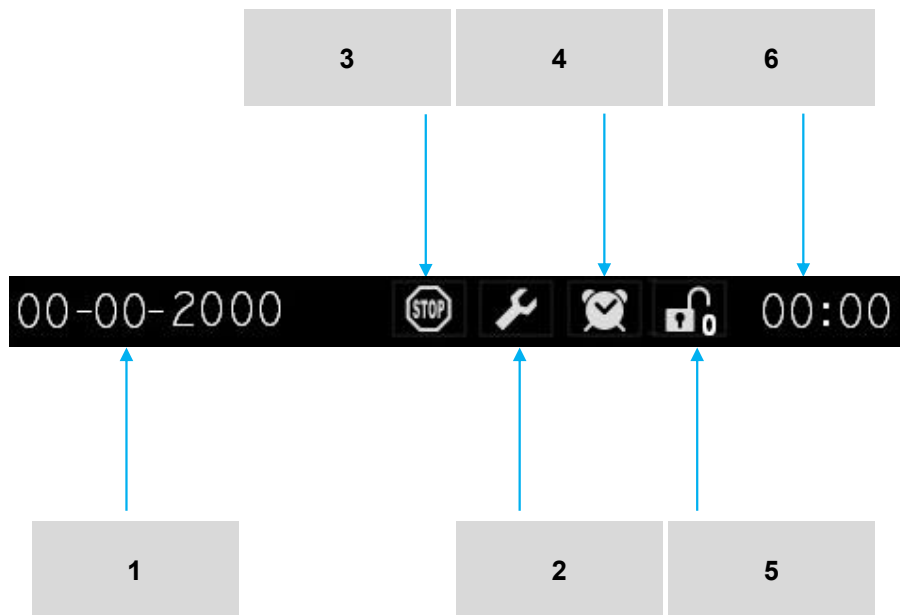
MADE IN ITALY

Home page in MANUAL mode



- 1 **TOP BAR**- this zone displays general information such as the time and other more specific information on the oven status
- 2 **THERMOREGULATOR**- this display section manages the temperature. The red display indicates the temperature detected , the green display indicates the set-point temperature. The arrow keys allow changing the set-point temperature (change effective only for the current baking cycle, but does not change the recipe). The “thermometer” icon indicates that burner or heating elements are functioning (with notches sliding, heater is active)
- 3 **TIMER**- this display section shows the timers active during baking cycle. Ther red display shows baking time countdown. The green display shows the following set values:
  - baking time
  - steam time
  - valve opening time (how long before baking end it should open)
 The “stop watch” icon displays passing of baking time (the moving hand indicates that time count is active)
- 4 **KEYPAD**- this series of buttons allows to work directly on the most used oven functionalities
- 5 **SETTINGS BUTTON**- allows to access management of recipes, programming of oven automatic startings, diagnostics services or panel settings.
- 6 **ON-OFF BUTTON**- use this button to switch oven off and return to home page.

TOP BAR



**1 DATING**

**2 REQUEST FOR MAINTENANCE**

If present, indicates that one of the utilities monitored by the system needs ordinary maintenance.

**3 STOP AT END OF BAKING**

If present, indicates that automatic switch off function is active.  
At the end of baking cycle oven switches off automatically

**4 PROGRAMMED STARTING**

If present, indicates programmed starting of oven

**PASSWORD**

correct entering of the password enables changes to this icon.

**5**

closed padlock = functions setting inhibited.

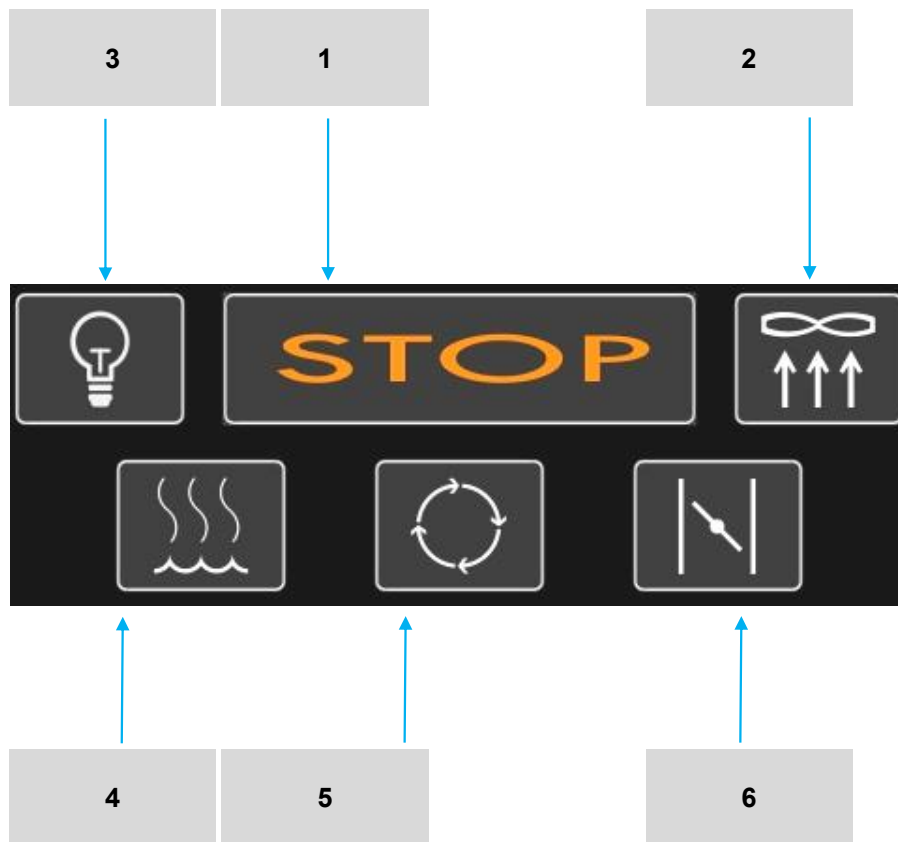
open padlock = access to settings area permitted.

The number beside the padlock indicates user level authorization.

**6 TIME**



KEYPAD



**START-STOP**

**1** main function of this key is to start baking cycle (START), or to stop it in advance (STOP). In specific situations it allows also to active recipes (ACTIVE).

**STEAM EXHAUST**

**2** switches on or off the exhaust fan placed over the oven

**OVEN LIGHT**

**3** switches on or off oven lighting

**HUMIDIFIER**

**4** this key permits to give a steam injection (additional to the one pre-set in the recipe). Its duration can be set using a program internal parameter.

**RACK ROTATION**

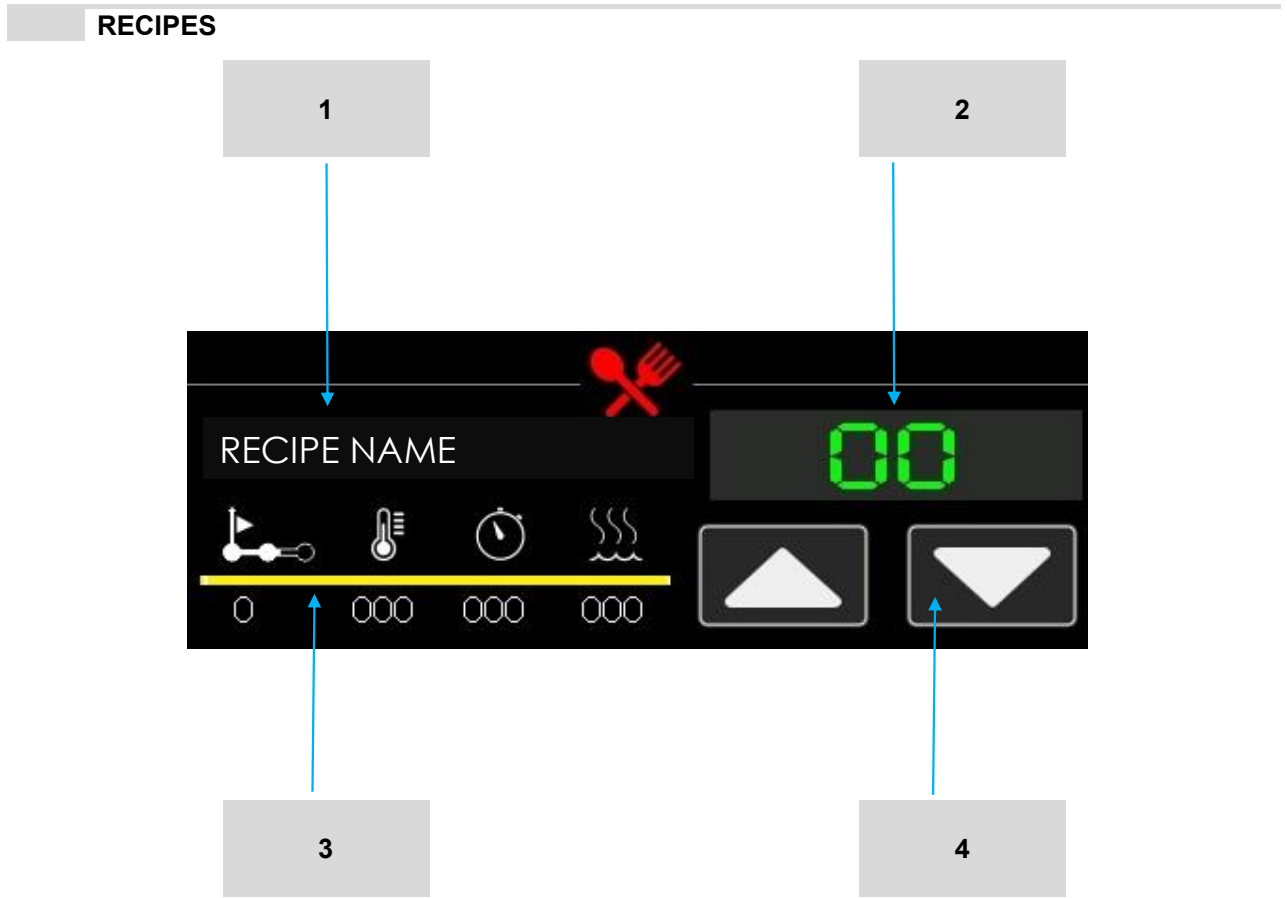
**5** starts or stops rotation of baking rack

**STEAM EXHAUST VALVE**

**6** opens or closes the steam exhaust valve inside baking chamber

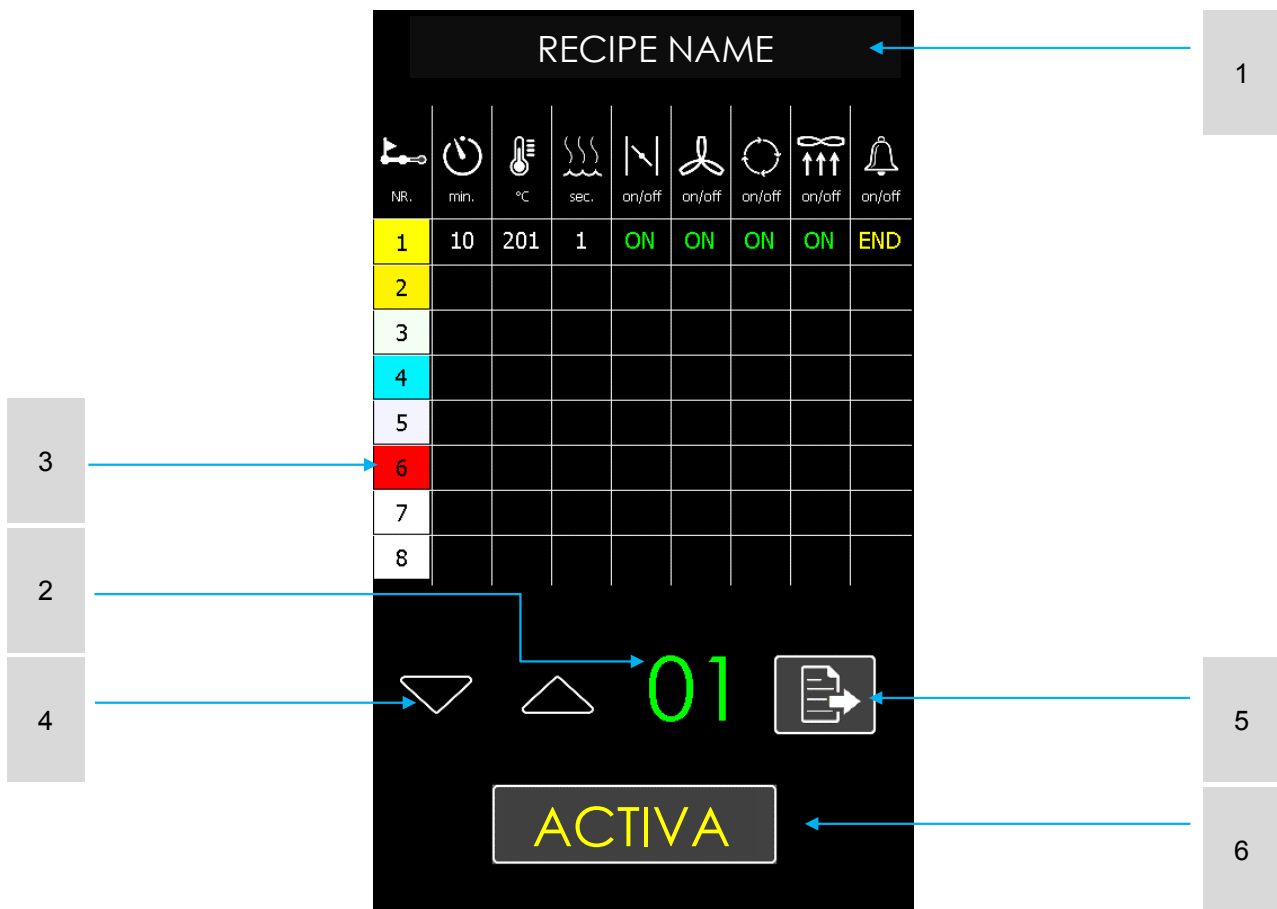


When button colour changes from white to yellow, the corresponding utility is active

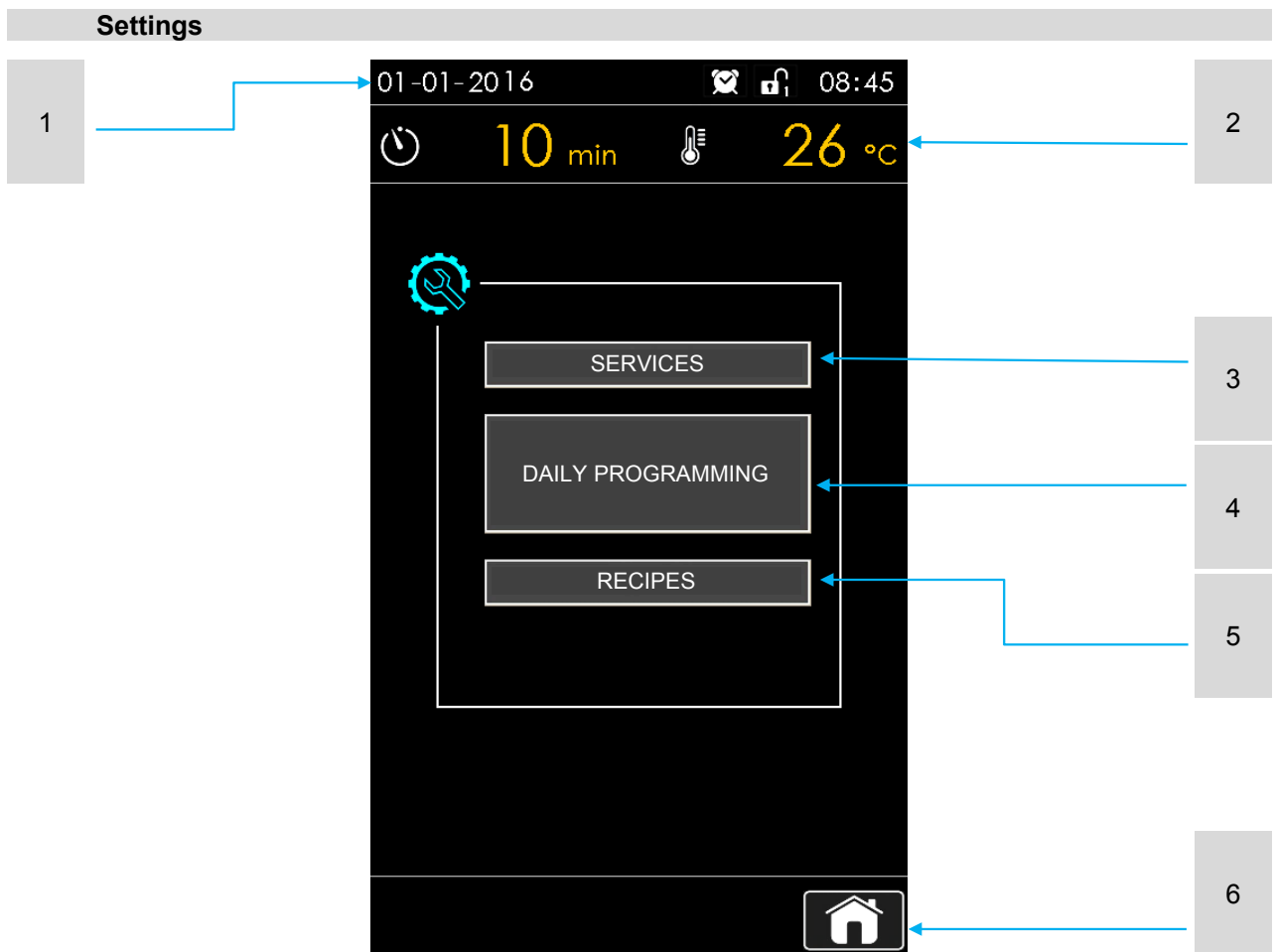


- 1 RECIPE NAME**  
reports recipe name
- 2 RECIPE NUMBER**  
reports recipe number. Pressing the relevant number, the desired recipe can be activated
- BAKING CYCLE STAGES**
- 3**  
shows some parameters of the baking cycle first stage. This key opens an information screen that shows the complete recipe with all its stages. From this window you can activate the recipe
- 4 RECIPE SELECTION ARROWS**  
scroll through all the recipes entered

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- 3 **BAKING CYCLE STAGES**  
shows some parameters of the baking cycle first stage. This key opens an information screen that shows the complete recipe with all its stages. From this window you can activate the recipe
- 4 **RECIPE SELECTION ARROWS**  
scroll through all the recipes entered
- 5 **EXIT**  
exit the window without starting the recipe
- 6 **ACTIVATE**  
starts the recipes



**1 TOP BAR**

this section is the same for all the project pages.

**2 BAKING CYCLE STATUS**

this section reports the TEMPERATURE value detected in the oven and the baking TIME count. These are the same values displayed in the home page

**3 SERVICES**

the services sub-menu contains the diagnostics functions, alarms, settings and parameterization that the program allows

**4 PROGRAMMING**

you can program an automatic switch on and off time. Programming can be set in daily mode (same for each week day) or weekly mode (for each week day of the week two different times for switch on and off) As well as the time you can also set which recipe the oven should start with

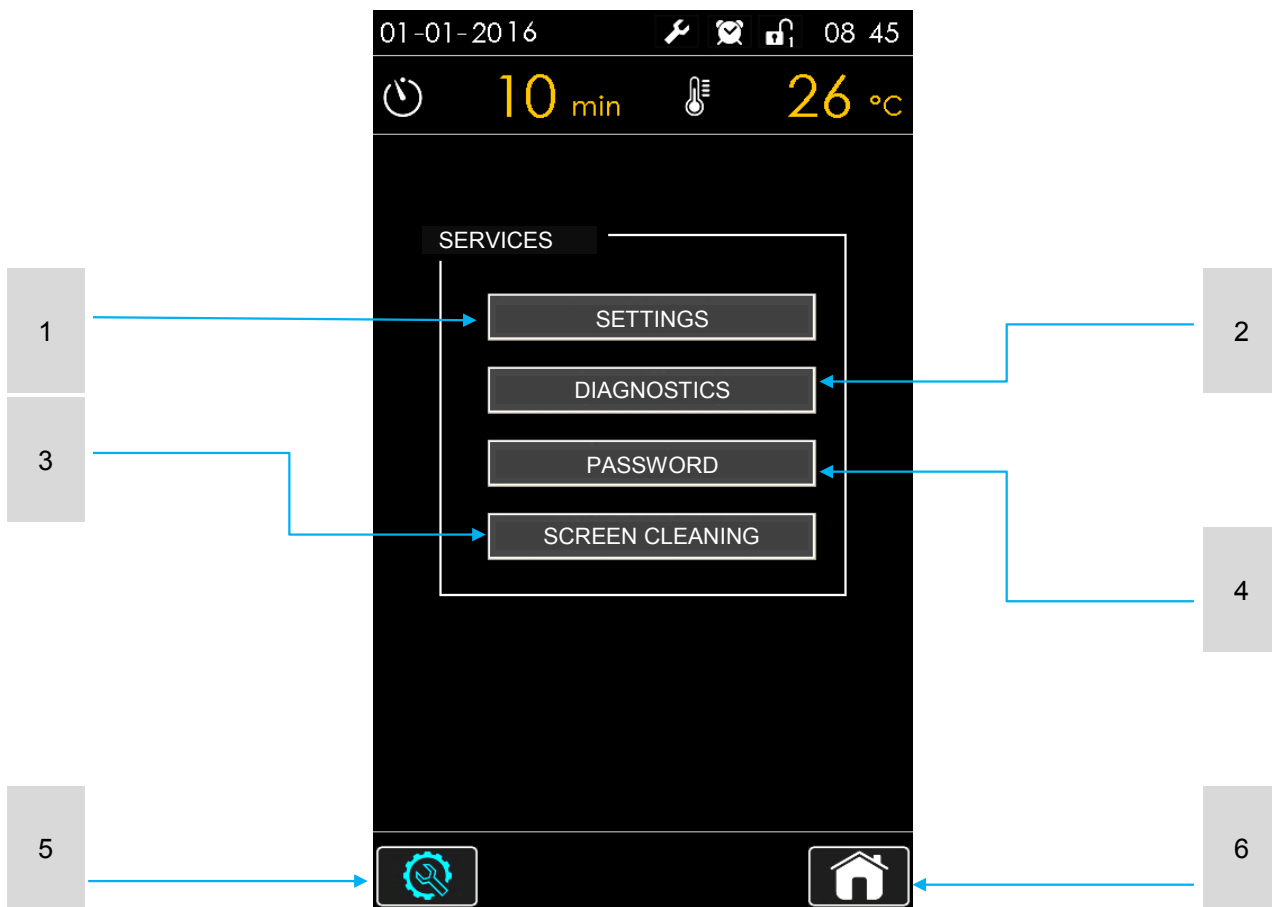
**5 RECIPES**

this sub-menu allows total management of the recipes (edit, copy and cancellation)

**6 HOME PAGE**

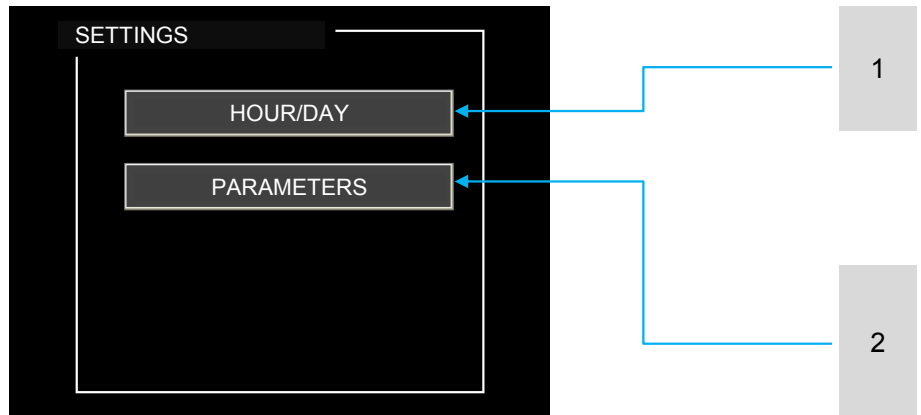
Back to initial HOME PAGE (AUTO or MANUAL)

SERVICES



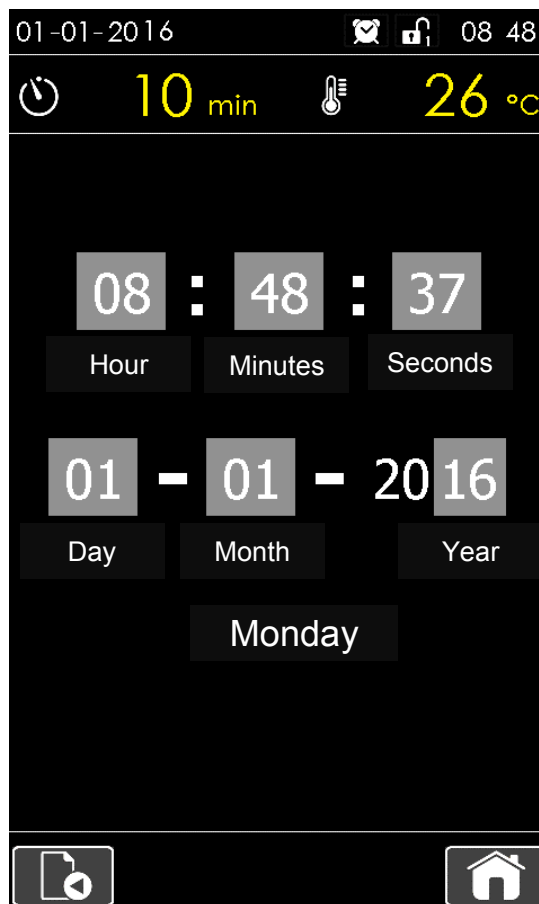
- 1 **SETTINGS**  
From this screen you can manage the main operating parameters
- 2 **DIAGNOSTICS**  
The diagnostics functions, such as: alarms, controls of entries, graphics of the inputs, are selectable on this screen
- 3 **PASSWORD**  
This screen allows to change level of password to access system (1 to 8).
- 4 **SCREEN CLEANING**  
Blank to clean the screen without the risk of involuntary commands activation
- 5 **SETTINGS BUTTON**  
Return to "SETTINGS" main screen (see page 11)
- 6 **HOME PAGE**  
Back to initial HOME PAGE (AUTO or MANUAL)

SETTINGS



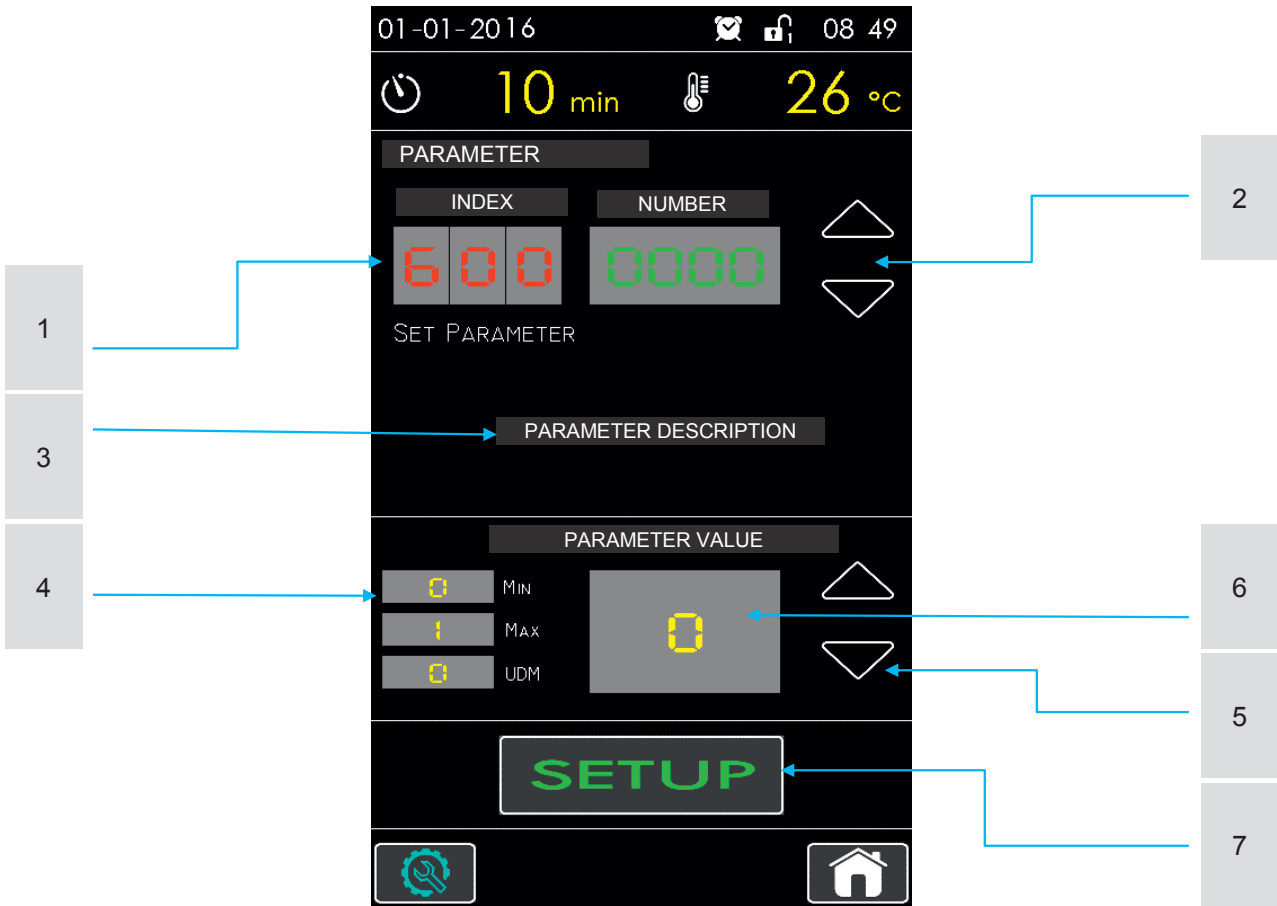
- 1 **HOUR/DAY**-Sets system date and time
- 2 **PARAMETERS**-All the internal parameters are managed from this sub-menu

HOUR/DAY



The correct setting of these parameters is necessary to later set oven automatic switch on/off.

PARAMETERS



- 1 **PARAMETER INDEX AND NUMBER**  
They only have an identification value and cannot be edited
- 2 **SCROLLING ARROWS**  
scroll through all the programs..
- 3 **PARAMETER DESCRIPTION**  
Describes in detail the parameter function
- 4 **PARAMETER VALUE RANGE**  
Indicates minimum and maximum value of the parameter
- 5 **EDITING ARROWS**  
allows to edit value of the parameter to be set
- 6 **PARAMETER VALUE**  
shows value of the parameter being edited.

- 7 **SETUP** Press to enable parameters modification
- SAVE** Press to save modifications made to the parameters
- EXIT** Press to exit edit mode

**Parameters list**

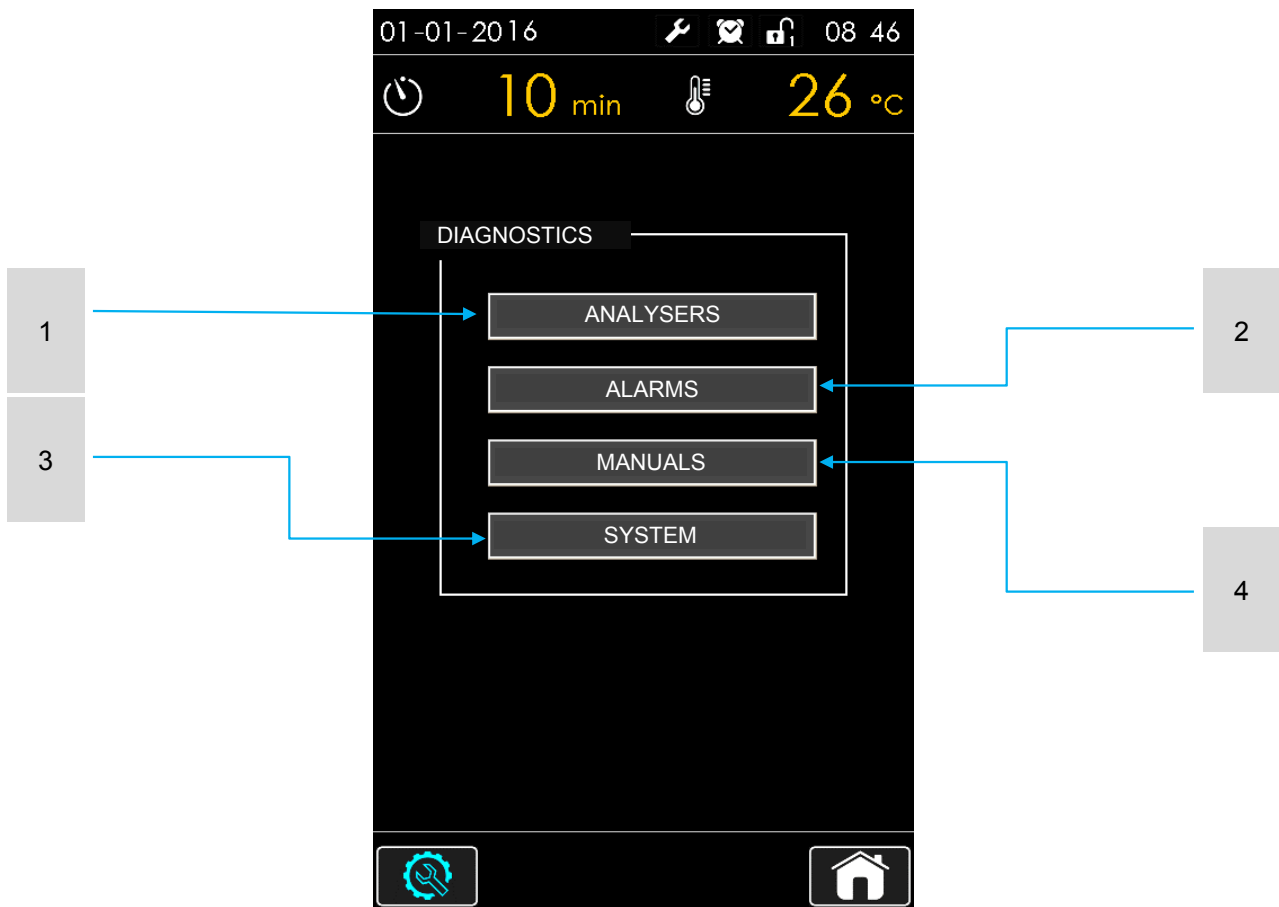
nr.	name	description	range	default
000	----	Unusable system parameter		
401	ON on Power	if set to "1" panel starts automatically when powered	0÷1	0
402	No Vent on Vap.	if set to "1" the ventilator is off during steaming	0÷1	1
403	Vent.Stop End Cook	if set to "1" the ventilator switches off automatically at the end of baking time	0÷1	0
404	Gradi Mode	if set to "0" temperature is in Celsius degrees. if set to "1" temperature is in Fahrenheit degrees	0÷1	0
405	Beep on Temper.	if set to "1" the buzzer emits a signal when baking temperature is reached	0÷1	0
406	Vent.& Carr.Stop End	if set to "1" the buzzer emits a signal when baking temperature is reached	0÷1	1
407	Power Off at CookEnd	if set to a "1" it allows automatic switching off of oven at the end of baking cycle.	0÷1	0
408	Ventilator Mode	set to "0" for 1-speed ventilator motor, to "1" for 2-speeds ventilator motor and to "2" for ventilator with inverter	0÷2	0
409	Post Ventilator Time	duration in minutes of oven shutdown procedure only for ventilator with inverter. set ventilator speed during oven heating and during shutdown procedure. values settable from 5 (60%) to 10 (100%)	0÷10	3
410	Ventilator Speed	duration in minutes of oven shutdown procedure only for ventilator with inverter. set ventilator speed during oven heating and during shutdown procedure. values settable from 5 (60%) to 10 (100%)	5÷10	10
411	Aspir.on door	if set to "1" the ventilator starts automatically at door opening	0÷1	1
412	Aspir.on serr.	if set to "1" the steam exhaust starts automatically at steam valve opening	0÷1	0
413	Aspir.memo ON	if set to "1", closing the door, the steam exhaust resets the status before door was opened	0÷1	0
414	Aspir.by dig.input	if set to "1" enables input to the board for the steam exhaust to be controlled by an external selector.	0÷1	0
415	Off Serr.on door open	if set to "1" the steam exhaust valve closes at door opening	0÷1	0
416	Off Serr.on door clos	if set to "1" the steam exhaust valve closes at door closing	0÷1	0
417	Off Serr.on stop cook	if set to "1" the steam exhaust valve closes at baking end	0÷1	0
418	Vapor Pulse ON	if steam intermittency is active (parameter "419" different from "0"), this parameter determines duration of each steam injection.	1÷100	2



419	Vapor Pulse OFF	if different from zero "0" it enables the intermittent steam injection function. this parameter sets duration of the pauses between steam injections.	0÷10	0
421	Carr. on door	if set to "1" rack rotation starts at door closing	0÷1	0
422	Carr. on door & cook	if set to "1" rack rotation starts only when door is closed and baking program starts	0÷1	0
423	Carr.off door	if set to "1" rack rotation stops at door closing	0÷1	1
424	Carr.Stop End	if set to "1" rack stops at baking end	0÷1	0
425	Carr.Key riten.	if set to "1" when opening the door, to bring rack into extraction position, it is not necessary to hold the rotation button down but is enough to press it once. (disabling this security, oven cannot be considered EC standards compliant)	0÷1	0
426	Carr.FC check	if set to "1" when opening the door the rack automatically stops in extraction position. (disabling this security, oven cannot be considered EC standards compliant)	0÷1	1
427	Carr.Up/Dw	if set to "1" it enables rack lift and descent functions (only for ovens with automatic lifting device)	0÷1	0
428	Carr.Dw 2 Step	if set to "1" rack descent takes place in two phases. each phase must be manually started with the relevant command (only for ovens with automatic lifting device)	0÷1	0
429	Carr.Timeout Up/Dw	sets in seconds the maximum time for rack liftup and descent. if movement is not completed in the stated time the board blocks the system (only for ovens with automatic lifting device)	5÷60	18
430	Carr.Timeout F.C.	sets in seconds the maximum rack rotation time. if rack does not complete rotation in the stated time the board blocks the system.	10÷90	30
431	Clock Enable	if set to "1" enables clock as well as all the functions of time and day	0÷1	1
432	Timer Enable	if set to "1" enables function of programmed startings	0÷1	1
433	Clock Weekly	if set to "1" enables weekly programming of automatic startings, if set to "0" manages the daily programming.	0÷1	1

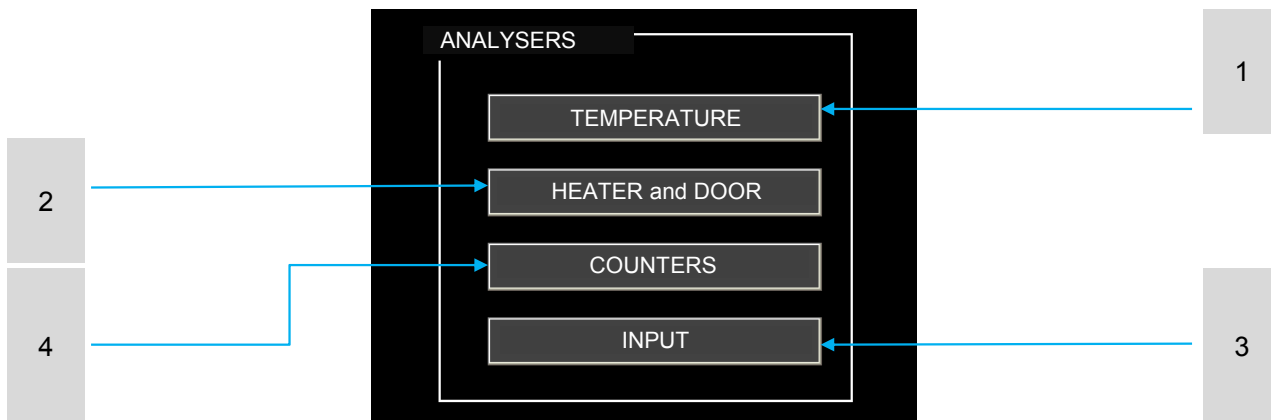
434	Timer Day Fix	if set to "1" weekly programming includes 2 different startings each week day. While if set to "0", 14 times are available without day limitations.	0÷1	1
435	Delayed Timer	sets, in minutes, the stand-by time before oven switches off automatically, after programmed starting. if set to "0" the precise shutdown time must be entered.	0÷600	0
441	Delay Vent.Vap.	sets, in seconds, the delay of ventilator re-start after steam injection	0÷250	20
442	Delay Vent.Door	sets, in seconds, the delay of ventilator re-start after door closing	0÷120	3
443	Delay Burn.Door	sets, in seconds, the delay of burner re-start after door closing	0÷120	0
444	Delay Burn.Ext	sets, in seconds, the delay of burner switch off when it comes by external command.	0÷120	0
445	Time Beep Cook	sets, in seconds, the duration of buzzer at the end of baking program (if set to 99 the buzzer continues up to pressing the relevant stop key)	0÷99	99
446	Time Beep Msg	if the recipe provides buzzer sign at the end of a baking stage, this parameter sets its duration	0÷20	2
447	Time Black_Out	after a black-out the oven can, based on the duration of the black-out, start baking again where interrupted or switch off. the maximum duration of the black-out, beyond which it is better to switch oven off, is set in this parameter	0÷240	180
448	Time Manual Vapor	sets, in seconds, the manual steam time activated by the button on home page (not from the recipe).	1÷20	3
452	Time Beep Man.Cook	sets, in seconds, the duration of the buzzer at the end of the manual baking cycle (if set to 99 the buzzer continues up to pressing the relevant stop key)	0÷99	3
453	Timer Lamp ON	indicates time, in seconds, after which light switches automatically off. if set to "0" the light stays on	0÷600	60
700	Password 0	enter password for user level 0	0÷9999	0
701	Password 1	enter password for user level 1	0÷9999	0

DIAGNOSTICS



- 1 ANALYSERS**  
It collects the main diagnostics features such as: operating charts, monitoring key utilities and functional controls on the system integrity.
- 2 ALARMS**  
it allows to check both the current alarms status and control their history.
- 3 MANUALS**  
manual digital copy
- 4 SYSTEM**  
Access screen to critical system functionalities. only for authorized personnel

ANALYSERS



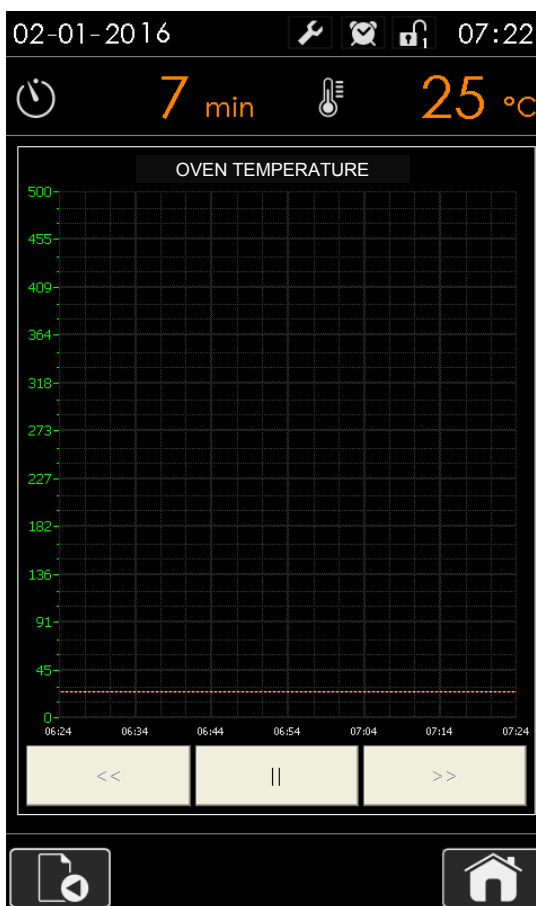
**1 TEMPERATURE** - displays all the temperature variations detected in 60-minutes time in oven baking chamber.

**2 HEATER and DOOR** - graph of the heater operation (burner or heating elements) and graph of door opening monitoring.

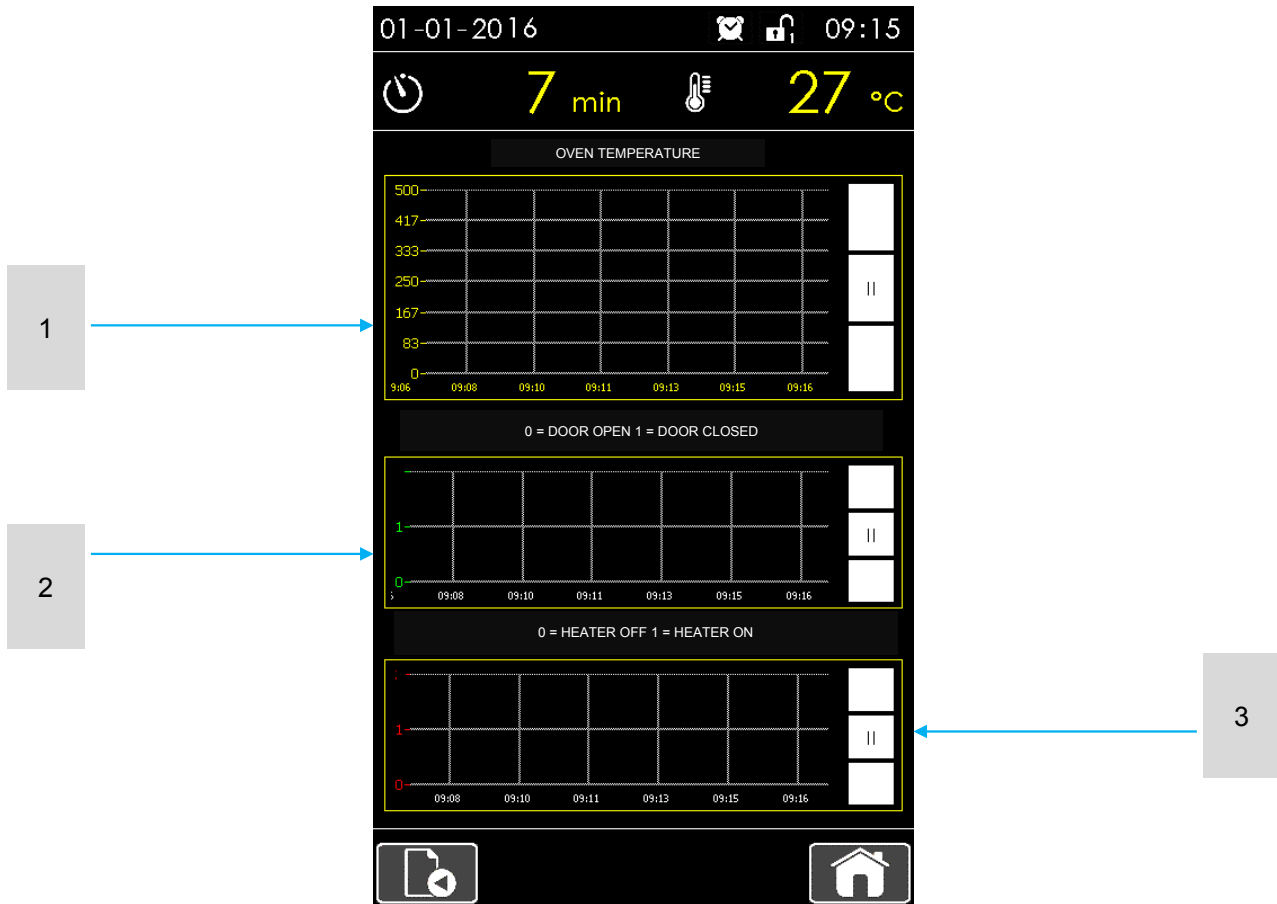
**3 COUNTERS** - Working hours count of oven main utilities

**4 INPUT** - functioning test of the main oven operational signals

TEMPERATURE

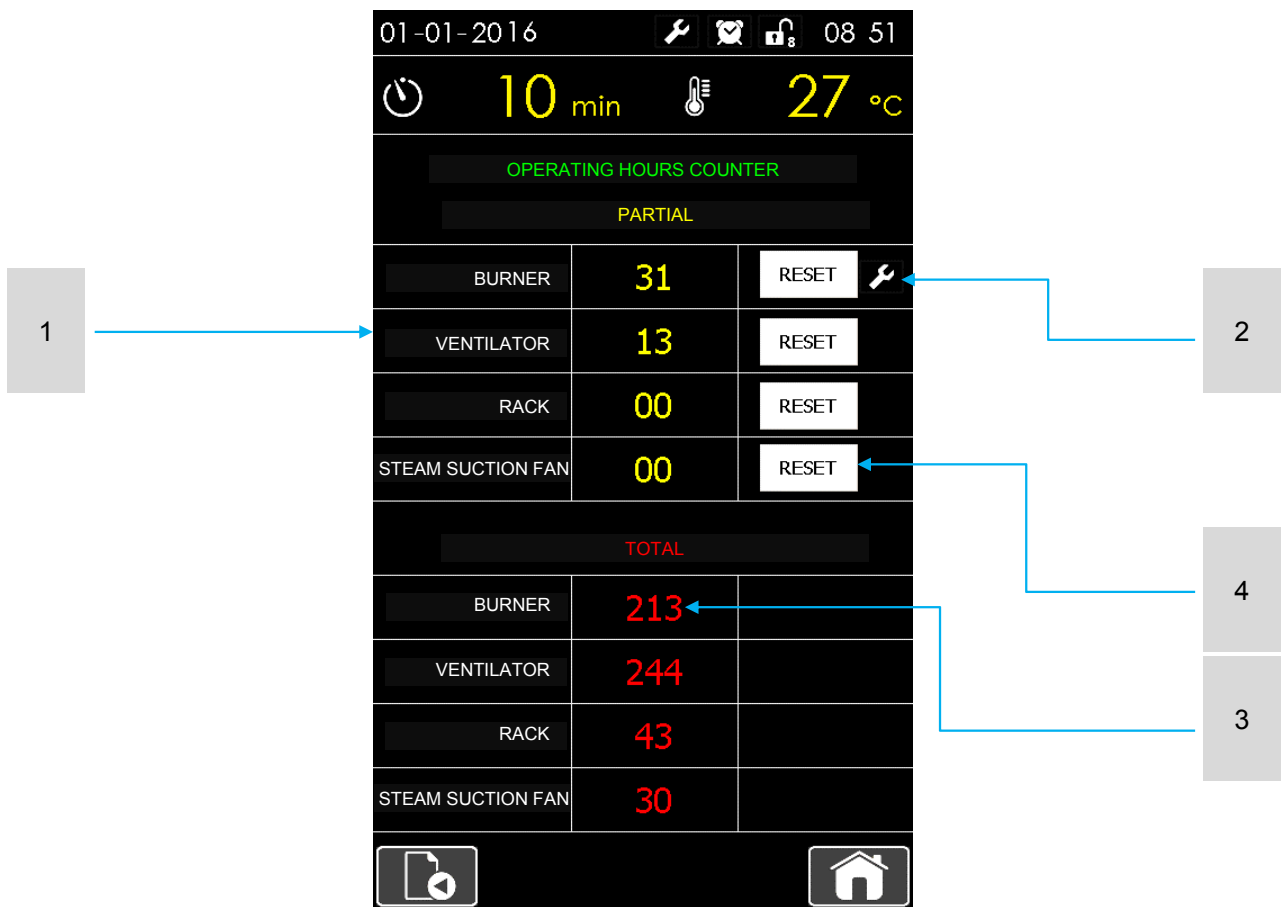


HEATER and DOOR



- 1** displays all the temperature variations detected in 10-minutes time in oven baking chamber
- 2** displays all the door status variations detected in 10-minutes time. With open door graph indicates "0" while with close door "1".
- 3** displays all the heater status variations (burner or heating elements) detected in 10-minutes time. With heater off graph indicates "0" while with heater on "1"

COUNTERS



The "counters" screen indicates the working time (in hours) of the various oven utilities. Knowing the real utilities operation is indispensable to assess any possible wear and program maintenance.

**1 PARTIAL COUNTS**

It can also be reset by the simple user.

**2**

After a certain number of working hours, this signal activates indicating that maintenance is required

**3 TOTAL COUNTS**

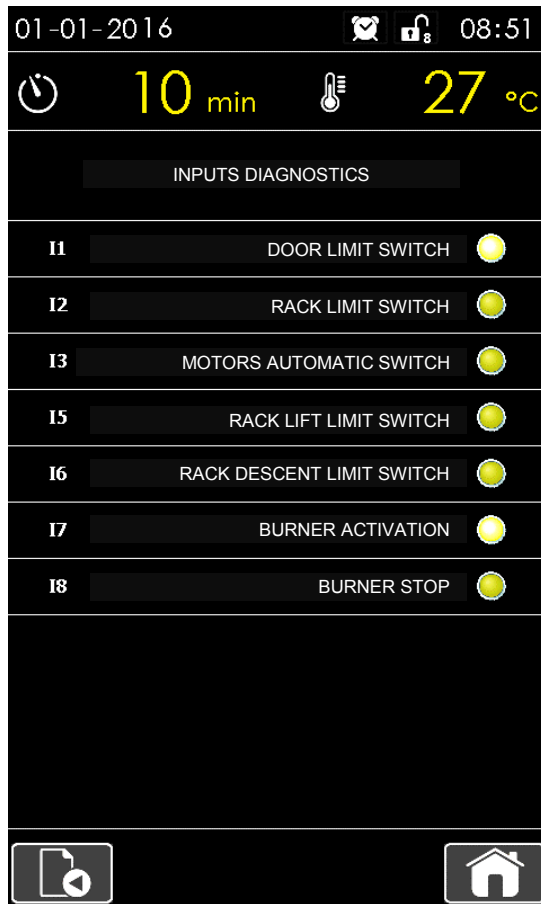
It can be reset only by authorised maintenance personnel.

**4**

**RESET**

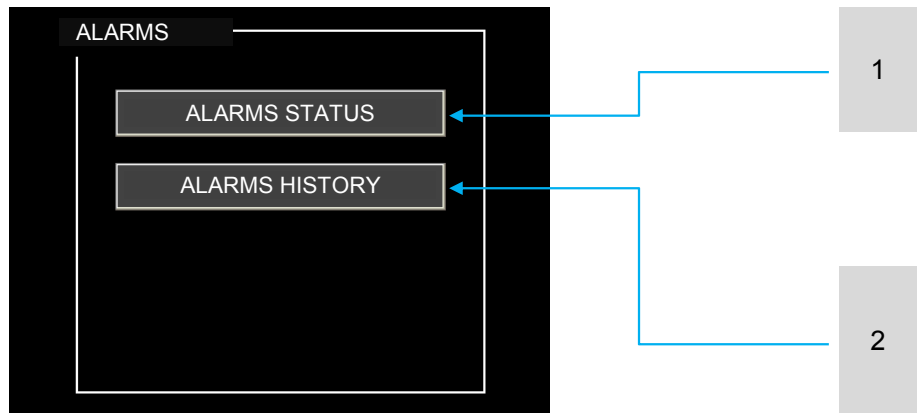
allows to reset the partial counts

INPUT

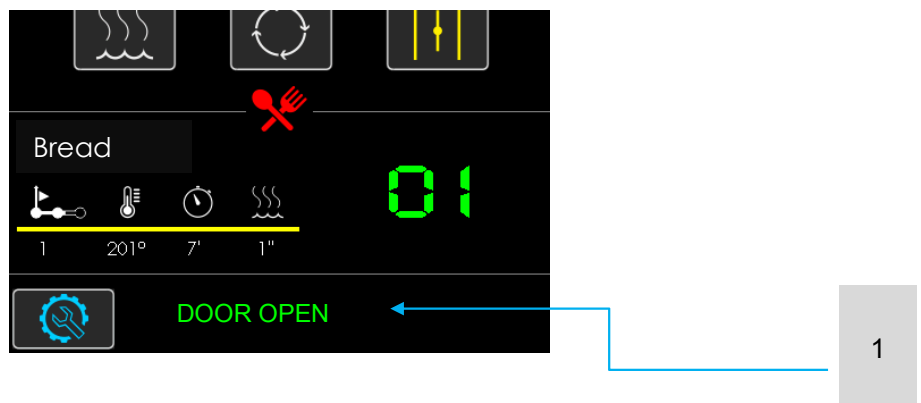
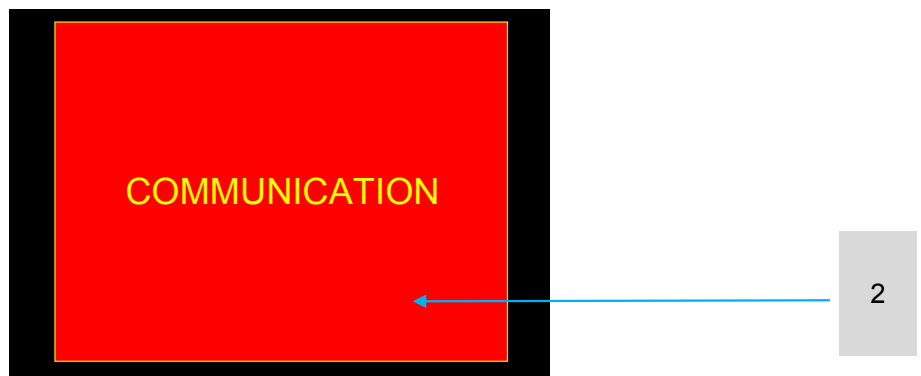


This diagnostics screen allows to check the inputs to the board are working properly. By manually forcing the status of such inputs, you can check their functioning. For example, by opening and closing the door you can see at once on screen how the status of input "I1" changes and consequently check the door limit switch functionality.

ALARMS



- 1 ALARMS STATUS
- 2 ALARMS HISTORY



- 1 WARNING MESSAGE
- 2 ALARM MESSAGE



The system includes two types of signals, alarms and warnings.

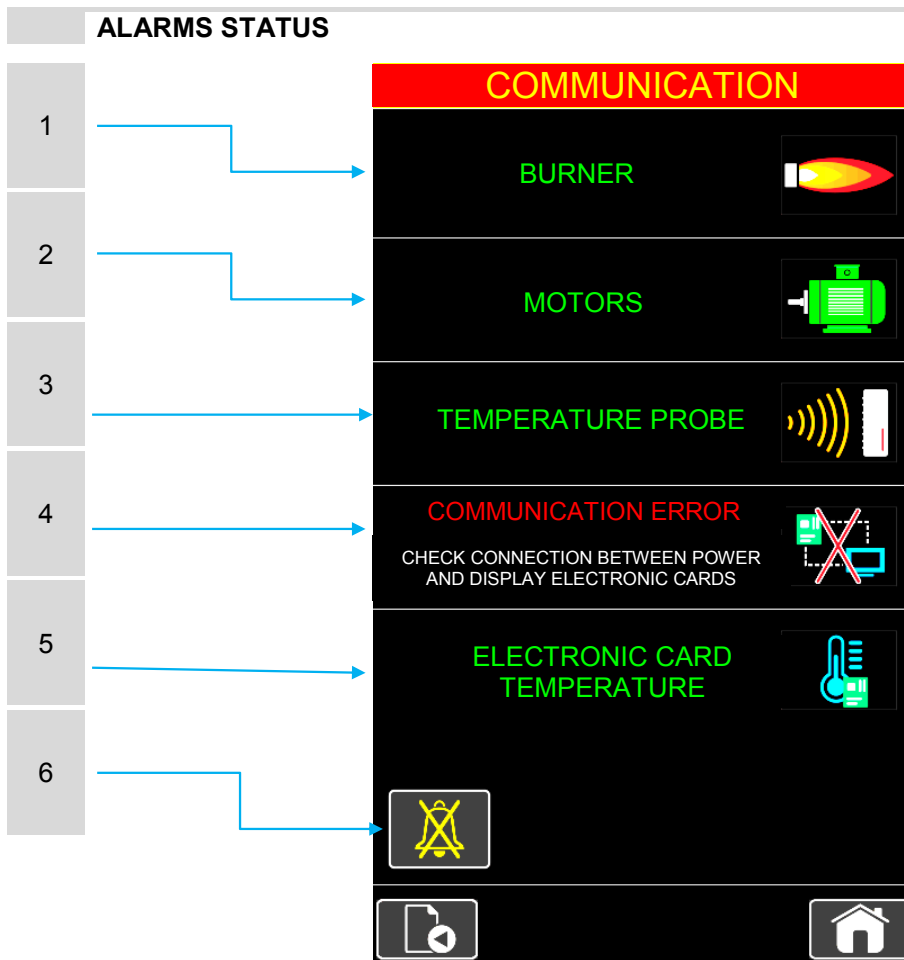
Warnings are simple notification messages. They have information purpose only and do not change normal oven functioning.

While the alarms intervene in case of serious malfunctioning which could possibly damage the oven.

The system is blocked and only solving the problem oven can start again.

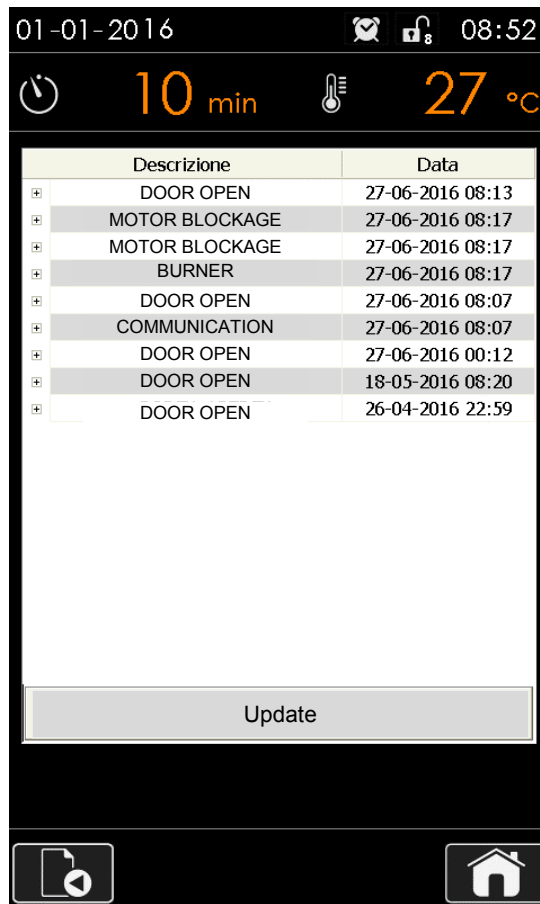
WARNINGS	FUNCTION
DOOR OPEN	warns the operator that door is open
RACK IN POSITION	Warns that rack is correctly positioned for extraction from oven

ALARMS	CONDUCT
COMMUNICATION no communication between power and display card	check that the cables connecting the two cards are properly wired
ELECTRONIC CARD TEMPERATURE Exceeding of the max operating temperature of electronic card	Remove any obstructions from the ventilation slots on the column and on the oven cover
TEMPERATURE PROBE Problems with temperature probe	Check connections and integrity of the temperature probe.
BURNER The burner is blocked	Reactivate the burner by pressing the button on the device of the same. If the problem persists call for service.
MOTORS a safety switch triggers automatically to protect one of the motors.	Open the power box and reset the tripped circuit breaker. If problem persists check motor integrity
RACK POSITION ERROR During an abnormal rotation rack did not trigger the limit switch. This may be due to a failure of limit switch or to an undesirable stop of the rack	Check the functioning of limit switch, or the correct rack rotation of the rack, watching any obstruction or break of the rotation unit (motor-reducer)
RACK LIFT ERROR Rack in lifting phase does not trigger the limit switch. This can be due to a failure of limit switch or rack blockage (ONLY FOR AUTOMATIC LIFT.)	Check the proper functioning of the limit switch or the presence of obstructions to rack lift
RACK DESCENT ERROR Rack in descent phase does not trigger the limit switch. This can be due to a failure of limit switch or rack blockage (ONLY FOR AUTOMATIC LIFT.)	Check the proper functioning of the limit switch or the presence of obstructions to rack descent



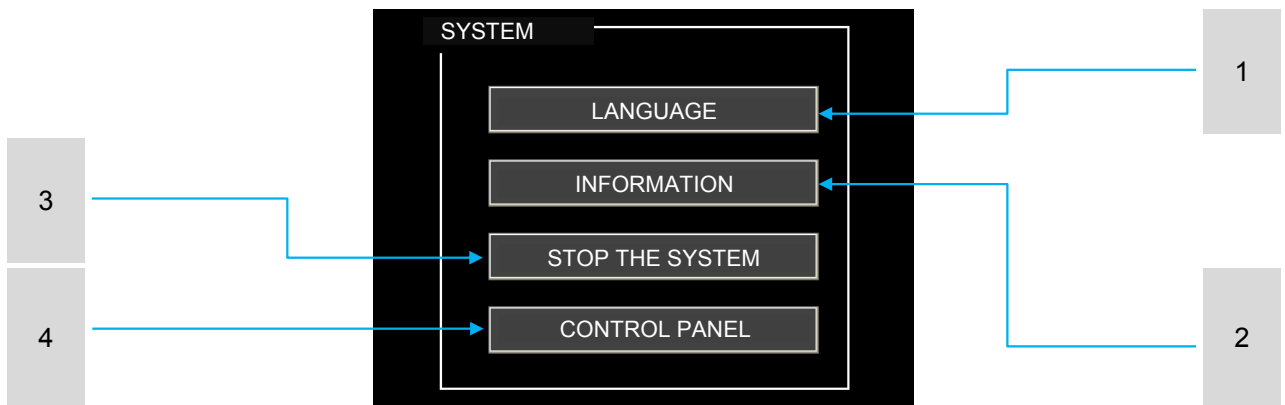
- |   |   |
|---|---|
| 1 | <b>BURNER</b><br>The burner is blocked  |
| 2 | <b>MOTORS</b><br>a safety switch triggers automatically to protect one of the motors.               |
| 3 | <b>TEMPERATURE PROBE</b><br>Problems with temperature probe   |
| 4 | <b>COMMUNICATION</b><br>no communication between power and display card                             |
| 5 | <b>ELECTRONIC CARD TEMPERATURE</b><br>Exceeding of the max operating temperature of electronic card |
| 6 | <b>BUZZER STOP</b><br>Turn buzzer off   |

ALARMS HISTORY



This screen lists all warnings and alarms shown on display. In addition to the description it also shows date and time of the occurred warning. By pressing the "+" button, it is possible to view also date and time of the its cut off.

**SYSTEM**

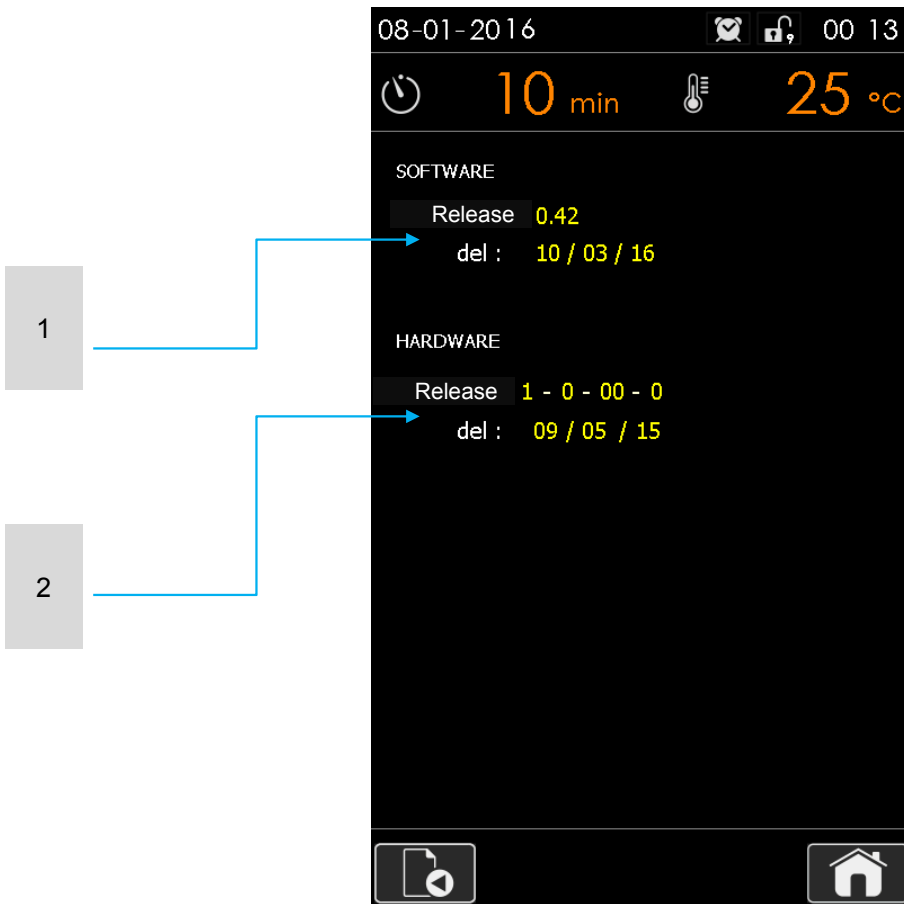


- 1 LANGUAGE**  
Set language of panel interface
- 2 INFORMATION**  
some information on the System Hardware and Software version
- 3 STOP THE SYSTEM**  
feature enabled only for authorised personnel
- 4 CONTROL PANEL**  
feature enabled only for authorised personnel

**LANGUAGE**






INFORMATION



- 1 SOFTWARE information on the version and date of creation of the control panel software currently installed.
- 2 HARDWARE information on version and date of creation of the power electronic card currently installed.

**PASSWORD**

Normal program settings enable complete control of all its functionalities. Acting on certain parameters it is possible protect all or part of them with password. The table indicates how to set these parameters and how to intervene to protect them:

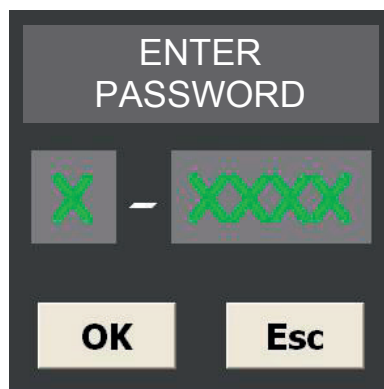
Parameter value 700	Parameter value 701		Access to PARAMETERS edit	Access to RECIPES edit
0	0		SI	SI
0	1÷9999		NO	SI
1÷9999	1÷9999		NO	NO

If no password is set the board is permanently set to level “1” and access is permitted to every function.

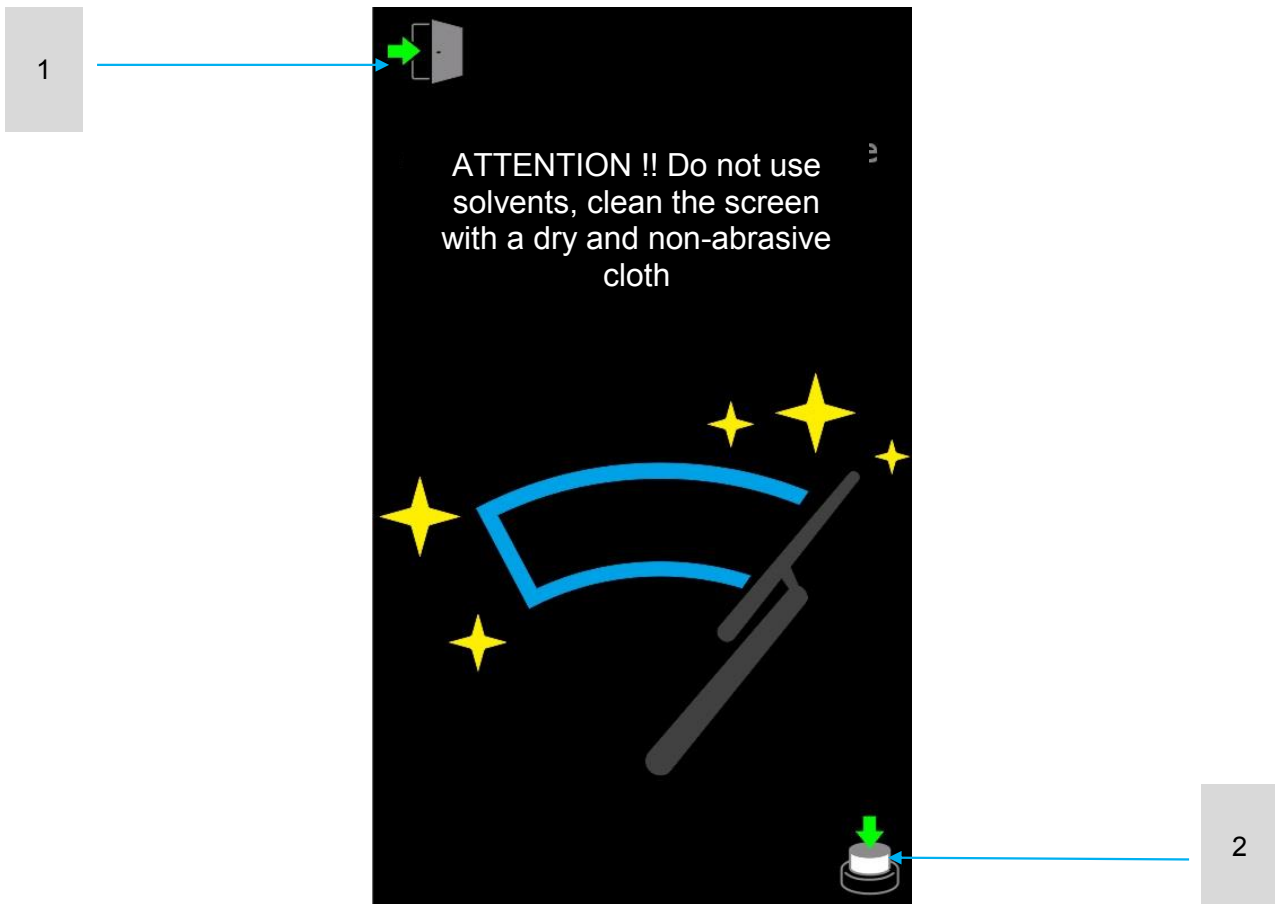
By only setting level “1” password (parameter 701) the board is permanently set to level “0”, allowing access to the recipes but not to board parameters. To access parameters, you have to enter password in the specific menu entry (PASSWORD UPDATE).

The password is composed of a first part indicating the level (in this case “1”) and a second part composed of 4 digits (password entered in parameter 701)

By also setting level “0” password (parameter 700) it is no longer possible to access recipes editing or board parameters (lock closed). By entering the appropriate level password (PASSWORD UPDATE) it will be possible to release the enabled zones.



SCREEN CLEANING



Blank to clean the screen without the risk of involuntary commands activation

- 1** This key only appears after pressing the bottom right button.
- 2** To exit the “cleaning screen” press in sequence this button and the top left "exit" key.

## PROGRAMMING

The system allows automatic oven switch on and off.

By properly setting the board you can choose between different programming:

DAILY or WEEKLY

DAILY: sets time of switch on, switch off and the initial recipe. Once started this program will be the same for every week day.

WEEKLY: for each week day you can set two different switch on and off times, and a starting recipe for each switch on.

To set the desired mode (daily or weekly) intervene on parameter "0433 CLOCK WEEKLY "

0 = DAILY

1 = WEEKLY

To switch oven off you can choose between two types of programming.

You can set a precise starting time or simply indicate the time (minutes) after which oven should switch off. To set the desired one intervene on parameter

"0435 DELAYED TIMER"

0 = SWITCH OFF TIME (as for switch on, time is indicated in hours and minutes)

1÷600 = MINUTES for SWITCH OFF (the set value indicates after how many minutes oven should switch off)

Automatic switch off only occurs if:

1 – The oven was switched on automatically.

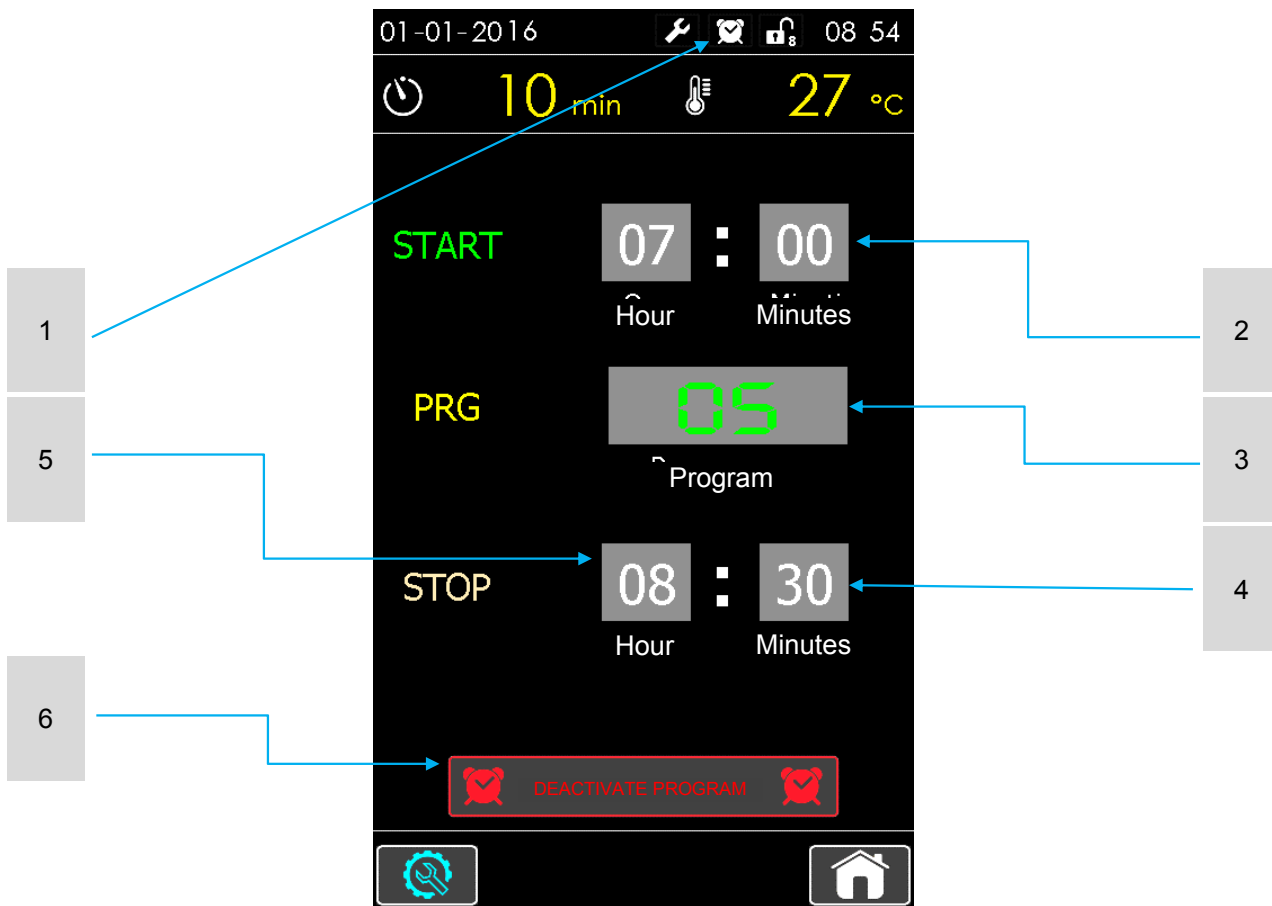
2 – No operation is carried out on the oven after starting.



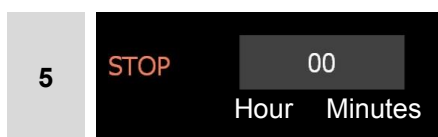
After programming remember to ACTIVATE (see icon on top bar)



DAILY PROGRAMMING



- 1 This icon indicates the program was activated
- 2 STARTING TIME
- 3 STARTING RECIPE
- 4 OFF TIME



If correctly set, it is possible to fix, instead of a precise hour, a time after which oven switches off



If this key is displayed:  
the program was edited but not yet saved. Press to save changes

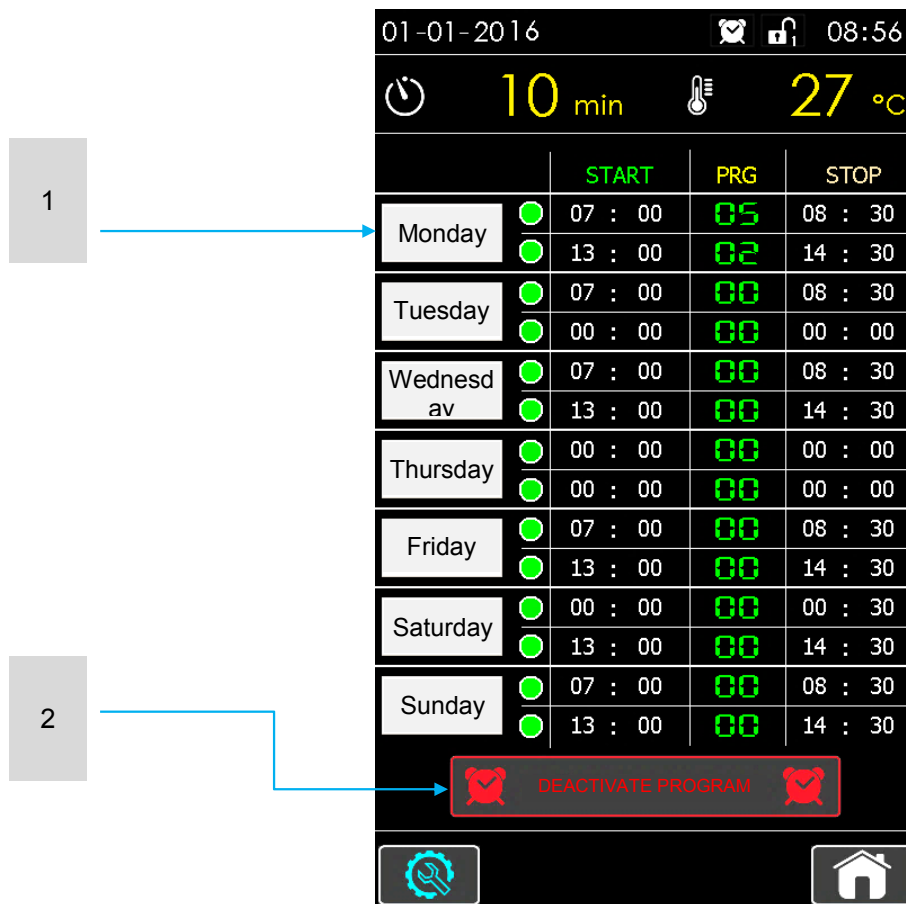


If this key is displayed:  
the program was saved and activated. Press this key to deactivate the program



If this key is displayed:  
the program was saved but not activated. Press this key to activate it

## WEEKLY PROGRAMMING



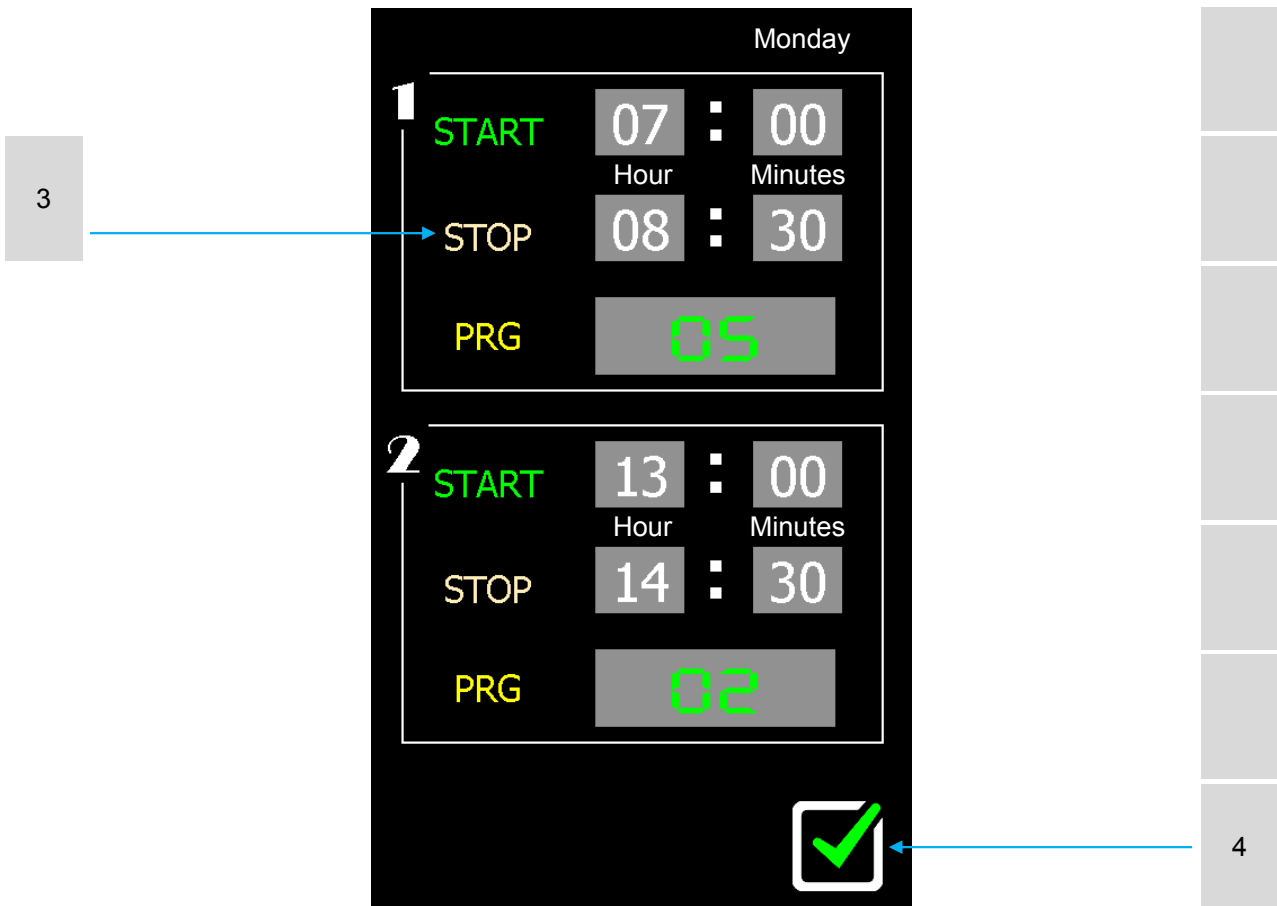
## WEEKLY PROGRAMMING

- 1** for each week day you can set two different switch on and off times. Press the desired week day to display a second screen in which entering switch on time and recipe and switch off time.

## ACTIVATE/DEACTIVATE

Press this key to activate or deactivate the automatic oven starting.

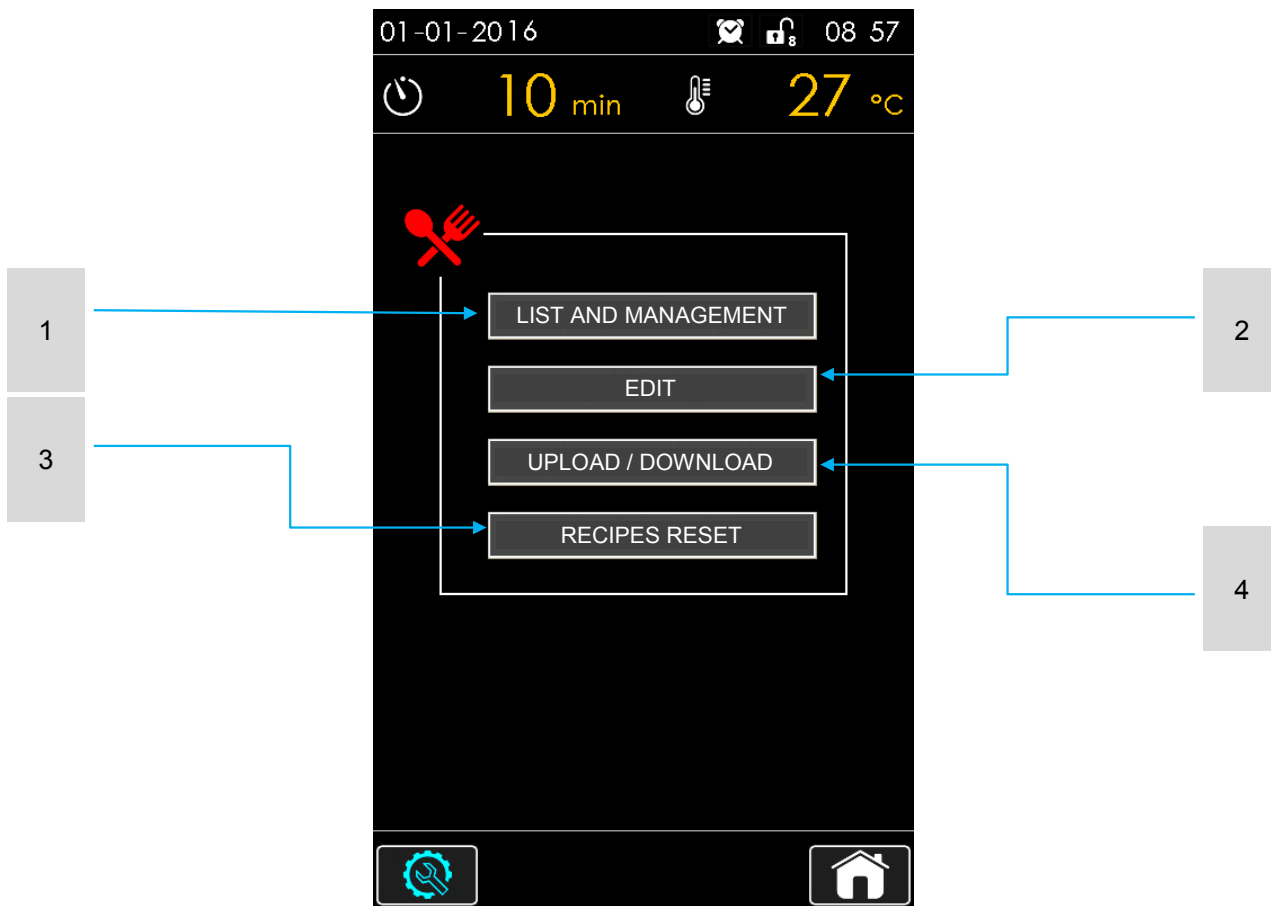
- 2** If relevant icon on the top bar is on it indicates the program activation status. Activating it, the green led corresponding to the programmed days lights up.



If correctly set, it is possible to fix, instead of a precise hour, a time after which oven switches off

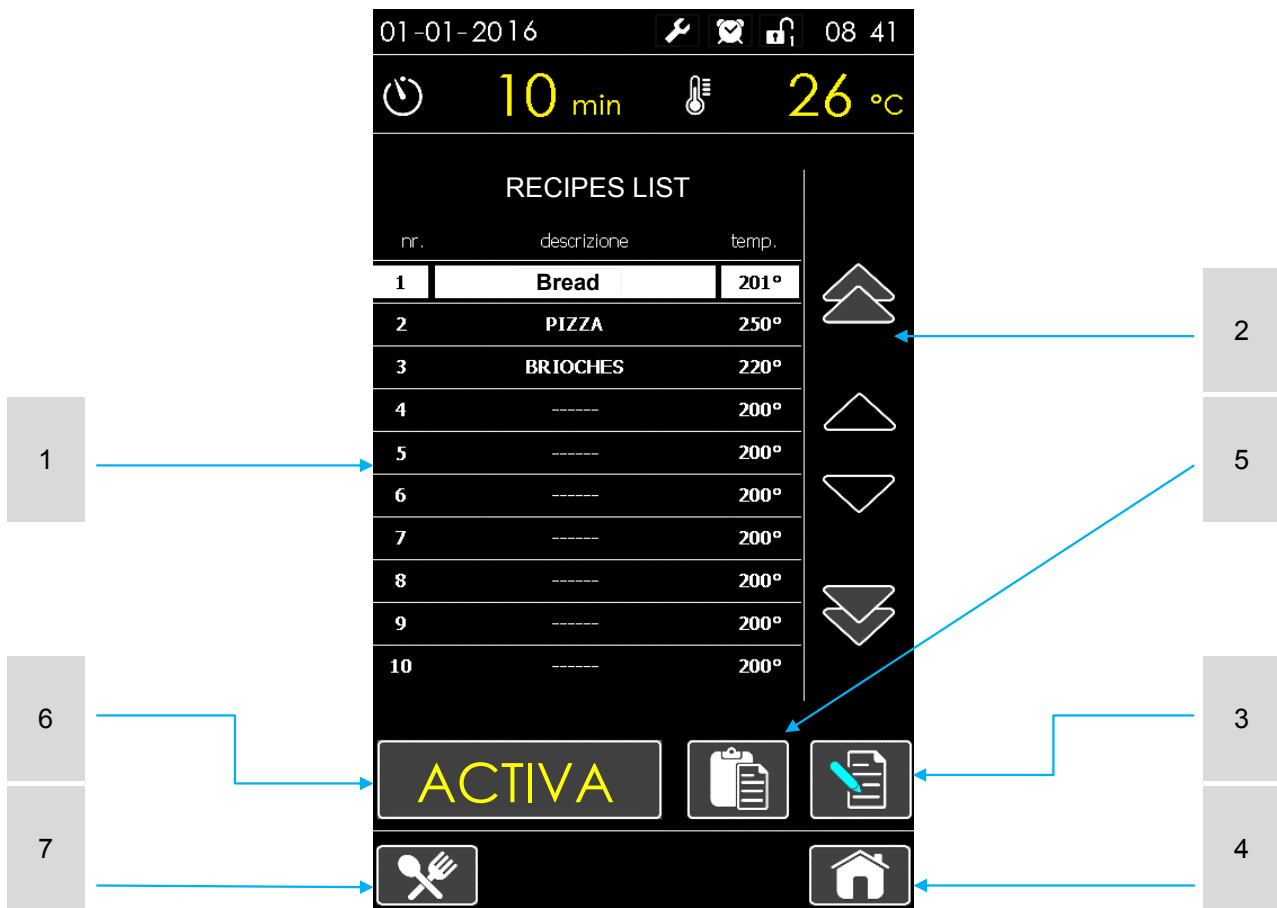
4 CONFIRM AND SAVE THE ENTERED VALUES

RECIPES



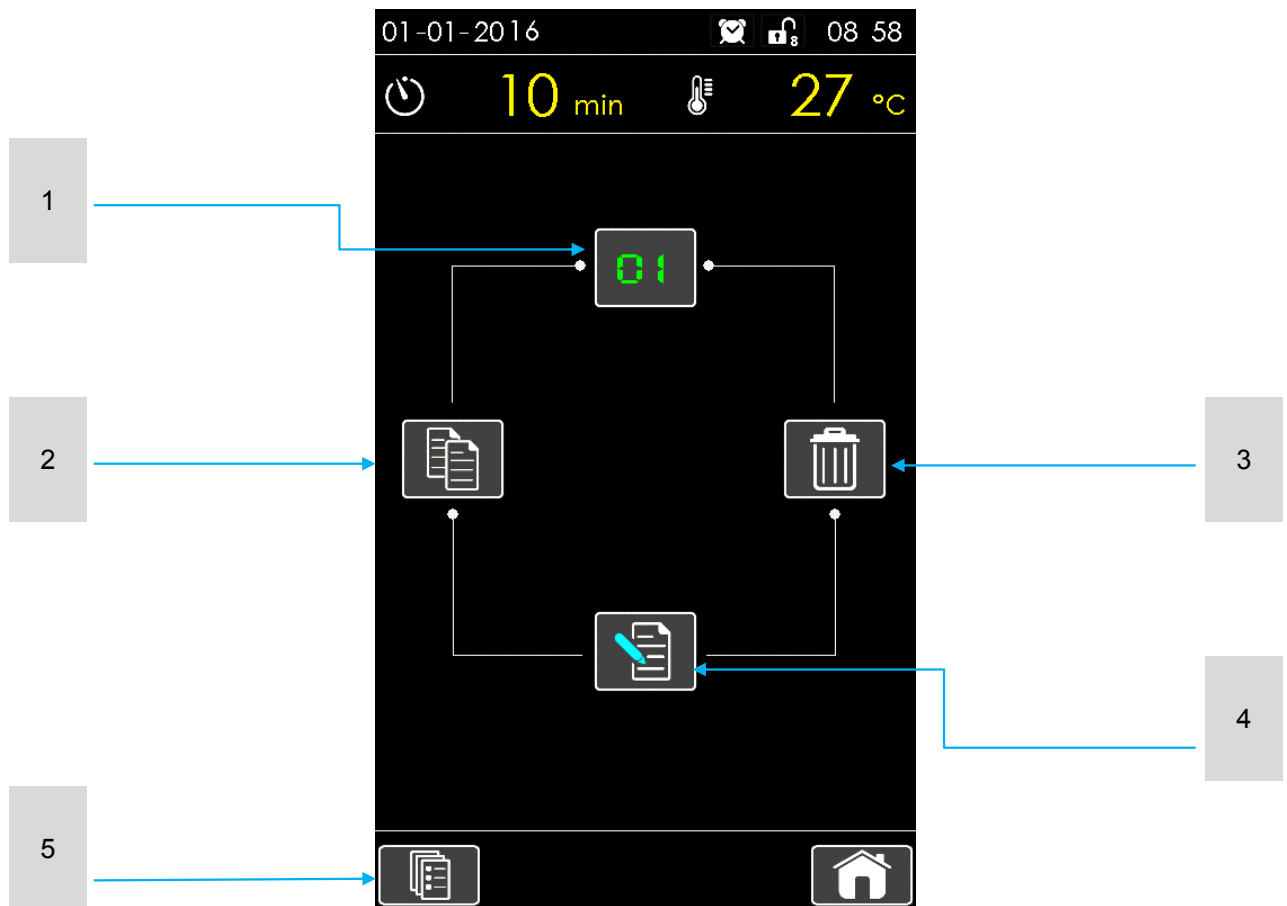
- 1 **LIST AND MANAGEMENT**  
displays a list of all the entered RECIPES and allows to copy or delete the existing ones
- 2 **EDIT**  
allows to edit all the values of a recipe and add or delete whole phases of the baking cycle.
- 3 **UPLOAD / DOWNLOAD**  
via USB key it is possible to up- or download the entire recipes database (enabled only for higher access levels)
- 4 **RECIPES RESET**  
in case of malfunction of the recipes it is possible to reset the entire recipes database (enabled only for higher access levels)

LIST AND MANAGEMENT



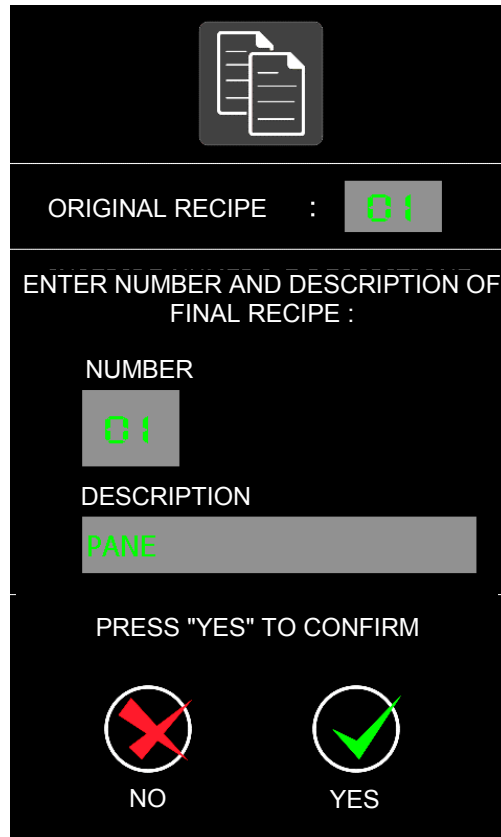
- 1 **RECIPES LIST**  
the highlighted recipe can be activated, edited, copied/deleted using the specific bottom keys
- 2 **RECIPE SELECTION ARROWS**  
scroll through all recipes
- 3 **RECIPES EDIT**  
allows to edit all the values of a recipe and add or delete whole phases of the baking cycle.
- 4 **HOME-PAGE**  
return to home-page
- 5 **COPY AND DELETE RECIPES**  
use this key to copy the selected recipe delete all its values, setting it to zero.
- 6 **ACTIVATE**  
activates the highlighted recipe and returns to home-page
- 7 **RECIPE MANAGEMENT**  
returns to recipes sub-menu

COPY AND DELETE RECIPES



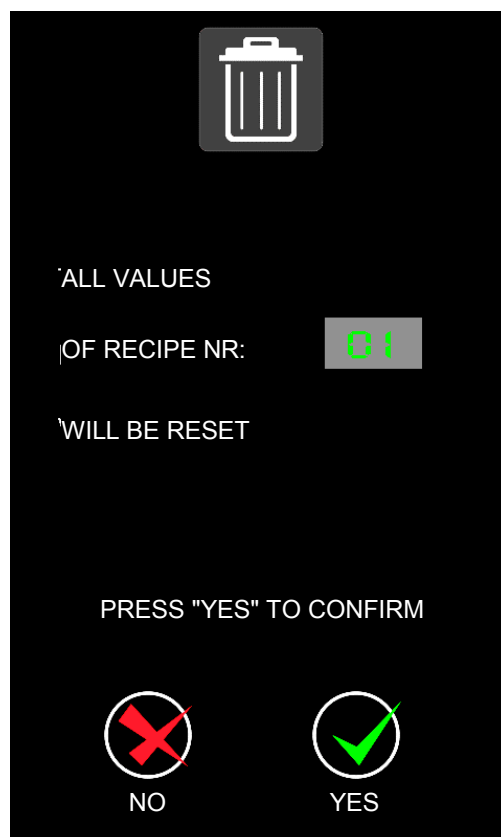
- 1 **ORIGINAL RECIPE**  
existing recipe, already saved, to be copied or deleted.
- 2 **COPY RECIPE**  
create a precise copy of the original recipe
- 3 **DELETE RECIPE**  
delete the original recipe
- 4 **EDIT RECIPE**  
enter the screen where to edit original recipe
- 5 **RECIPES LIST**  
return to previous screen

COPY RECIPE



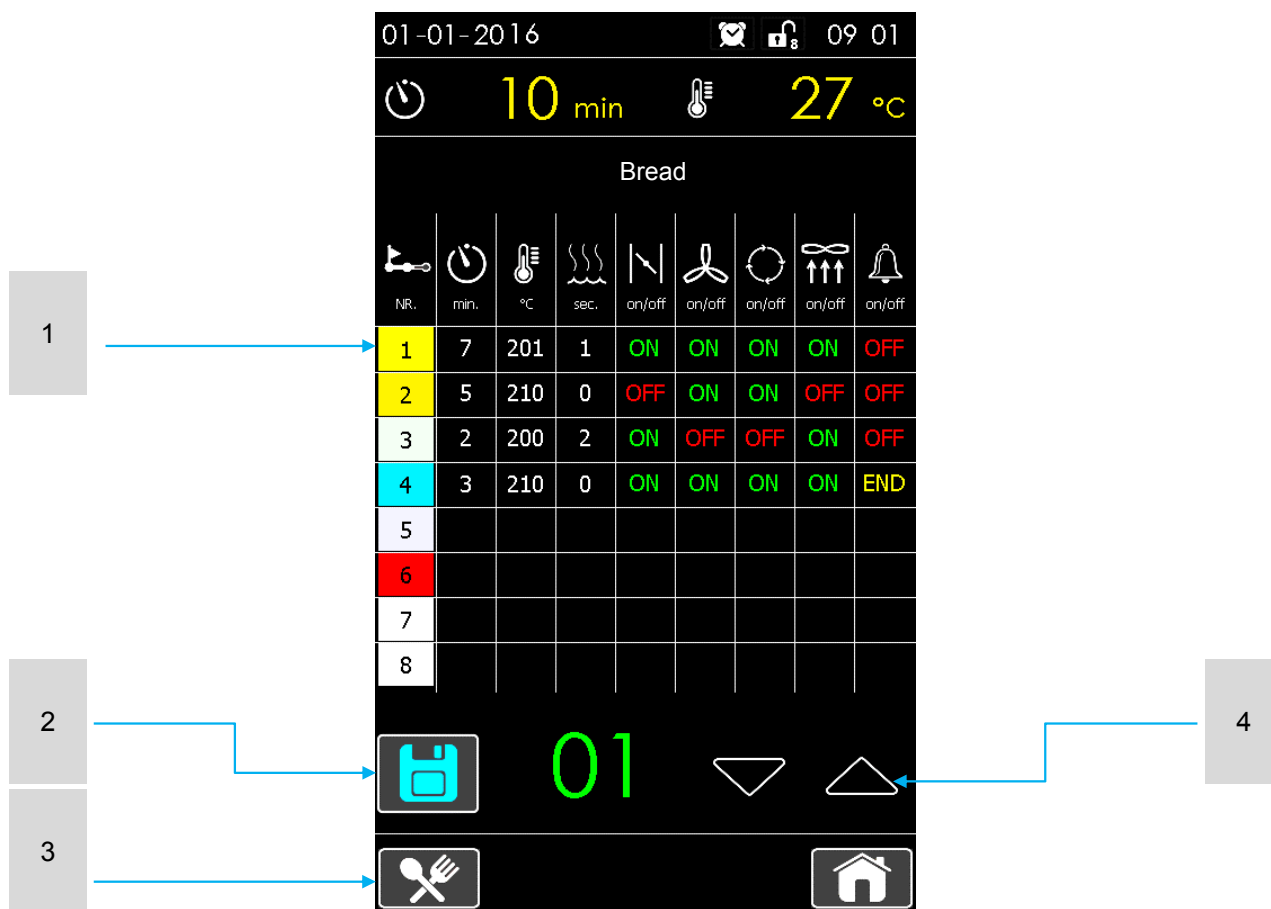
The screen displays a document icon at the top. Below it, the text 'ORIGINAL RECIPE : 01' is shown. The main instruction is 'ENTER NUMBER AND DESCRIPTION OF FINAL RECIPE :'. Under this, there are two input fields: 'NUMBER' with the value '01' and 'DESCRIPTION' with the value 'PANE'. At the bottom, there is a confirmation prompt 'PRESS "YES" TO CONFIRM' and two buttons: 'NO' (with a red 'X' icon) and 'YES' (with a green checkmark icon).

DELETE RECIPE



The screen displays a trash can icon at the top. Below it, the text 'ALL VALUES OF RECIPE NR: 01 WILL BE RESET' is shown. At the bottom, there is a confirmation prompt 'PRESS "YES" TO CONFIRM' and two buttons: 'NO' (with a red 'X' icon) and 'YES' (with a green checkmark icon).

EDIT RECIPE



**RECIPE PHASE**

press the phase to be edited, a screen opens where to enter all the data of the selected phase.

- 1 You can set up to 8 phases. The first phase to be set should always be nr. 1 (press line 1 to enter data). Only after completing phase 1 you can pass to phase 2 (it is necessary to complete a phase to go to the following one).

**SAVE RECIPE**

to confirm all changes, save the recipe.



**ATTENTION !!**

**without saving all the changes get lost**

**RECIPE MANAGEMENT**

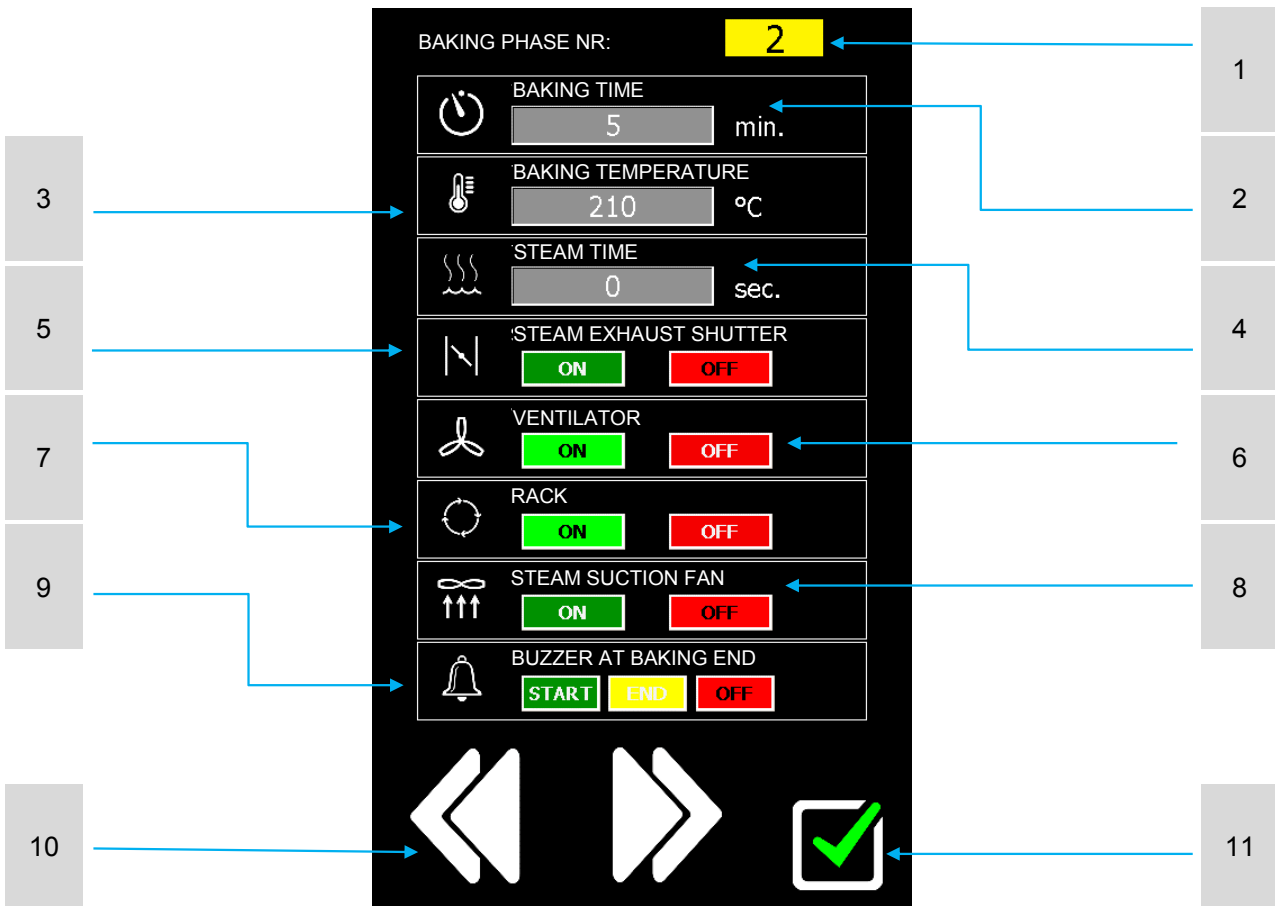
returns to recipes sub-menu

**RECIPE SELECTION ARROWS**

scroll through all the entered recipes.



RECIPE PHASE



- 1 **BAKING PHASE NR:-** number of phase under change
- 2 **BAKING TIME-** indicates baking time (minutes)
- 3 **BAKING TEMPERATURE**
- 4 **STEAM TIME-** indicates duration (seconds) of steam injection in the chamber. Supplied at the beginning of the phase
- 5 **STEAM EXHAUST SHUTTER-**it can be set to open valve at the beginning of this phase (ON) or to keep it closed (OFF)
- 6 **VENTILATOR-**it can be set to switch it on automatically at the beginning of this phase (ON) or keep it off (OFF)
- 7 **RACK-**it can be set to start rack rotation automatically at the beginning of this phase (ON) or leave it stopped (OFF)
- 8 **STEAM SUCTION FAN-**it can be set to switch it on automatically at the beginning of this phase (ON) or keep it off (OFF)
- 9 **BUZZER AT BAKING END-**it can be set to emit a signal at the beginning of the phase (START), to sound at the end of the phase (END) or just stay off (OFF)
- 10 **PHASE SELECTION ARROWS-**scrolls the phases available for the baking cycle
- 11 **CONFIRM PHASE-**confirms the entered values and returns to the recipes edit page

## 4.3 Use and Programming

### AUTOMATIC baking cycle

Turn screen on in "AUTO" mode  
 Open oven door (automatically the steam exhaust starts)  
 At door opening the heater (burner + heating elements) stops immediately.



Choose the desired recipe (you can enter up to 99 different programs)  
 Scrolling the various recipes entered the display shows, besides the name, the main information of the program. Press this image on the home page to see a screen with all the recipe details



Activate the desired recipe

Closing the door the heater (burner-heating elements) starts as well as oven thermostatisation.  
 Wait until the baking temperature set in the program is reached.  
 Now open the door, insert the rack, with the products to be baked and close the door.



Press "START" to activate the program.  
 Program starts the baking time of the first baking phase and applies all the parameter and time and temperature specifications set for the phase.  
 After the baking time of this first phase oven passes to the next phase (if set).  
 You can program up to 8 different baking phases.

The end of the whole baking cycle is signalled by a buzzer (if set). Stop it with the relevant key.  
 If during baking it is necessary to change baking temperature or time, adjust them directly using the arrows on the top side near the red displays.  
 This type of change has the advantage of being immediate and allows direct adjustment of the program during baking, but has the disadvantage of not remaining saved, To save it later you need to edit program with the specific procedure.



If at the end of the cycle product needs more baking time press this button and an additional time (5 minutes) will be added to the last cycle phase. (5 minutes time is pre-set in the board. To change this value, after activating the additional counting, just use the two usual arrows)

Oven light is timed by default and automatically turns off after 60 seconds (this also can be changed with "453" parameter - set it on "0" to deactivate the timer )



Once cycle is activated, under the timer display, this icon appears..

Press this key to activate automatic oven shutdown.  
 This functionality switches oven off automatically at baking end.



When icon changes colour and appears on the top bar it indicates function is activated.

**MANUAL baking cycle**

Turn screen on in "MANUAL" mode

MANUAL mode manages all the oven functions with direct manual controls.

The operator manages the whole baking cycle by manually setting all the necessary values.

All the settings of a specific baking program are inhibited leaving the operator completely free.

This mode can be useful to carry out a baking cycle without having need or time to create a specific baking program.

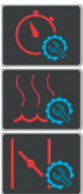
Open oven door (steam suction starts automatically)

At door opening, heater (burner+heating elements) stops.

Set baking temperature using the top arrow keys. The two top displays indicate respectively temperature detected in the chamber and the one.

Now set baking time and if necessary time for steam and for steam valve opening.

Use the two bottom arrow keys to set such times.



Baking time is constantly displayed and can be changed directly with the arrow keys. The set value is showed on the green display above the relevant key

To set steam time press the relevant key. The key led lights up and using the arrow keys you can change value, showed in the green display nearby.

Also to set the steam valve opening time it is necessary to press the relevant key

Close the door.

Door closure starts both burner and oven thermostatisation.

Wait until the set temperature is reached.

(temperature detected in the chamber is indicated on the upper display)

Now open the door, insert rack, with the product to be baked and close the door.



Activate rack rotation



Press "START" to begin baking time counting.

If previously set, at baking start the board will also give steam injection at the defined time.

The buzzer will advise end of baking time. Stop it with the relevant key.

All the commands available in AUTOMATIC mode, as



steam suction fan

light

rack, operating also in MANUAL mode

## 4.4 Operating procedures

### STARTUP

Activate oven supplies (electricity, fuel, water) Load the desired recipe  
Do not start the recipe ("START" button), just activate it.  
Close and lock the door  
Wait about 30 minutes to allow oven and humidifier to reach the required temperature.

### RACK INTRODUCTION

Open the manual steam exhaust shutter  
Open the door completely  
Check that steam exhaust starts  
Push the rack so to place it firmly  
Close and lock the door  
Check that recipe activates the ventilator.  
Press "START".  
(rack turns, heating unit is enabled and baking cycle starts)

### RACK EXTRACTION

A buzzer signals that the baking time is finished  
Make sure products are ready to be taken out (if not, increase baking time with the relevant button)  
Extract the products proceeding as per following order:  
Open the manual steam exhaust shutter  
Unlock the door and leave it half-open for few moments so the residual hot vapours go out.  
Place rack in the extraction position.  
Open the door completely and using heat resistant gloves extract the rack  
Close and lock firmly door handle  
Prepare oven (if necessary) for a new baking cycle.

SHUTDOWN PROCEDURE



To turn oven off proceed as follows:  
 Press ON/OFF button on the display  
 Confirm oven shutdown by pressing "YES"  
 In order to preserve the oven structure and components, a post-ventilation function is scheduled.  
 When oven is off, there is a 3-minutes time ventilation inside the baking chamber  
 The post-ventilation time is set by "408" parameter which can be changed by simply modifying value of this parameter  
 At the end of this procedure, in case of prolonged stop you can also interrupt all the machine supplies (electricity, fuel, water)

- 1 SHUTDOWN PROCEDURE
- 2 post-ventilation counting, after which oven switches off completely
- 3 If automatic starting is planned, display will also show time and day of next starting.

#### 4.5 Useful Information

Make sure you carefully monitor the first baking cycles and check the results achieved: using the same types of dough under the same conditions, you will obtain standard results.

The heat needed to process your dough depends on its preparation, ingredients and liquids.

Cooking time in particular can vary according to the type of dough, its homogeneity and volume.

Setting the same processing temperature you can bake different product at the same time, regardless of their position on the shelves, and also bake small batches with top results.

Should bread not take on vapor, resulting matt and rough at the end of your baking cycle, check if during the vaporizing cycle the product gets wet. Should this be the case, you need to modify the dough. Keep in mind that you can achieve good results only if your batch is not too wet when ready to be moved inside the oven. For this reason, it is important that the rack loaded with the dough from the proofing chamber, is left to rest 1-2 minutes in the air before going into the oven.

Make sure that the oven door opens only for loading and unloading operations.

Keeping the oven access door open for too long, makes the baking chamber temperature drop, i.e. uneconomically increases the consumption of fuel or energy.

As a consequence of the loading and unloading operations, temperature displayed on the thermoregulator drops of about 30°. The thermal difference is re-balanced within a max span of time of 8/10 minutes. This is quite a short time compared with the original heat exchange between dough and hot air which generates a remarkable drop in temperature of the circulating air



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