

GLASS ACADEMY GB



USER MANUAL

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Touch-Screen, Flat-Bed, Table-Top Kiln with inbuilt Wi-Fi module

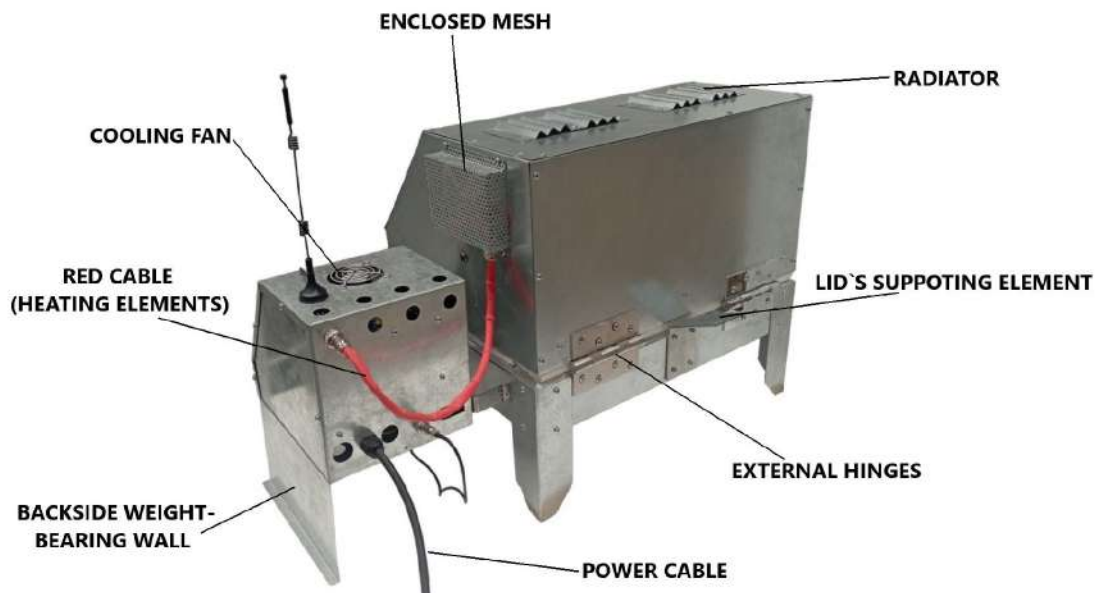
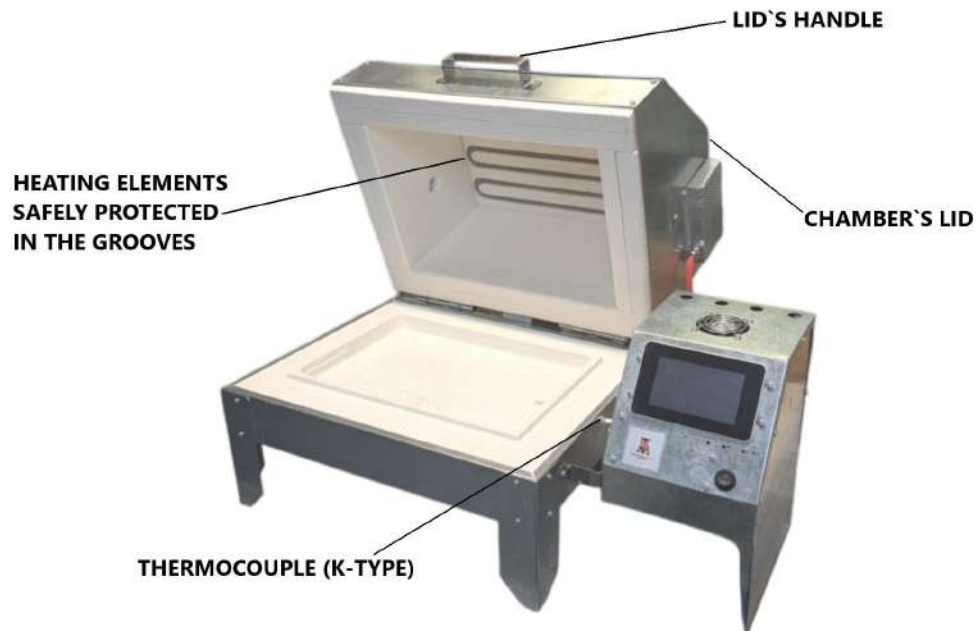
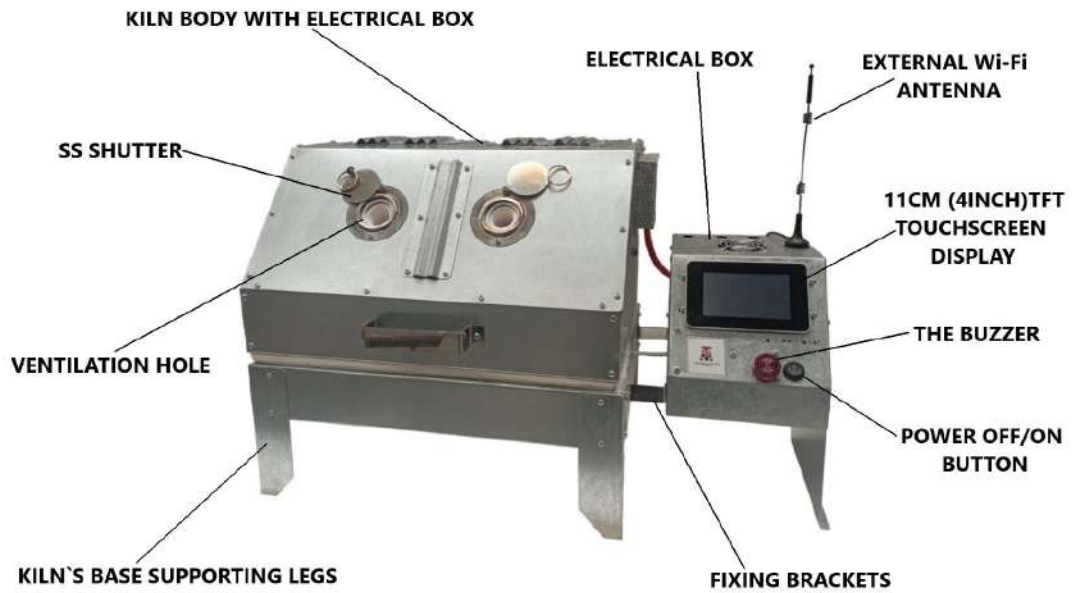
For All Glass/Wax/Resin Projects

PRODUCT INTRODUCTION

This “Glass Academy-GB” kiln is a professional electric kiln for all type of glass/wax/resin projects with large enough inner and with ramp-and-soak, 4.3” (11 cm) touch-screen, multi-programmable temperature/time controller with Wi-Fi option that will allow you to operate this kiln stationary by using the touch-screen or remotely via smartphone, PC, Laptop, TV and so on. This kiln is easy to operate and suitable for both beginners and professionals.

TECHNICAL SPECIFICATION:

MODEL NAME:	GLASS ACADEMY – GB
INPUT:	115V+/-10% or 230V+/-10%, SINGLE PHASE
POWER:	2900 WATT / 13A FUSE
MAXIMUM HEATING TEMPERATURE:	950°C / 1742°F
CONTROLLER TYPE:	PROGRAMMABLE 6 PROGRAMS X 12 TEMPERATURE/TIME SEGMENTS (POINTS)
CONTROLLER MODEL:	TSWF-624 (Wi-Fi MODULE)
THERMOCOUPLE TYPE:	K—THERMOCOUPLE
DISPLAY TYPE:	4.3” (11 CM) TFT TOUCH-SCREEN DISPLAY
DIMENSIONS WITH CLOSED LID:	(IN MM / INCH): 700 X 470 X 450 HIGH (27.1/2” X 18.1/2” X 17.1/2”)
DIMENSIONS WITH OPENED LID:	(IN MM / INCH): 700 X 600 X 580 HIGH (27.1/2” X 23.1/2” X 22.1/2”)
DIMENSIONS OF THE FLAT-BED:	(IN MM / INCH): 330 X 215 (13” X 8.1/2”)
USEFUL VOLUME OF CHAMBER/INNER:	12 CUBIC LITRES
MAXIMAL HEIGHT OF HEATING OBJECT INSIDE INNER:	(IN MM / INCH): 210 MM (8”)
WEIGHT OF THE KILN WITH ALL ACCESSORIES:	WEIGHT 23 KG
VOLUME OF CHAMBER	14 CUBIC LITRES



PREPARATION

Open the wooden box . Lift and move the kiln onto a worktop that is able to hold about 50 kg of weight. Because this kiln weighs about 23 kg (with all accessories), If you are having difficulties please ask for help. Do not move it alone; mechanical damages are NOT UNDER WARRANTY. If you have any questions about unpacking and installing this kiln please feel free to contact us by email alternatively you can book a Skype or WhatsApp appointment with an engineer who can help you with the assembly.



ATTACHING THE DETACHABLE PARTS OF THE KILN

You will require a screwdriver for the assembling process and the screws, which you can find in the wooden box in a sealed plastic bag with other parts of kiln



Please fix Kiln's supporting legs in the numerical order, so each leg would fit.

In the newer iteration of the Glass Academy GB instead of lid's supporting element has been used lid's stay with guide slot



Please find in the kiln's wooden crate a sealed plastic bag with [lid's stay with guide slot + four screws] label on it. Open the plastic bag and fix guided slot to the base of the kiln. ***Please note if you wish to open the kiln's lid before



fixing the guided slot to its base you need to support the rear side of the lid with your hand while opening. It will prevent the kiln's lid from the free fall while being opened.***

Before closing the lid please pull with your fingers the sliding rail of the lids's stay with guide slot towards you and then close the lid using the kiln's front opening handle.

In the box with the kiln , you will find 6 sealed plastic bags with the detachable parts inside them



Please gently remove the seal and use the screws which are inside each plastic bags. Fix these detachable parts to the base of the kiln.

Electrical box will be sent with the kiln as the detachable element, with the K-type thermocouple and backside weight-bearing wall. You will have to attach it to the kiln's body by using two fixing bracket and four screws.



Please follow the step by step assembly instruction provided by the manufacturer to assemble your Glass Academy GB kiln in the correct way

(Follow the assembly instruction below)

Please attach four supporting legs **#2** to the base of the kiln as it shown on the **picture 1**

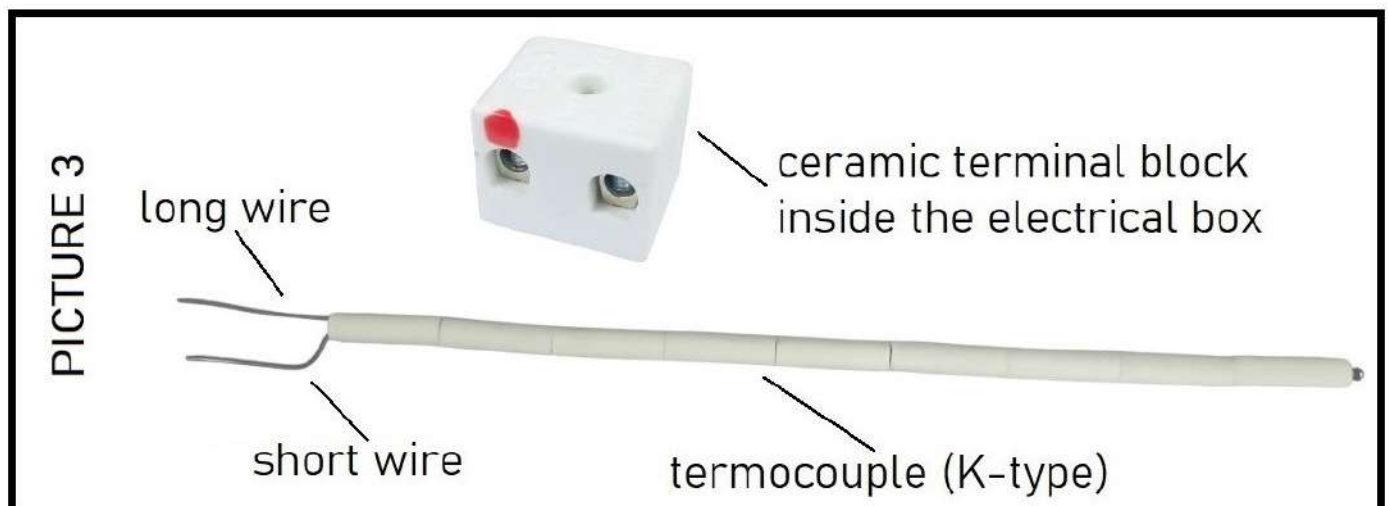
Please attach the lid's supporting element **#4** to the base of the kiln between the hinges as it shown on the **picture 1**

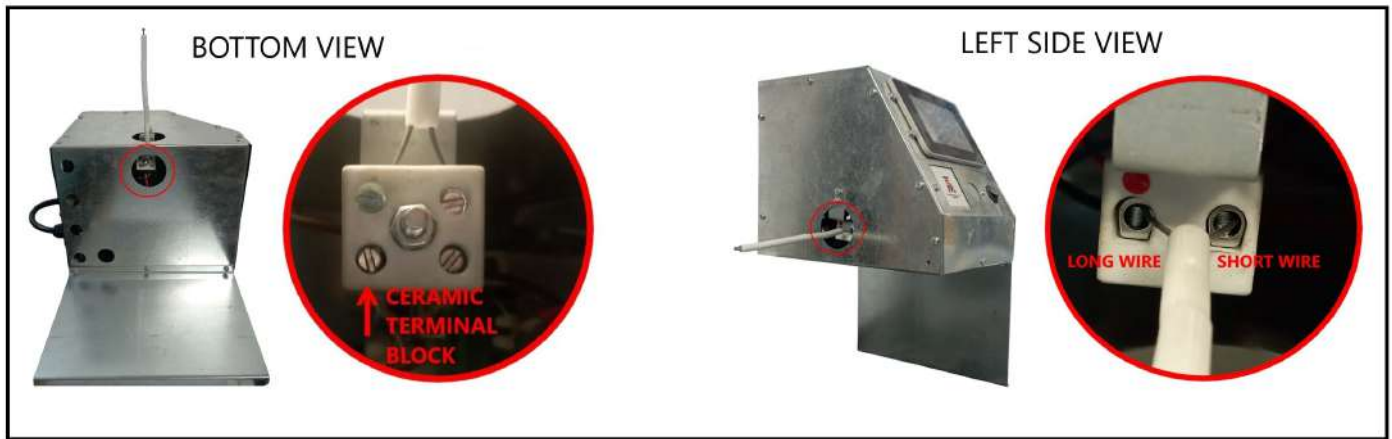
Please attach the front opening handle to the kiln's lid **#1** as it shown on the **picture 1**

please attach the backside weight-bearing wall **#3** to the electrical box as it is shown on the **picture 2**

Picture 1**Picture 2**

If it is not yet installed, attach the K-thermocouple to the programmable temperature controller with inbuilt Wi-Fi module and touch-screen display , which has already been installed in the electrical box. To do this you need to take the electrical box and find the technical hole on the left side of the electrical box (see picture 4) and connect thermocouple (see picture 3) to ceramic terminal block by inserting long and short wires into it. To fix the wires please locate the second technical hole at the bottom of the electrical box (picture 4) and drive the screws down with the screwdriver.





Connect the K-type thermocouple exactly the same way as it is shown on the pictures above, please note that the long wire should be inserted exactly into the ceramic terminal fixing hole marked with the red dot, It is also important to fix the inserted wires by driving the screws at the bottom of the ceramic terminal block down with the screwdriver.

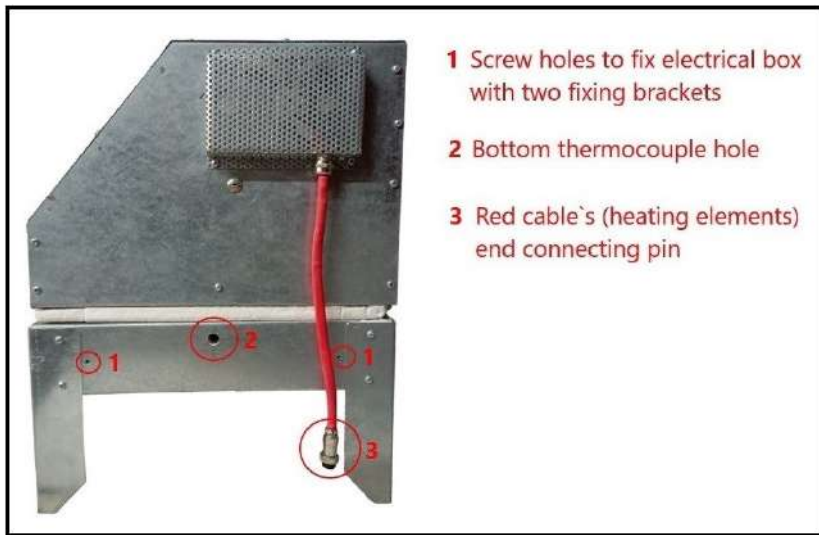


After you have connected the K-type thermocouple to the programmable temperature controller, you will have to attach two fixing brackets to electrical box in the same way as it is shown on the picture 5 (please use short screws for this purpose)

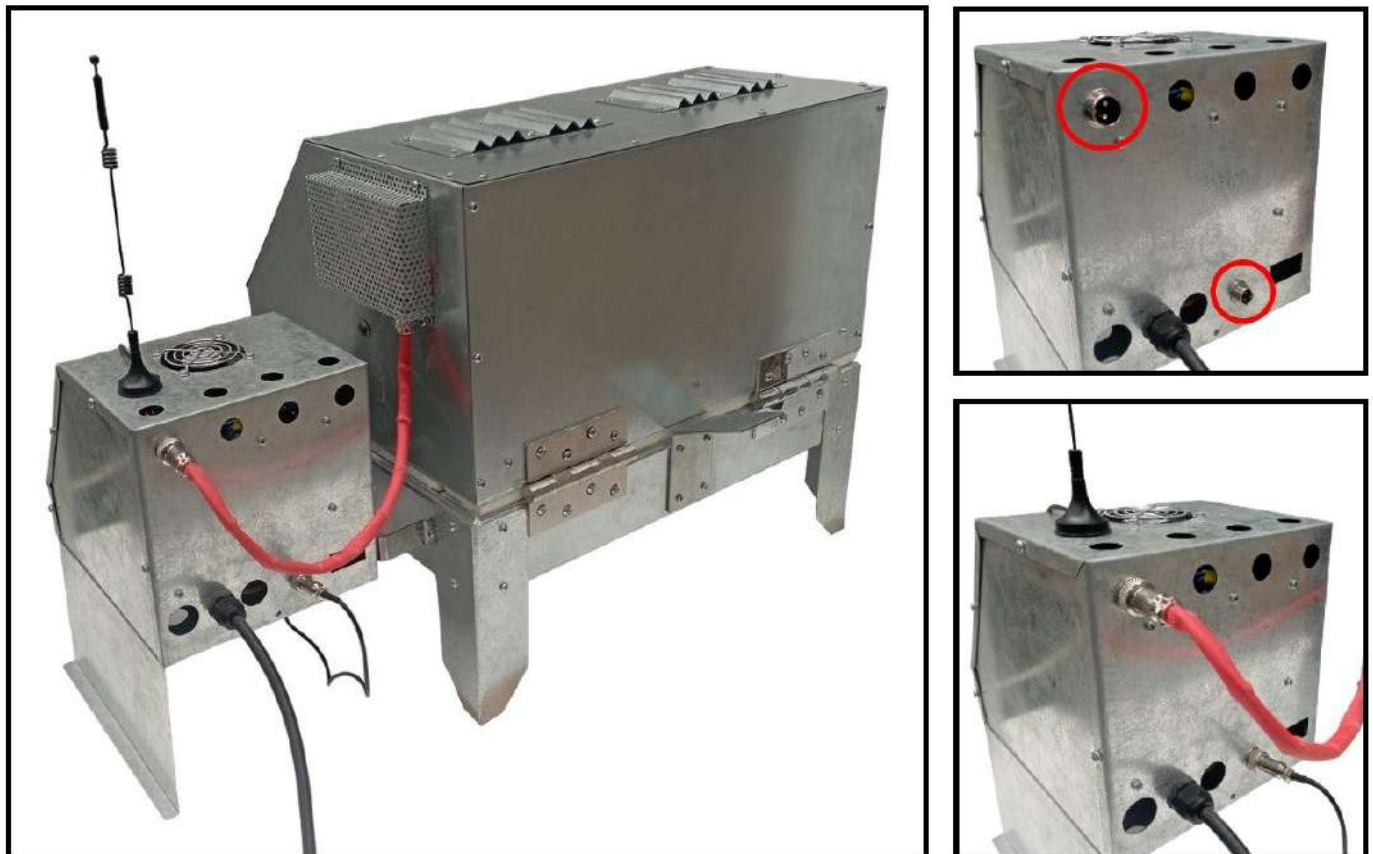
After doing this you can attach the electrical box with already connected thermocouple and fixed fixing brackets to the right side of the kiln. To do this please carefully insert the visible end of the thermocouple into the thermocouple hole which is located at the bottom of the kiln's base right under the top enclosed mesh see picture 9 Please make sure that the thermocouple has been



inserted correctly see, upon checking the position of inserted end of the thermocouple (it must be lifted up ~1cm) you can then fix the electrical box to the kiln's body by driving the two screws into the holes shown on the picture 9 (please use long screws for this purpose)

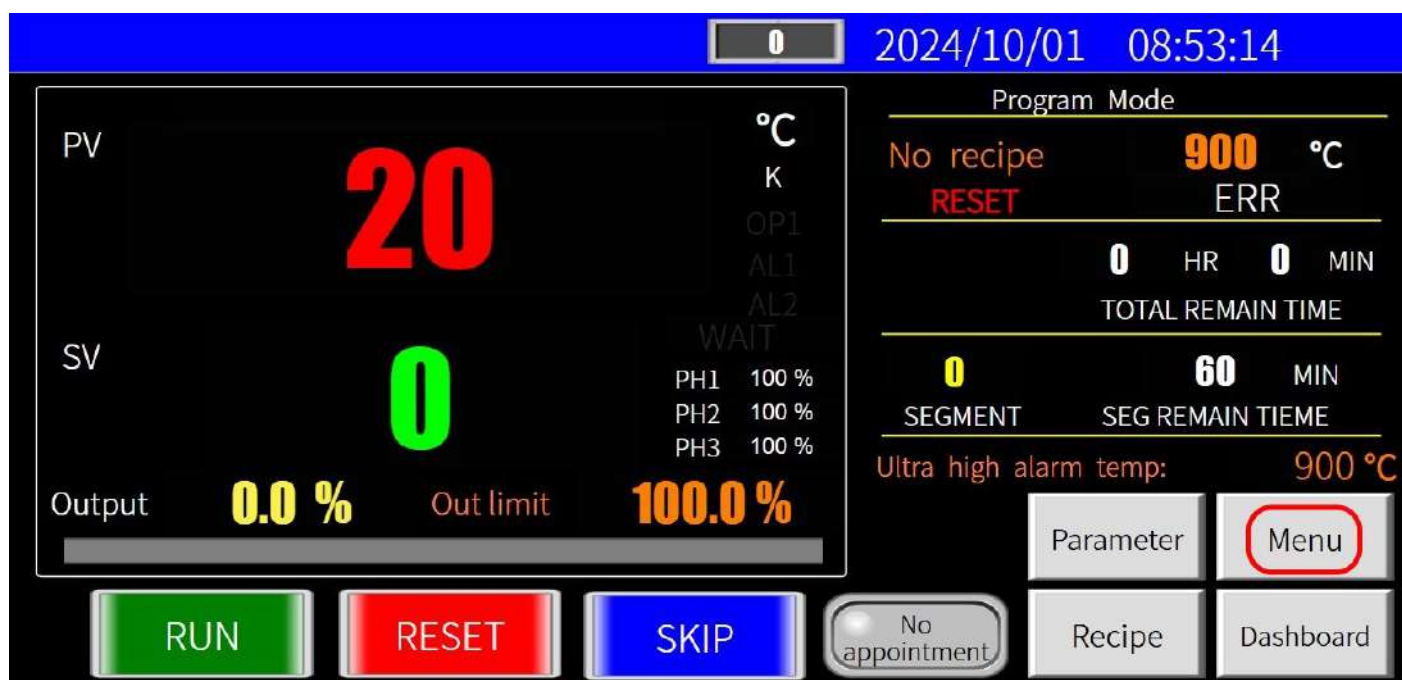
Picture 9

After completing this , you can connect the red cable (heating elements) to electrical box, to do so you need to connect the red cable's end connecting pin shown on the picture 9 to the power socket which is located on the back side of the electrical box top corner. After connecting the red cable to the electrical box you also need to connect the external antenna which serves as the Wi-Fi signal amplifier (see picture 10)

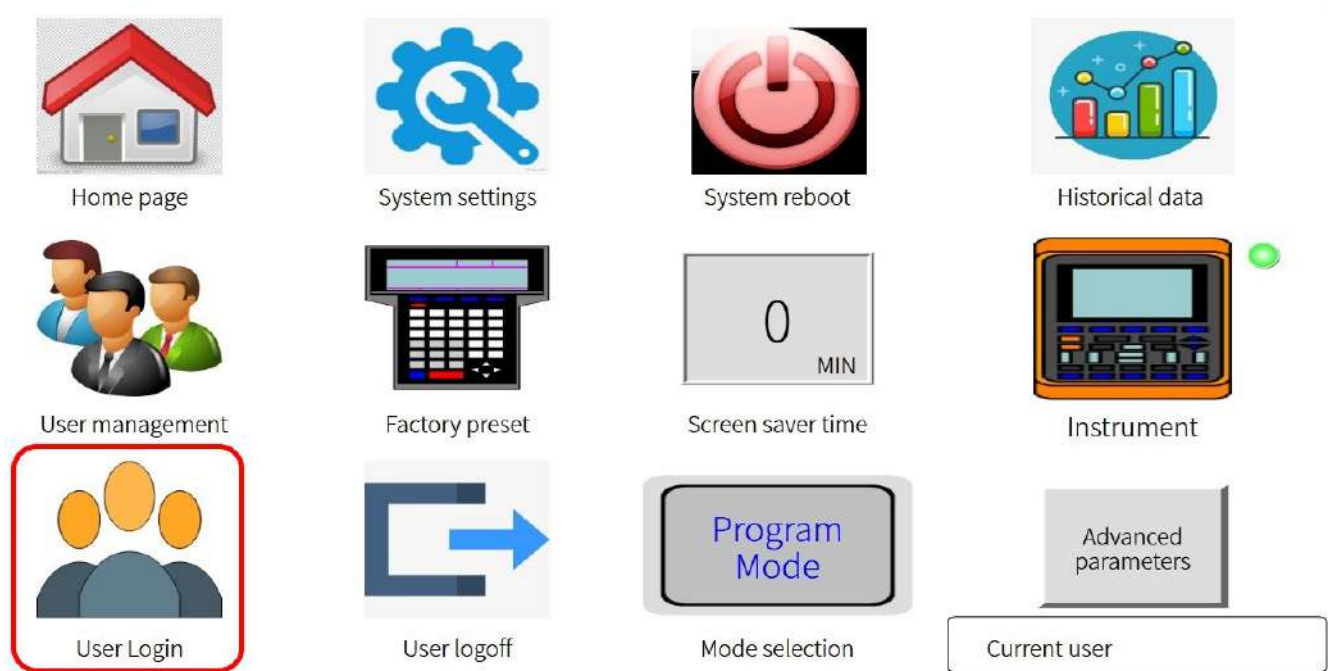
Picture 10

When it is done, your kiln is fully assembled and ready to be used. please plug your kiln to the power socket and switch the power button on. The kiln will start and the cooling fan on the top of the electrical box will begin to rate. After couple of second the Loading screen will appear on the display. If you are not familiar with the creating of firing programs & schedules, please read the instruction how to program time& temperature controller. Sample firing program has already been programmed into your controller.

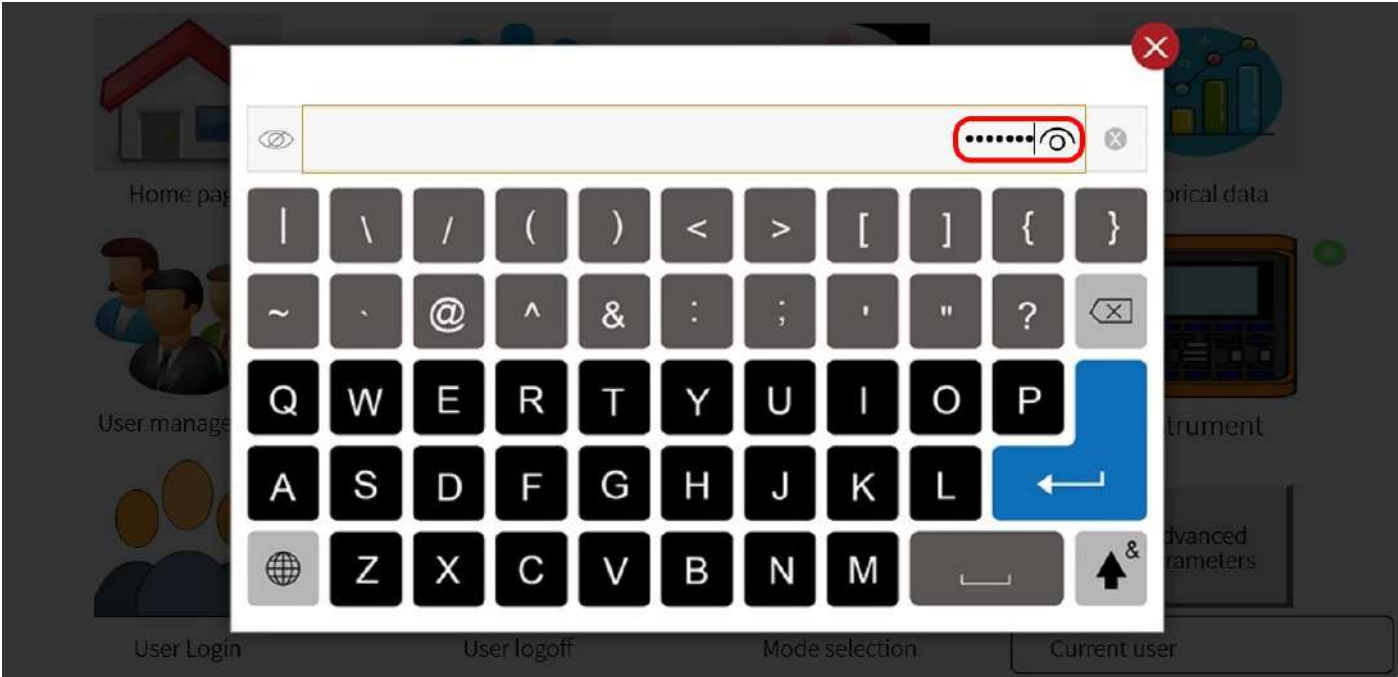
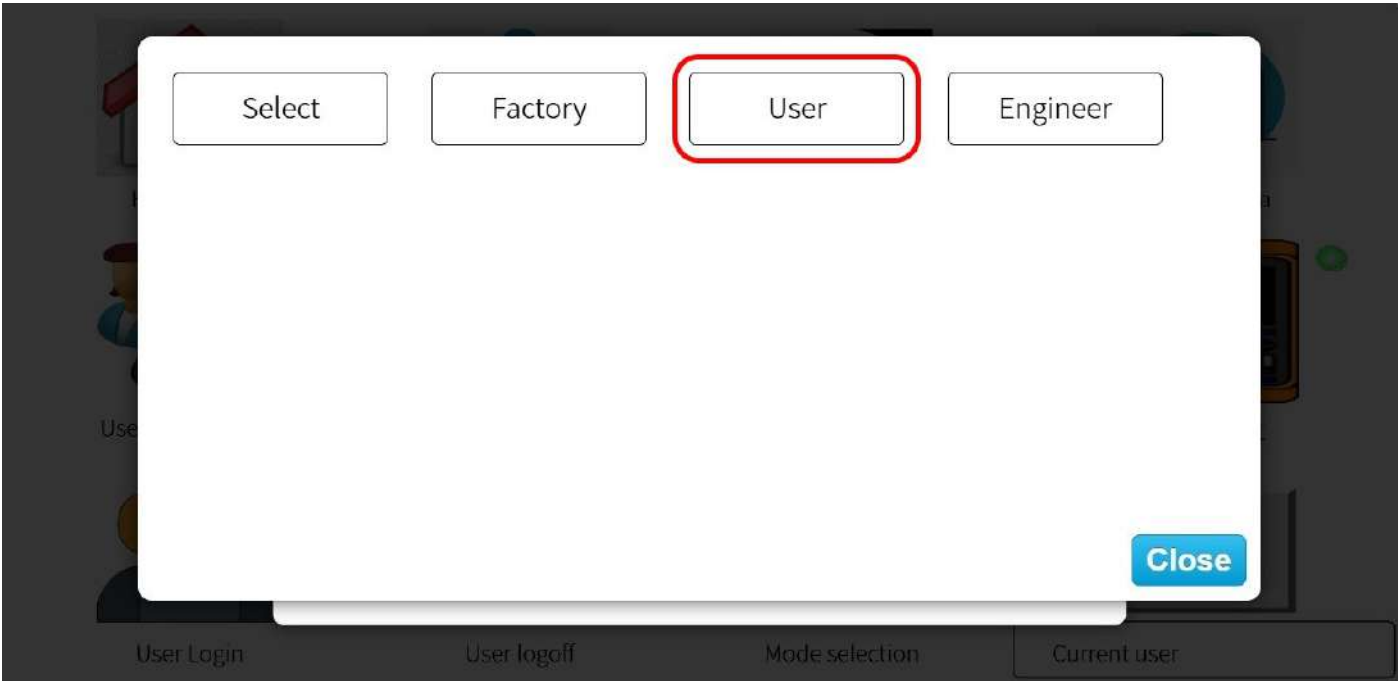
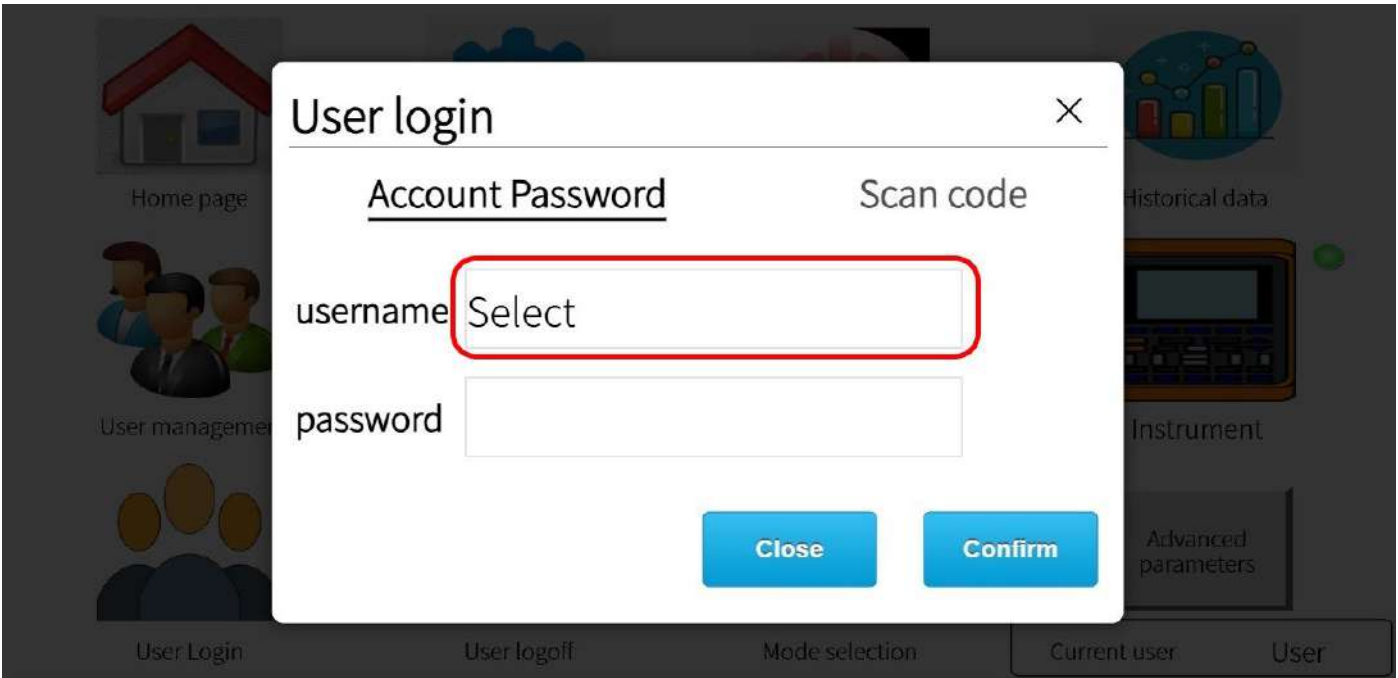
STARTER GUIDE

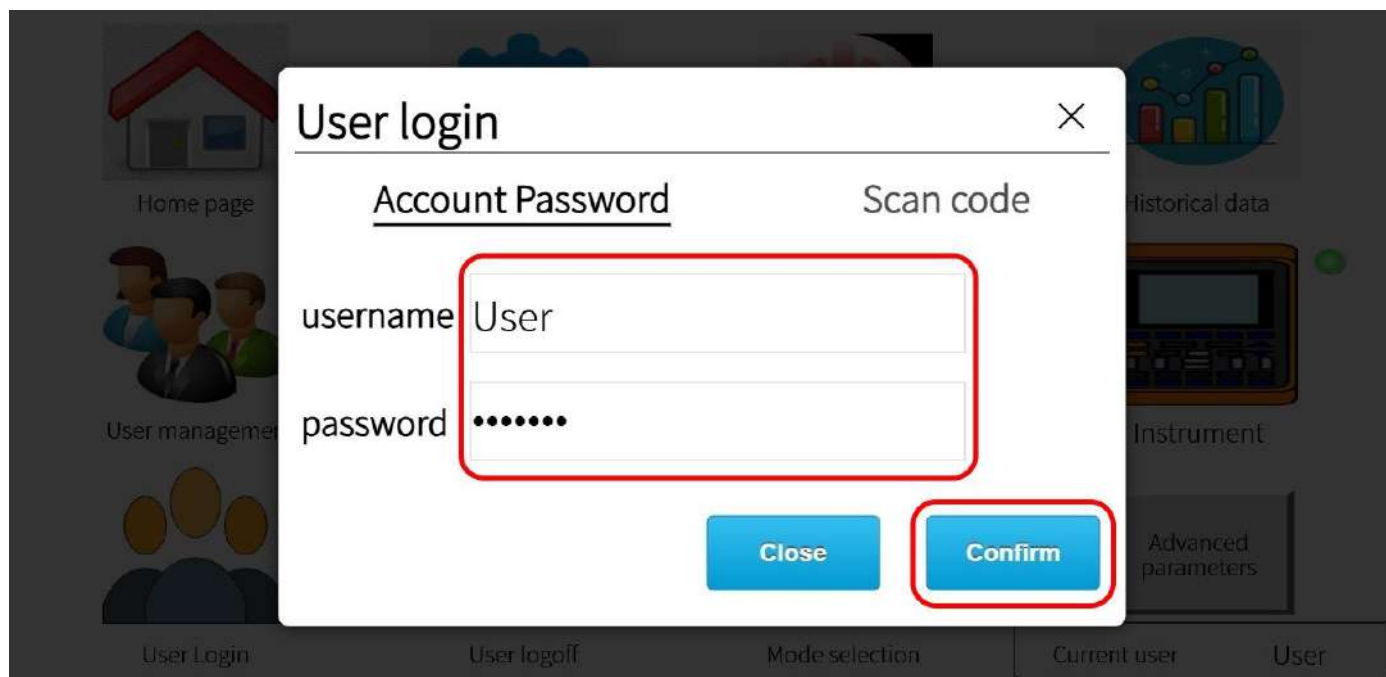


Please press the menu button to go to the main menu section , then select User Login



After this the new window will appear on the screen, please press on the “Select” button next to username to select the account you want to use in order to log in. When the selection window will appear on the screen you need to press on the USER only, then enter the password (you can find it on the kiln’s electrical box) and press “Confirm” button. After this a communication message will appear at the top of the screen indicating that you have logged in successfully *Please note that you will not have access to Advanced parameters, Factory preset and Program Mode as these are reserved only for the manufacturer use only. In case you do need to have the access to these options, as the exception, we can grant our customers the unique password to the Factory login account. This however will irrevocably lead to the termination of your one year manufacturer warranty.





Now you are logged in as a User, to log out please press “User logoff” button



Connecting to Wi-Fi network and changing the Time zone

To connect your kiln to Wi-Fi network please press on the



“System Settings” button,

when the new section will appear on the screen please press on “Network” button

Network

Terminal Name:

English

Project

Network

Settings

Information

Cloud

Back

LAN:

WIFI: 192. 168. 1. 198 (using)

Network

Back

Ethernet

Wifi

AP

Routing set

Net check

Switch: ☒

IP: 192. 168. 1. 110

✓	XLN	8CDC	 
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CHOOSE A NETWORK...

BTHub5-2326
TALKTALK03C8B6
Hotspot7020



Please press "WiFi" button and from the list below find your Wi-Fi network and press on it with your finger tip, after this the password window will appear on the screen, please enter your Wi-Fi network password and press enter arrow button.

Network

Back

Ethernet

Wifi

AP

Routing set

Net check

Switch: ☒

IP: 192. 168. 1. 110

✓	XLN
---	-----

CHOOSE A NETWORK...

BTHub5-2326
TALKTALK03C8B6
Hotspot7020

BTHub5-2326(length between 8 and 20)

0 1 2 3 4 5 6 7 8 9 

q w e r t y u i o p 

a s d f g h j k l 

 z x c v b n m  

To change the Time zone please enter the menu and press on  the “System Settings” button

when the new section will appear on the screen please press on “Settings” button

Settings

Terminal Name:  English

Project

Settings

Cloud

Network

Information

Back

LAN:
WIFI: 192. 168. 1. 198 (using)

Please press on “Auto Time Set” button

Auto Time Set

Settings
Back

Settings
Security
Others
Sounds

Terminal Name: Set

Terminal code: Set

Screen Saver: Never Save

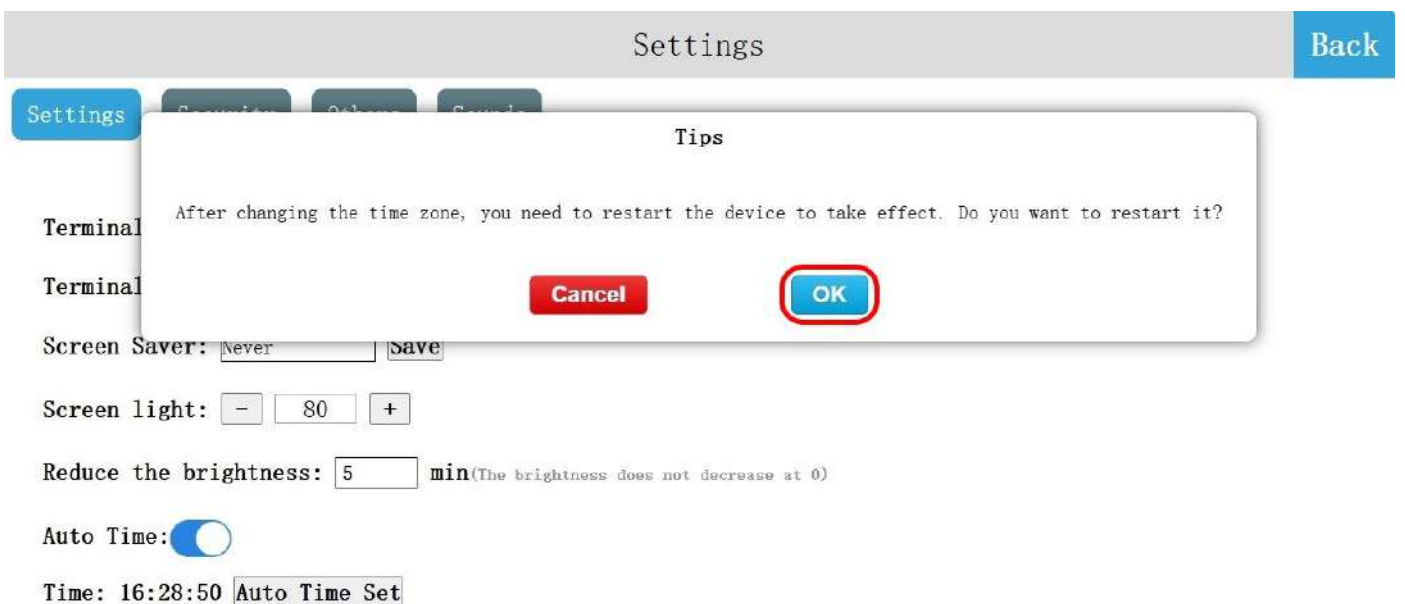
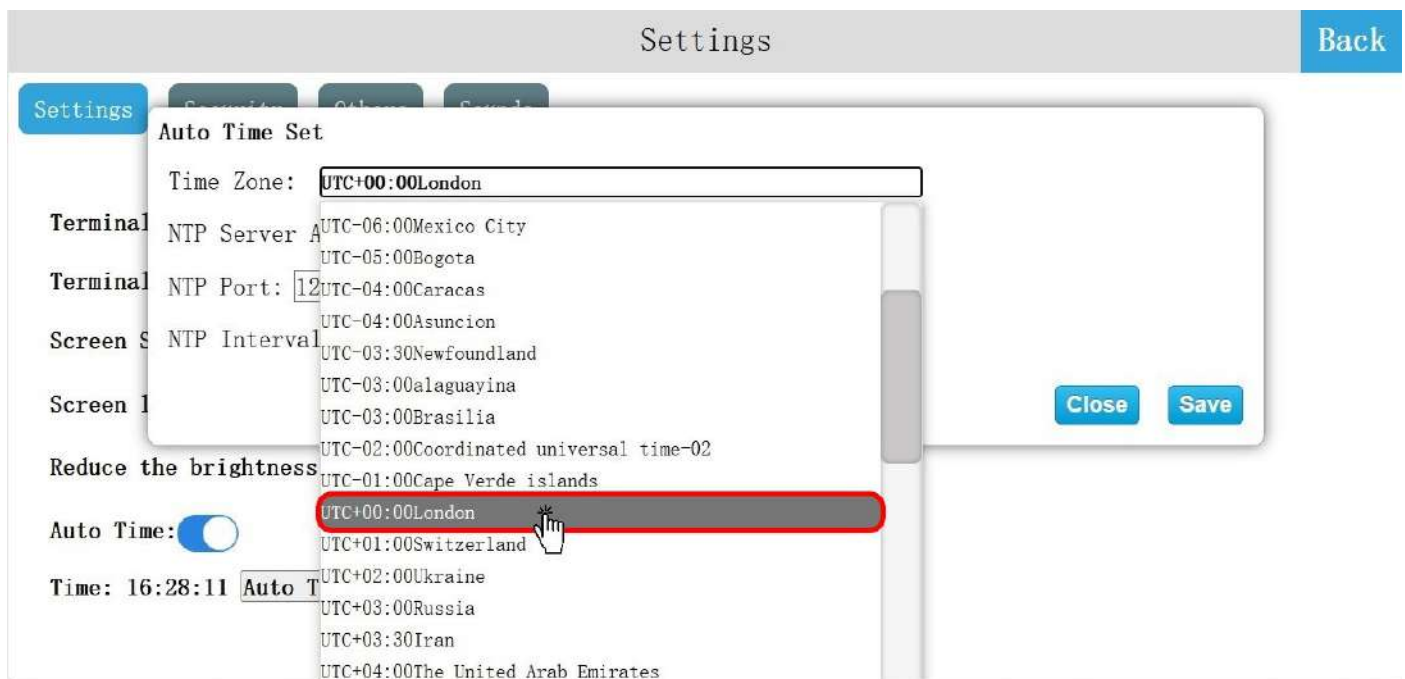
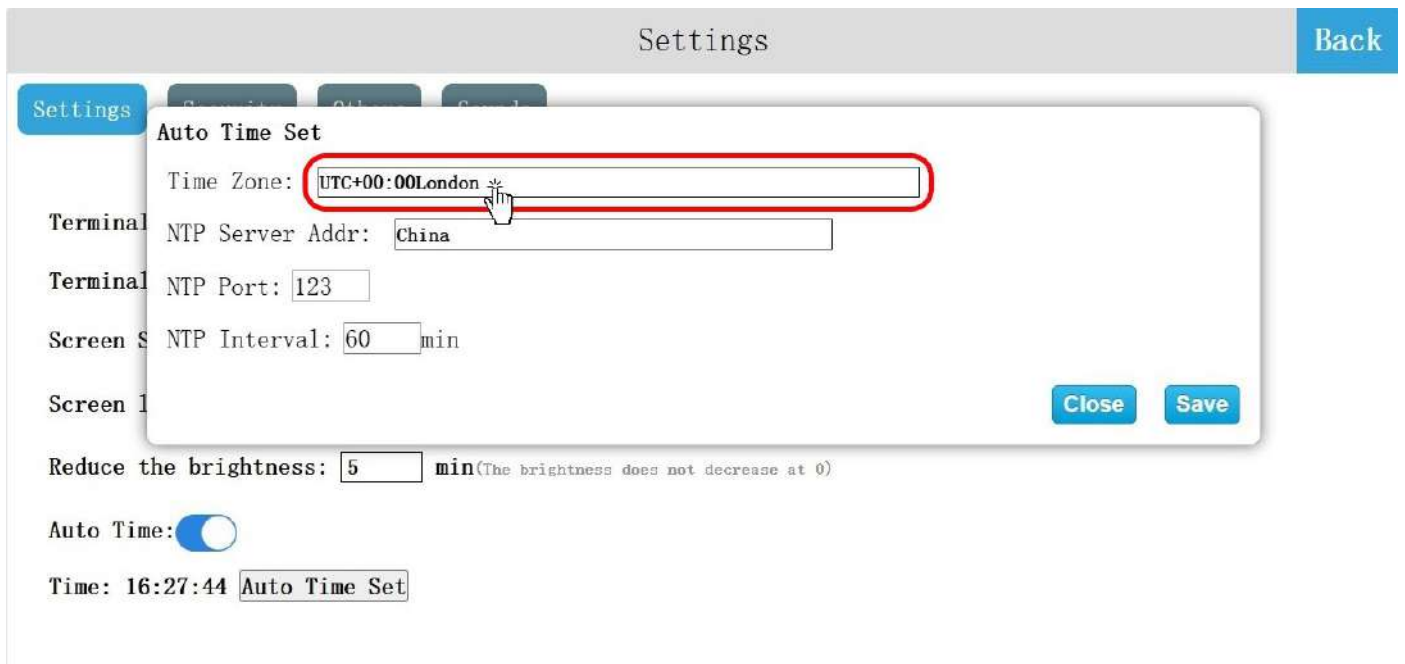
Screen light: - 80 +

Reduce the brightness: 5 min (The brightness does not decrease at 0)

Auto Time: ☒

Time: 16:27:21 Auto Time Set

After this the time zone selection window will appear on the screen, please press on the time zone selection button and from the list below choose your required time zone by pressing on it with your finger tip. When the new communication window will appear on the screen with the following text message (After changing the time zone, you need to restart the device to take effect. Do you want to restart it ?) Please press on the OK button. When it is done the Kiln will restart itself, after that the new time zone settings will be applied and the time will be automatically changed according to the selected time zone.



Screen & Sound Settings

To change the screen brightness go to the main menu and press  “System Setting” then press  “Settings” button.

Settings Back

Settings
Security
Others
Sounds

Terminal Name:

Terminal code:

Screen Saver: Save

Screen light: - 80 +

Reduce the brightness: 0 min(The brightness does not decrease at 0)

Auto Time: ☒

Time: 2024-10-04 12:27:04 Auto Time Set

By changing the screen light parameter you can increase or decrease the screen brightness



To change the volume or to switch off the start-up / keyboard beep sound go to Sounds section

Settings Back

Settings
Security
Others

Sounds

Beep: ☒

Startup sound: ☒

Startup TTS: ☐

Volume:
83

HOW TO USE TIME & TEMPERATURE PROGRAMMABLE CONTROLLER

Please turn your kiln on by switching the power button which is located on the front side of the electrical box under the touch-screen TFT display. Your kiln will start and the loading screen will appear on the display.



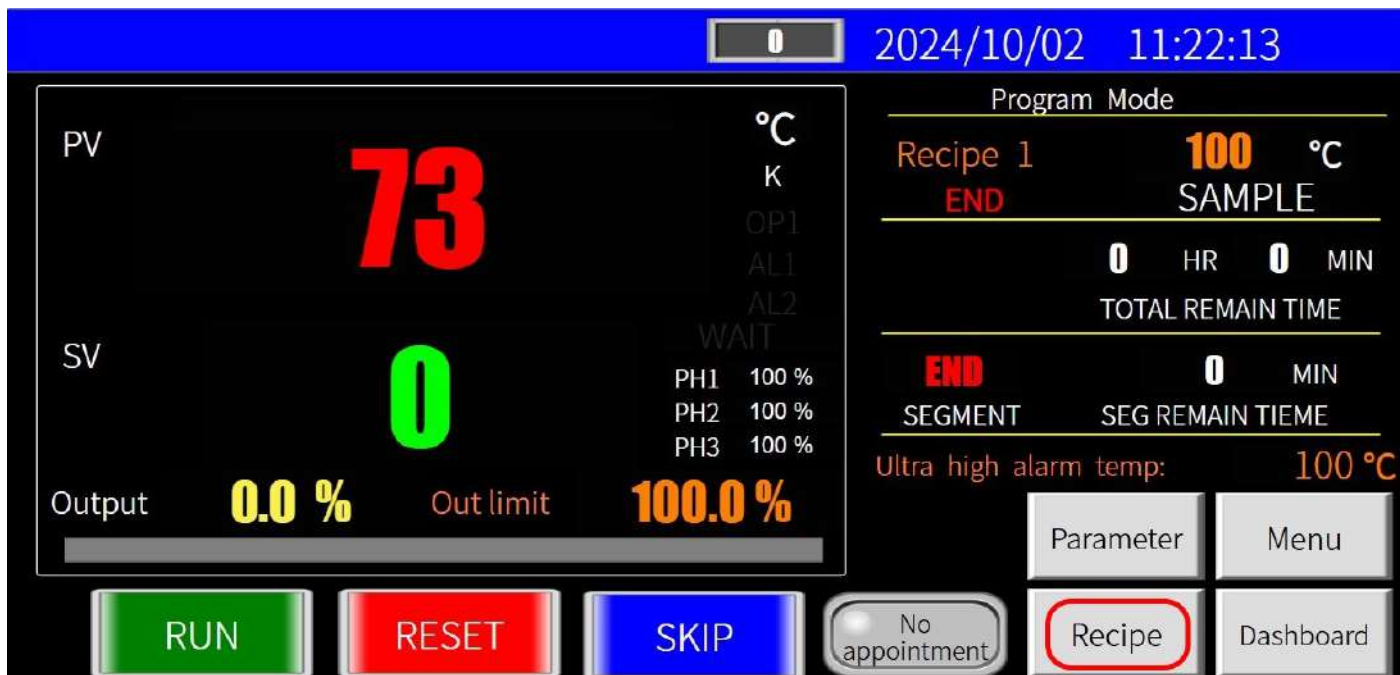
Please wait till the Wi-Fi connection indicator will turn green and the status of the device will be marked as Online. Depending on your Wi-Fi signal strength it may take up to one-two minutes. When please press “Enter System” button after this the main instrument screen will load



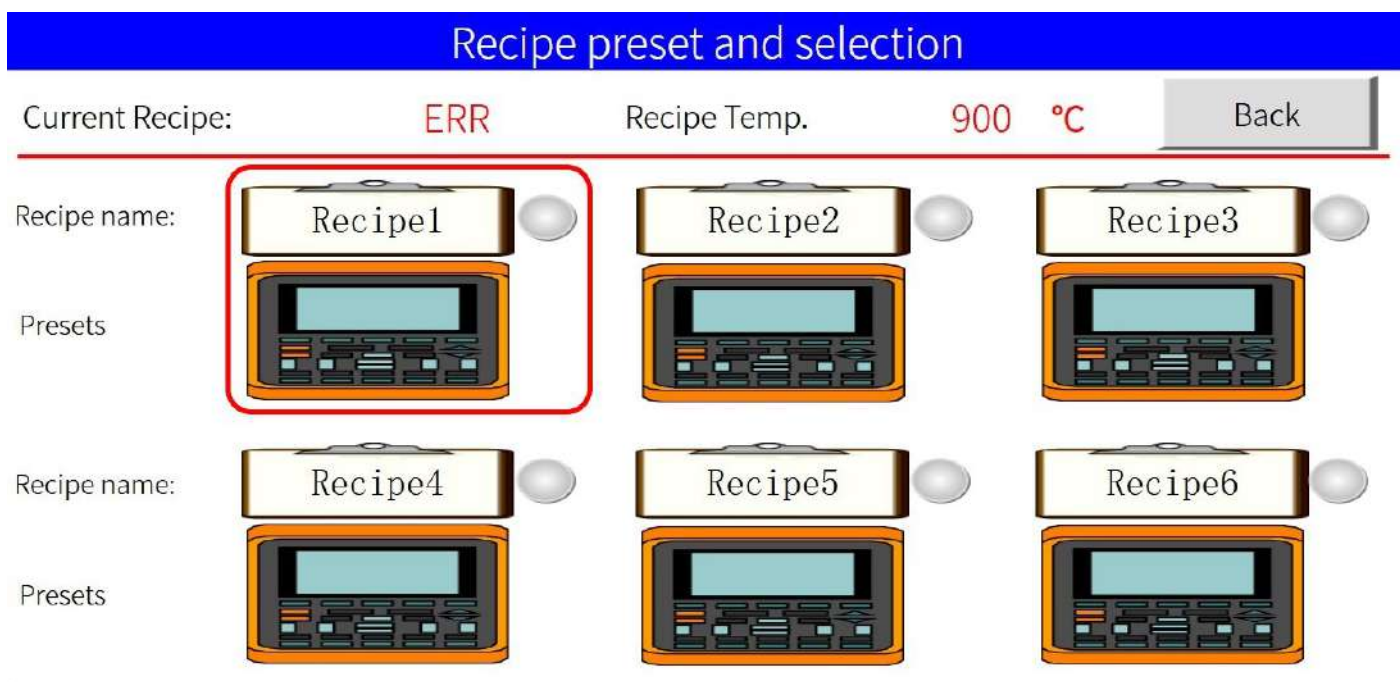
- 1) It is the amount of the firing programs the kiln has already completed
- 2) ultra high alarm temperature indicates the maximal firing temperature after reach which the alarm will be activated and the buzzer will start
- 3) Run button is used to start the firing process after the required program has been selected
- 4) Reset button is used when the firing program has finished and you wish to turn off your kiln , before doing so, please press “reset” button (otherwise the previously selected firing program will start automatically right after you will turn the kiln on again)
- 5) Skip button is used when you wish to skip the current segment and begin the next one immediately without waiting for the completion of the current one. For example you have started the firing program which has six segments in total. After completing the second segment e.g. (holding /soaking the 100C temperature for 10 minutes), your kiln will switch to the third segment (increasing the temperature to 150C in 20minutes) ,you can skip this segment and start the forth (reaching 200C in 10 minutes) immediately by pressing the skip button.
- 6) Parameter button is used to set up the over temperature deviation value
- 7) If you click on recipe the recipe section will load, there are six recipes in total
- 8) Menu button is used for entering the main menu of the controller
- 9) Dashboard button is used when you need to see the information about the firing program segment temperature & time value.
- 10) No appointment button is used when you need to program your kiln to start automatically on the selected day at the certain time of the day. If you click “No appointment” button it will automatically change to appointment and the extra window will appear at the left top corner of the screen, where you can set up the required day of the month and the time
- 11) The selected firing program will be shown under the program mode
- 12) PV parameter indicates the real temperature inside the chamber
- 13) SV parameter indicates the temperature that has been set up in the firing program and needs to be reach in a given period of time.

How to create a firing program (schedule)

Please press the “Recipe” button



The Recipe preset and selection section will load. Please select one of the six available recipes and press on it to create a new firing program. (let's select the recipe number one as the example)



The new section will be loaded, there are 24 time & temperature segments, for each segment time and the temperature can be set up individually. If you are not familiar with the firing programs and do not know which temperature and time you need to set up for your materials, you can always check on the internet to find freely accessible firing programs for your required materials. Once you learn how your materials respond to heat, you'll know how to program your kiln for any type of the material with maximal firing temperature not exceeding 900°C. It takes time to heat the material all the way through, the thicker the material the longer it takes to heat up. The Size of the items placed inside the chamber also does matter. The bigger the item the longer it takes to heat up.

Recipe name:		Recipe1						Recipe TEMP. 0 °C	
Preset	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	
Temp °C	0	0	0	0	0	0	0	0	
Time Min	0	0	0	0	0	0	0	0	
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	
	SEG9	SEG10	SEG11	SEG12	SEG13	SEG14	SEG15	SEG16	
Temp °C	0	0	0	0	0	0	0	0	
Time Min	0	0	0	0	0	0	0	0	
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	
	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24	
Temp °C	0	0	0	0	0	0	0	0	
Time Min	0	0	0	0	0	0	0	0	
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	
Explain					Back		Load the program		

Please press with your finger tip on 0 to set up the required temperature for the first segment of the firing program.

Please press with your finger tip on 0 to set up the required time for the first segment of the firing program.

Please press with your finger tip on 0 % to set up the power limit as 100% for the first segment of the firing program.

You can program up to 24 segments

Recipe name:		Recipe1						Recipe TEMP. 0 °C	
Preset	SEG1	SEG2				SEG6	SEG7	SEG8	
Temp °C	0	0				0	0	0	
Time Min	0	0				0	0	0	
Power %	0 %	0 %				0 %	0 %	0 %	
	SEG9	SEG10				SEG14	SEG15	SEG16	
Temp °C	0	0				0	0	0	
Time Min	0	0				0	0	0	
Power %	0 %	0 %				0 %	0 %	0 %	
	SEG17	SEG18				SEG22	SEG23	SEG24	
Temp °C	0	0				0	0	0	
Time Min	0	0				0	0	0	
Power %	0 %	0 %				0 %	0 %	0 %	
Explain					Back		Load the program		

MAX. 950
MIN. 0

7

8

9

✕

4

5

6

+/-

1

2

3

←

0

.

Recipe name: **Recipe1** Recipe TEMP. **0** °C

Preset	SEG1	SEG2	SEG6	SEG7	SEG8
Temp °C	0	0	0	0	0
Time Min	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %

	SEG9	SEG10	SEG14	SEG15	SEG16
Temp °C	0	0	0	0	0
Time Min	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %

	SEG17	SEG18	SEG22	SEG23	SEG24
Temp °C	0	0	0	0	0
Time Min	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %

MAX. 5999
MIN. 0

your required time 0

7 8 9

4 5 6

1 2 3

0 .

Explain Back Load the program

Recipe name: **Recipe1** Recipe TEMP. **0** °C

Preset	SEG1	SEG2	SEG6	SEG7	SEG8
Temp °C	0	0	0	0	0
Time Min	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %

	SEG9	SEG10	SEG14	SEG15	SEG16
Temp °C	0	0	0	0	0
Time Min	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %

	SEG17	SEG18	SEG22	SEG23	SEG24
Temp °C	0	0	0	0	0
Time Min	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %

MAX. 100
MIN. 0

we recommend 100%

7 8 9

4 5 6

1 2 3

0 .

Explain Back Load the program

Recipe name: **Recipe1** Recipe TEMP. **100** °C

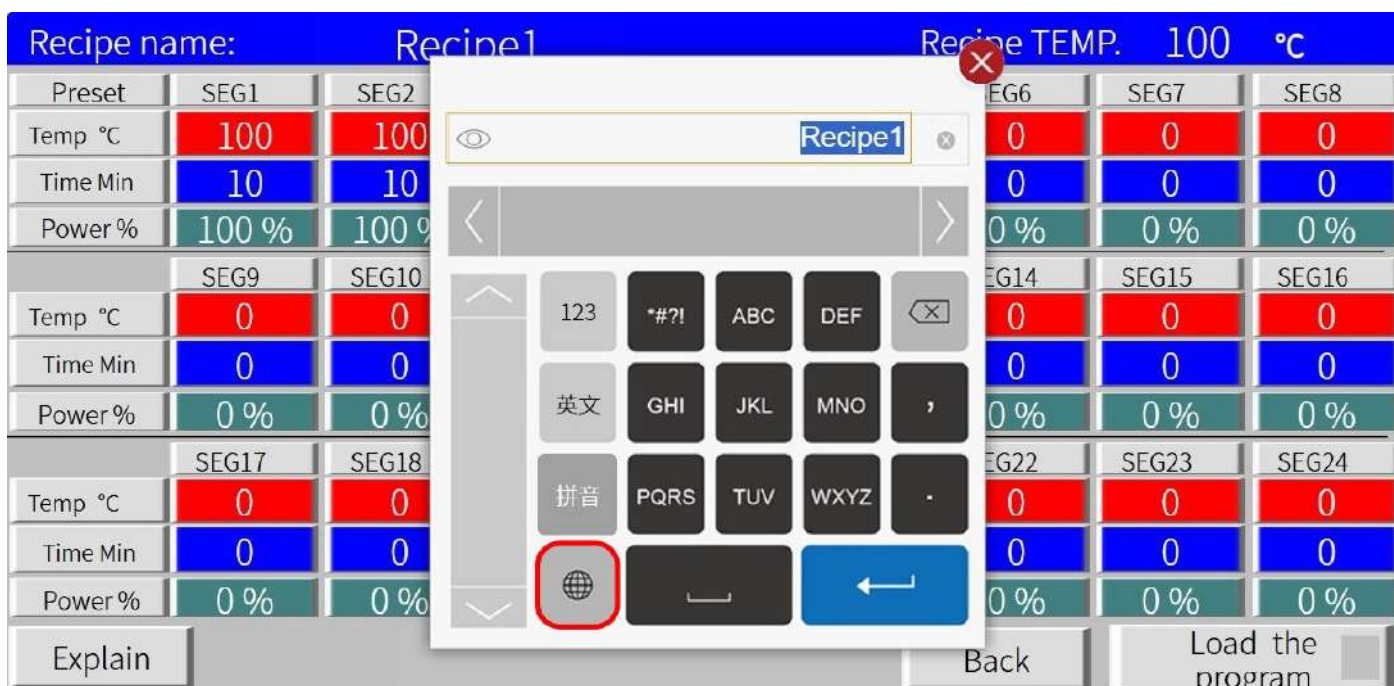
Preset	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8
Temp °C	100	100	20	0	0	0	0	0
Time Min	10	10	60	0	0	0	0	0
Power %	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %

	SEG9	SEG10	SEG11	SEG12	SEG13	SEG14	SEG15	SEG16
Temp °C	0	0	0	0	0	0	0	0
Time Min	0	0	0	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %

	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
Temp °C	0	0	0	0	0	0	0	0
Time Min	0	0	0	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %

Explain Back Load the program

When you have finished setting up (temperature, time and power limit) for the required number of segments, you can press on the “Recipe 1” to change its name. When the new window will appear on the screen, please press on globe icon to go to advanced keyboard mode



In the advanced keyboard mode window type in the name of your firing program/schedule (as the example we will name it as SAMPLE) and press white enter arrow to implement the change.

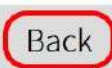
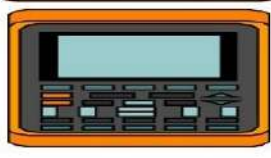
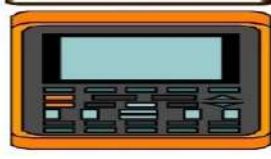
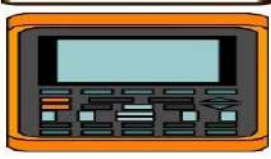
Please note that the maximal length of the program's name can not exceed 8 symbols.



After this the Recipe 1 will change to SAMPLE, to save the settings (e.g. temperature, time, power limit) of your firing program/schedule please press “Load the program” button . When it is done the grey box will become red and the “Recipe is being written, please wait!” message will appear at the bottom of the screen.

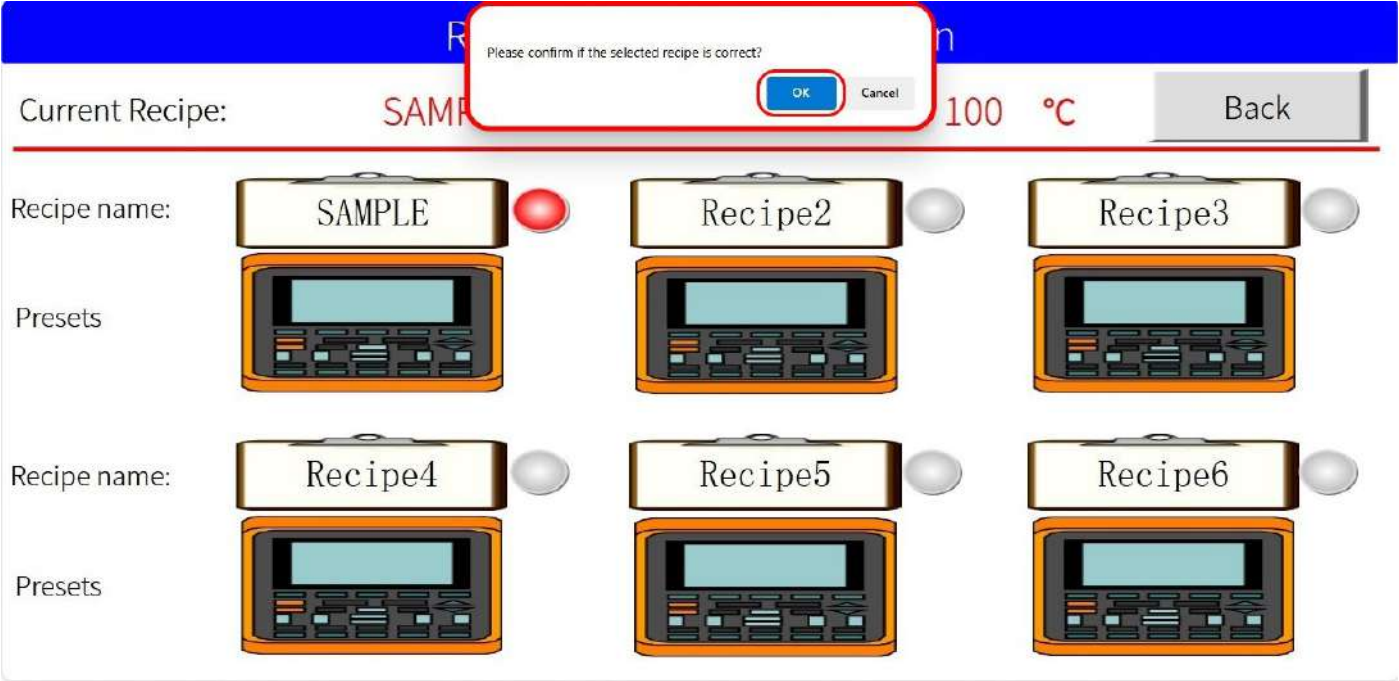
Recipe name: SAMPLE				Recipe TEMP. 100 °C				
Preset	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8
Temp °C	100	100	20	0	0	0	0	0
Time Min	10	10	60	0	0	0	0	0
Power %	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %
	SEG9	SEG10	SEG11	SEG12	SEG13	SEG14	SEG15	SEG16
Temp °C	0	0	0	0	0	0	0	0
Time Min	0	0	0	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
Temp °C	0	0	0	0	0	0	0	0
Time Min	0	0	0	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Explain	Recipe is being written, please wait!					Back	Load the program 	

When the system will finish writing your program, the previous section “Recipe preset and selection” will be loaded. Please note, if you want to implement the changes (temperature, time, power limit) to already existing firing program you will need to press “Load the program” button as well.

Recipe preset and selection			
Current Recipe:	SAMPLE		Recipe Temp. 100 °C
			
Recipe name:	SAMPLE 	Recipe2 	Recipe3 
Presets			
Recipe name:	Recipe4 	Recipe5 	Recipe6 
Presets			

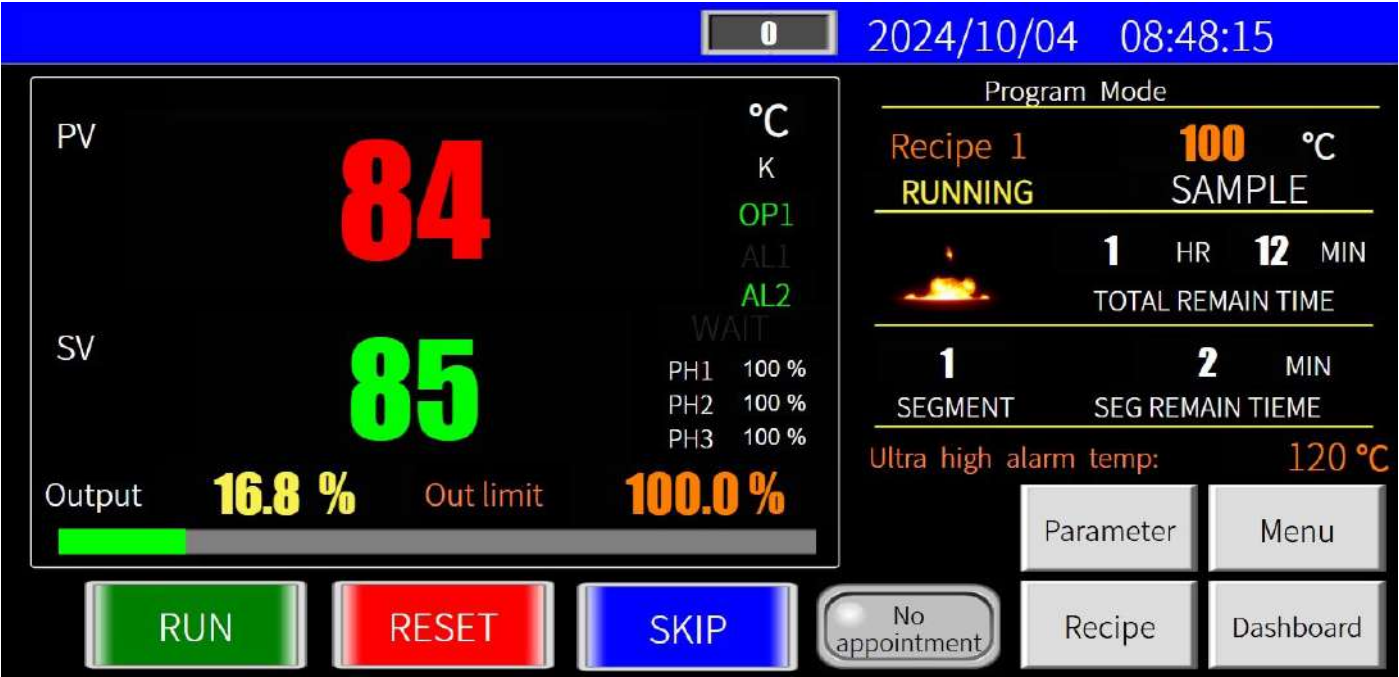
In the Recipe preset and selection section please press “ Back” button, after this the new communication window will appear at the top of the screen with the message “Please confirm if the selected recipe is correct ?” press the OK button to confirm your selected firing program/schedule

Please note when the firing program is selected the red dot  will light up next to it.



After this the main screen will load and the selected firing program will be visible at the top right corner of the screen.

In order to start the selected firing program please press green  “RUN” button and the firing process will begin.



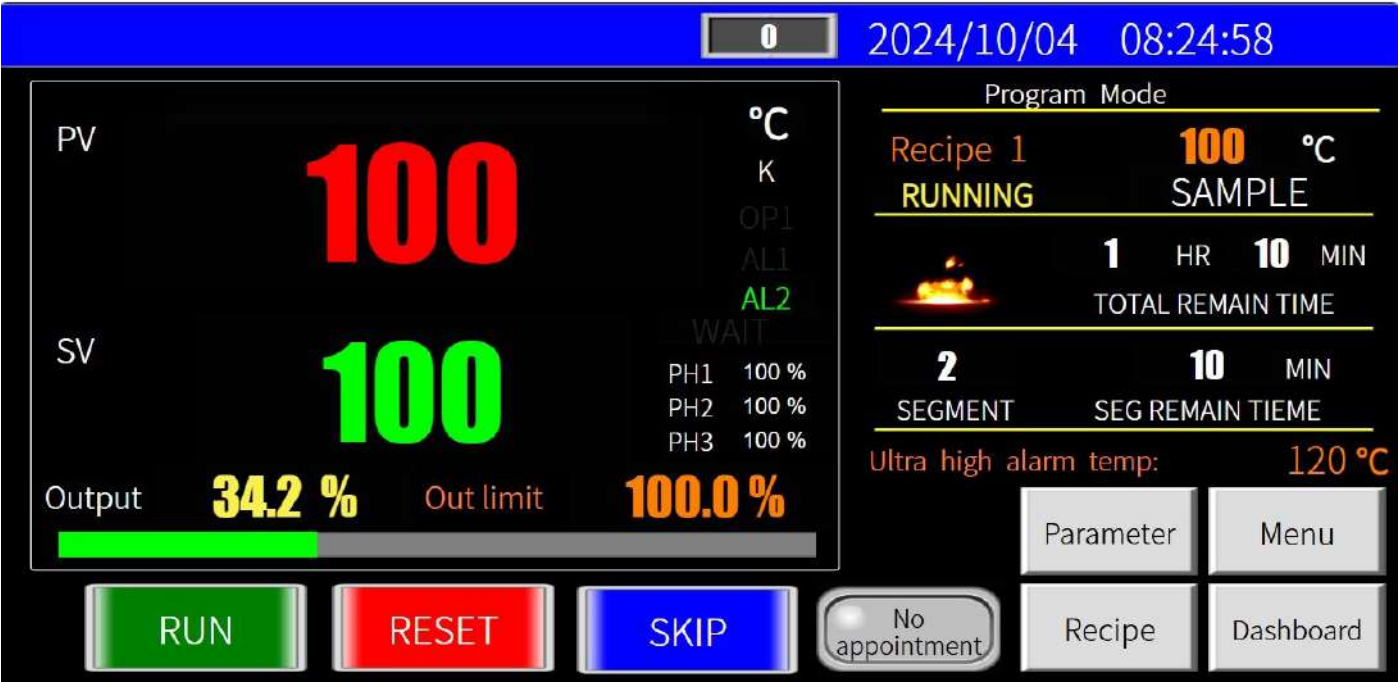
Recipe 1	100 °C
RUNNING	SAMPLE
	1 HR 12 MIN
	TOTAL REMAIN TIME
1	2 MIN
SEGMENT	SEG REMAIN TIME

Name of the currently selected firing program and its maximal temperature

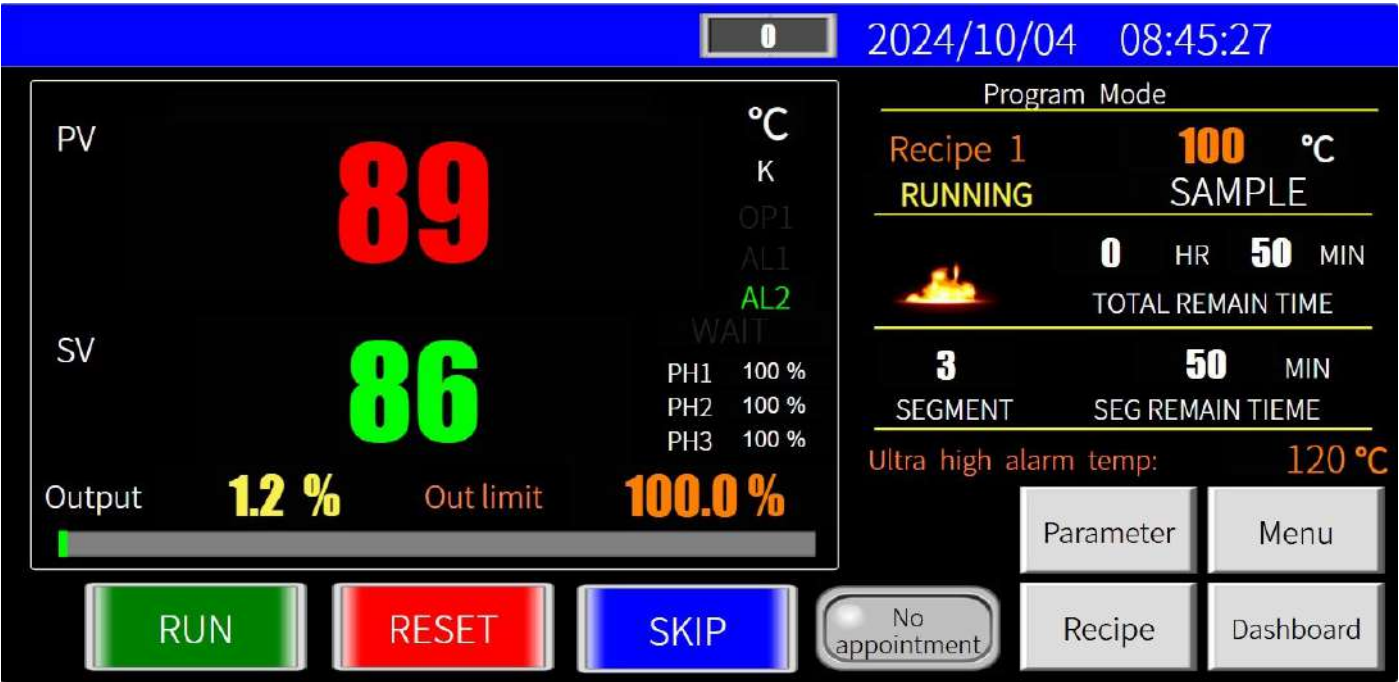
Fire icon indicates ,that the firing process is active. 1HR 12 MIN is the total remaining time till the end of the firing program

1 is the number of the current segment and 2 is the amount of time left before the completion of the first segment

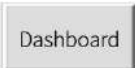
When the first segment of the firing program (to reach 100C in 10minutes) will be completed , the second segment (to hold/soak 100C for 10 minutes) will start automatically



After the completion of the second segment of the firing program, the third segment (to decrease temperature from 100C to 20C in 60 minutes) will start automatically.



You can always have insight into the firing segment sequence by pressing  "dashboard" button.

You can always have insight into the firing segment sequence by pressing  “dashboard” button.

100 °C PV	100 °C SV	100 °C SAMPLE	 RUNNING	2 SEGMENT	9 MIN SEG REMAIN TIME	1 HR 9 MIN TOTAL REMAIN TIME		
Recipe 1	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8
Temp °C	100	100	20	0	0	0	0	0
Time Min	10	10	60	0	0	0	0	0
Power %	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %
	SEG9	SEG10	SEG11	SEG12	SEG13	SEG14	SEG15	SEG16
Temp °C	0	0	0	0	0	0	0	0
Time Min	0	0	0	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
Temp °C	0	0	0	0	0	0	0	0
Time Min	0	0	0	0	0	0	0	0
Power %	0 %	0 %	0 %	0 %	0 %	0 %	0 %	0 %
Current Recipe:		SAMPLE	RECIPE TEMP. 100 °C		Explain	Back		

When the third ,which is the last segment of the currently selected firing program will be completed the firing program will finish.

0

2024/10/03 11:46:25

PV

20

°C

SV

0

K

Output

0.0 %

Out limit

100.0 %

OP1

AL1

AL2

WAIT

PH1 100 %

PH2 100 %

PH3 100 %

Program Mode

Recipe 1

END

100 °C

SAMPLE

0 HR 0 MIN

TOTAL REMAIN TIME

END

0 MIN

SEGMENT

SEG REMAIN TIEME

Ultra high alarm temp:

120 °C

Parameter

Menu

Recipe

Dashboard

RUN

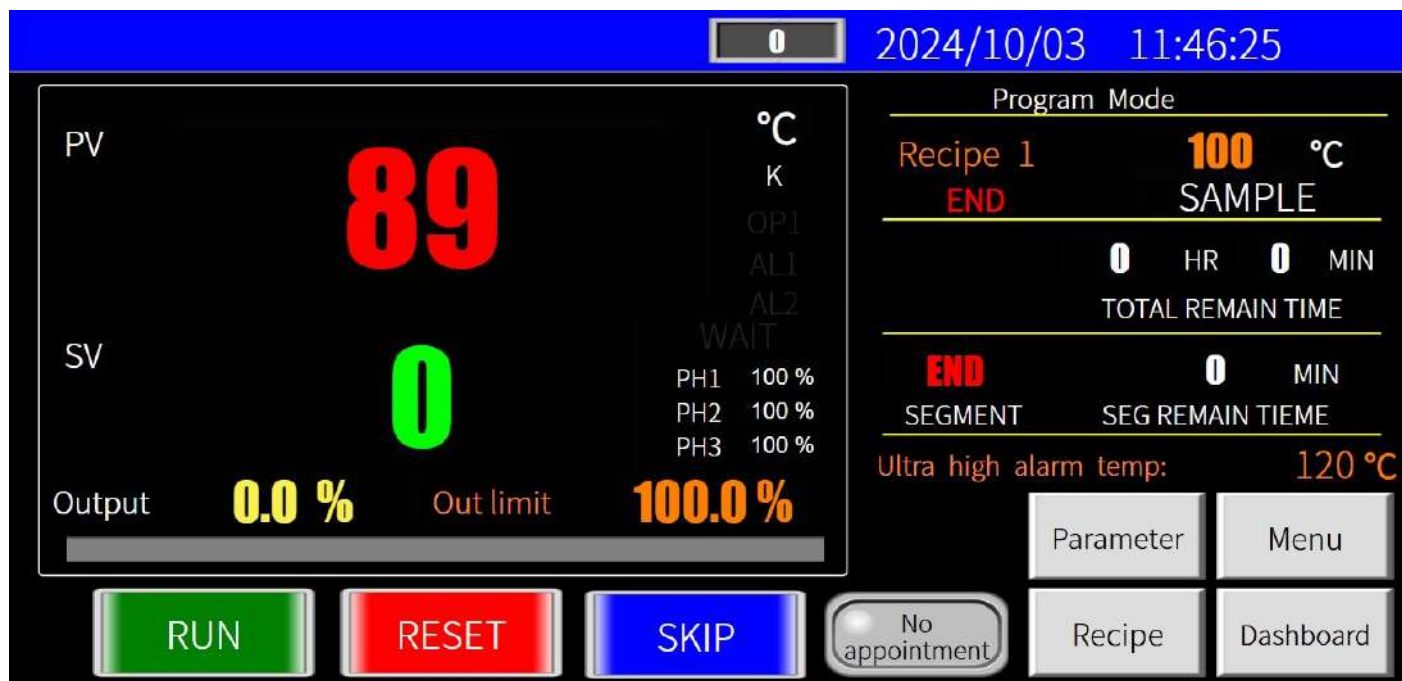
RESET

SKIP

No appointment

You can also completely stop the firing program without waiting for it to finish by pressing the red  “RESET” button .

Then you can select a new firing program schedule or to wait when the kiln will cool down from the current reached temperature



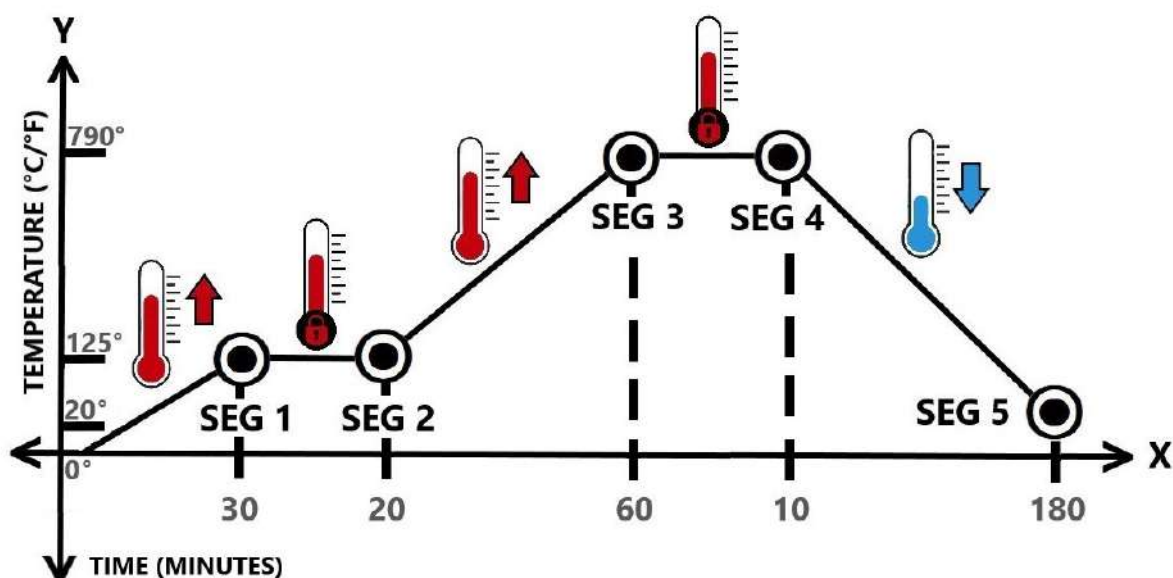
You can also skip the currently active segment by pressing **SKIP** button, in that case the firing program will automatically start the next segment., e.g. after reaching 100C the kiln will skip the segment number 2 (to hold/soak 100C for 10 minutes) and will instantly cool down to 20C in 60 minutes.

100 °C		100 °C		100 °C		2		9 MIN		1 HR		9 MIN	
PV		SV		SAMPLE		RUNNING		SEGMENT		SEG REMAIN TIME		TOTAL REMAIN TIME	
Recipe 1	SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8					
Temp °C	100	100	20	0	0	0	0	0					
Time Min	10	10	60	0	0	0	0	0					
Power %	100 %	100 %	100 %	0 %	0 %	0 %	0 %	0 %					

99 °C		96 °C		100 °C				3		57 MIN		0 HR 58 MIN					
PV		SV		SAMPLE		RUNNING		SEGMENT		SEG REMAIN TIME		TOTAL REMAIN TIME					
Recipe 1		SEG1		SEG2		SEG3		SEG4		SEG5		SEG6		SEG7		SEG8	
Temp °C		100		100		20		0		0		0		0		0	
Time Min		10		10		60		0		0		0		0		0	
Power %		100 %		100 %		100 %		0 %		0 %		0 %		0 %		0 %	

PROGRAMMING SAMPLE CHART

Recipe name: FUSING				Recipe TEMP. 790 °C		
Preset	SEG 1	SEG 2	SEG 3	SEG 4	SEG 5	SEG 6
Temp °C	125	125	790	790	20	0
Time Min	30	20	60	10	180	0
Power limit%	100 %	100 %	100 %	100 %	100 %	0 %

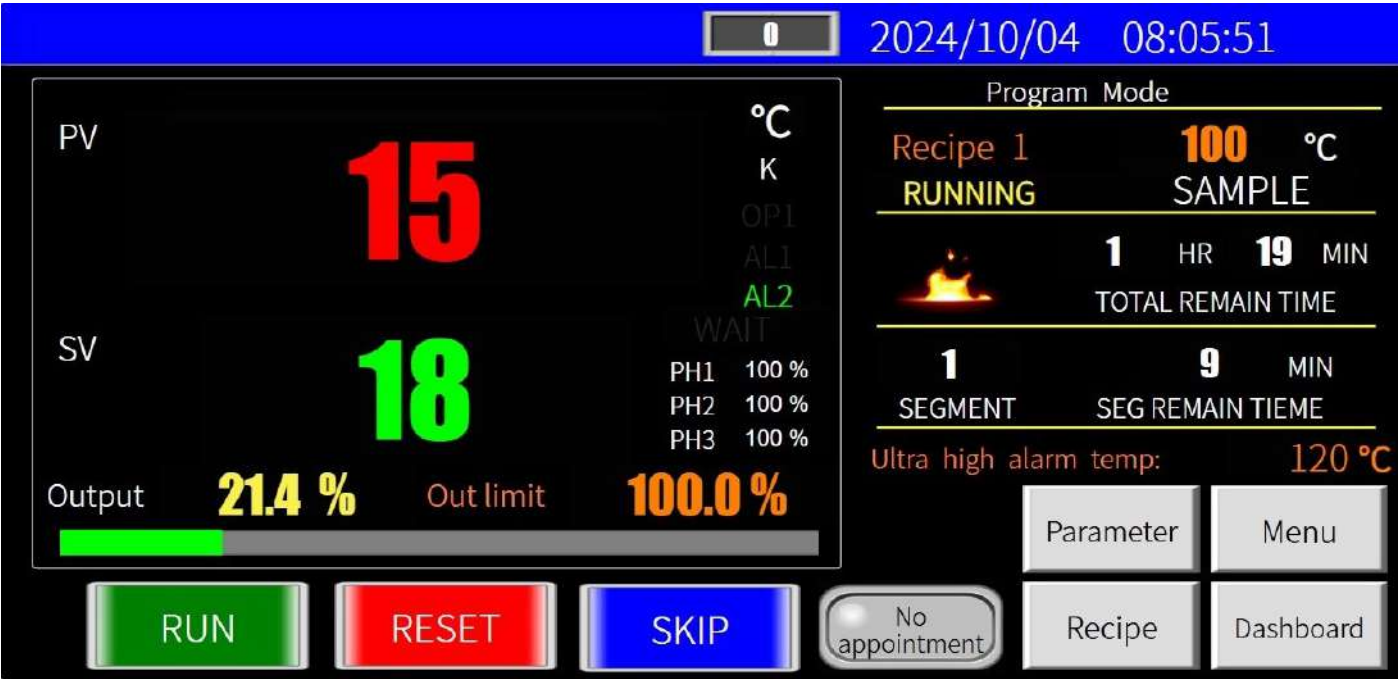


The time & temperature programmable controller has 24 segments (points) . In order to create a new firing program you will always need to set up the temperature, time and power limit. We recommend to set up power limit as 100%, please note if the power limit will be 0% the firing process will not start. You can set up the temperature, time and power limit for each segment individually. Lets take a look at the example above. For the first segment the temperature was set up as 125° C and the time 30 minutes, this means , that in 30 minutes time the kiln will reach 125° C . For the second segment the temperature was set up as 125° C and the time 20 minutes, this means , that the kiln will hold (soak) this temperature for 20 minutes. For the third segment the temperature was set up as 790° C and the time 60 minutes, this means, that the temperature from 125° C will rise to 790° C in 60 minutes time. For the forth segment the temperature was set up as 790° C and the time 10 minutes, this means, that the kiln will hold (soak) this temperature for 10 minutes. For the fifth segment the temperature was set up as 20° C and the time 180 minutes, this means, that the temperature will decrease from 790° c to 20° C in 180 minutes time. Please note that for the sixth segment no temperature and time was set up. Both these parameters indicate 0 ,this means, that after decreasing to 20° C the firing program will finish.

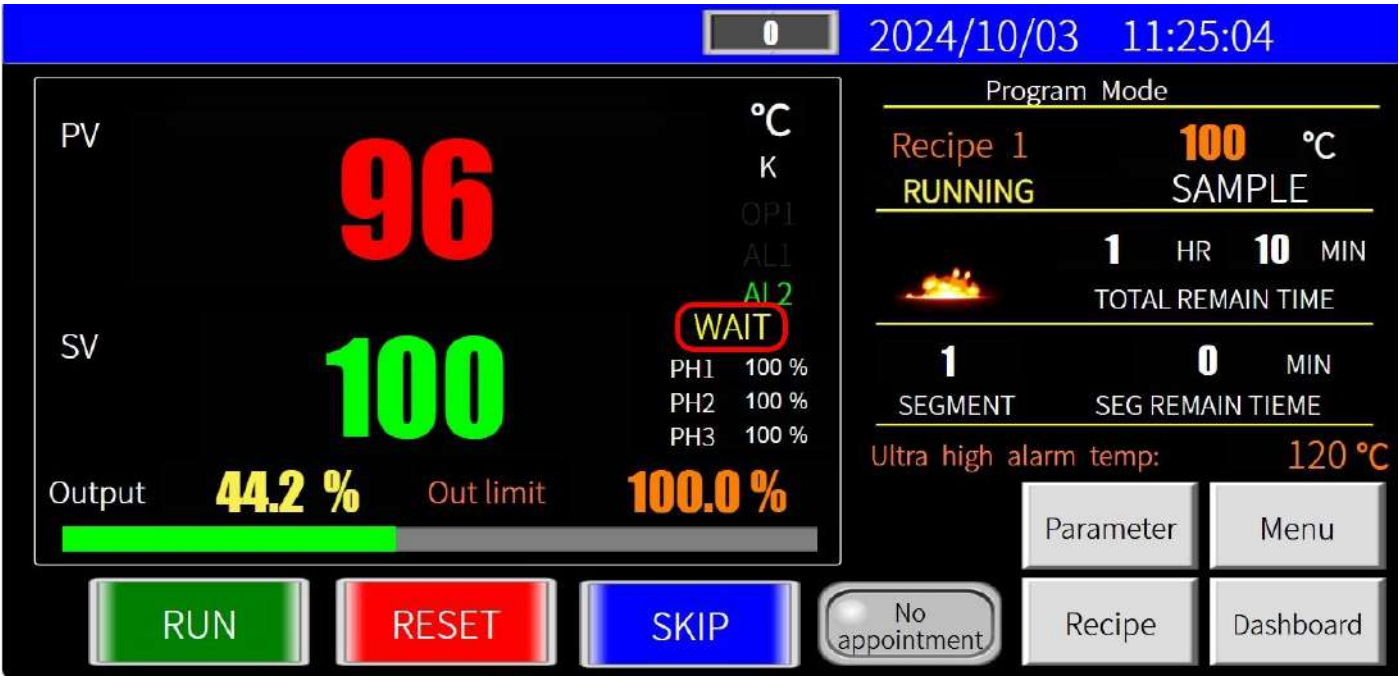
As you can see from the programming sample chart by setting up temperature and time for each segment we can create temperature fluctuation, e.g. you can increase or decrease the temperature and also to hold (soak) reached temperature for a certain period of time. Pleas note as it's been stated above we highly recommend to keep the internal parameter "power limit" as 100% to reach maximal efficiency during the firing process.

LOW WAITING TIME

In the situation when the required temperature was not reached during the set up time, the low waiting function will be activated, this option was designed to allow your kiln to reach the set up temperature.



If in 9 minutes the kiln will not reach 100C the firing program will not switch to the second segment but will activate the low waiting function instead.



As you can see the first segment remaining time is zero and the “WAIT” has appeared on the screen indicating that the low waiting function is activated.

Enabling & Disabling Ultra High Alarm Temperature

From the main screen please go to **Parameter** and then press on **Ultra high Temp. alarm**

User Parameter °C

Proportional band	50
Integral	240 s
Differential	60 s
Scale reset	-5
Action cycle	2 s
PV bias	0
Bias check	0
TEMP. Wait	0

Auto-tuning Temperature
 Auto-tuning 0
 Autotuning Description

User Login User logoff User Current user:

Ultra high Temp. alarm

Back

When you can enable or disable it. By the default the Ultra High Alarm Temperature is always on

User Parameter °C

Proportional band	50
-------------------	----

Auto-tuning Temperature
 Auto-tuning 0
 Autotuning Description

Ultra high alarm disable

Overtemperature deviation value 20 °C Judgment time 5 s

explain:

ltra high temperature alarm-This is the deviation alarm which will be triggered if the process value higher than the maximum temp value from the curve plus the deviation, this will protect the system from being damaged.

Back

User Login User logoff User Current user:

Ultra high Temp. alarm

Back

Ultra high alarm enable

Overtemperature deviation value 20 °C Judgment time 5 s

explain:

ltra high temperature alarm-This is the deviation alarm which will be triggered if the process value higher than the maximum temp value from the curve plus the deviation, this will protect the system from being damaged.

Back

As you can see the overt temperature deviation value is set up as 20C degrees.

This is done to avoid getting the alarm then the maximal firing temperature set up for the firing program was reached.



Because the overt temperature deviation value was set up as zero the alarm has started and the buzzer was activated. Please note if you try to reset alarm when the maximal firing temperature has not yet decreased it will be activated in 5 seconds again. To Reset alarm properly please wait till the temperature drops below Ultra high alarm temperature value and when press "Reset alarm" button.

Set up the appointment time

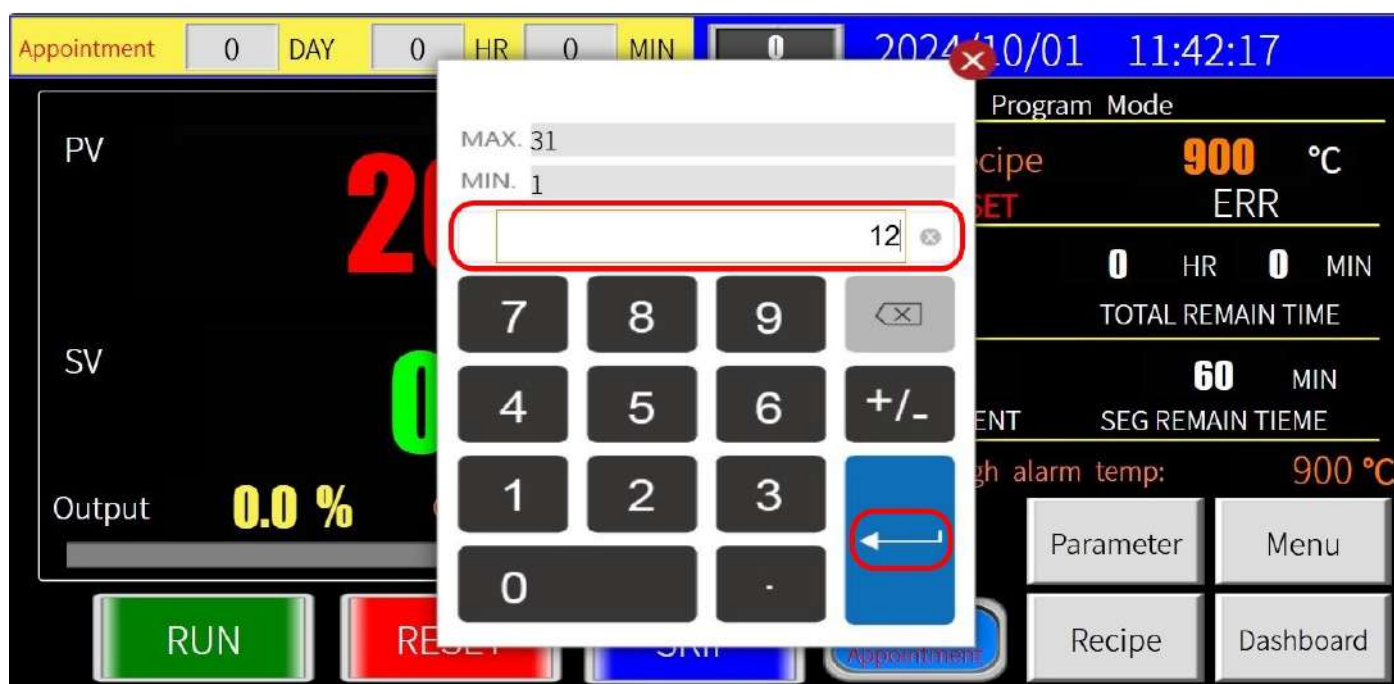
You can program your kiln to start on the specific day and time, by pressing “No appointment “ after this it will automatically change to “appointment”



The extra window will appear at the left top corner of the screen, where you can set up the required day of the month and the time by tapping with your finger tip on the zero.



Enter your required day of the month and the time, then press white enter arrow to confirm



For example we will program the kiln to start on 12th of October at 6:26pm



Accessing The Historical Data

To access the information regarding operation records and Alarm record please go to the menu and press on Historical Data button.



Home page



System settings



System reboot



Historical data



User management



Factory preset



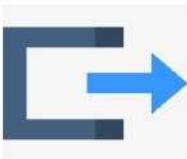
Screen saver time



Instrument



User Login



User logoff



Mode selection



Advanced parameters

Current user

User

Here you can enter the time range for the data you want to query



<

1

>

Time	PV	SV	Recipe	MV%

Stop sampling

Clear data

Operation records

Alarm Record

Historical curve

Back

Click on the top left corner and enter the time range for the data you want to query.

2024/10/01 18:03:25

You need to enter the time range for the date you want to query.



<

1

>

Time	PV	SV	Recipe	MV%
2024-10-02 12:00:15	41	64	100	32

Sampling

Clear data

[illegible]

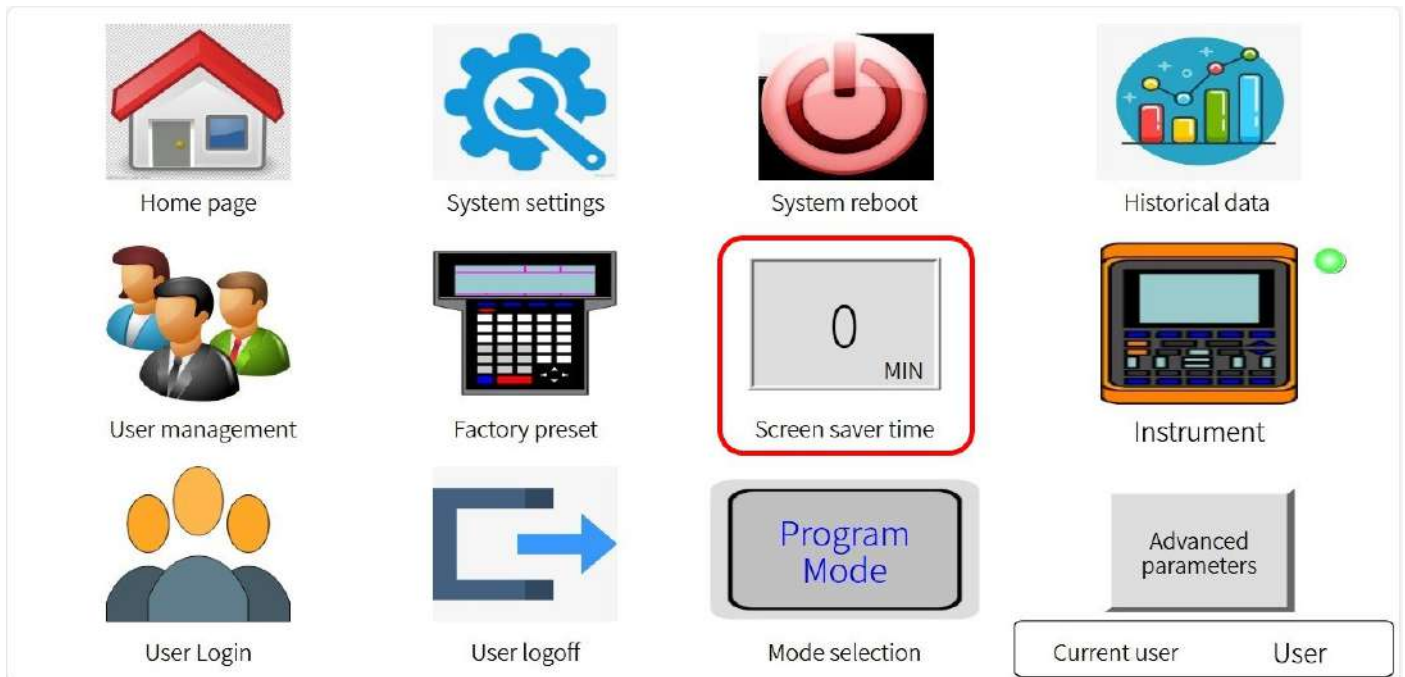
You can also check the Alarm Records by pressing “Alarm Record” button.

[illegible]

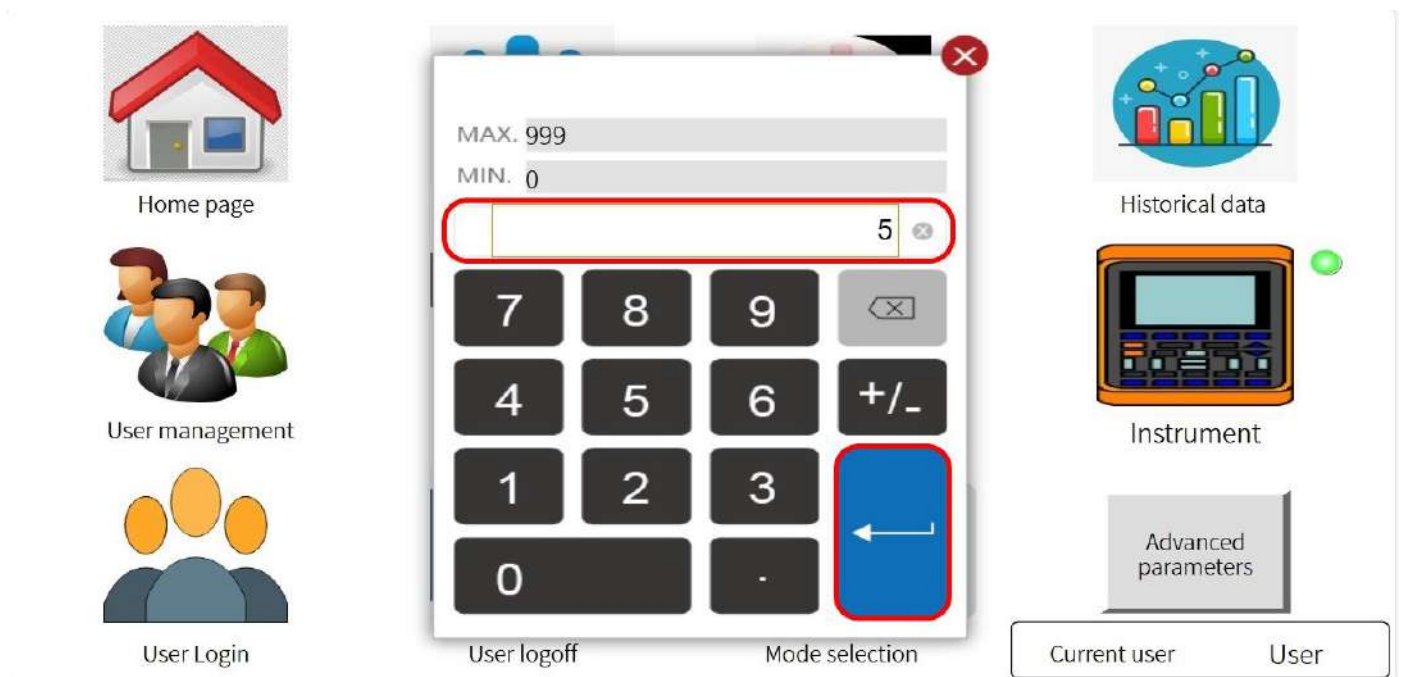
If not needed you can delete all the old alarm records by pressing “Delete Record” button.

Screen Saver Time Function

Go to the main menu and press on the screen saver time button.



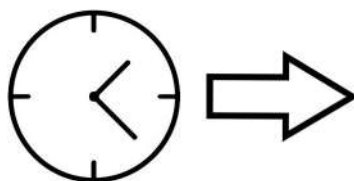
In the appeared window please enter your required time after which the screen will go dark when not in use and press white arrow button to confirm.



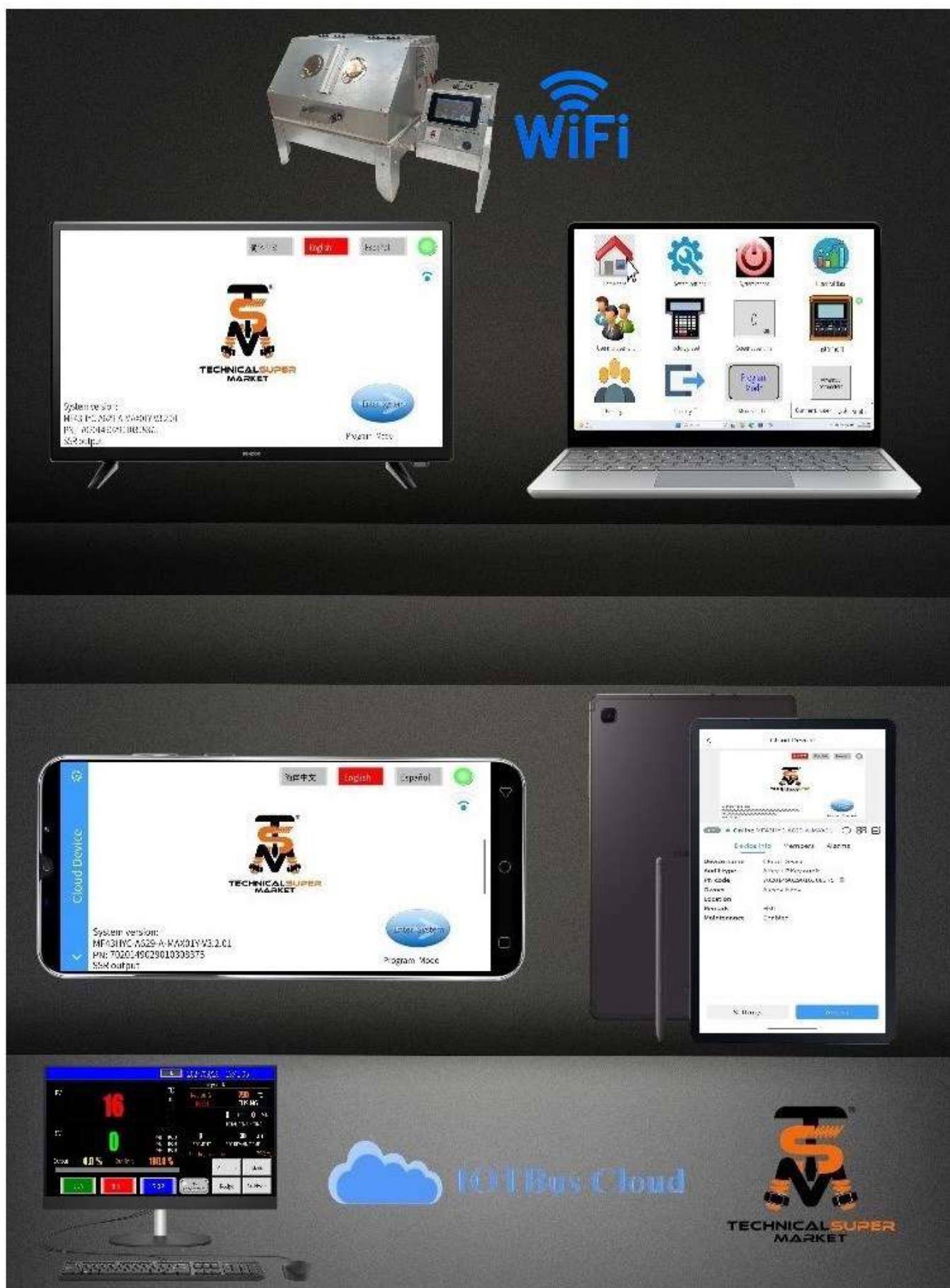
In our Case we set screen saver time up as 5 minutes, after this time the display will go dark if not in use , it will switch on again when you will touch it.



Screen saver time



Get remote access control to your Kiln via browser web page or mobile application (Wi-Fi connection and IOTBUS cloud account are required)



Getting remote access to your kiln via the mobile app or the web browser

STEP BY STEP GUIDE

In order to get online remote access to your kiln please go to iotbus.net/#/registerByEmail/?language=en and create an account by completing the registration process.



Sign Up IoTBus By Email

Phone register

Account Already? Go Sign in

Please enter your email address which you would like to use for the registration, create a password and repeat it, enter your name. After filling out these registration fields the “get code” button will be active, please press it and on your email address will be sent the verification code.

Send Succeed



Sign Up IoTBus By Email

Please enter the verification code

Phone register

Account Already? Go Sign in

Please check your email address, should you not receive the email from IOTBus please check your spam folder

IOTBUS



noreply@mail.iotbus.net <noreply@mail.iotbus.net>

11:17

To: office@*****et.com

Hello!

Please fill in the following verification code:

810562

The verification code is valid in 5 minutes, and needs to be reacquired after 5 minutes.

Please note that you will have 5 minutes , during that time you will have to verify it, otherwise it will expire and you will have to request a new one.

Please press the “Register” button , after that we web page will be reloaded



Sign Up IoTBus By Email

office@*****et.com ✓

***** ✓

***** ✓

John Smith ✓

810562 Get Code

Register

[Phone register](#)

[Account Already? Go Sign in](#)

On the Login page please enter your email address which you have used during the account registration process and your password as well, then press the “Sign in” button.



IOTBus Cloud

Login Phone Login Email Login

office@*****et.com

☐ Keep Login

Sign in

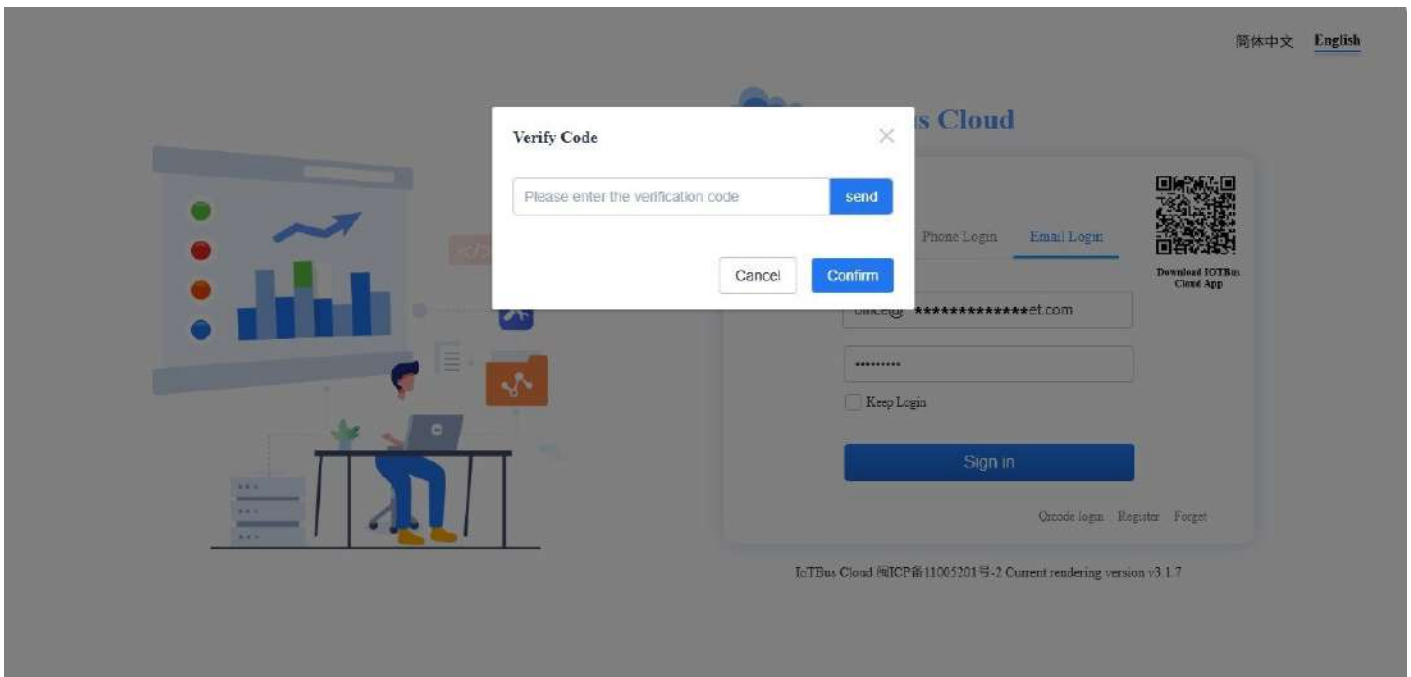
[Qrcode login](#) [Register](#) [Forget](#)

[Download IoTBus Cloud App](#)

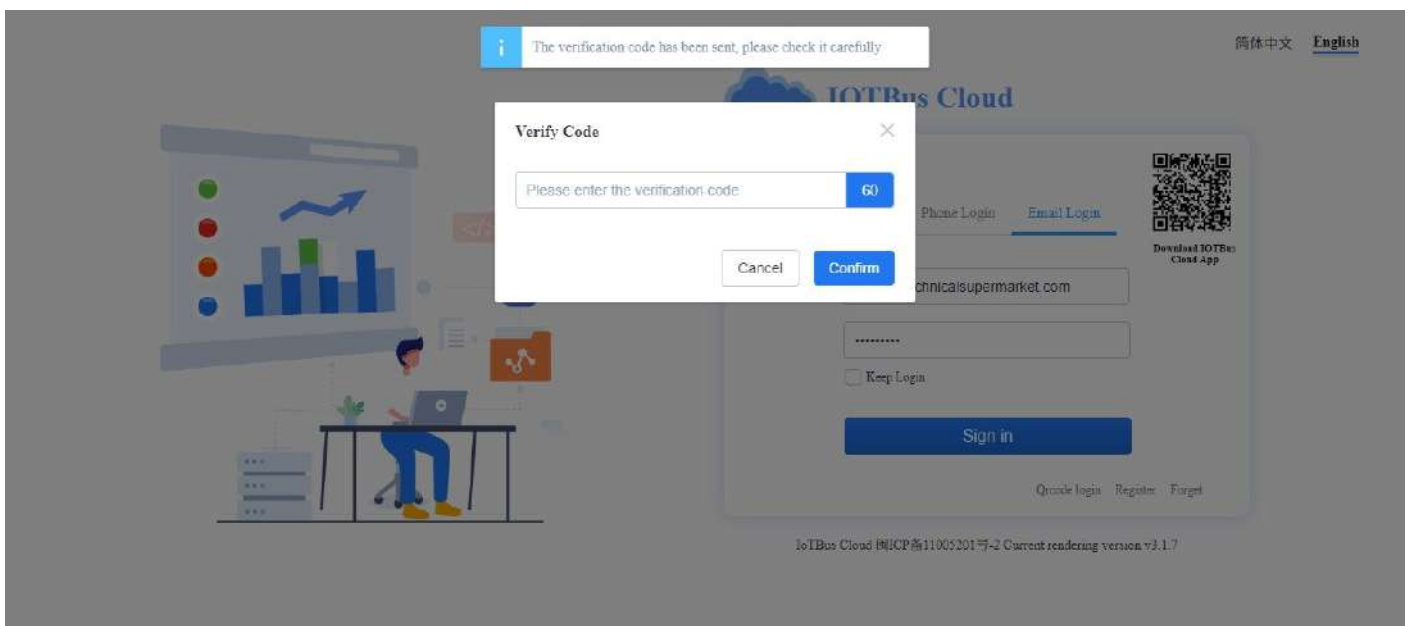
IoTBus Cloud 闽ICP备11005201号-2 Current rendering version v3.1.7

[简体中文](#) [English](#)

After this you will be asked to request the new verification code, please press “send” button



You will get the pop-up message saying that the code has been sent



IOTBUS



noreply@mail.iotbus.net <noreply@mail.iotbus.net>

11:41

To: office@technicalsupermarket.com

Hello!

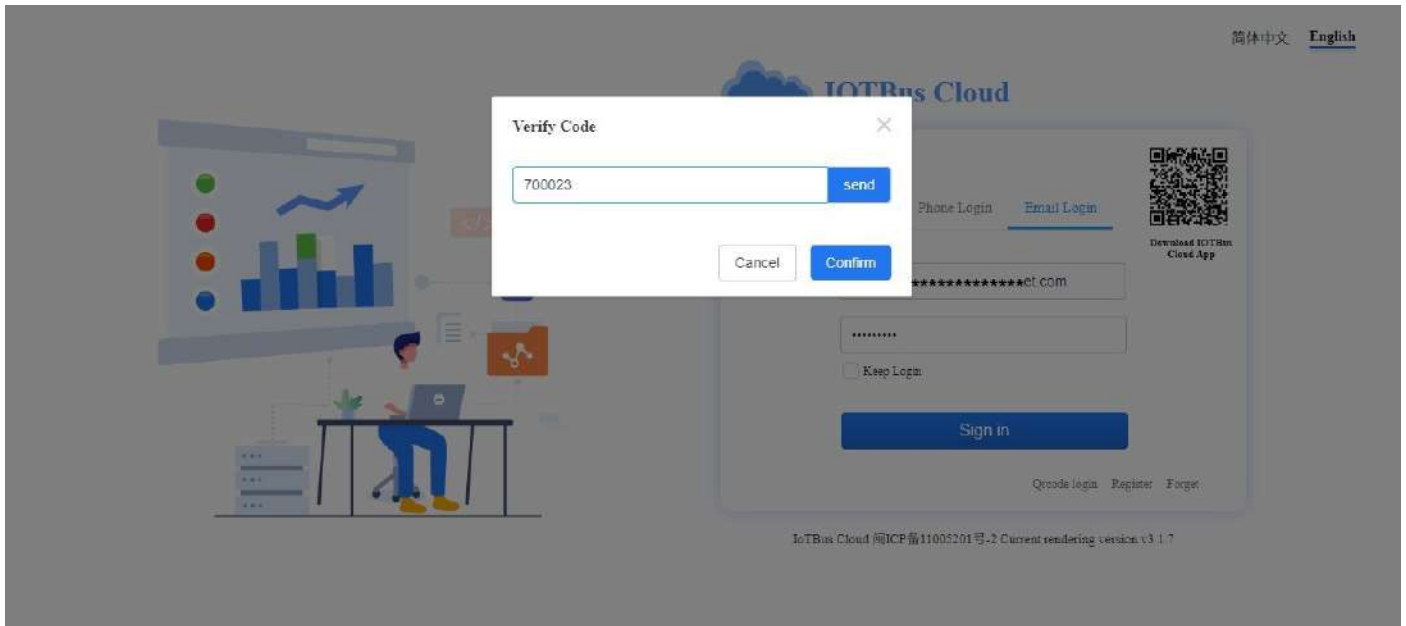
Please fill in the following verification code:

700023

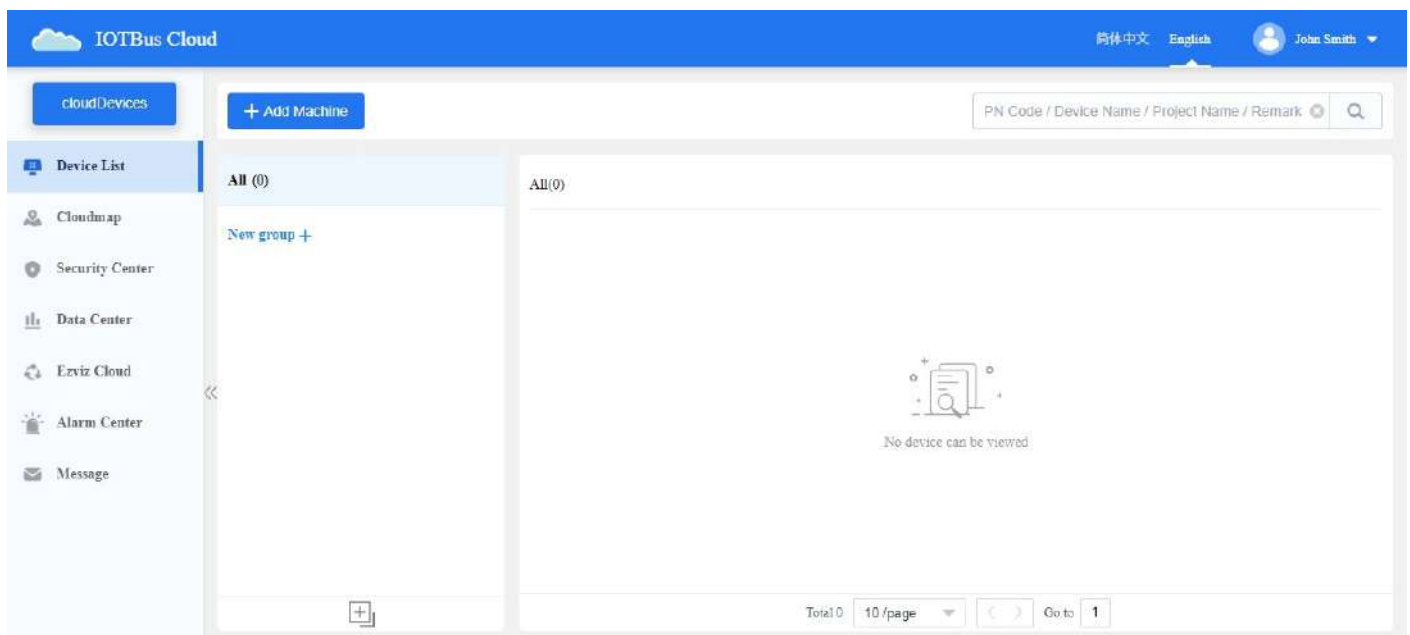
The verification code is valid in 5 minutes, and needs to be reacquired after 5 minutes.

Please not that each time you need to Log in into your IOTBus account you will receive the verification code via email , which will be valid for 5 minutes.

Please enter the verification code and press “confirm” button, after this the web page will be reloaded



After Logging into your IOTBus account you will land on the main page



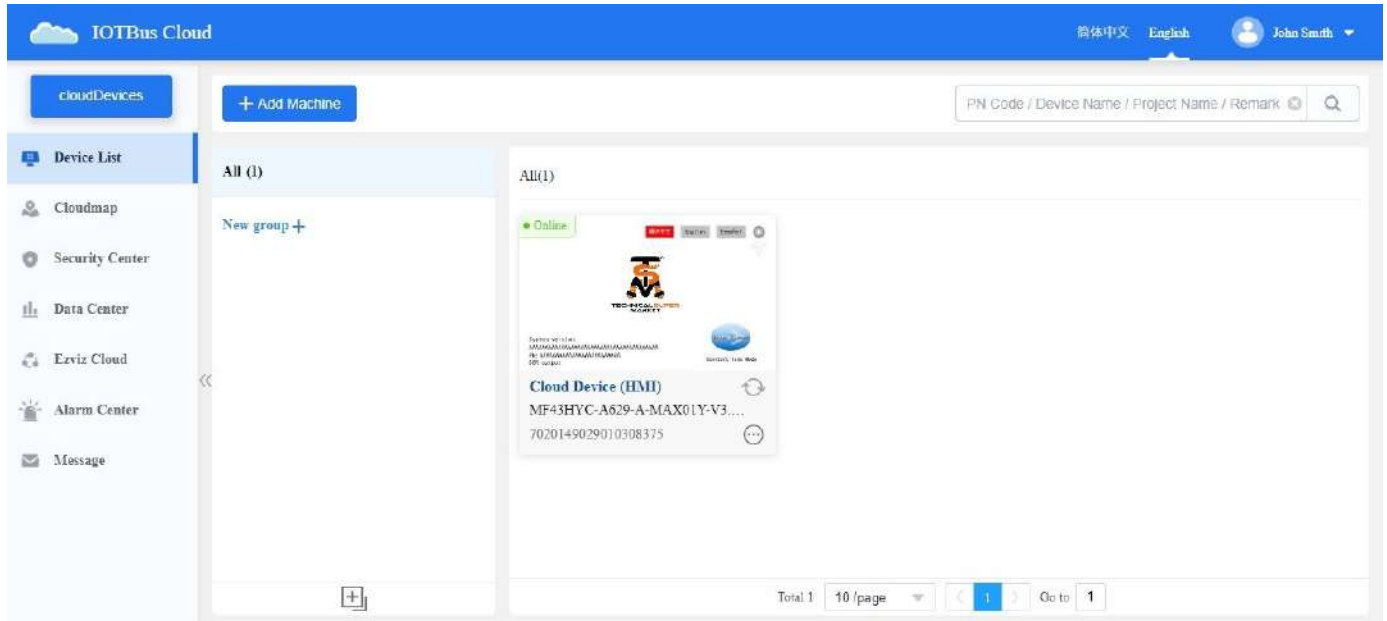
Now you need to send the email that you have used during the registration process to INFO@KILNSANDACCESSORIES.COM so we could enable you the remote access control to your kiln



IOTBus Cloud Account Email (office@*****et.com)

INFO@KILNSANDACCESSORIES.COM

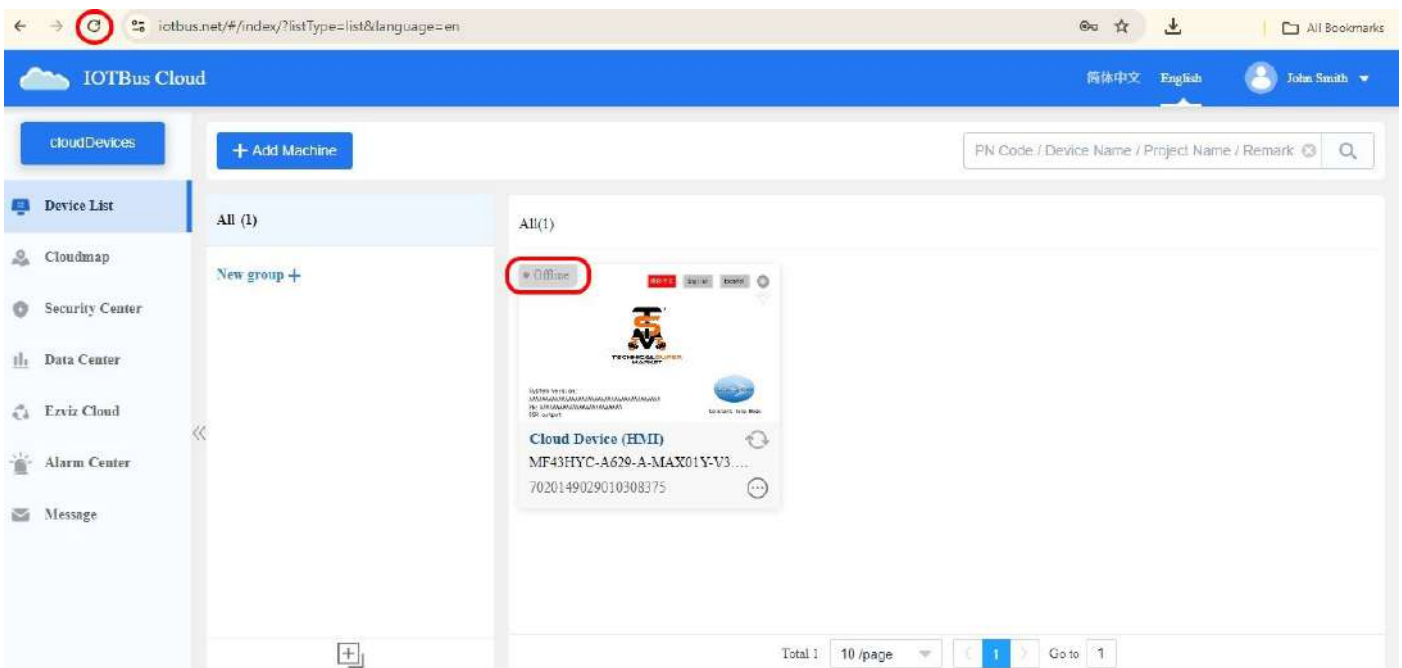
As soon as we will receive your email address we will upgrade your IOTBus Cloud account in no time by adding the remote control functionality .



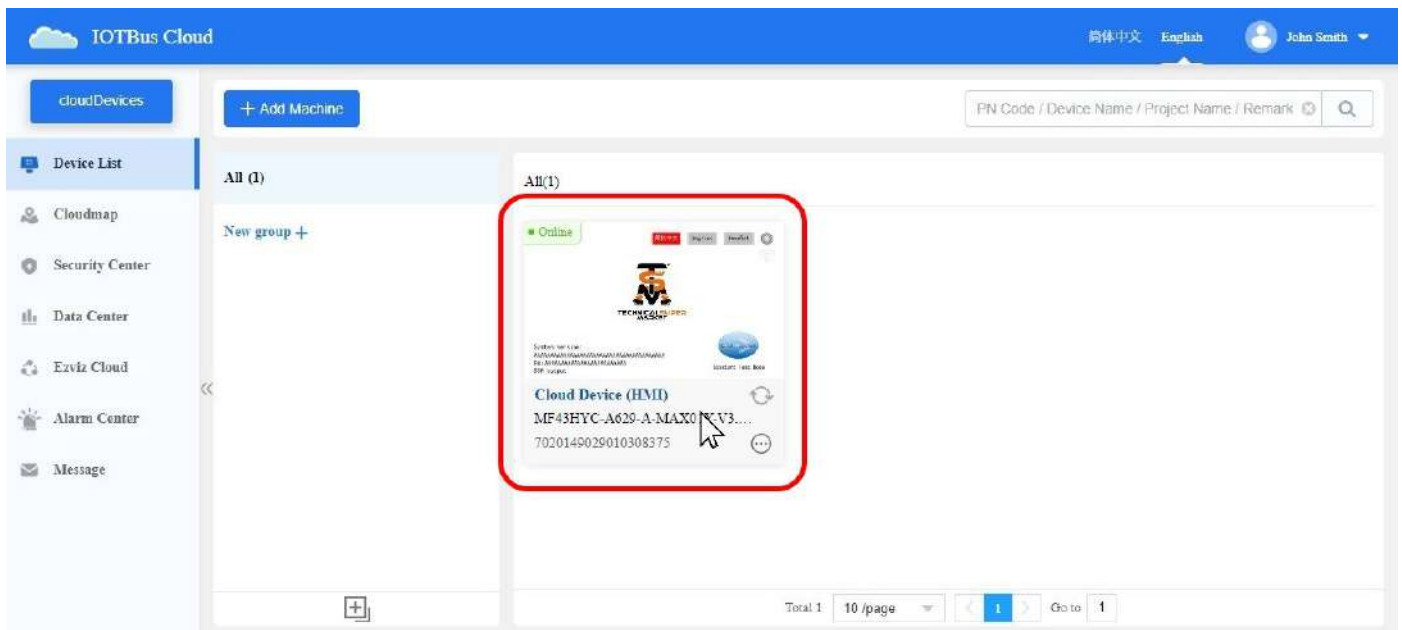
After your account has been successfully upgraded in the “Device List” category should appear a new device. Now you will be able to control your kiln remotely via internet browser web page or mobile application. Please check the instruction how to do it below.

1) Remote control via the Browser Web Page

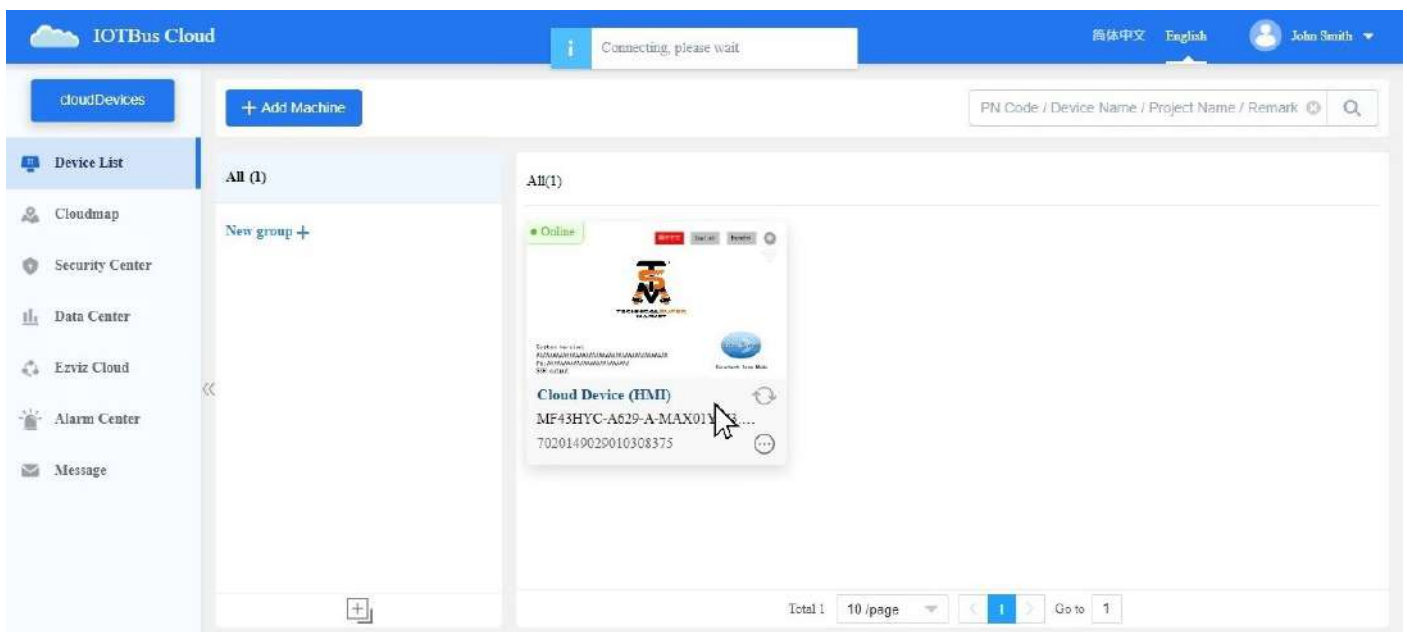
Turn on your kiln and Sign in into your IOTBus Cloud account , your device will be available in the “Device List” category. If the device status is marked as offline but the kiln has already been turned on please refresh the web page by clicking the circle icon at the top left corner of the screen, after this the status of your device should change to online as it is shown on the picture above.



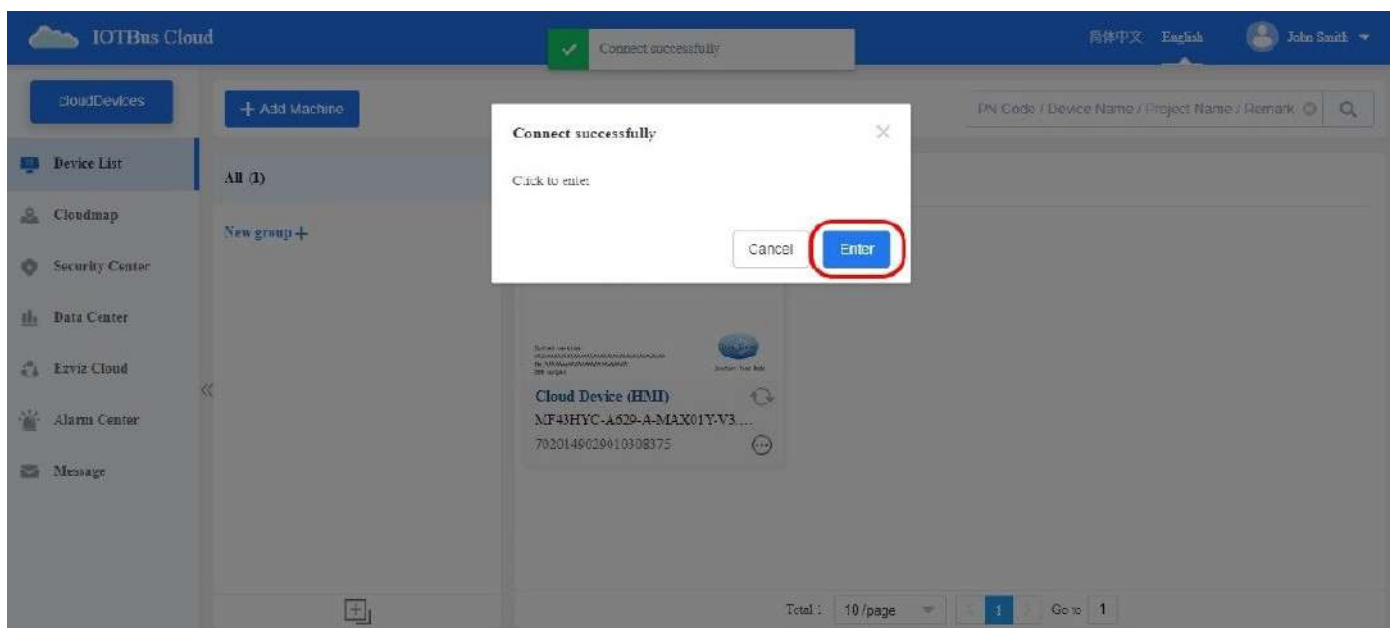
Please Click onto the time & temperature programmable controller with you mouse cursor



The pop-up message will appear indicating that the connection is being established ,



Please press “Enter” button in order to confirm the remote control access to your kiln



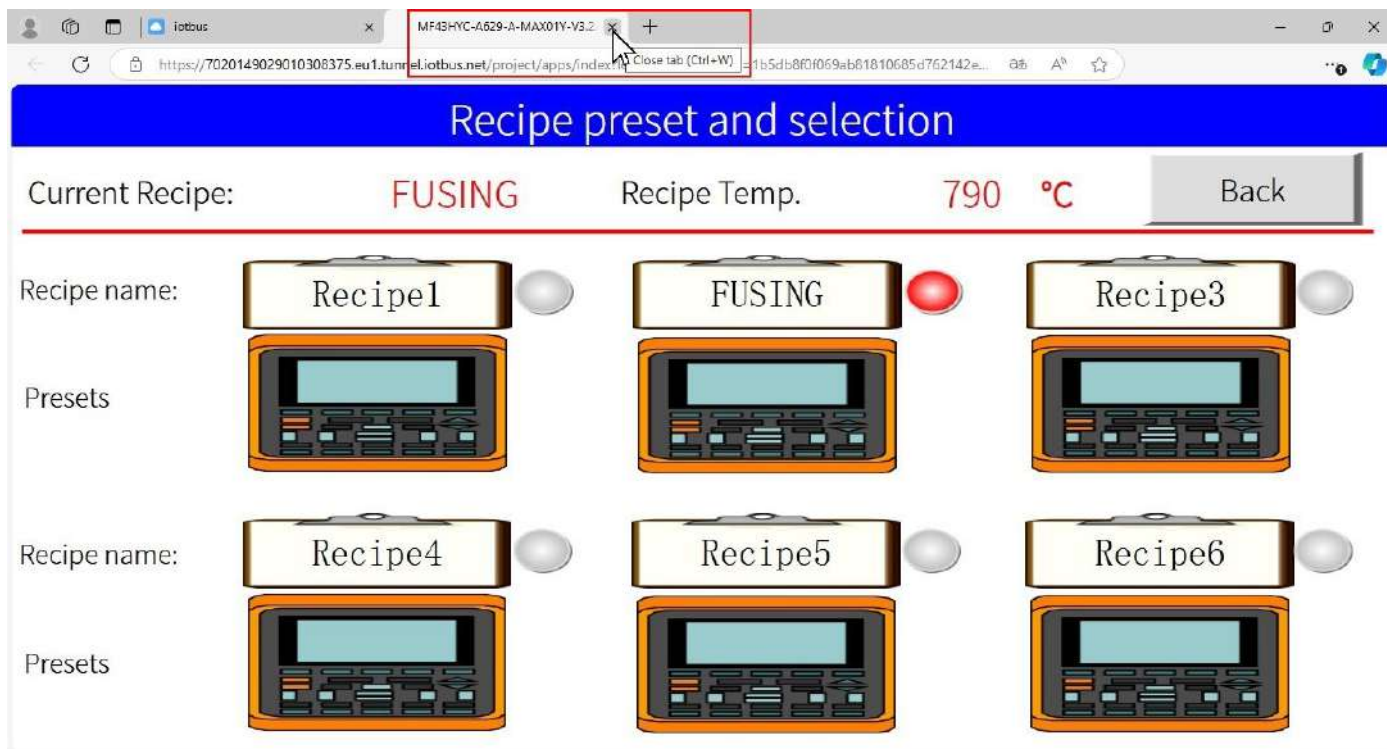
After this the new tab with the time & temperature programmable controller's software interface will be opened allowing you to program your kiln remotely



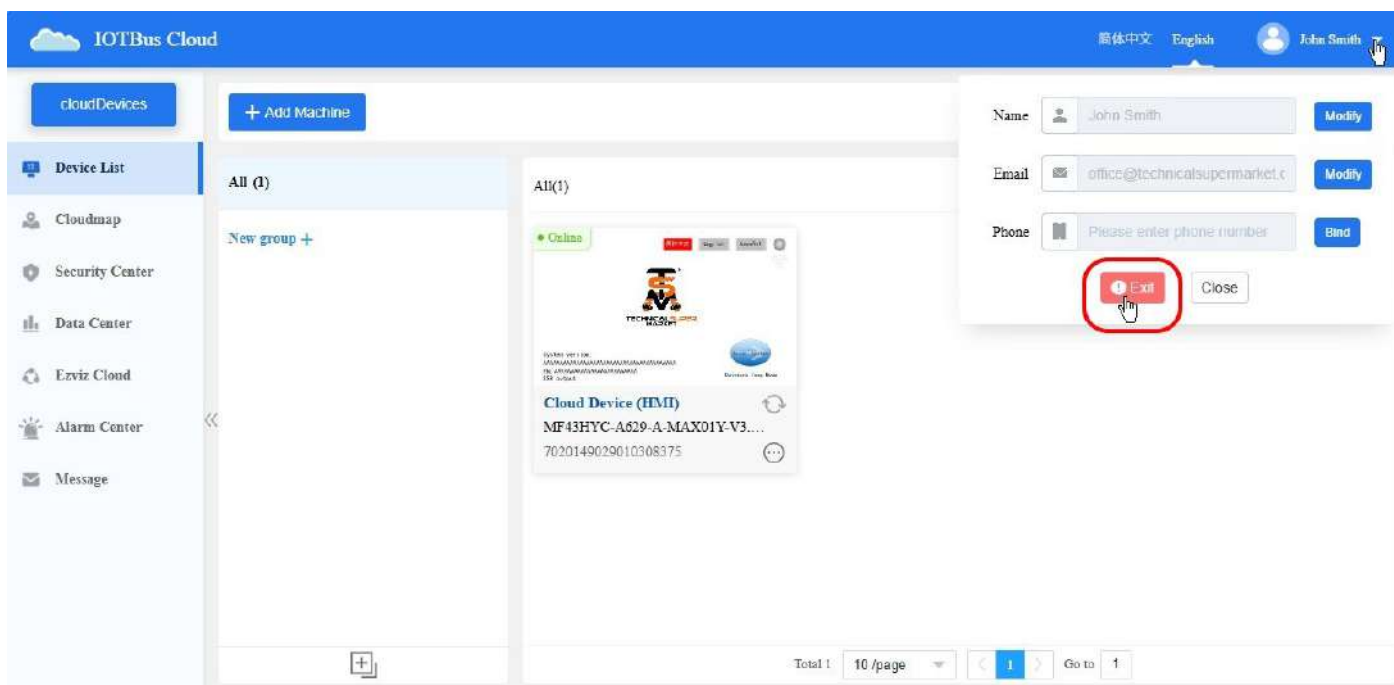
You can navigate through the menu by using the mouse cursor



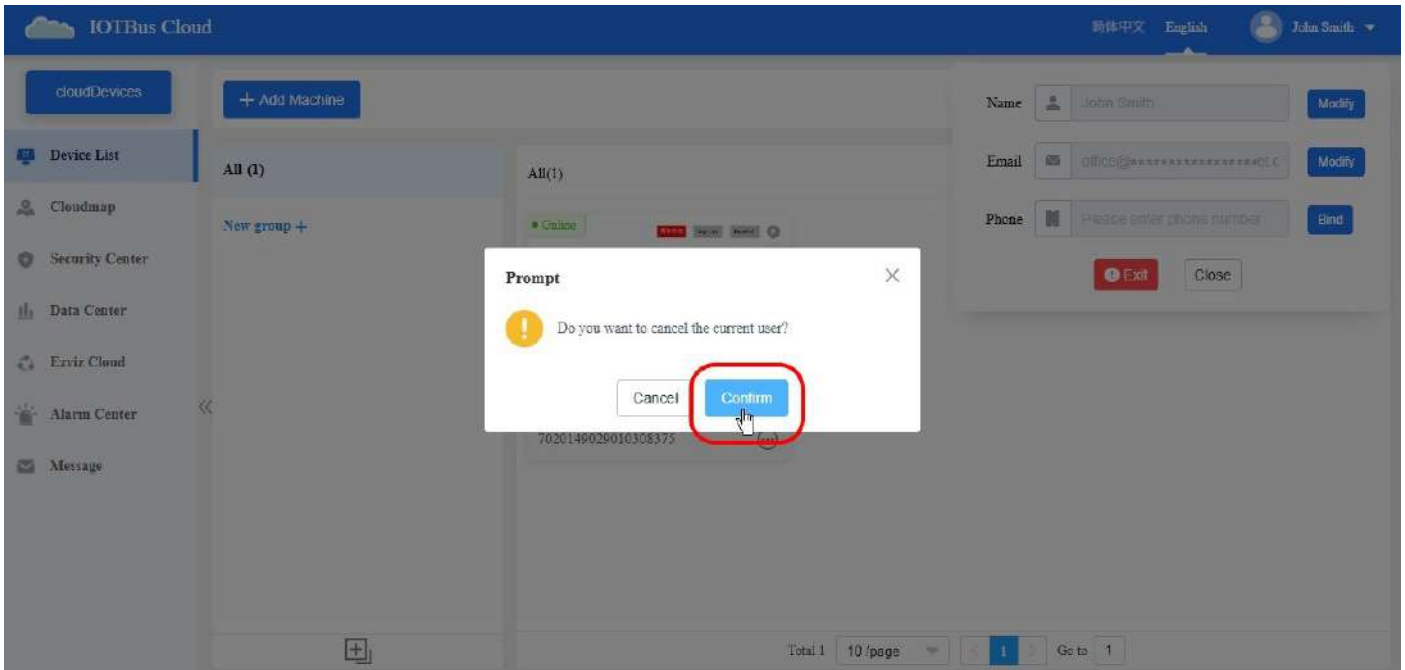
In order to exit the remote control of time & temperature programmable controller software interface just close the relevant tab in your internet browser as it is shown on the picture below



In order to log out from your IOTBus Cloud account please press onto your account icon and in the newly popped up window press “exit” button

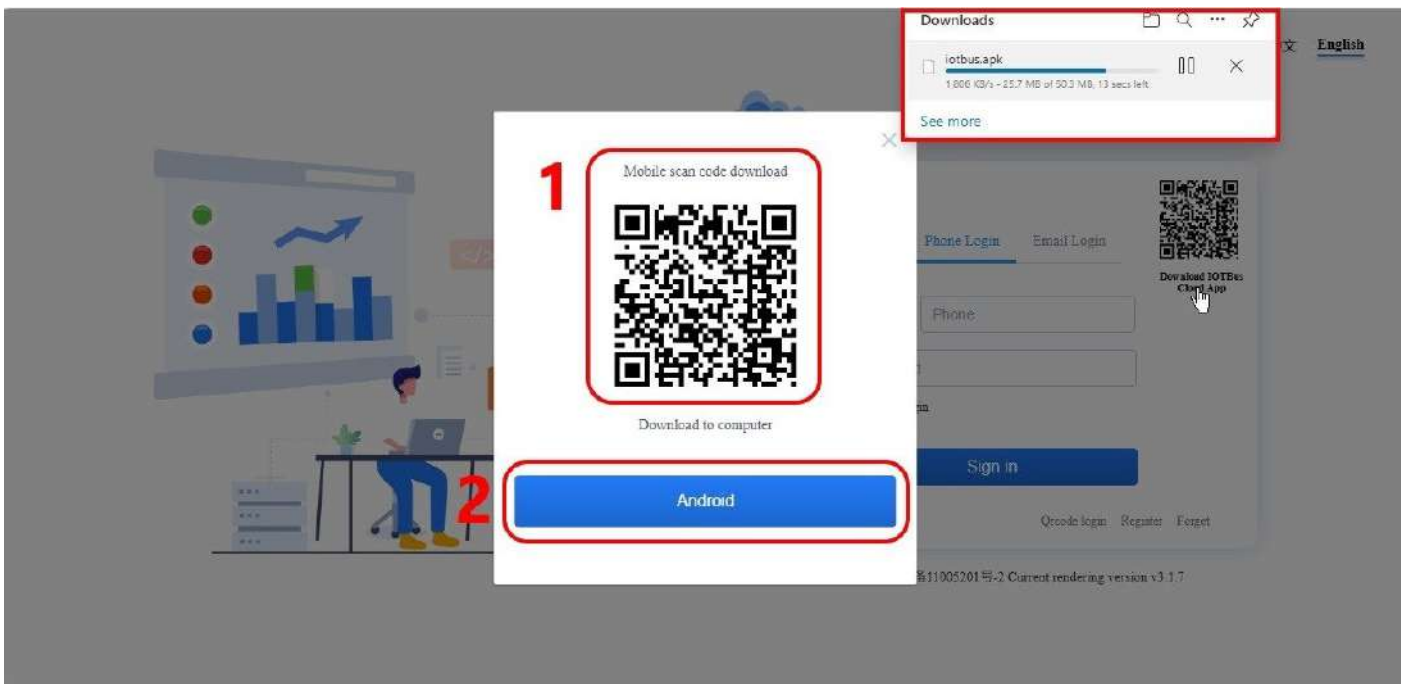


After this a new communication window will appear on the screen asking “Do you want to cancel the current user? “ Please press “Confirm” button as it will not lead to the deletion of your IOTBus Cloud account but will simply allow you to log out . This misinterpretation might be due to IOTBus Cloud being using the Prompt for its user account menu settings.



2) Remote control via the mobile application

First you need to download the **iotbus.apk** file for your IOS or Android phone, to do this please go to the IOTBus cloud web site <http://www.iotbus.net/#/login?language=en>



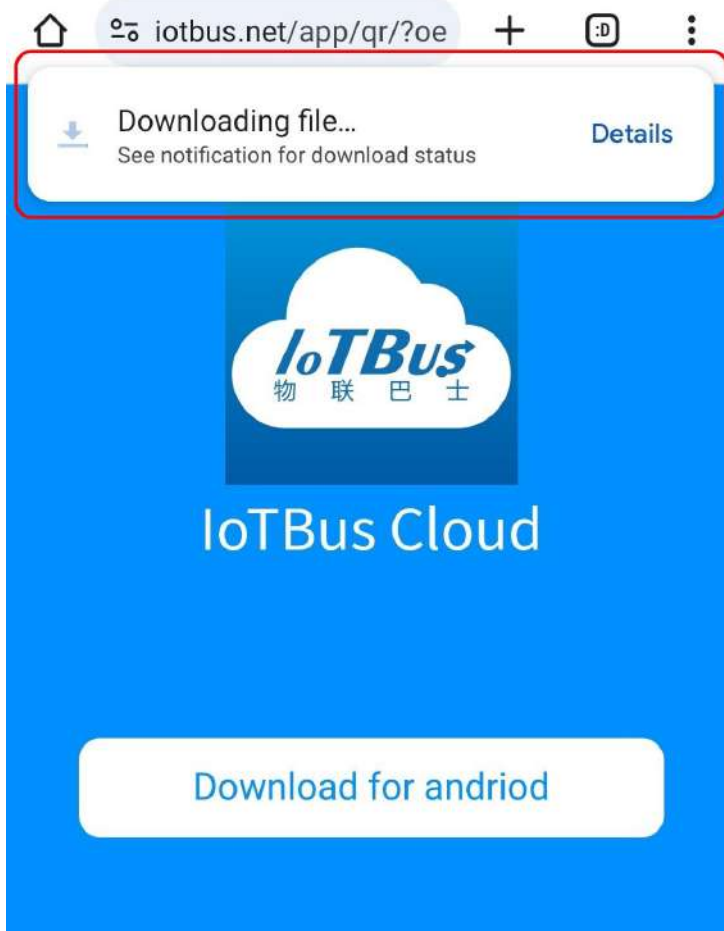
Please click with the mouse cursor on the **Download IOTBus Cloud App** after this the communication window will appear on the screen with two available options.

The option number one is to scan the QR code with your phone's camera or by using the QR codes scanning app to download the iotbus.apk file to your phone directly.

The option number two is to press "Android" button, in that case the download of the iotbus.apk will start to your computer, when it's completed you can transfer apk file it to your phone via data cable.



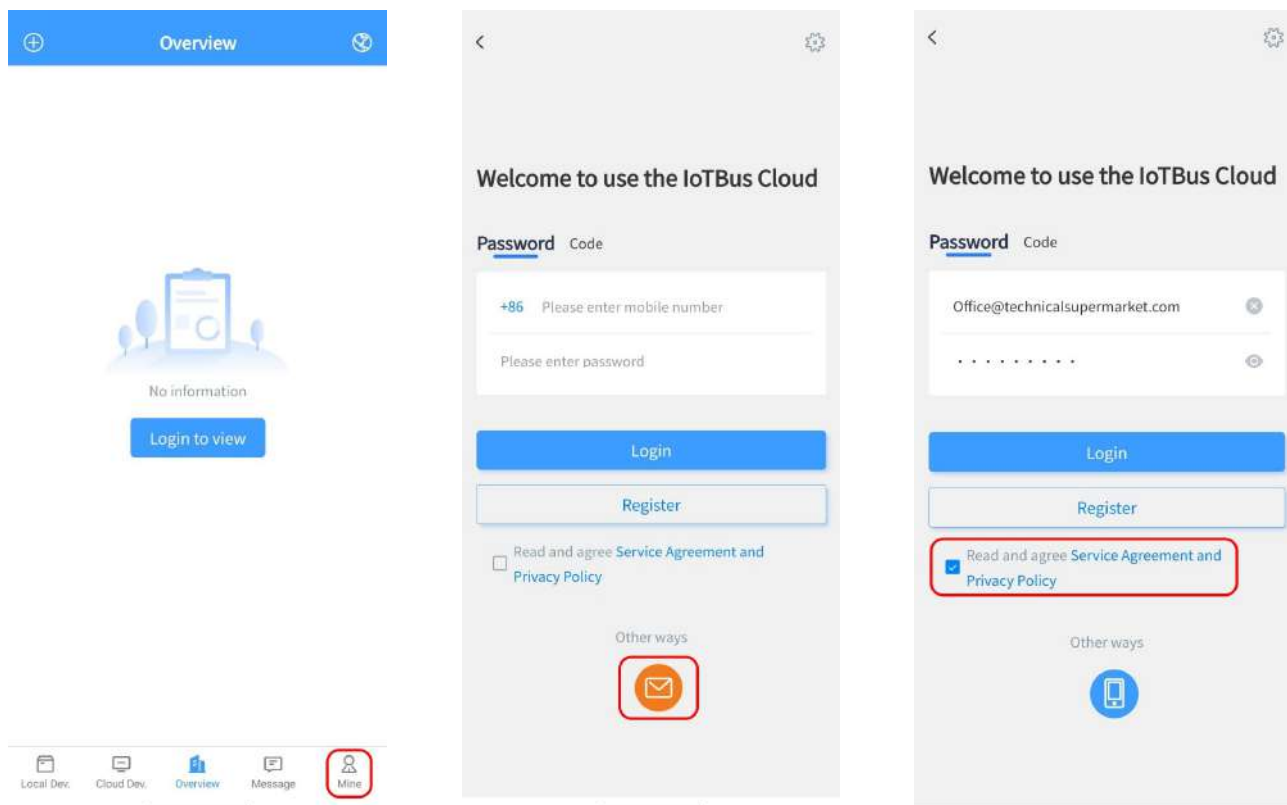
Please tap with your finger tip on the Link shown above, then you will be transferred to IOTBus cloud download page for the mobile devices. Please tap your finger tip on "the Download for android" button and the downloading will begin.



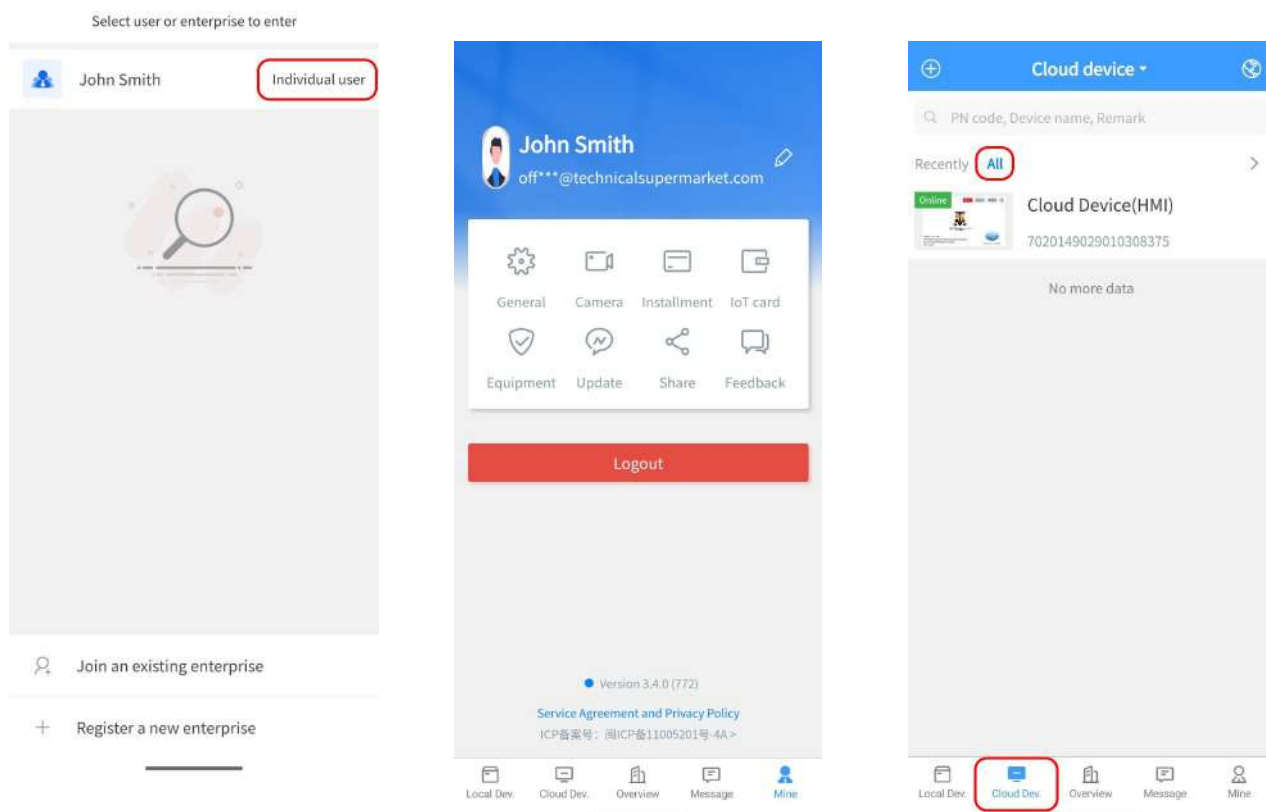
IoTBus Cloud

After downloading the iotbus.apk file please complete the installation and launch the IOTBus Cloud

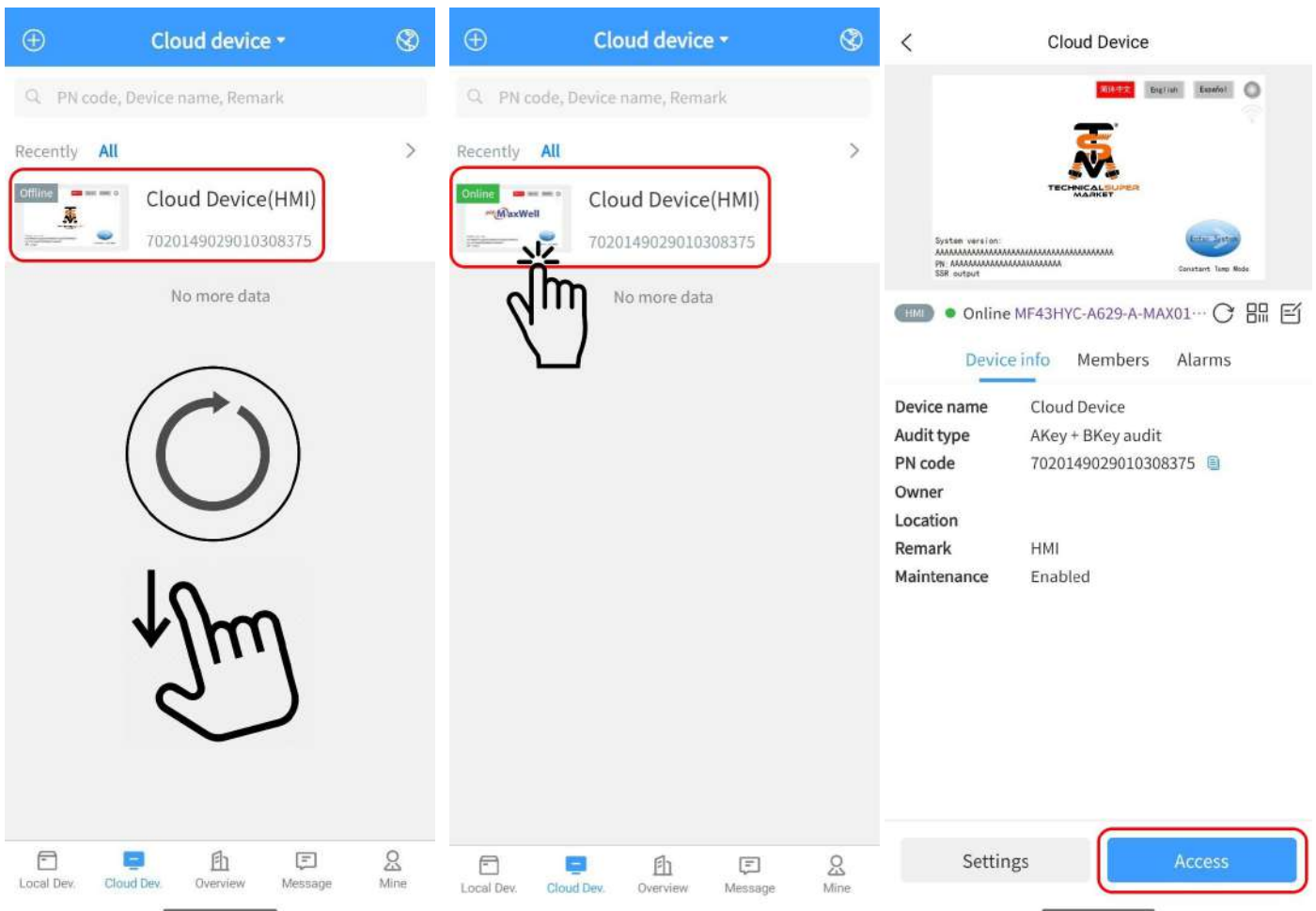
After launching the IOTBus cloud mobile application you will land on the Overview section , please go to Mine section to log in to your IOTBus Cloud account. Please tap on the envelop button to log in with your email address and password, you will also need to tick “**Red and agree Service agreement and privacy policy**” to be able successfully log in to your account.



Then you will need to tap on the Individual user and go to the Cloud device section of the app
And select **ALL** (there will be displayed all available to you devices)

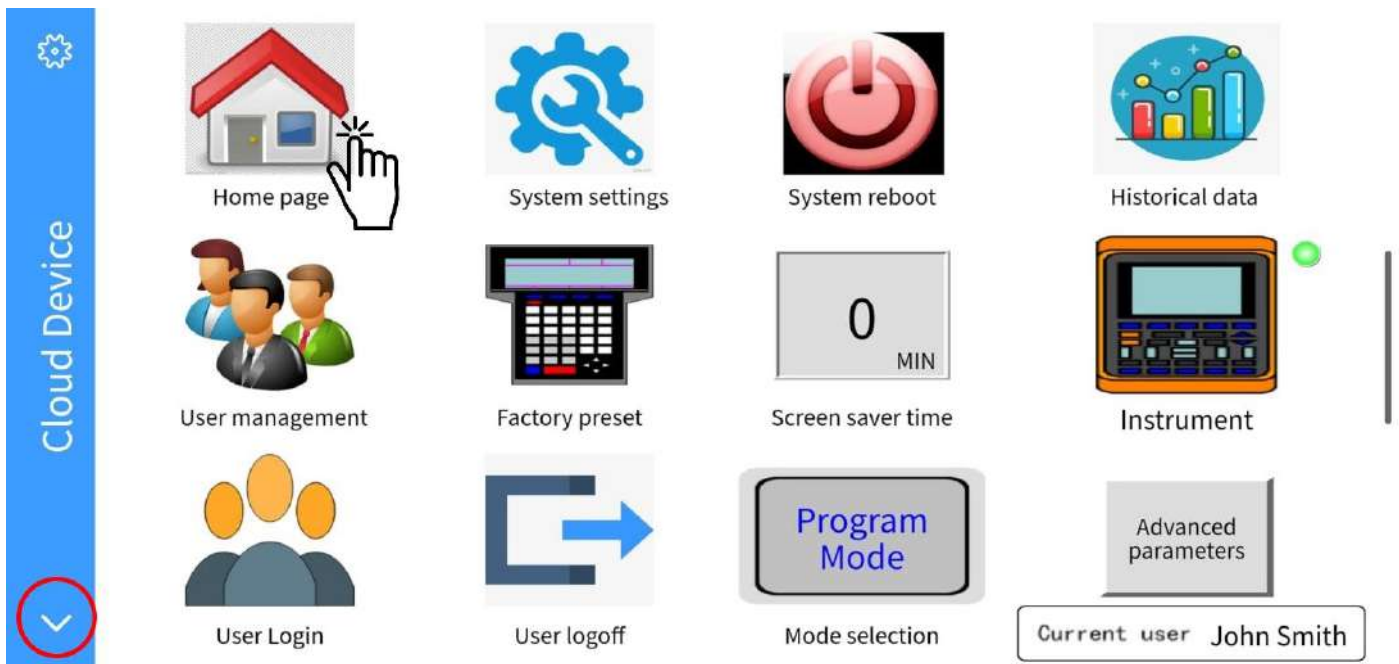


If your kiln is turned on but in the mobile app the controller's status is shown as offline please swipe the finger down to refresh the cloud device section, after this the status should change to online, then tap on the Cloud Device(HMI) icon and when the time & temperature programmable controller's software interface will load please press the "Access" button on the right bottom corner of the screen this will enable the online remote control to your kiln



To begin please press the "Enter System" button to go to the main screen, you can navigate through the menu by tapping with your finger tip on the relevant icons

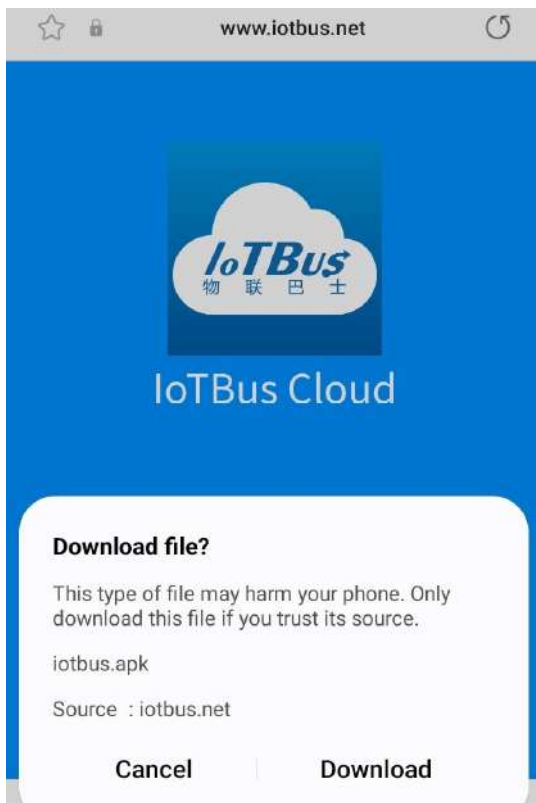




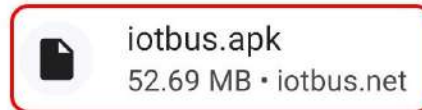
In order to exit the controller's software interface please tap on the white arrow on the left bottom corner of the screen, by doing so you will be transferred to the Cloud Device section.

HARMFULL APK FILE

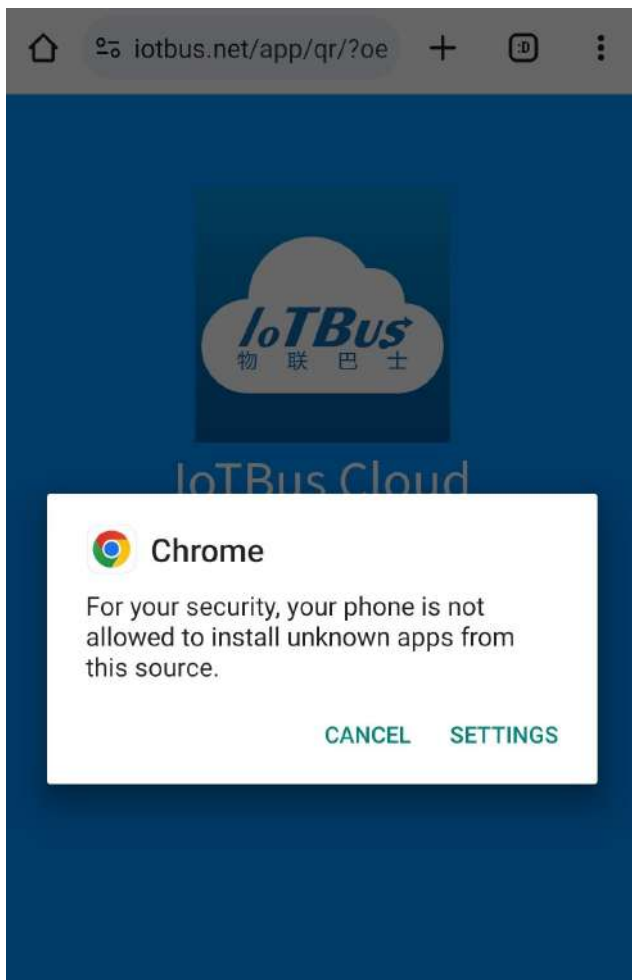
*** **Please Note** *** that depending on the model of your smartphone you might encounter a warning during the downloading process, this is because by default, an Android device won't allow the installation of apps distributed outside its sanctioned stores, and you will get a warning when you try to side-load an app. In that case simply press the "download" button in order to proceed .



Just now



After downloading the iotbus.apk file to your phone, please tap on it to start the installation process.

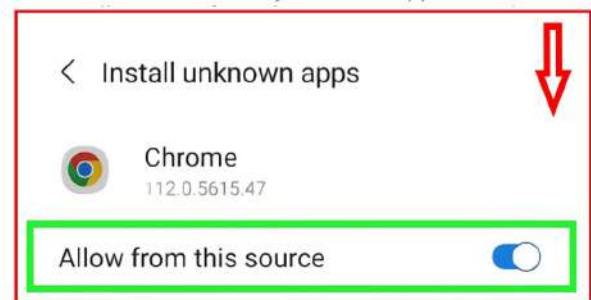


Install unknown apps

Allow from this source



Your phone and personal data are more vulnerable to attack by unknown apps.



*** **Please Note** *** that APK downloads on Chrome normally trigger "File might be harmful" warning, regardless of the developers behind the APK or the source it was downloaded from. In order to proceed with the downloading of the iotbus.apk file please tap on the "settings" and then

Toggle the "Allow from this source" switch on



Doing so will allow you to download iotbus.apk file from the selected app (chrome) outside the Play Store on your Android. After downloading the app please tap on it to begin the installation process.

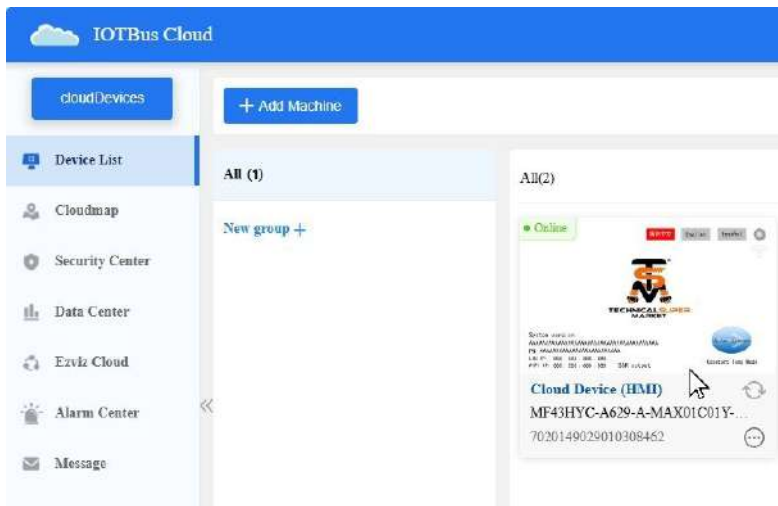
TIME OUT & DENY!



Deny! 没有云访问权限

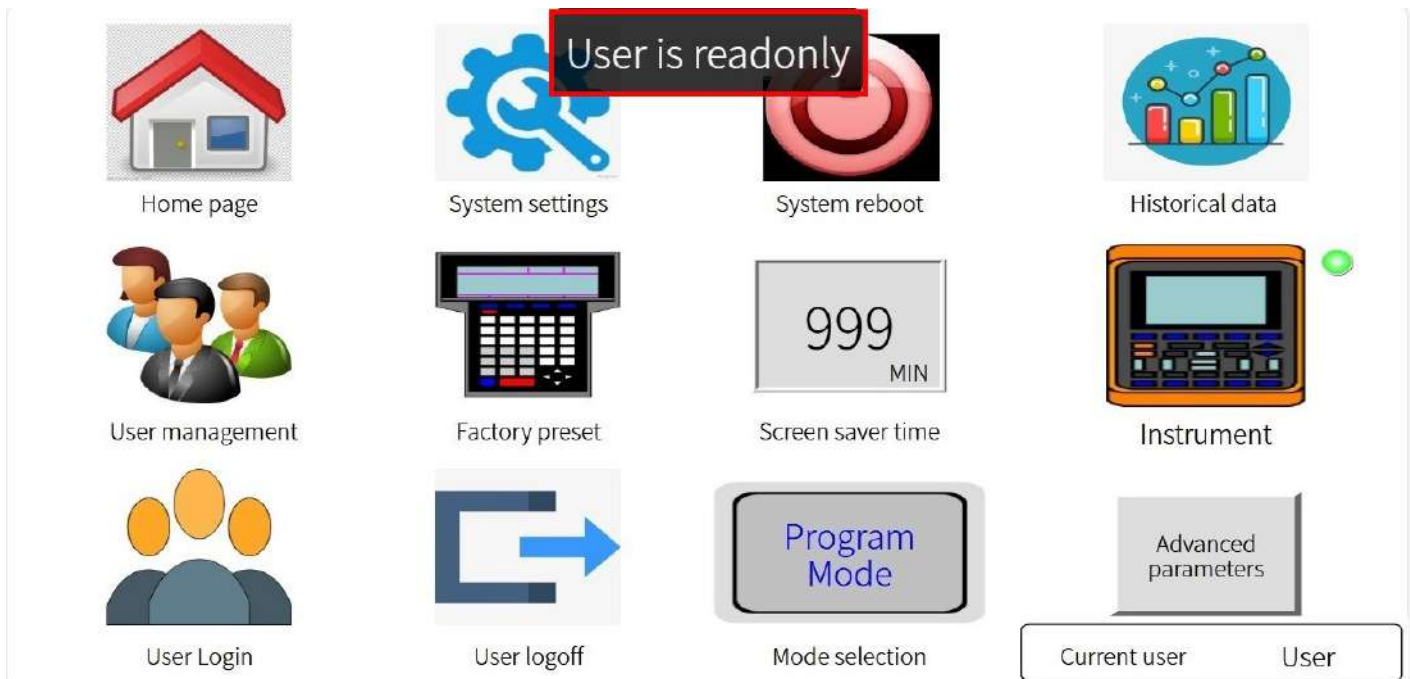
设备访问超时，请排查设备网络情况。

Device access timed out, please check the device network condition.



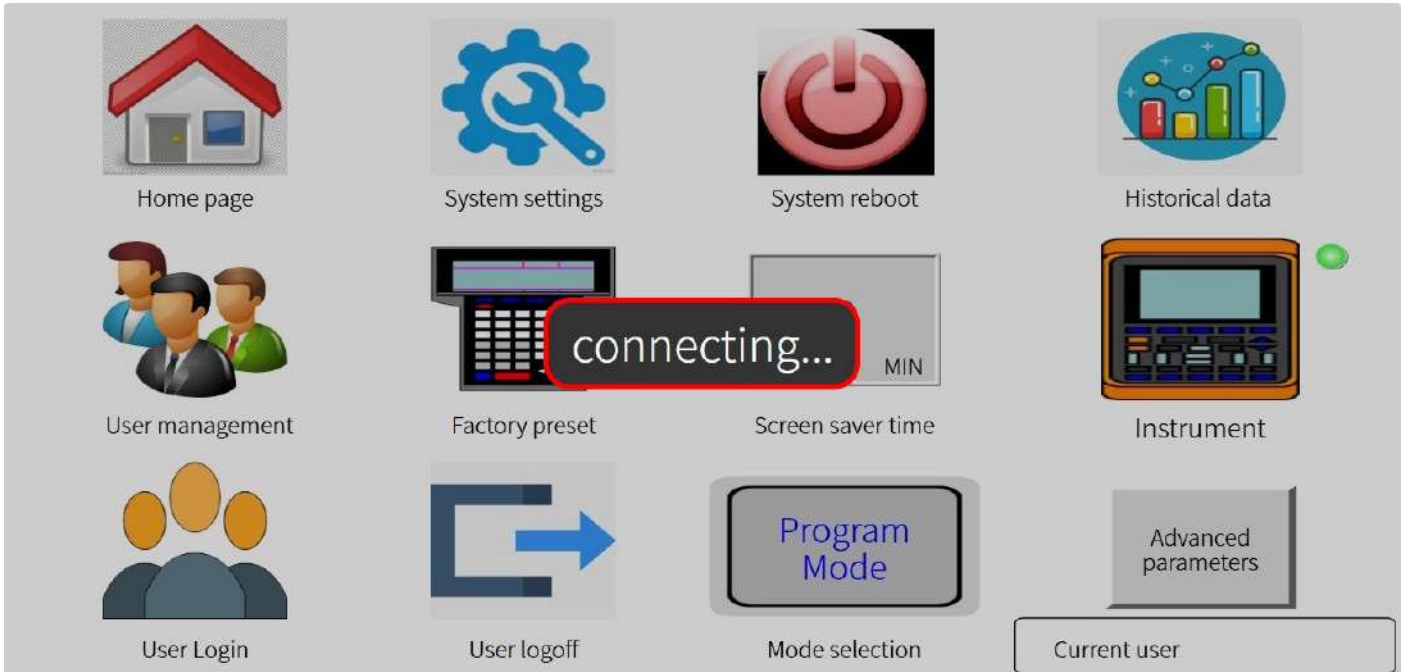
For the security reason if you did not do anything in a certain period of time, the access to remote control will be denied. In that case your web page will reload and the message **Deny!** will appear on the screen. If this has happened just close the web page responsible for access to the time & temperature programmable controller software interface, and click with the mouse cursor on the controller's icon from the Device List menu to restart it

You may also encounter the "User is readonly" this is due the security reason if you did not do anything in a certain period of time the access to remote control will be reduced. If this has happened just close the web page responsible for access to the time & temperature programmable controller software interface , and click with the mouse cursor on the controller's icon from the Device List menu to restart it.



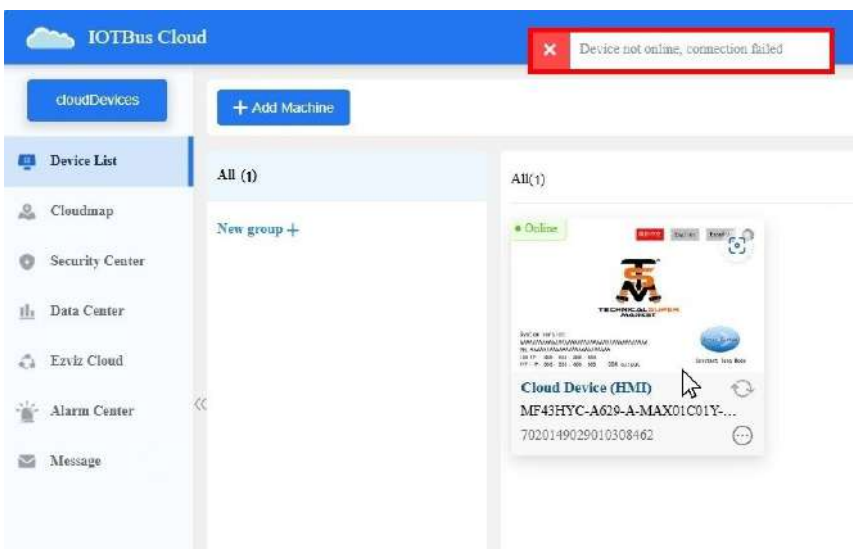
Bad Wi-Fi signal or no internet access

If you have encountered the problem with the time & temperature programmable controller software, such as the controller did not responses to the your commands, or the screen is frozen with the message “connecting...” being displayed you might have a poor Wi-Fi signal which is insufficient to establish the remote online connection to your kiln. This problem also may appear in the situation when your Wi-Fi adapter has no internet access.



There are four helpful tips how to Fix Problem With Wireless Adapter

- 1) **Reset your router.** Restoring your network equipment to its default settings can clear up problems with your router's configuration.
- 2) **Disconnect and reconnect to the wireless network.** Sometimes your device just needs to have another try at connecting to the network.
- 3) **Make sure all your drivers are updated.** Wireless interface drivers are constantly receiving updates to add functionality or repair existing functionality.
- 4) **Check if you left Airplane Mode enabled.** Very often it is the main source of the issue.

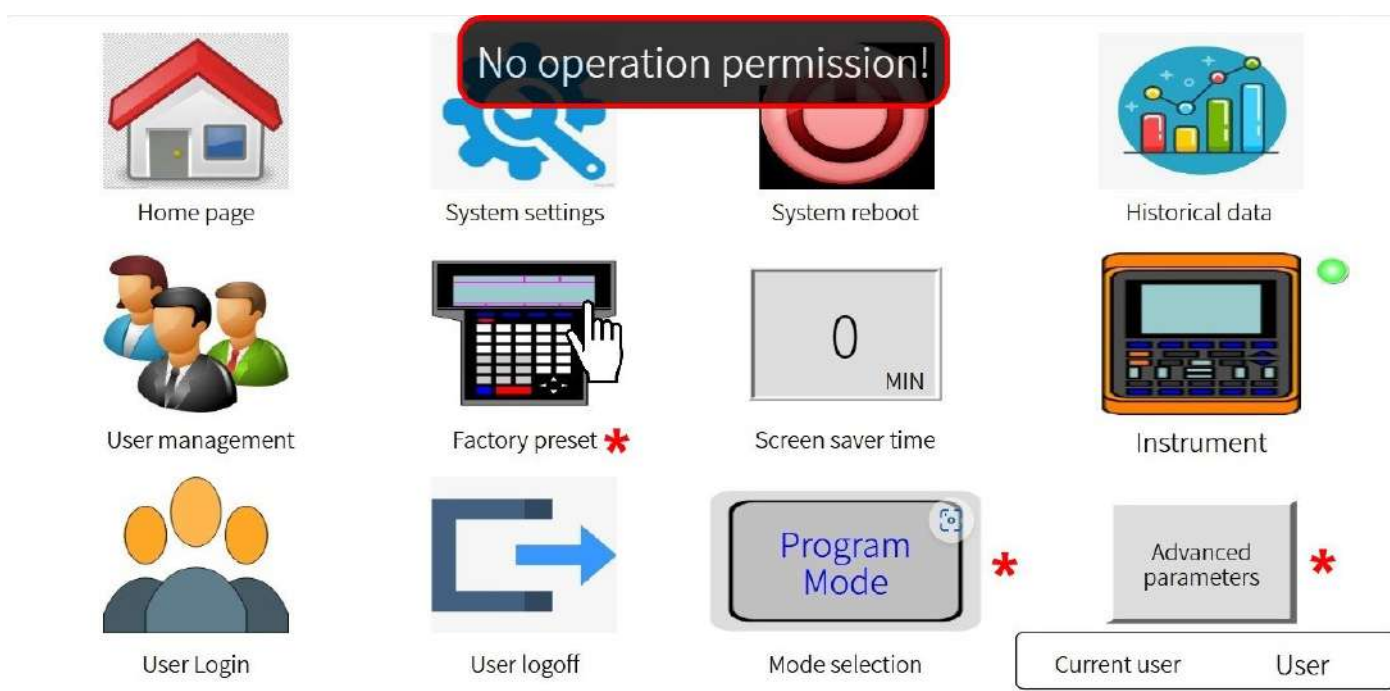


If the “Device not online, connection failed” message has appeared on the screen while you were trying to get remote access control to your kiln by clicking with the mouse cursor on the time & temperature programmable controller software interface icon in the Device List menu, you need to check your Wi-Fi connection . It might be caused by your adapter having no internet access, or the kiln itself is not connected to Wi-Fi network

No operation permission



You will not have access to Advanced parameters, Factory preset and Program Mode as these can be accessed only from the factory account. If you try to access any of those option and fail to do it from the factory account the communication window with "No operation permission!" message will appear on the screen. Please note that these options are reserved only for the manufacturer use only.



Access to the Factory account is strictly protected by the uniquely generated password, as it was intended to be used by the manufacturer only.



In case you do need to have the access to these options, as the exception, we can grand our customers the unique password to the Factory login account. This however will irrevocably lead to the termination of your one year manufacturer warranty.