mac.pan
bakery solutions since 1983

Instrumentation
Production cycle

CE

Electromechanical
control panel
ELM

mac.pan

MADE IN ITALY

electromechanical control panel

4.1   Useful Information

Cooking time in particular can vary according to the type of dough, its homogeneity and volume. 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. Setting the same processing temperatures you can bake different product at the same time. Disregarding their position, you can use all 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.
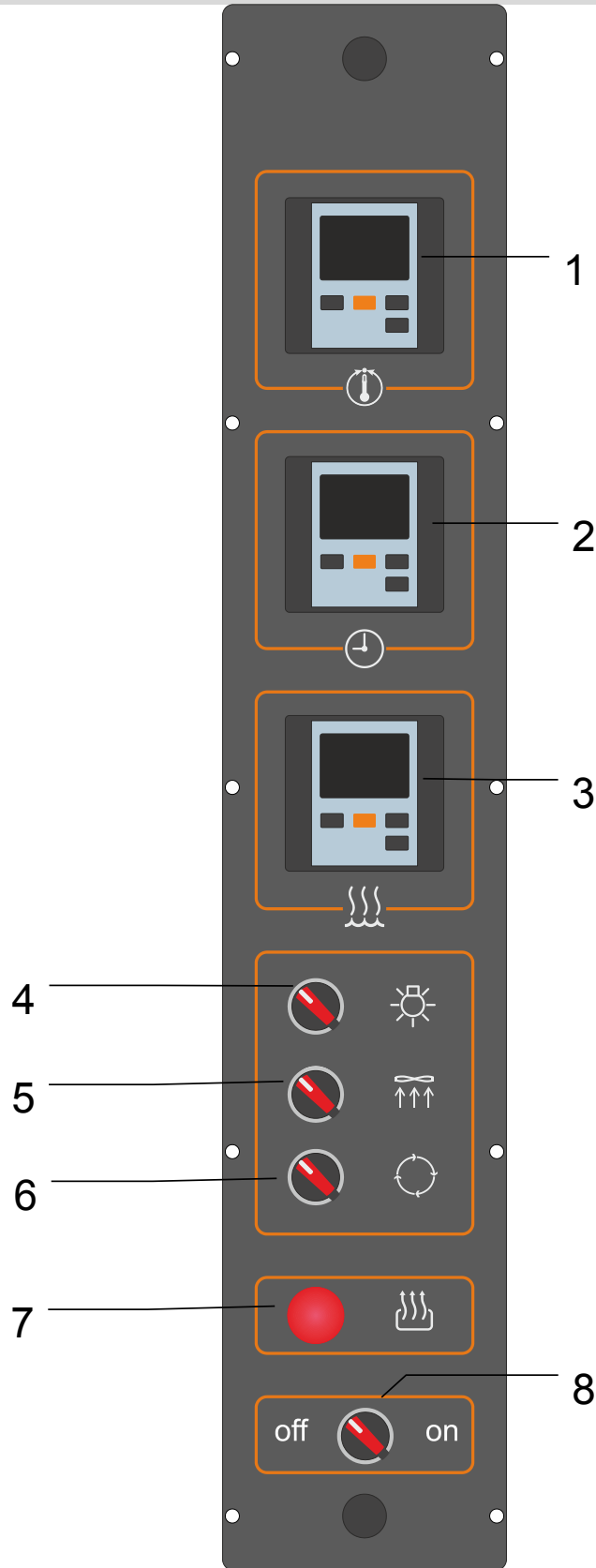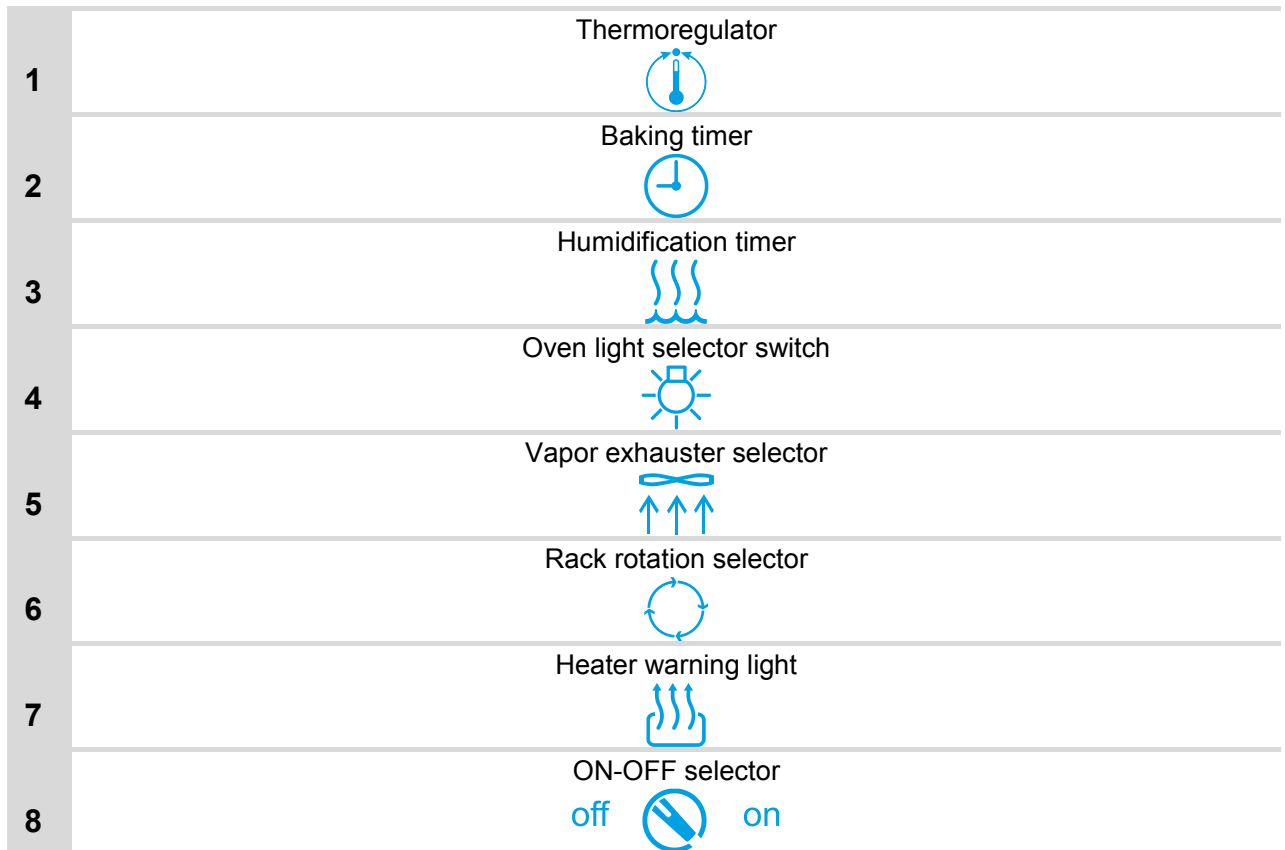
Keeping the oven access door open for too long, makes the baking chamber temperatures drop, i.e. uneconomically increases the consumption of fuel or energy.

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 maximum 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

electromechanical control panel

FIG.1

1

2

3

4

5

6

7

8

off   on

electromechanical control panel

mac.pan

1	Thermoregulator
2	Baking timer
3	Humidification timer
4	Oven light selector switch
5	Vapor exhauster selector
6	Rack rotation selector
7	Heater warning light
8	ON-OFF selector off on

MADE IN ITALY

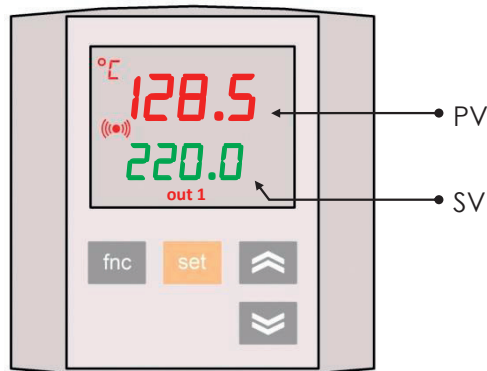**electromechanical** control panel

Thermoregulator

KEYS

fnc — "fnc" exit function from setpoint and parameters setting

set — "set" function setting of setpoint and parameters

up — "up" scrolling function: scrolling of menu items and setpoints to increase parameter values

down — "down" scrolling function: scrolling of menu items and setpoints to decrease parameter values

DISPLAY and LED

PV	Displays the temperature value in the baking room, names of parameters and alarms.
SV	Displays the setpoint and parametes values
out1	When the exit is on (running heating unit)
°C	This shows the °C or °F temperature scales displayed
(((•)))	It starts in case of alarm

ALARM SIGN

E1	Temperature probe to detect failures, short or open circuits.
HA1	The alarm is enabled when temperature exceeds the maximum detectable by the probe
LA1	The alarm is enabled when temperature exceeds the min detectable by the probe

PROGRAMMING SETPOINTS
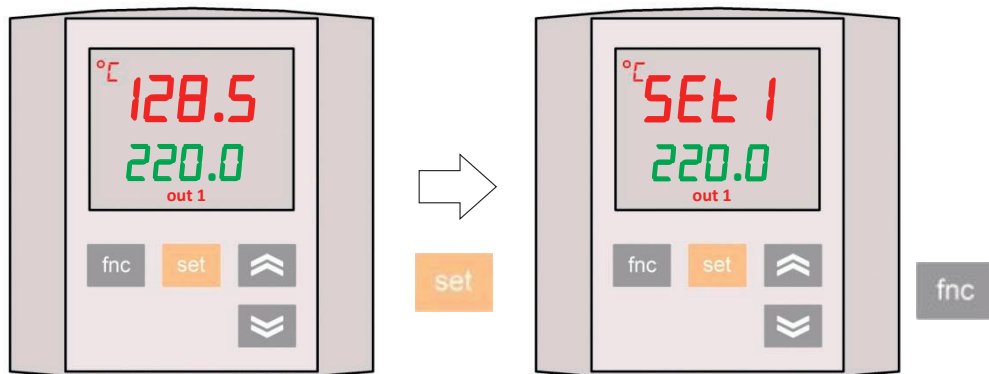
Turn on the instrument

set — Press and release the "set" key

The PV display shows "Set 1" while the "SV" display shows the actual setpoint value

up down — With the keys "up" and "down" you can modify the setpoint value on the "SV" display

fnc — Pressing the "fnc" key or after 15 seconds, the new value will be stored bringing the instrument to the original value.

electromechanical control panel

mac.pan

	Timer

|	**KEYS**
stop reset	"stop-reset" stops and restarts counting, exit function from programming parameters
start	"start" starts counting, gives access to the setting functions of the parameters
⌃	"up" scrolling function: scrolling of menu items and setpoints to increase parameter values
⌄	"down" scrolling function: scrolling of menu items and setpoints to decrease parameter values

	DISPLAY and LED
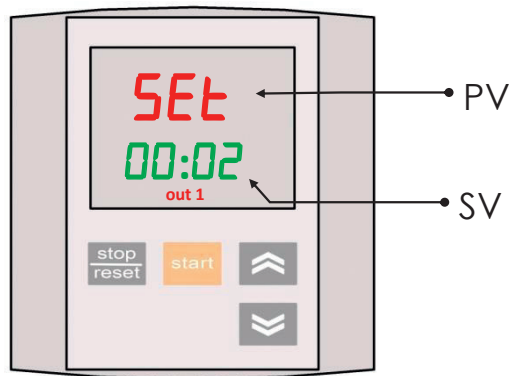
PV	Displays counting progress, the parameters names and the alarms
SV	Displays the setpoint and parametes values
out1	When the exit is on (running heating unit)
((•))	Turns on when the baking cycle is over

MADE IN ITALY

electromechanical control panel
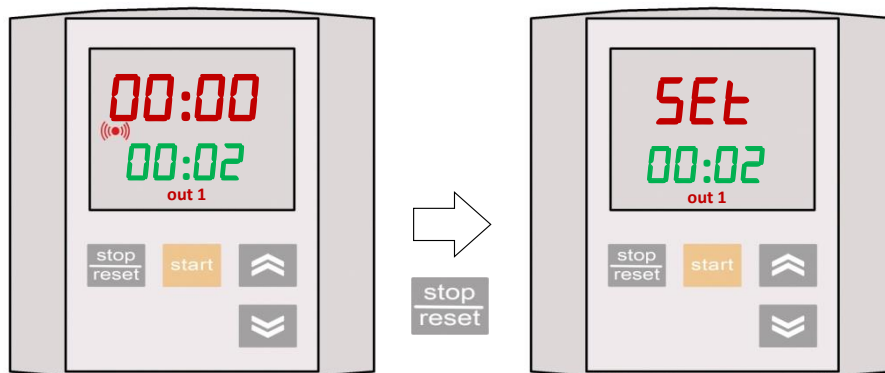
PROGRAMMING SETPOINTS
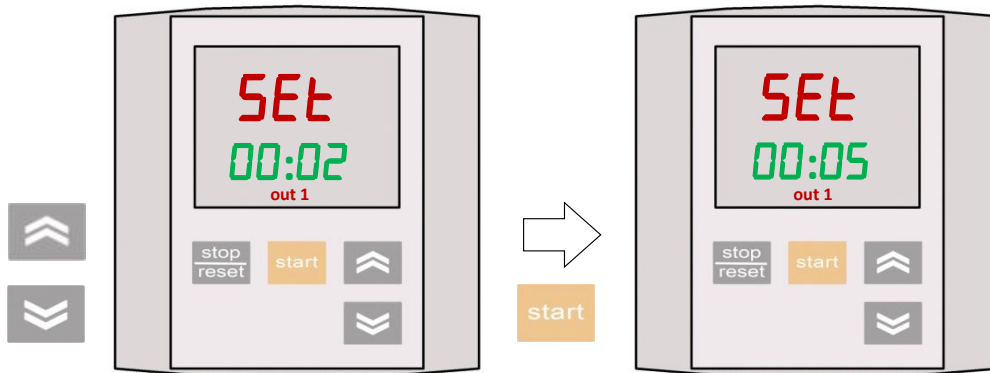
Turn on the instrument
The PV display shows "set" while the "SV" display shows the current setpoint

With the keys "up" and "down" you can modify the setpoint value on the "SV" display

Press and release the "start" key to start counting

Once the counting is over, reset original conditions by pressing the "stop-reset" key

MADE IN ITALY

4.3   Production cycle

Startup

Activate the supply of the oven (power, fuel, water)
Power the oven turning on "ON" the main switch

off   on

Ensure that temperatures on the thermoregulator is as desired.

For the thermalstation tightly close the door

Start the rack rotation selector.

Wait approx. 30 minutes to allow the oven and the humidifier to reach the desired temperature.

Placing the rack

Open the manual gate to exhaust vapors

Set the timer for the humidification cycle

Fully open the door Ensure that the vapor exhauster runs.
Push the rack straight to its place.
Close back the door and lock it
The heating is enabled (activated fan and heater)

Make sure the rotation of the rack is activated.

Start the vapor intake control to enable humidification

Set and actuate baking time

Removing the rack

A sound signal warns that the set baking time is over.
Ensure that the dough is ready to be taken out of the oven and, if not, set the timer again to complete the baking cycle.
Start taking the racks out of the oven following this sequence:
Open the manual gate for vapor discharge Unlock and leave the door slightly open for a few instants: this will allow residual heat to be Make the racks rotate to its exit position exhausted.
Fully open the door and, wearing heat-resistant gloves, take out the racks Close and lock well the door handle Prepare the oven – if needed – for a new baking cycle

Turning off the oven

Zero the timer

Disable in sequence the following actuators:

rack rotation

vapor exhauster

and after 20 / 25 minutes posizion on "OFF" the main switch

off   on

Power off the machine (electrical Energy; fuel; water)

electromechanical control panel

mac.pan

bakery solutions since 1983