

A. ENTRY

Dear Customer, Accordance with EN ISO 9001 : 2000 Quality Management System and CE directives, Thank you for choosing our products are produced from the highest quality ingredients. This guideline for safe use of the product that has been prepared for the longest possible period of time. Please read carefully and follow the suggestions.

This booklet has important information about the use of your device, tips, recommendations, and provides alerts. Carefully read the information contained in the manual before you start using your device, as well as your safety is very important in terms of device can be used for many years without a hitch.

B.SAFETY INFORMATION

1.PLACING FURNACE

- Before starting operation, make sure that your oven water.
- Oven before being shipped, shipping damage, were protected in the best way. Whenever your device before switching on the furnace and during the be sure to check the safety of shipping.
- The location of the furnace needs to be replaced, however, carry the weight of the oven, with a group of people experienced in moving Provide at least four. If you need pallet truck, torklift and so on. Benefit from carriers.
- Your device and the device is down-to-earth in a balanced way place on a floor can support the weight.
- Access to an environment where flammable and explosive substances. Never start taking the necessary security measures.
- The place in which the device is adequate air circulation Pay attention.
- Placement of the furnace to provide a convenience, especially in terms of service and make sure that each point at least 40 cm away.

2.ELECTRICAL SAFETY

Single-phase (mono-phase) and three-phase current draw of 16 Amps and above(tri-phase) 25 amp plug and power cord installed on the current draw of the furnaces are not. It features power supply cables over the ends of the labels and technical information stated on the label located on the furnace must be connected in accordance with the electrical values.

Come up with a grounded attachment plug on the oven during the delivery. However, considering the long-term use is not a electrical connection plug by making the vending machine is of great importance in terms of security. Such a mechanism would prevent arcing may occur when a slot in the socket. Covering the main switch the oven, the oven as soon as the operator of the electrical energy also of vital in an emergency situation should be close to the oven for.

3.ENVIRONMENTAL SAFETY

- Do not operate while there is a living being inside the oven.
- The oven during the flammable, combustible, explosive and so on. Never run when agents.
- Never side of the oven flammable, combustible and so on approach the material.
- At any stage of the oven, that would create a danger to human health process operator's responsibility to take the necessary measures to be used.
- You leave the oven door open as long-term for the purpose of cooling the furnace and the working environment around other people take the necessary measures necessarily inform about it.
- Ovens are manufactured in line with the directives of the CE electromagnetic compatibility tests required by this directive is applied and then delivered to users. However, the electromagnetic waves emitted by the oven, even under CE standard values determined by very sensitive equipment, such as a pacemaker should be noted that these waves can be affected. This is the situation of those affected, and devices mustn't be near the oven.

C.HEATING ELEMENT AND INSULATION ELEMENT

1.WIRE RESISTORS

Kanthal APM and Kanthal A-1 quality furnaces only used resistance wires. These wires are owned by the other advantages of Ni-Cr alloy heating elements are as follows:

- High temperatures occurring in the wire exits avoid accumulation.
- High resistance to corrosive environments feature atmosphere.
- Lower Z exchange resistances.
- Longer equipment life.

2. ELEMENTS OF THERMAL INSULATION

REF-SAN only modern insulation materials produced by the furnace (ceramic wool, board and brick) Use for types of materials commonly used in thermal insulation of the past has no effect on carcinogens such as asbestos and provide energy savings by increasing the insulation more effective.

However, this type of material involved in the interior during the production of certain chemicals and carry it along with warming gaseous chemicals start to grow. An important part of these gases in the furnace can be quite irritating test experiments revealed a lesser extent, but still during your initial use of the gas outlet can be seen, this situation is encountered only a few times, and there is no need to worry about any.

3. ELECTRICAL INFRASTRUCTURE

REF-SAN produced by electric furnace uses the infrastructure of the products according to CE directives. Electric oven CE regulations and norms of the infrastructure within the framework of the preparation of all kinds of wire connecting the national security measures are taken into consideration.

D. CAUTIONS FOR USE

- Under no circumstances should the oven on maximum temperature operated necessary.
- Furnace insulation materials used in the production and resistances selected to withstand the maximum operating temperature. Suffered severe damage, such as the maximum temperature of the furnaces run on will be out of warranty.
- REF-SAN ovens are built to operate under normal atmospheric conditions unless otherwise specified by the user. If the specifications in the oven kullanıđı applies under normal atmospheric conditions. If you consult the company to run the oven in different atmospheric conditions.
- REF-SAN furnaces insulation material used hydrofluoric acid, phosphoric acid and strong alkalis (such as chlorine) at the hands against damage. Processes are used, these substances are being released or Never start the oven without the necessary precautions.
- The oven door must not be opened at temperatures above 200 degrees. Otherwise, the insulation in the furnace cracking and spills will occur.
- Base plate supplied with the furnace must be used during processing. The purpose of this plate made of a material flowing melt in the bottom of the oven for any reason, to prevent any damage and repair are relatively more difficult to ensure that it will not cause a problem.

D. CAUTIONS FOR USE

- Pay attention to balanced materials loading material into the furnace.
- Access to the weight of the materials installed in the base plate (or you made your own rack) Make sure that the transport with in the limits. Otherwise, the materials inside the oven will be likely to fall over and damage the oven.
- Pay attention to 5 cm materials resistances loading materials.
- If your oven trolley, pull the car all the time using the steel bar.
- An intermediate annealing process with the purpose of use, such as in the case if the oil bath tempered or heat the oven before entering the material to be "f at removal procedure" should be subjected to. Otherwise it sticks on burning fat in a short time in the oven heating elements and resistance wires short-circuit break causes.
- The oven must not come into contact with insulation material with water and organic solvents.
- Elements of metal compounds (metal slag) should not touch. Resistance to short circuit will cause the furnace slag clinging on.
- Do not cook food is definitely in the REF-SAN ovens.
- Long-term use, the oven heating elements consumable. Almost all the important facilities for the user to handle the repair and maintenance of furnaces are built.
- Oven should not be humid environment
- The oven should not be put weight on.
- Ensure that the racks place intact.
- The bottom of the shaft and the damper is open up to 300 C and a max. From the outdoor temperature is cooling down period must be observed. damage the insulation and moisture in the furnace to use for many years, and this is very important.
- Certainly moist material should not be placed in the oven.
- Thermocouple entering the part inside the oven for at least 10 cm. should be.
- Do not touch the wires in the oven. Increase the fragility of the first combustion.
- Please check the oven before starting the program and step values
- Our product is guaranteed for 2 years, this period covers defects in workmanship. This warranty, digital, thermocouple, oven racks are ceramic pipes and wires not cover. These charges and service fees will be subject to change.

E. MAINTENANCE AND REPAIR

1.PERIODIC MAINTENANCE

- REF-SAN furnaces in general does not require periodic maintenance after intensive flue gas output by controlling the processes that are useful for cleaning the accumulated particles.
- Clean the surface of the oven with a damp cloth, but definitely do not use organic solvents.
- in the furnace a good cleaning of the underside of the shelf of the substrate should be considered. This procedure is recommended once every two months. You can do this with a vacuum cleaner.
- Check the back of the oven by a relaxation of resistance two months, if you have the ports must be tightened.

2.WIRE RESISTANCE REPLACEMENT

Resistance wire is a service provided by the manufacturer for replacement furnaces in general resistance wire can easily be changed by the user. Resistance wire is to be changed by you, follow these steps:

- Disconnect electrical power to the oven. Make sure the another power source is unconnected.
- Open the back cover of the oven.
- Turn the nuts using the appropriate key.
- Disconnect the cable that connects the ends of the wire. Please note that the positions and colors of the cables during the separation process.
- Release of the wire, separate slots by removing the baked in the oven with ceramic tube.
- Combine the ends of by plugging in accordance with the send by company new wires. Fully tighten the nuts using the appropriate key.
- Be sure to insert the ends of the terminal nuts securely. Replace the back cover.
- After completing all procedures by heating in a while, be sure to check full fillment of the functions of the oven.

3.CHANGING THE TEMPERATURE CONTROLLER

- Make sure the power is completely disconnected oven.
- RF800 oven models, is one of the temperature-control device, the device is on the bottom and pull it out by loosening the screws. Push the new device into the slot opened the proper position and tighten the screws again.

4. THERMOCOUPLE REPLACEMENT

Make sure the power is completely cut off the oven. Remove the screwdriver out of language programmable thermocouple cables. At which point they are connected to the cable that is connected to thermocouple and make a note of the colors. Remove from the oven slowly and vertically without moving thermocouple. Install in accordance with the new thermocouple. The programmer, making sure the colors of the cable into the cable. The oven is working properly be sure to check the system by setting a specific temperature. Coming down the temperature of the thermocouple cable connections reverse the negative values.

5. CALIBRATION

The oven temperature controller and / or thermocouple, frequency of use, depending on the conditions of use may need to be re-calibrated. Processes, particularly the temperature sensitivity is very important, regardless of periodically measuring the temperature of the oven with a thermocouple calibration should be checked whether there is a need.

6. AFTER-SALES SERVICE





REF-SAN, you may need after-sales services of an expert team have the necessary infrastructure to meet the full. Be can supplied by all constituent parts of the oven. When you encounter any problems with your oven, that we can produce the best solution to your problem on the side of the device in the registration number plate with technical information, contact us.

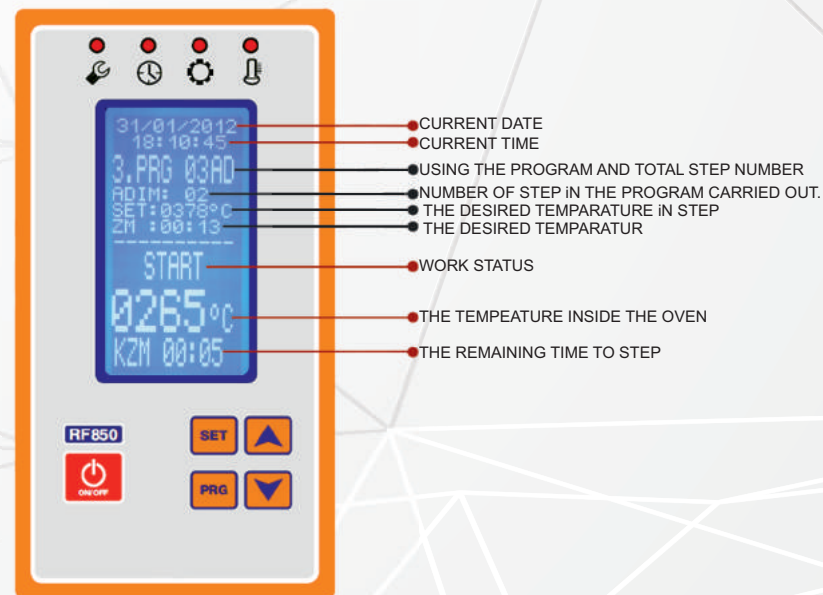
7. ADVISE FOR CERAMIC AND TILE MANUFACTURERS






- The first time you remove moisture from the oven and the oven in order to relax, 50-100-150 degree of opening and closing the oven door is recommended once.
- Products from the furnace to the chimney cap to take the moisture inside the oven up to 300 C must be kept open. To avoid loss of 300 degrees C and then heat sealed manhole cover. After stop oven, cooling flue damper should be opened to facilitate.
- Glazed products cook must be after one day glazed oven.
- Tile, ceramic, fireclay type the first cooking of products called biscuit firing. Stacking on top of the oven can be done in the form of. But glazed products mustn't come into contact with each other. During the placement of products, each product hits the bottom point, and the glaze should not be wiped with a wet sponge.
- China glaze firing, the kiln furnace vary. This value is between 900-920 degrees.
- Ceramic glaze firing, the kiln furnace vary. This value is between 1020-1040 degrees.
- Ceramic glaze firing, the kiln furnace vary. This value is between 1020-1040 degrees.
- Tile biscuit firing, oven baked vary. This value is between 1020-1040 degrees.
- Tile and ceramic cooking products, product thickness is greater than 1 cm should be kept in the oven longer than the bounce time of 10 hours. This value can be increased up to 20 hours.
- In studies with lumpy clay, relief sculpture, type of product or work-product must be drained. and up to 1.5 cm in thickness must be ensured that at each point. Otherwise, cracking due to drying times will be different

6. THE INTRODUCTION OF THE RFB00-850 PROGRAMMER

1. DISPLAYS AND BUTTONS

-  PROGRAMMING LED
-  STANDBY LED
-  RUNNING LED
-  THERMOCOUPLE FAULT LED












-  ON-OFF KEY (Use for open and close programmer.)
-  SET KEY (Use for entry and exit to the menu settings)
-  PROGRAM KEY (Select one programs or change the values of using program.)
-  UP KEY (Going up menus or increase the values of using program.)
-  DOWN KEY (Going down menus or reduce the values of using program.)

2.PROGRAMMER FEATURES

- Time proportional to run the property.
- Operated on-off feature.
- 5 separately by using the program, for each program to execute a separate feature.
- in each program, with the heat and the time to program step 15 feature.
- The program is running, the step in which, for displaying how much time is left.
- On the screen for displaying the current date and time.
- The desired date and time to run the property. standby time.
- Take in order to reach the records of previous studies reported in the property. (the last eight trials)
- Maximum temperature protection.
- Feature automatic operation during power outages
- K, J, S type thermocouple identification feature.
- Thermocouple to bind to more than one property. (Optional)
- SCR system capability to adapt. (Optional)
- SCR system, power limiting feature. (Optional)
- Automatic flue damper opening feature. (Optional)
- Door alarm. (Optional)
- Work at the end of the "Alarm feature". (Optional)

3. FRONT PANEL DESCRIPTION OF PROGRAMMER

- There are four LEDs on the digital. As can be seen from the figures  the Led lamp is lit while the key mark digital settings.  Hour mark, the Led lights up in standby time.  Led gear in the form of the program shows that it works. To the right  thermocouple mark indicates the status of thermocouple failure.

 Open-close button shows the start and stop button.  PRG navigation key that between programs.  Key is set in the program settings and exit the navigation key. For example, on digital stop status, press PRG key on the digital display, program 1, program 2 and 3 of the program selection is made. Press the button to select the program and run-off is started. In this case, digital on the gear led lights. Under the current time and date information on the screen, in which the program is running, how many steps to occur, and how much time is left, and the oven temperature is the step in which the value of the condition. Pressing the red button connected to digital again to stop. Change the toggle key value and row  up and  down arrow keys.

4. PROGRAM SETTING

Before setting step, is determined by how the program should work. For example, let's write a program that consists of six steps.

Step 1 : Increase of 150 ° C for 1 hour,

Step 2 : Increase of 300 ° C for 1,1 hour,

Step 3 : Increase of 450 ° C for 1,2 hour,

Step 4 : Increase of 600° C for 1,3 hour,

Step 5 : Increase of 1050° C to JUMP. Under its own power rise and without time. (Any time entered)

Step 6 : At 1050 ° C, 10 minutes wait.

We have written a sample program. To install this program digital, Key is pressed while the "Set" of digital set-in. Then by pressing "PRG", with the help of the arrow keys. brought to the program settings. Repeat "PRG" by pressing the arrow into the program will be sent after providing blink. Here you start the program to be set is selected (PROG 1, PROG 2, PROG3).

On the other line that is written the number of steps. For example, the above temperature and time values is written for each step. After completion of the software program "SET" by pressing the button to exit and return to the main screen. "PRG" key written with the help of the program they are allowed to run the program by pressing the selected On-Off.

5. CURRENT DATE AND TIME SETTING

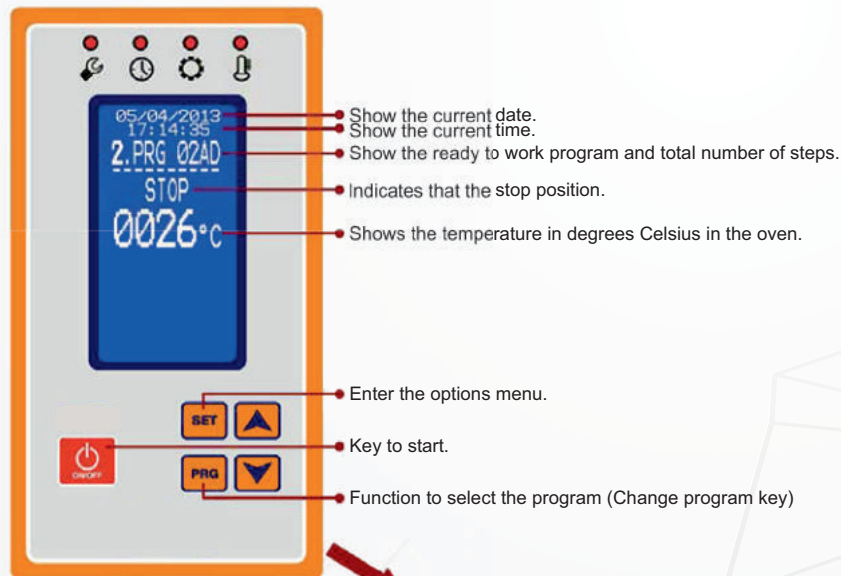
Digital at stop position, set by pressing the button "SET", enter the settings. Use the arrow keys, bringing the arrow mark the date and time entry, flashing arrow mark is provided. From the menu, the current date and time by typing "set" button has been pressed and return to the main screen.

6. STANDBY TIME SETTING

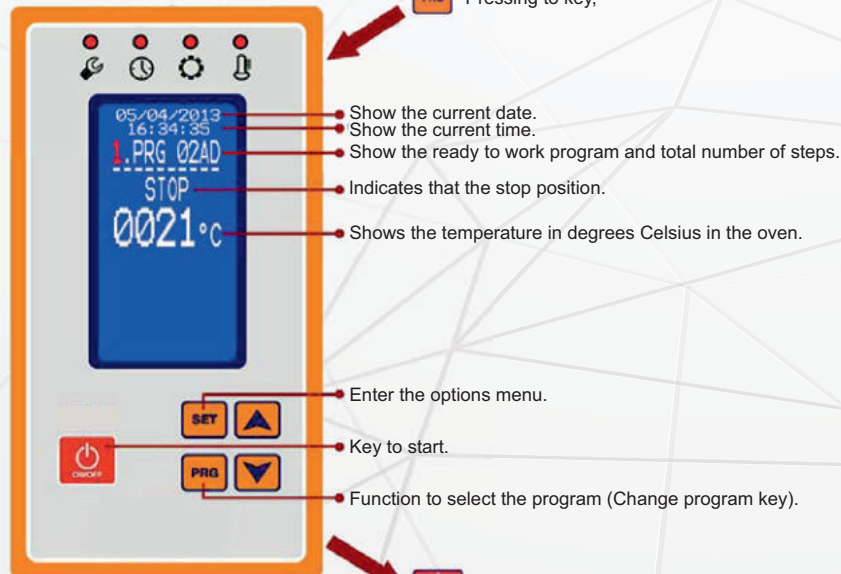
Mean waiting time, we want to run the furnace is the determination of the time.

While digital stop position, "SET" is entered in the settings menu by pressing the button. Menu is entered by selecting the waiting time. Enter the date and time we want to run the furnace. The "SET" button and leave. Finally the "on-off" by pressing the button, the oven "Start" whether the oven is ensured. Oven standby time, while the clock on the front panel lights up. Led will turn off when it comes time to study this, "gear" Led lights.

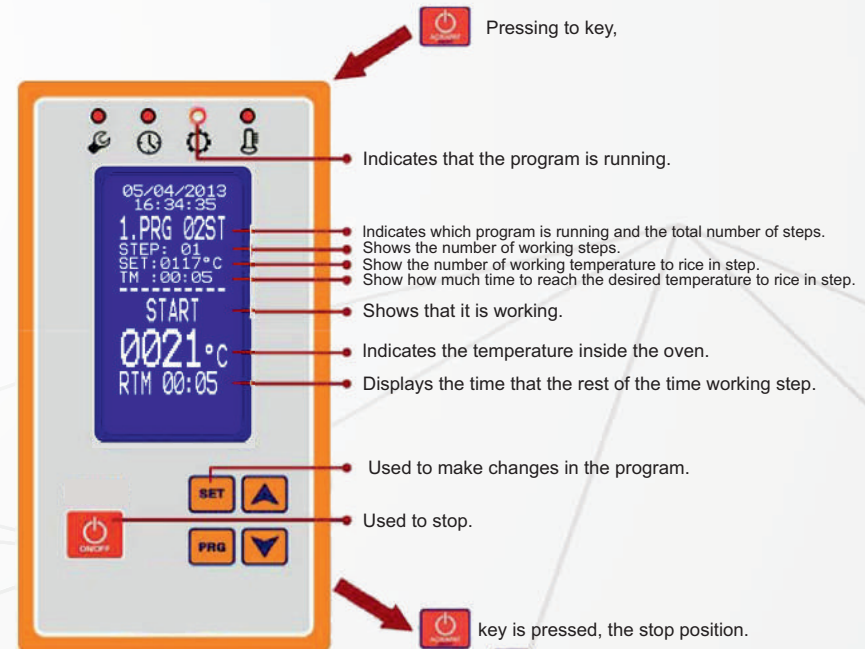
H.USE THE PROGRAMMER



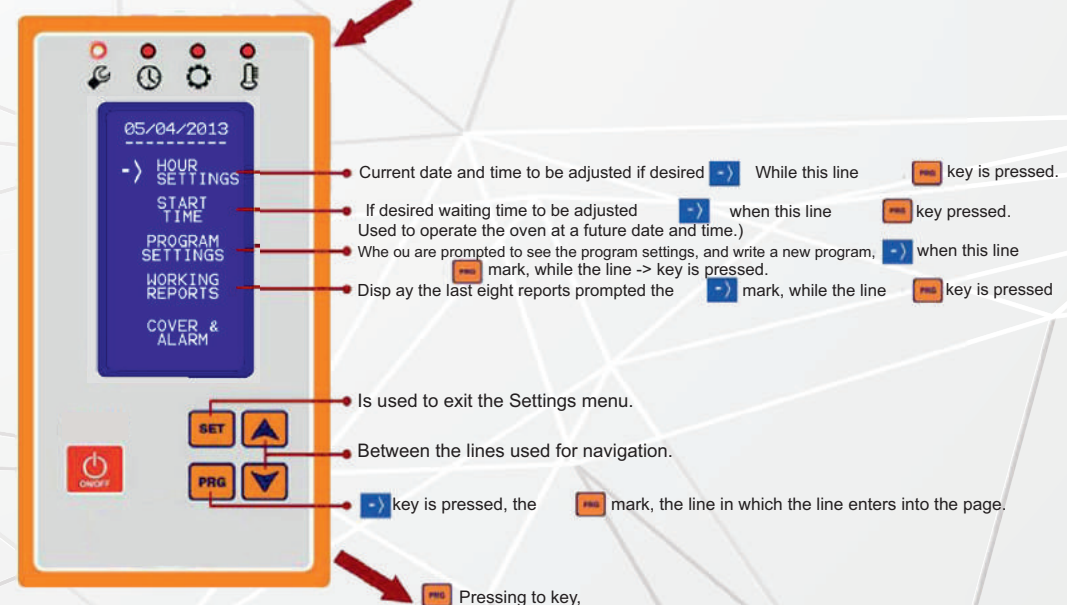
Pressing to key,

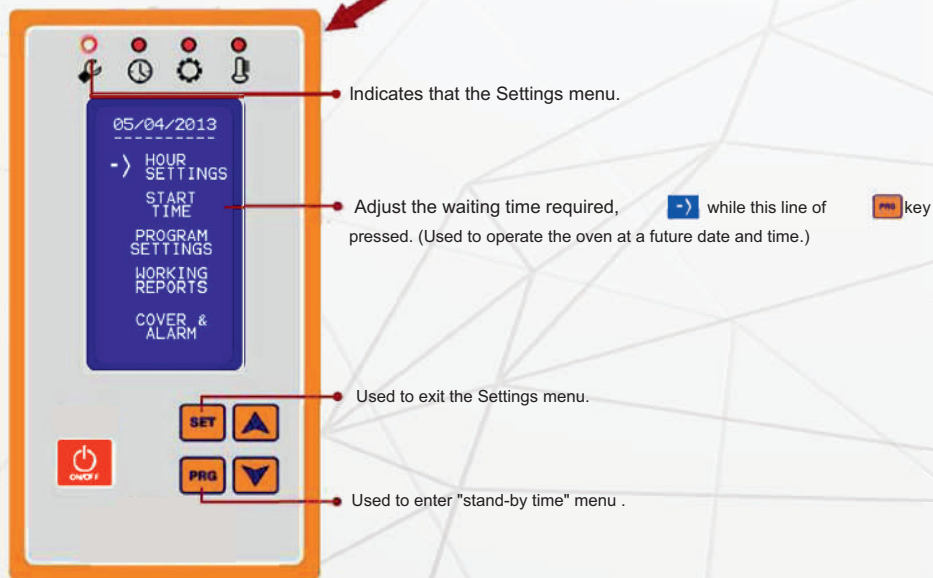
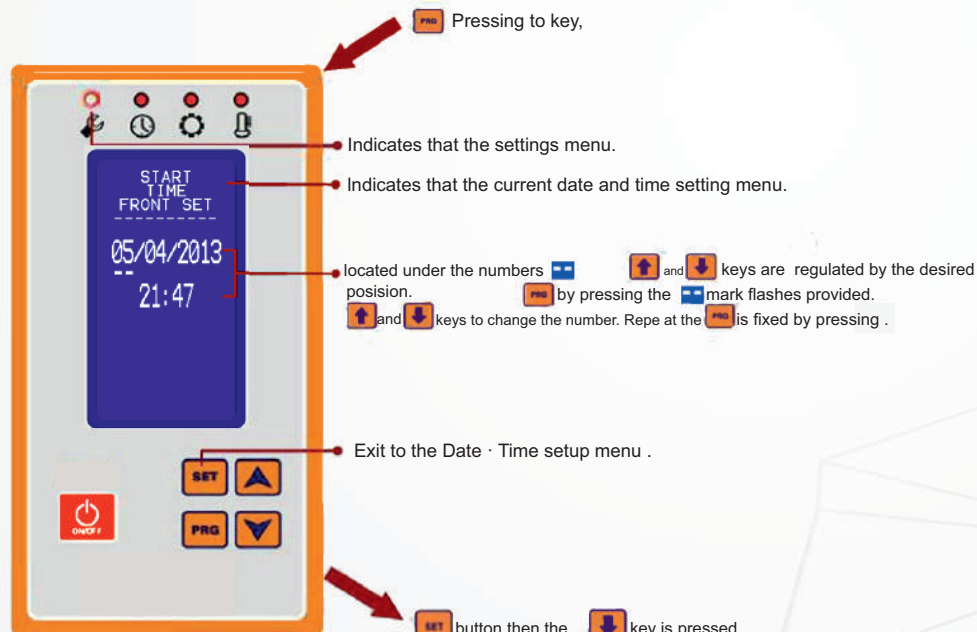


Pressing to key,

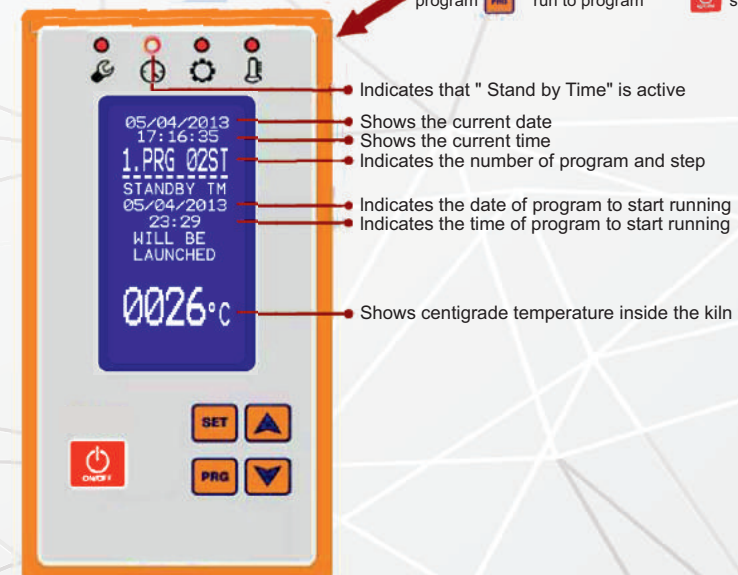
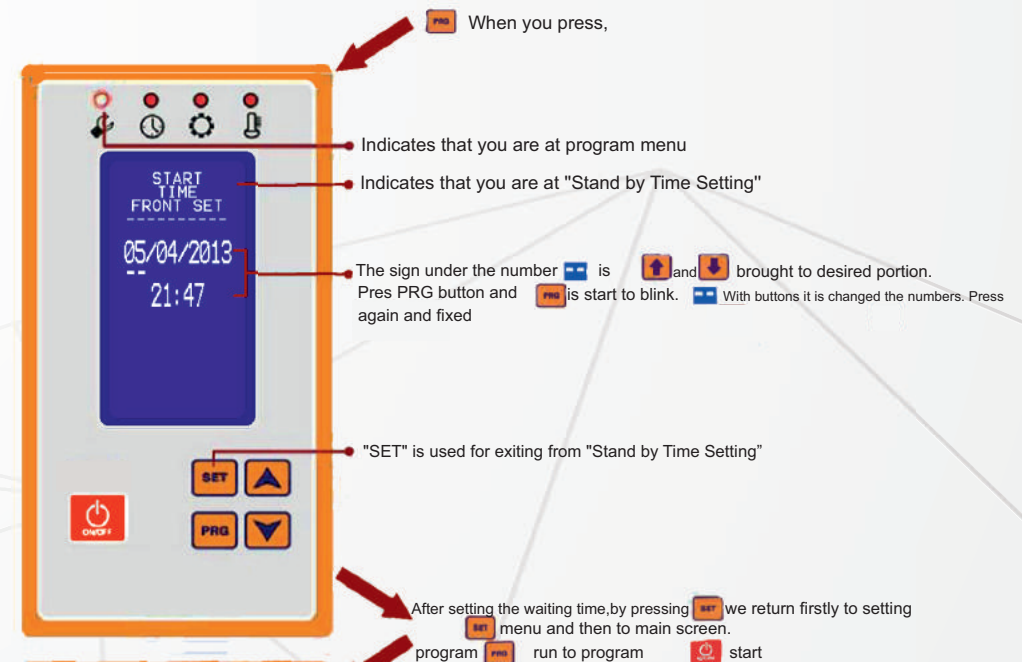


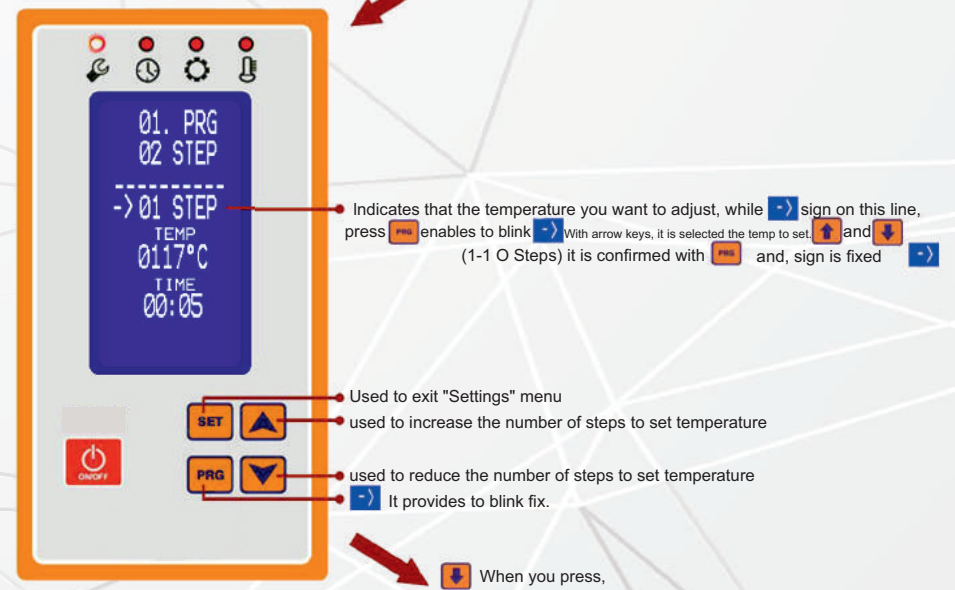
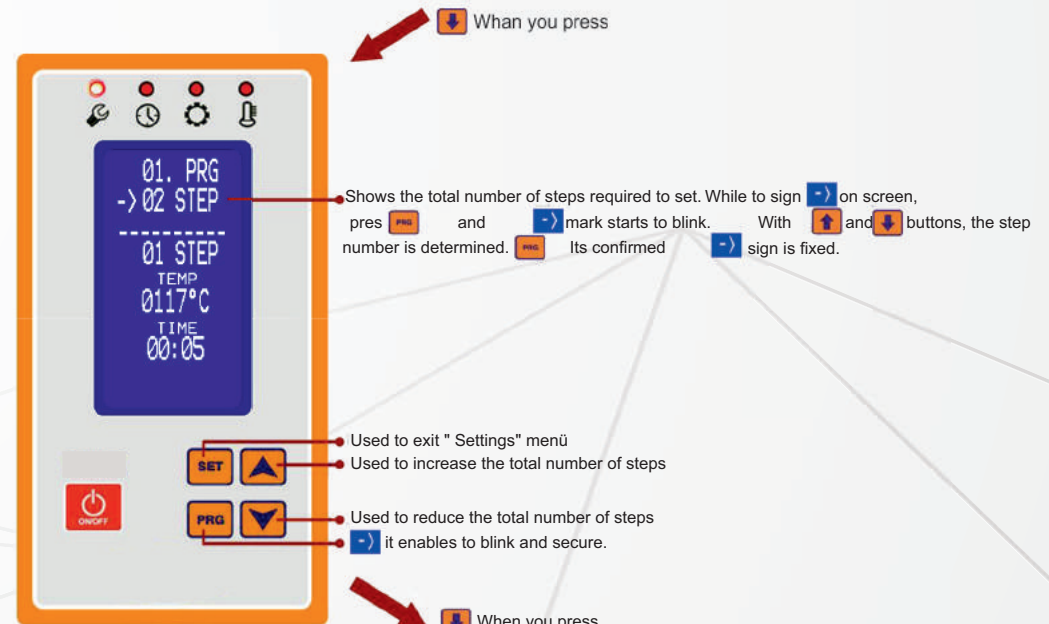
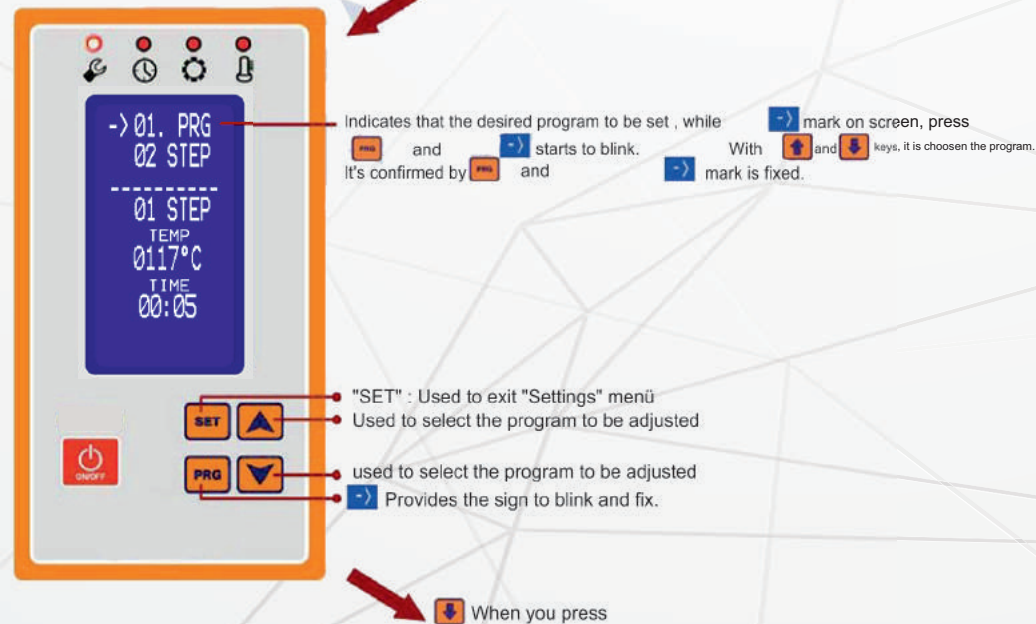
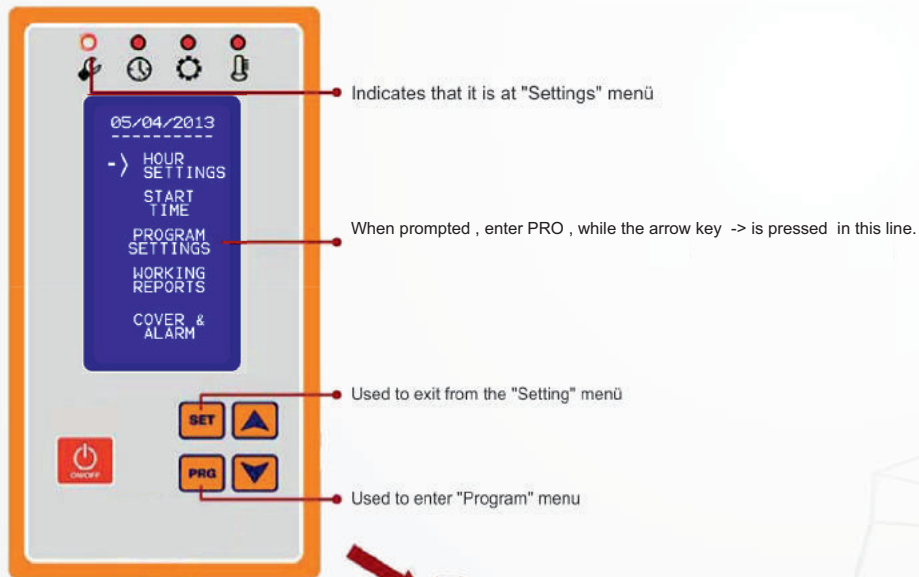
key is pressed, the stop position.
next, SET button is pressed, the settings menu.

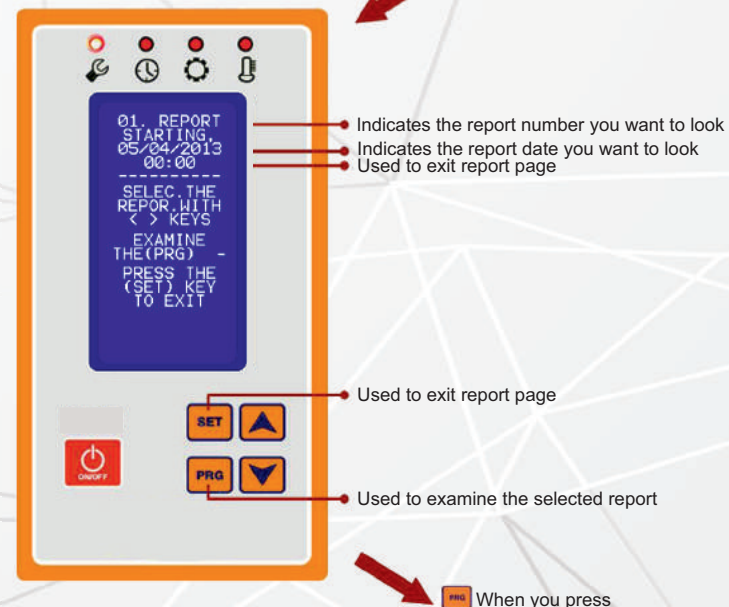
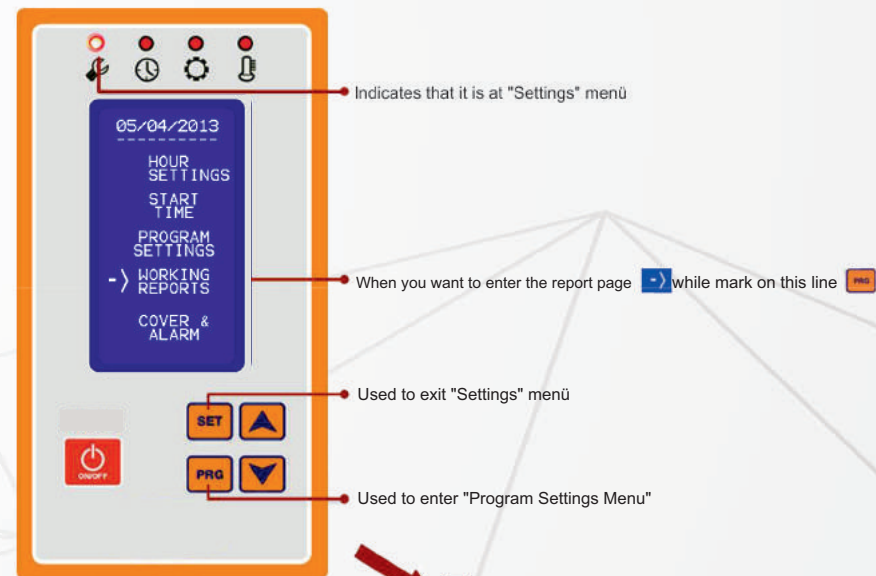
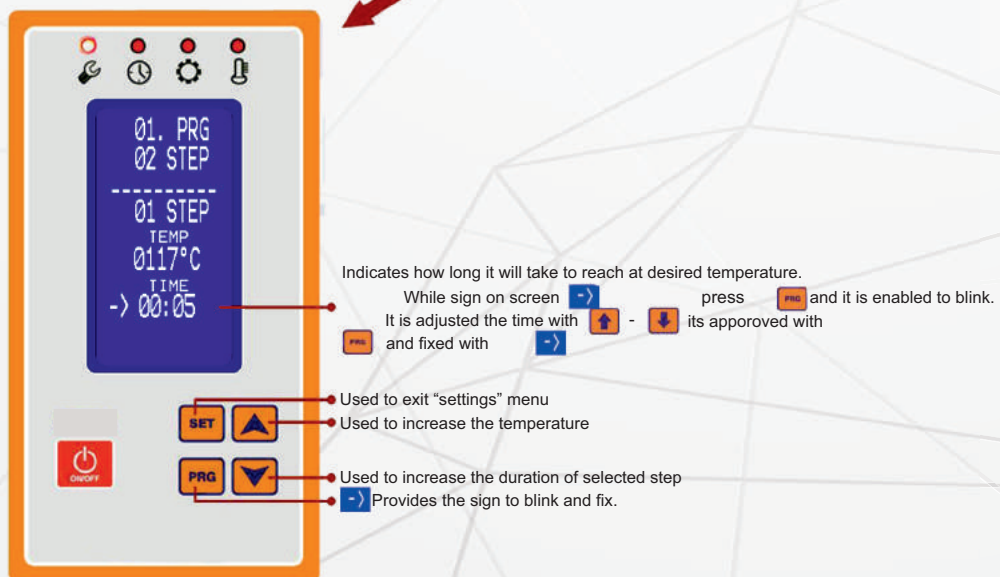
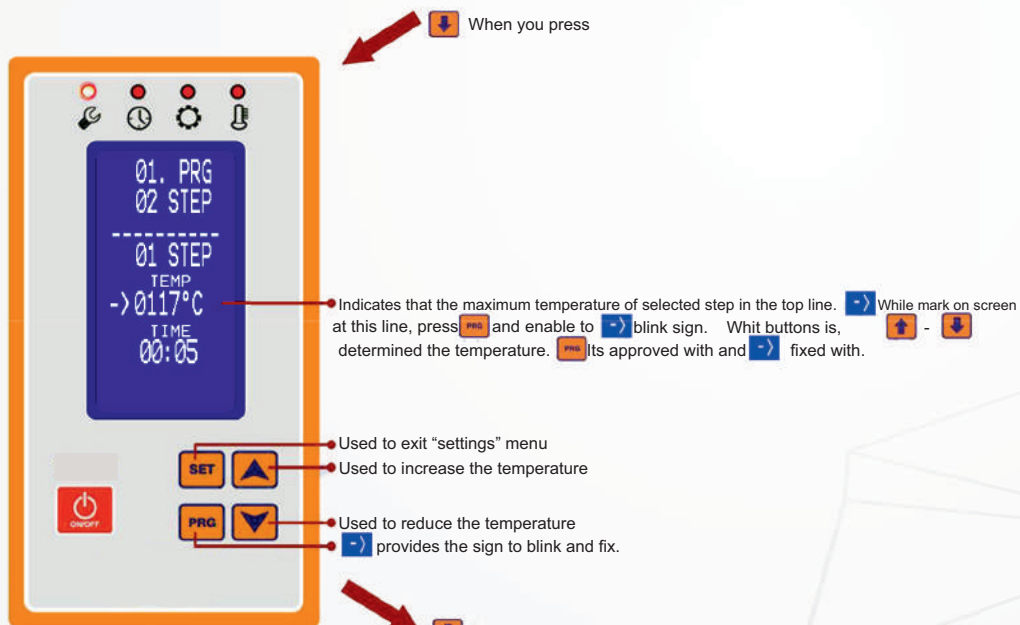




pressing to key,







I. RFB00-850 ELECTRICAL WIRING DIAGRAM

