42-300 Myszków, ul. Urodzajna 5E

POWER AND TEMPERATURE CONTROLLERS

IT WOULD BE FOR ME

PRW+

PRW+ DUO PRW3F+

PLEASE READ THE MANUAL
DON'T YOU KNOW? CALL! WE DON'T BITE
453-343-360 (OFFICE 9-14 weekdays)
453-343-360 (Technical Support 16-19 Monday-Saturday)

www.pamel.pl pamel@pamel.pl

https://www.youtube.com/@PAMEL_STEROWNIKI/

PRW SERIES POWER CONTROLLER

Table of contents

Before connecting and using the appliance, please
read this user manual carefully.
If you have any problems understanding its contents, please
contact the seller of the
device. Self-assembly and commissioning of the device is possible
provided that
the installer has basic knowledge. However, it is recommended that the
device be installed
by qualified personnel.
The manufacturer is not responsible for any damage that may result from
improper
installation or operation of
the device. Making repairs and modifications yourself will result in
the loss of the warranty.
The manufacturer reserves the right to change the appearance, features,
functions and
technical parameters of
the device in order to improve the quality of the product.
The photos, drawings, and text used in this manual are

	Do not disassemble or introduce Modification. • Doing so may cause a malfunction • Contact if necessary authorized service center We don't bite. It will be cheaper than repairing or modifying it yourself
	If the device will not be used for a long period of time, disconnect the power supply. If you want to carry out electrical work, e.g. changing wires, disconnect the power supply. It is forbidden to leave the appliance unattended while it is running.
	Avoid running the power cable through the places they pass through people. • Someone can get caught on the cable and drop the device, causing damage to it and injuring the staff.
	Do not touch the appliance with wet Hands. • Possibility of electric shock
	Do not use the appliance where it may be exposed to liquids. • Short circuit or shock may occur electric current.
	Do not place the appliance in places firmly Dusty. • There is a risk of poor cooling of the device and the thermals. Nobody likes dirt, especially fans.

DESTINY

PRW is used to control the smokehouse. The maximum adjustable power is 5.5kW (3x5.5kW for PRM3F).
The device is not used to adjust inductive and light circuits.

ADVANTAGES OF THE SYSTEM

It is easy to install and use, provides optimal control of the power of heaters, fan and smoke generator.

With the help of buttons, the user can adjust the power supplied to the circuit. The current power setpoint is shown on the LCD display.

Additional outputs can control a smoke generator powered by DC 12V, a fan powered by 230V 50Hz.

REMARK!!!

In the event of a change in the ambient temperature of the controller, the set or flooding of the tank with fluid, it is necessary to wait to eliminate the phenomenon of condensation causing damage to the power amplifier by a short circuit caused by condensation, e.g. on the heater.

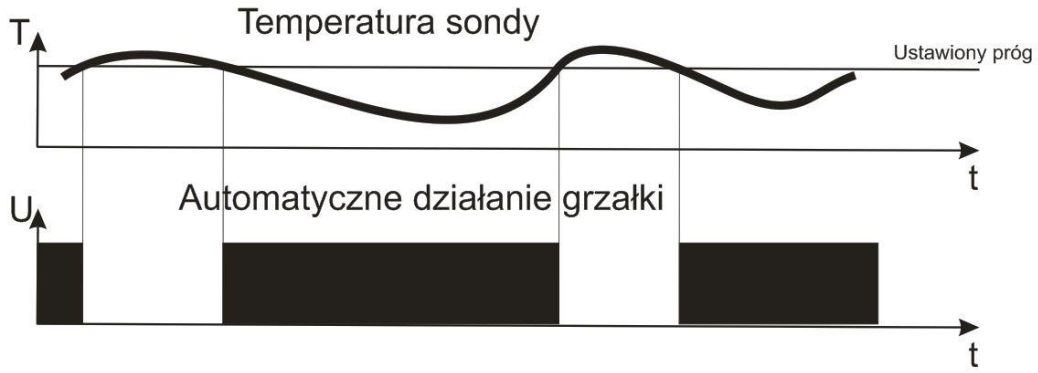
The maximum output power for the controller is assumed for 230V. In the event of increased voltage in the grid (e.g. power transformer or **photovoltaics**), **the maximum load should be avoided** as the load power can increase by 30%.

In winter, many damages are caused by condensation, in summer by an increase in voltage in the network.

PRINCIPLE

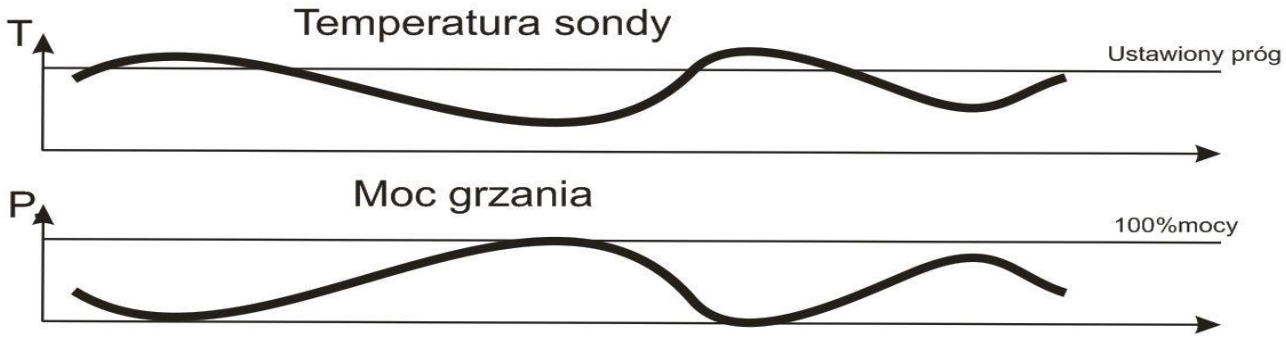
It is designed to control smoking chambers.
The user can adjust the power manually (MANUAL) or let the controller select the power automatically (P, PI, PID).

In the MANUAL mode, the user can use two buttons to adjust the power supplied to the circuit and the temperature to which the system is to aspire or the maximum disconnecting heater control. The current power and temperature setpoint is displayed on the LCD display.
In the event of a power failure, the system remembers the set temperature.
The settings are adjusted by pressing the red and blue buttons. Switching between subsequent parameters is done by briefly pressing the middle button while the device is running.

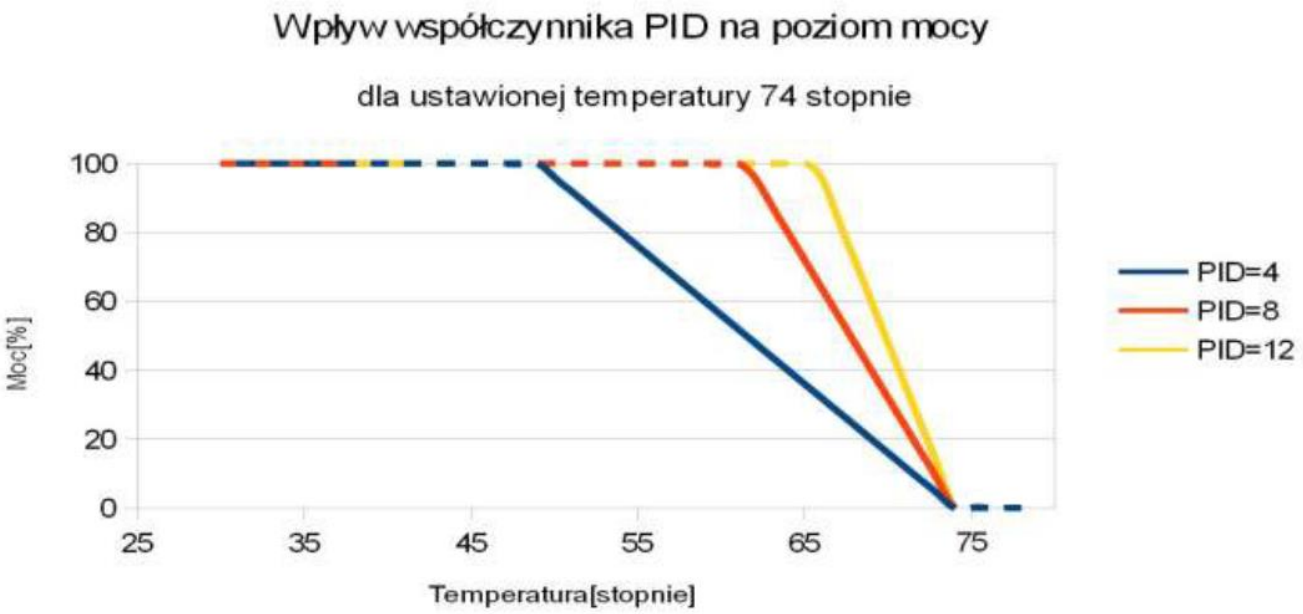


REMARK!!!
The power displayed in the negative means that the temperature T1 is exceeded and the minimum power set in the menu is changed.

In automatic mode, the user can adjust the power supplied to the circuit and the temperature to which the system is to aim or the maximum disconnecting heater control. The power is selected automatically depending on the temperature difference: current and expected. By adjusting the parameter, the WSP can adjust the power factor for the temperature difference. When underheating occurs, the coefficient should be increased. When



overheating occurs, reduce it.
Where the power is regulated according to the formula P[%]=WSP*(T set-T).



Switching modes is done by entering the settings menu
For better stability, the user can choose the minimum power Pmin, which is added to the calculated PID power. This will cause that when the desired temperature is reached, the heating will remain at e.g. 5%.

A second probe can be connected to the device. The second probe, in addition to measuring the second temperature, allows the device to be terminated. This is especially useful during smoking, the second probe is placed in the meat and the process is to end when the temperature is reached, e.g. "T2=50" degrees

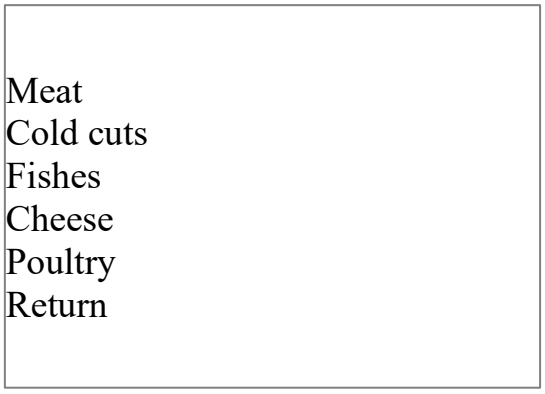
WELCOME SCREEN.

After switching on the device, the user can repeat the previous program or select new presets for a given product.

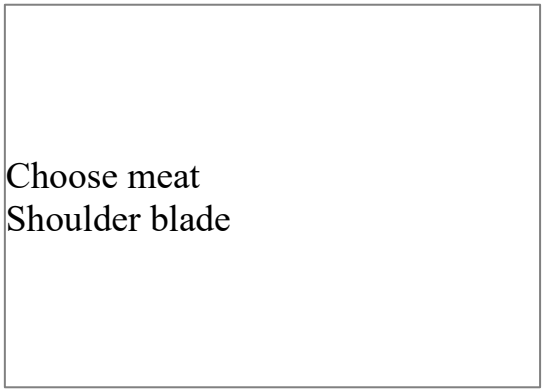
CHOOSE A PROGRAM
AUTOMATIC PROGRAM
LAST PROGRAM

AUTOMATIC PROGRAMS SCREEN

If the user selects the automatic program option, the controller will proceed to the product type questions.



Use the right and left buttons to select the product you are interested in. Confirm with the middle button.



Use the right and left buttons to select the product you are interested in. Confirm with the middle button.

With the selected settings, the controller goes to the main program. The home screen appears

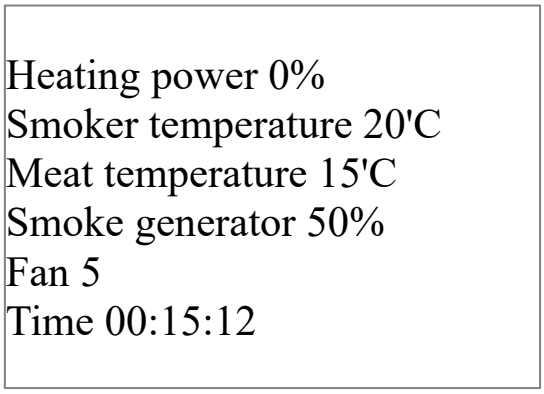
In the main menu, you can modify the settings to suit your requirements.

To save the modified settings as a ready-made program, enter the settings menu and select the option to save the settings.

REMARK! Saving the settings will cause that after the next loading of a given program, the programmed modified settings will be uploaded.

Therefore, please make a few smokes on your own settings and only save them as default. Failure to consciously save data to the program may result, for example, in setting the cold smoker to 90 degrees.

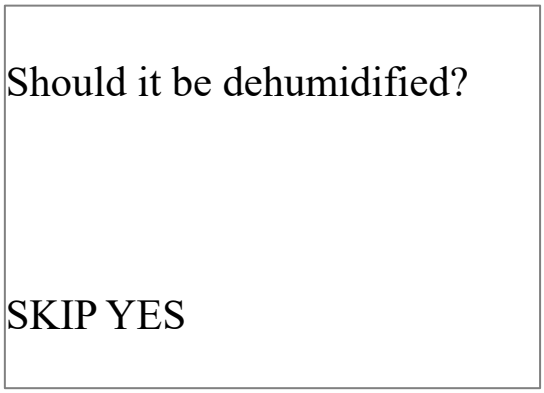
MAIN SCREEN



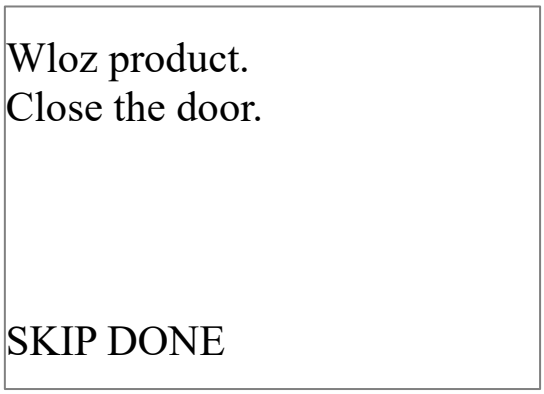
With the middle button we choose between subsequent settings. After illuminating the selected setting, the adjustment is done with the left and right buttons.

DRYING

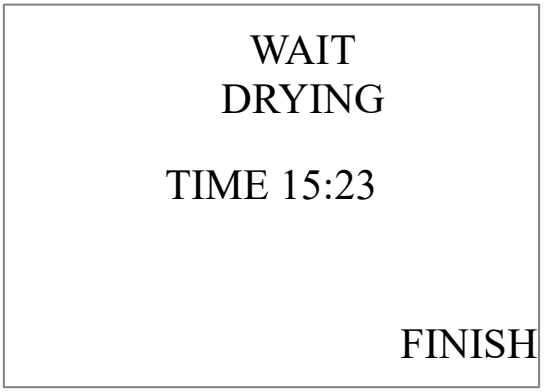
If the user activates the dehumidification option, the dehumidification function is indicated after selecting the program.



You can press the left button at any time to skip the function.
Confirm the need for drying with the right button.



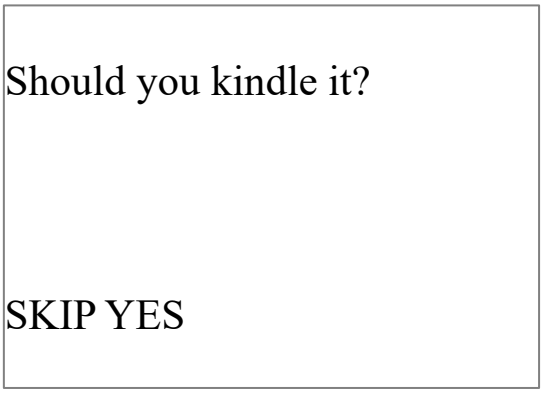
Then, with the right button, confirm the insertion of the products and closing the door to the smokehouse.



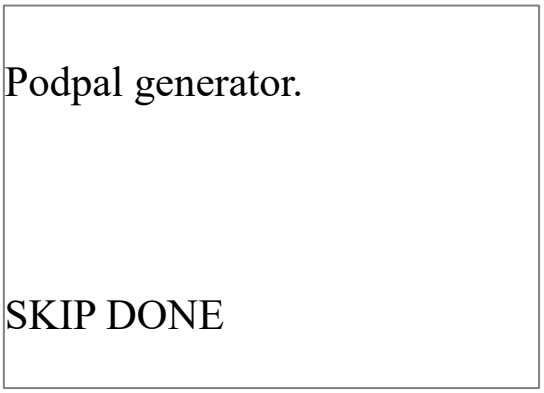
Dehumidification can be completed earlier by pressing the right button.
After the time countdown, the controller will move on to the next task.

LIGHTING

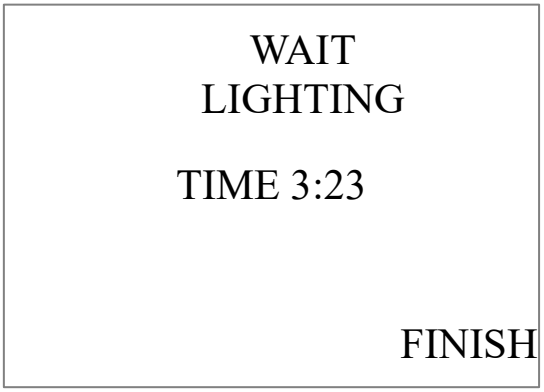
If the user activates the ignition option, the ignition function is reported after selecting the program.



You can press the left button at any time to skip the function.
With the right button, confirm the need to light up.



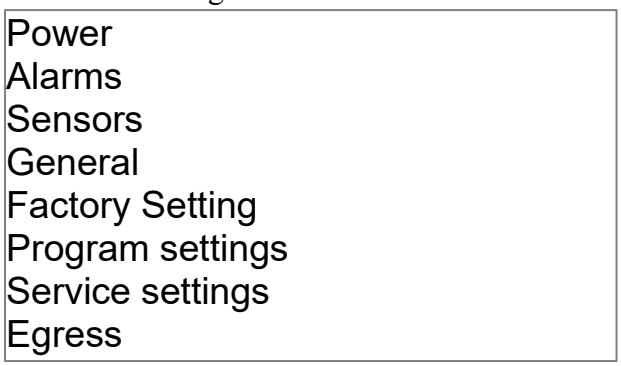
Then, with the right button, confirm that the generator is on fire.



He can finish lighting up earlier by pressing the right button.
After the time countdown, the controller will move on to the next task.

SETTINGS MENU.

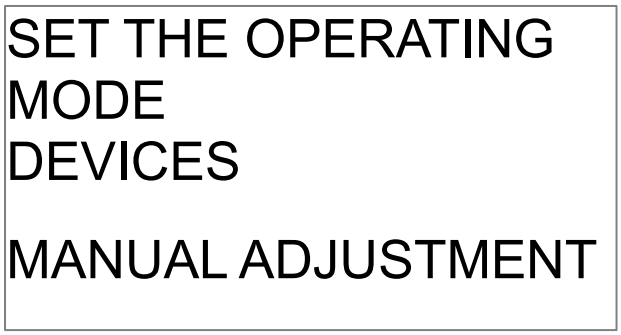
To enter the service menu, hold down the middle button for a long time. Short changes the preview windows.
The driver will display the main distillation settings menu



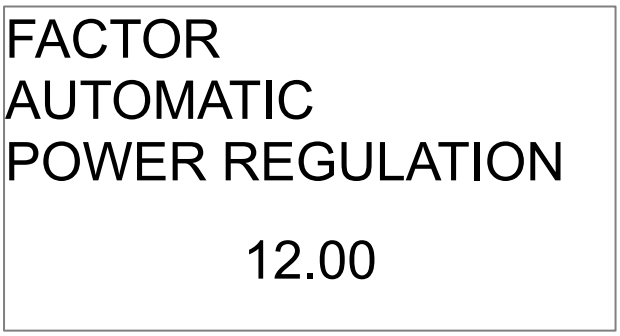
Then select the appropriate settings menu.

MENU-POWER

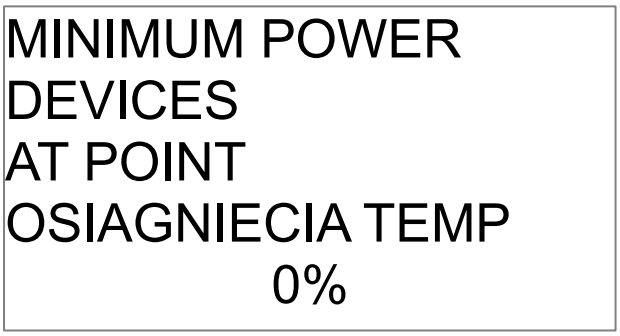
The first parameter is the control mode MANUAL/AUTOMATIC P/AUTOMATIC PI/AUTOMATIC PID



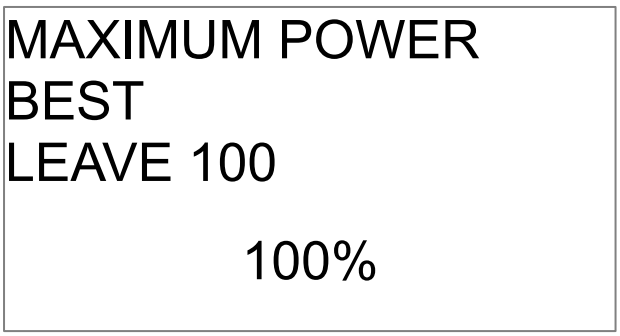
Another parameter is the power control factor in PID mode
The coefficient means how strongly you should react to temperature changes. Too little causes underheating, too much overheating.
The higher the capacity-to-power ratio, the higher the ratio. Don't overdo it. WSP=20 is enough. Larger values are for specific conditions. It is best to set 12



Then the minimum power is set. Then the minimum power Pmin is adjusted
Minimum power means the power that the controller provides when the expected temperature is reached.
In some cases, a complete power shutdown can cause destabilization and interruptions in the process. Minimum power can be compared to the idle speed of a car engine. On average, it takes a value of about 10-20%

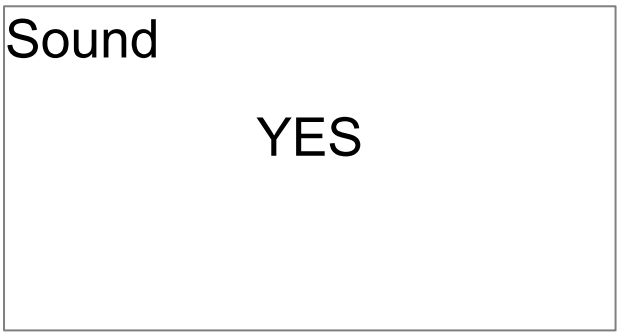


Then the maximum power is set.
It is applicable in the case of installations with smaller fuses than those resulting from the power of the heaters. In this way, we can artificially limit the maximum consumption of heaters, e.g. from 5 to 4kW
No need, leave the value 100%

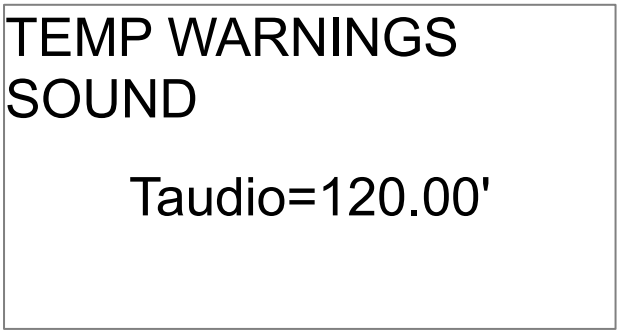


MENU-ALARMS

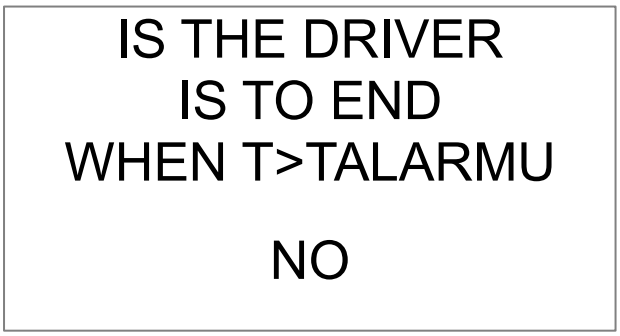
The first parameter is the sound. The user can turn the alarm sounds on or off.



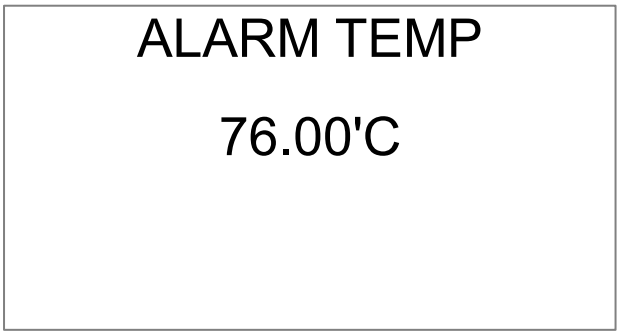
Another parameter is the setting of the audible warning temperature. Above this temperature, the controller emits a warning sound. If you don't want to use this alarm, set it to 120 degrees, for example



A choice is then made as to whether the probe alarm temperature is to be set to end the process.

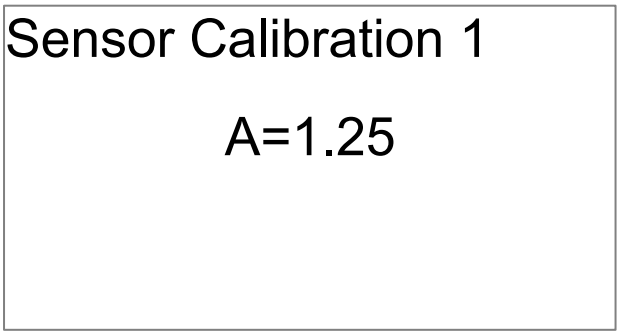


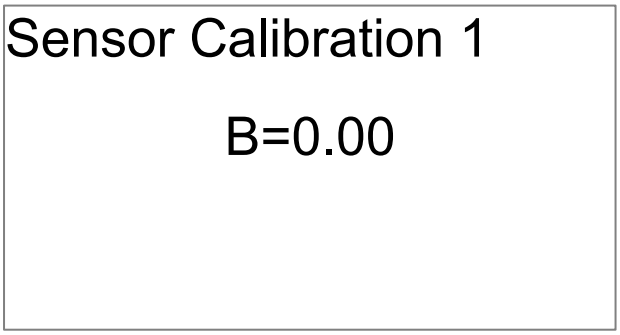
Then the AUTOSTOP temperature is set (if it works in this mode)



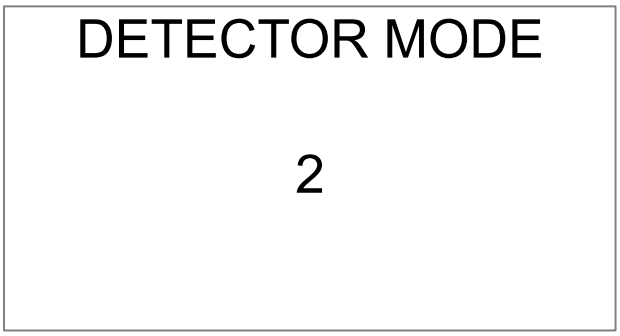
MENU-POLLS

Before making changes, read the section on probe calibration carefully.
First, we set the calibration of sensor 1

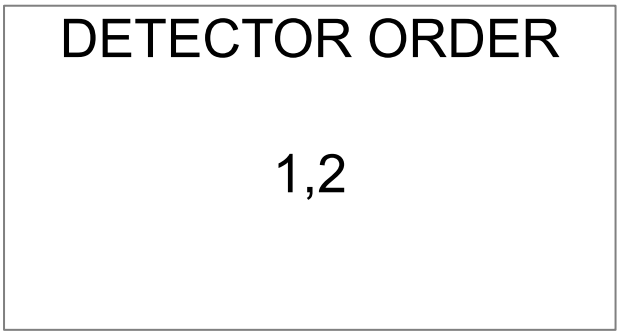




We set the parameters of the second probe in the same way



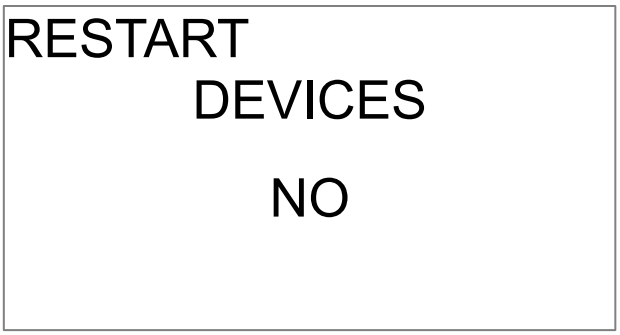
Then a choice is made which probe measures T1 and which T2



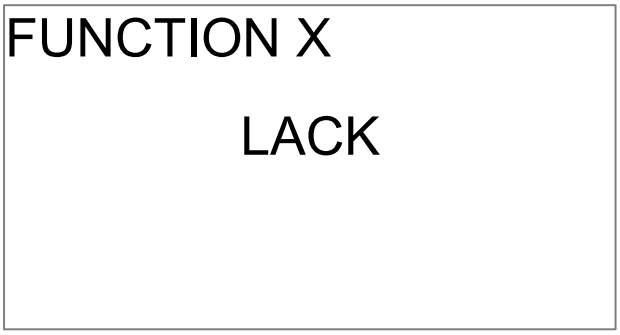
MENU-GENERAL

First, we select the language of the device. We can choose from Polish, Czech, Slovak, English, German

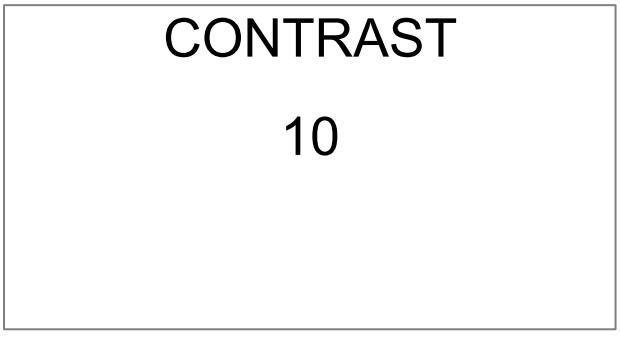
Then choose whether the device should be rebooted. This function is helpful in DUO controllers where access to the power button may be difficult (distance)



Another parameter is cooperation with a computer.
We can choose from: none, monitor(preview in the computer, blackbox(control from the computer, blackbox in PRW is not yet available)



Set the display contrast



The controller has the ability to turn off after a set time.

DOES THE CONTROLLER HAVE BE OFF AFTER THE END OF THE TIME

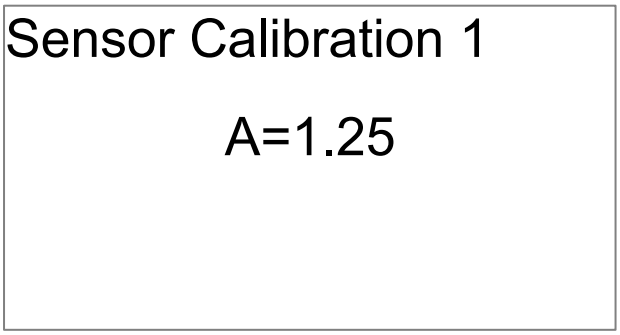
When the controller is to start counting the set time.

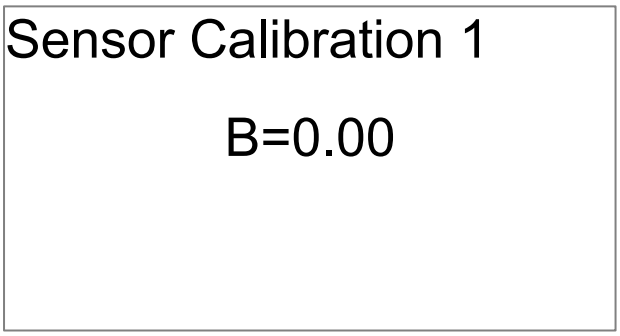
ONCE ACHIEVED TEMPERATURE

RIGHT AFTER THE START

MENU-POLLS

Before making changes, read the section on probe calibration carefully.
First, we set the calibration of sensor 1

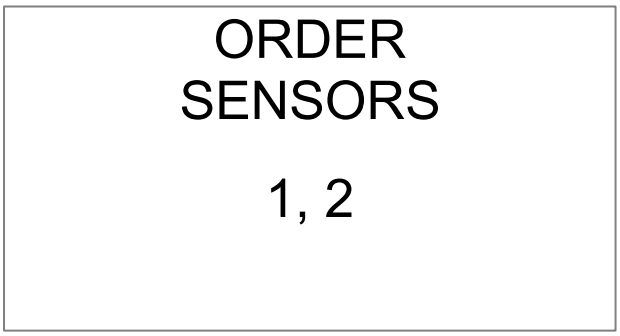




We set the parameters of the second probe in the same way

Then the mode of operation of the sensors is selected.

Then a choice is made which probe measures T1 and which T2



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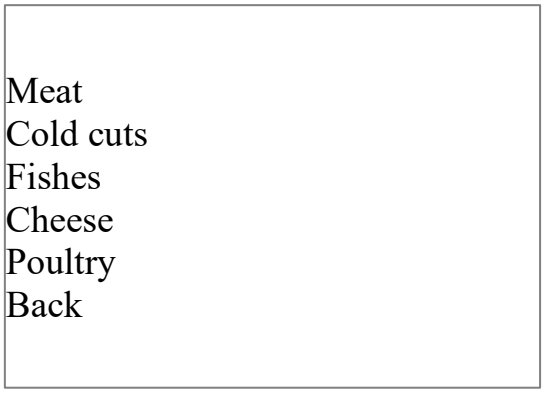
MENU-RESET SETTINGS

The reset function allows you to reset the factory parameters of the device.
In order to reset the device, enter the settings menu by holding the middle button for at least 6 seconds. Then right-click to select the DEFAULT function and confirm with the middle button.
The controller will ask you to confirm the reset. You can select NO and cancel or select YES and confirm the factory reset.

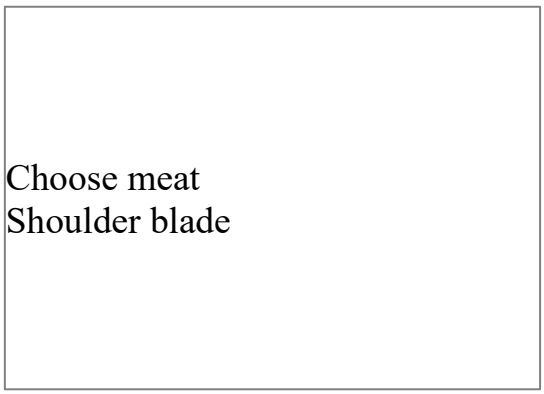
MENU-SETTINGS OF PROGRAMS

The reset function allows the user to correct the machine's factory programs.
The current (corrected) settings can be saved under the name of the automatic program.
In order to reset the device, enter the settings menu by holding the middle button for at least 6 seconds. Then right-click on the PROGRAM SETTINGS function and confirm with the middle button.

Then it will move on to questions about the type of product.



Use the right and left buttons to select the product you are interested in. Confirm with the middle button.



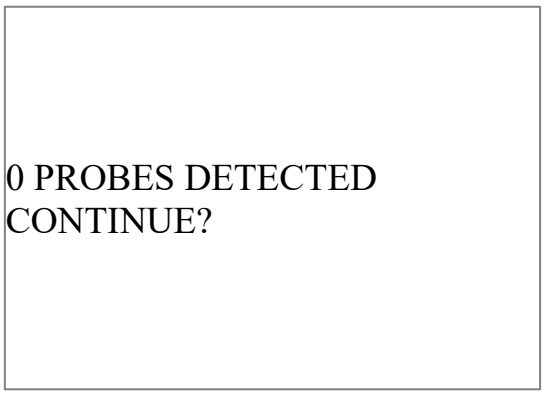
Use the right and left buttons to select the product you are interested in. Confirm with the middle button.

The current settings will be saved under the selected product name. The driver will display a message to write data, and then the home screen will appear

EKRANY INFORMACYNE

Warning if two probes are not detected

By design, the controller works with two probes. If no probe is detected, or if one is detected, the following information appears

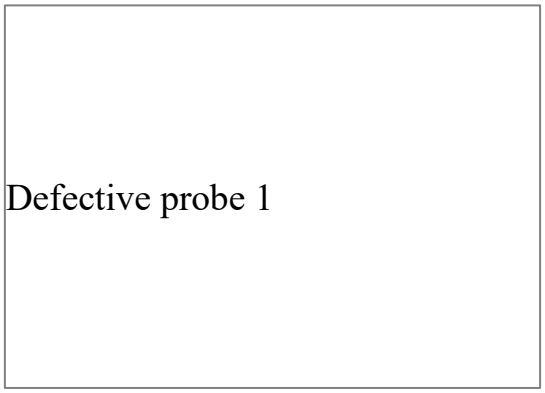


The screen can be confirmed with the middle button and you can go to smoking.
The reason for the lack of probes may be damage to the probe or accidental disconnection from the socket. The user can perform smoking by controlling the power manually based on analog thermometers.

In the case of working on one probe in the chamber, the user can also work in automatic modes, remembering that due to the lack of measurement of the sausage, the process will not end due to the temperature of the meat.

Probe Damage Warning

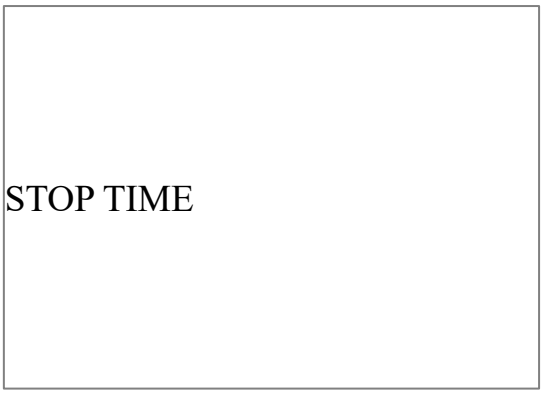
By design, the controller works with two probes. If the probe is disconnected or damaged during operation, the controller will show a message about the probe failure. It will also display which probe has failed (1,2).



The driver must be disabled. Replace the faulty probe or work on one.

End of the process due to exceeding the smoking time

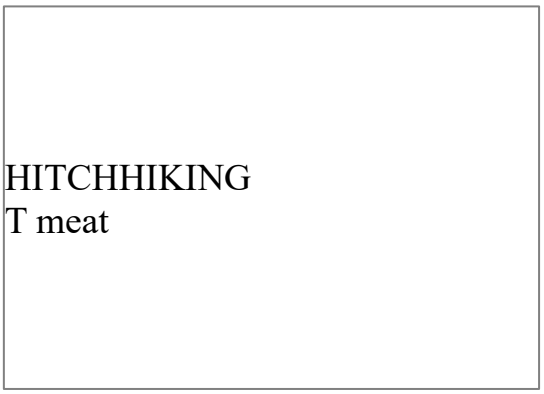
After the set time counts down, the controller will turn off the smoker. An inscription will appear on the screen



After the message, the time can be extended by clicking the middle button or simply turning off the smoker from the power supply.

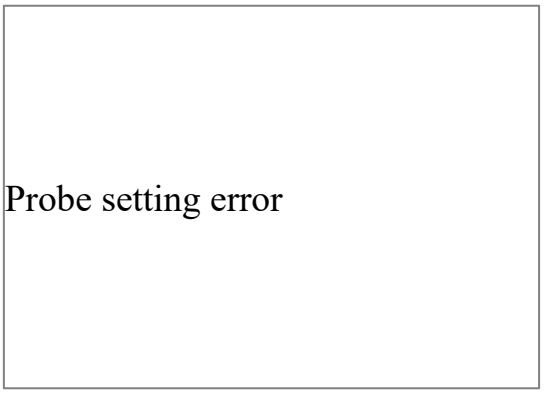
Termination of the process due to product temperatures

When the set temperature of the product is exceeded, the controller will turn off the smoker. An inscription will appear on the screen



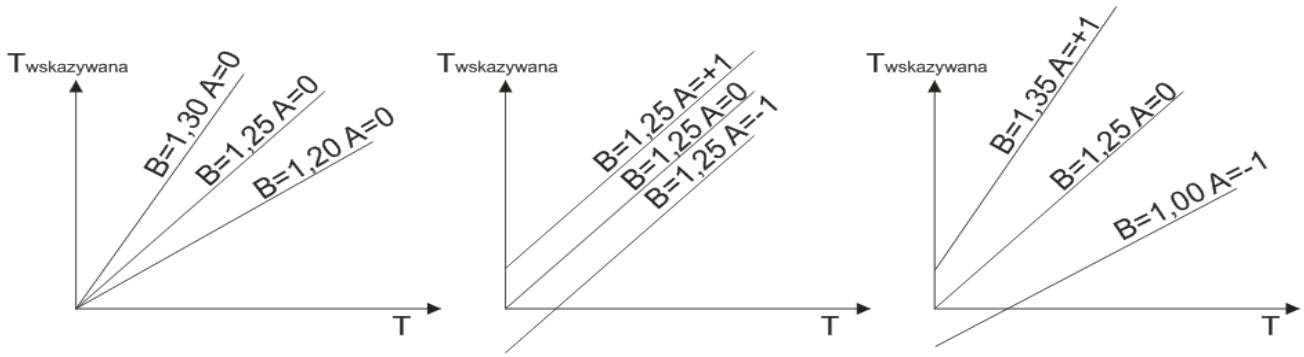
Incorrect sensor order (probe setting error)

If only one probe is used and the Sensor Order 1 parameters are set, the controller will display information about the incorrect configuration of the device. In this case, set the Probes Order to 0.



PROBE CALIBRATION

To ensure process accuracy, the user can calibrate the probe himself.
Press the middle button for a longer period of time.
With the right button, select the probe settings and confirm with the middle button.
For the probe, the linearity (straight inclination) coefficient "B" is set with the plus minus buttons, which causes the indication T'=B*T The setting is confirmed with the "OK" button.
The temperature calibration window with the A-index appears.
Then, with the plus minus buttons, the offset "A" is set, which causes the indication T'=A+B*T . Confirm the setting with the "OK" button.
It is recommended to leave the default settings B=1.25 and A=0
"B" is adjusted when the difference between the temperature and the expected temperature increases or decreases as the temperature increases. For example, at room temperature, the temperature is lowered by 0.1 degrees, and at 80 degrees by 0.3 degrees.
"A" is adjusted when the difference between the temperature and the expected temperature is constant as the temperature increases. For example, the temperature in the entire range is lowered by 2 degrees.



REMARK!!! The temperature of boiling water in a kettle is almost never 100.00 degrees. It should not be used as a calibration standard.

SYMPTOM	ACTIVITY
The thermostat lowers the indicated temperature by a constant value, e.g. 2 degrees	Set the A correction value from "0" to "-2"
The thermostat overestimates the indicated temperature by a constant value, e.g. 2 degrees	Set the adjustment value A from "0" to "2"
The thermostat lowers the indicated temperature, e.g. by 10 percent	Increase the value of correction B, e.g. by "0.10", e.g. from "1.40" to "1.50"
The thermostat overestimates the indicated temperature, e.g. by 10 percent	Decrease the value of correction B, e.g. by "0.10", e.g. from "1.40" to "1.30"
A combination of the above	A combination of the above

The indicated temperature takes the value A+B*T and depends on the corrections set.
Default:A=0 B=1.25

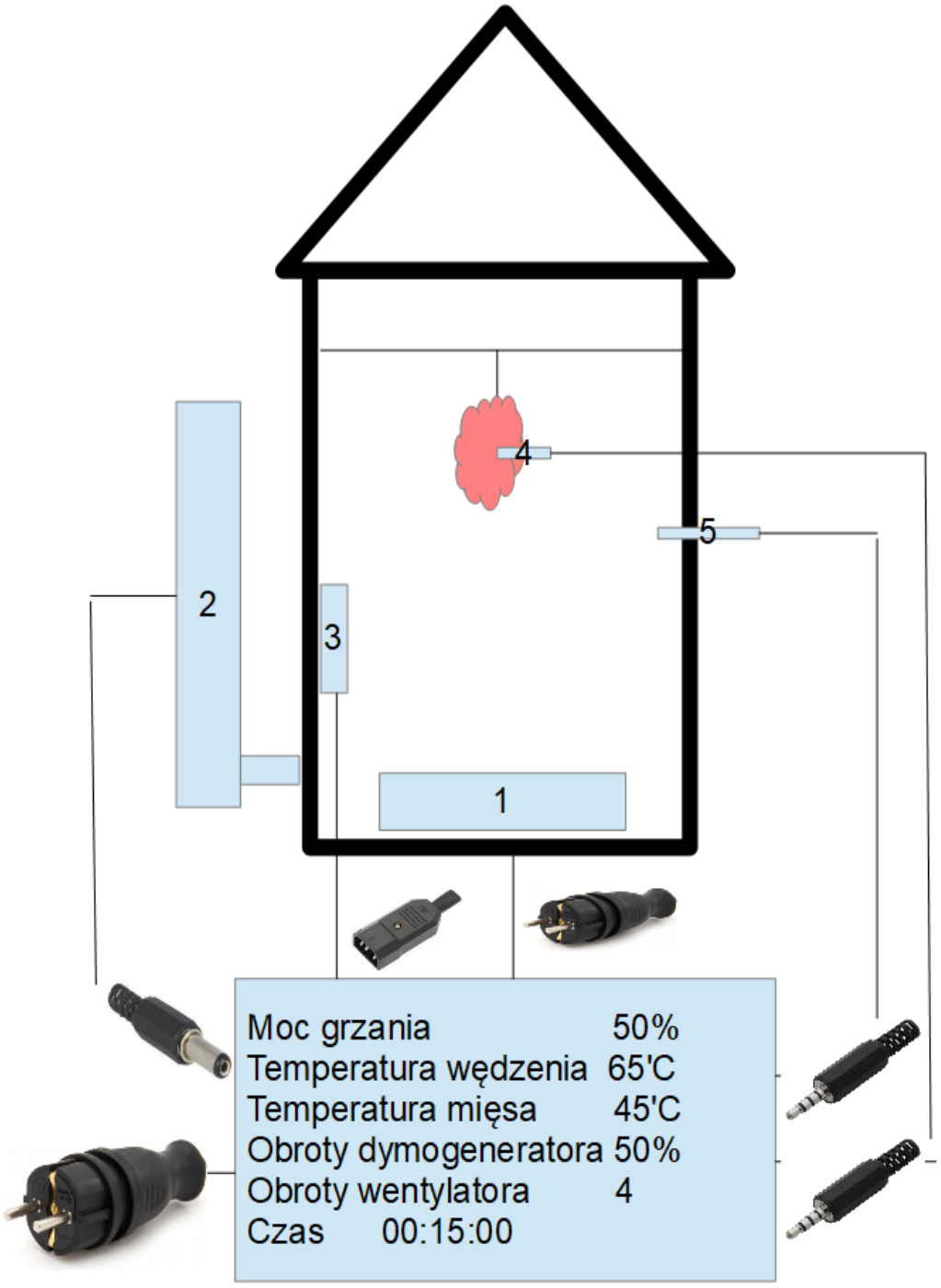
The device is delivered pre-calibrated. If your thermometer shows 19 degrees, it does not mean that this is the temperature in the entire room. The temperature difference mainly depends on the height and location of the sensor, e.g. a different temperature is in the room closer to the radiator, near the floor, ceiling, wooden or metal element or by the window.

The same temperature behavior is in the device (still, smokehouse). The temperature may vary depending on the installation location, mounting method, thermal conductivity, etc. That is why we have left you the option of manually calibrating the probes.
No probe calibration is necessary.

TECHNICAL PARAMETERS

Supply voltage: 230V -20% +10%, 50Hz (PRW+ ; PRW+ DUO
3x230V 3x400V PRWF+
Operating temperature: -10 to +60°C
Power output capacity: 5.5kW PRW+ 3x5.5kW PRWF
Maximum power consumption: 1.5W
Smoke generator output capacity 19W 12V DC
Fan output capacity 100W 230V 50Hz
Power Adjustment Resolution: 1% in manual mode, 0.25 in automatic mode
Temperature measurement resolution 1degree
Maximum number of probes 2
Dimensions: length – 180mm, width ,.-160mm, height – 60mm (PRM)
Housing: Self-extinguishing plastic
Ingress protection: IP20
Warranty: 60 months from the date of sale
Compliance with standards: PN- EN 60529
Lead-free (Pb-Free)

CONNECTION DIAGRAM



Zasilanie wtyczka 230V na przewodzie 90cm

1. Grzałka max 5kW 230V 50Hz (gniazdo na przewodzie 90cm)
2. Dymowentylator DC 12V 0,3A (gniazdo w obudowie 5,5/2,1)
3. Wentylator obiegu powietrza max 200W 230V 50Hz (gniazdo w obudowie C13. żeńskie)
4. Czujnik temperatury w produkcie DS18B20
5. Czujnik temperatury w wędzarni DS18B20

BEFORE YOU CALL

Symptom	Tip
The tank does not reach the correct temperature	In manual mode, increase the set power. In PID mode, increase the PID or minimum power. Replace the heater with a higher wattage heater.
Heater does not turn on	Check if the heater is working. Check the controller settings
. The light is dimming	Dim of the light is caused by overloading the electrical system. Each 2kW of heater power is a current of up to 5A, which can cause voltage drops with an old installation or thin wires. The fuses in the apartment should be checked.
Reverse Detection of Probes	Go to settings and change the ORDER of PROBES
The driver is warm	The device is working properly. Most amplifiers, TVs, mobile phone chargers are warm. The device has a thermal protection. If the temperature is too high, the controller will automatically turn off the control.
The controller is very hot, no control.	The device has a maximum power limit. Electric heaters are manufactured with different tolerances, e.g. 10 or even 20%. This means that, for example, heaters with a total power of 3.5KW can load the device with a power of almost 4kW (at 10% tolerance). If the heaters are not tested to consume a maximum of 3.5kW, a certain reserve of power should be used.
The controller did not detect probes	The probes must be connected before starting the controller Faulty probe, connect only one probe and check if it is detected
Subtitles are displayed upside down.	While the controller is starting, hold down the middle button and change the rotation to 0
The temperature is 0 degrees, the regulator beeps strangely. It does not heat.	The regulator detected damage (e.g. breakage) of the probe during distillation. The power was turned off and an audible alarm appeared.
There is voltage at the output of the controller (power or valve) all the time.	Unfortunately, this is due to inattention when plugging in or due to liquid spillage. The outputs in the controllers are at least twice as large. That is, there are BTA41 triacs at the output, which are designed for 40 AMPERs. In addition, the outputs are galvanically isolated, and the triac leg is ONLY in contact with your heater. So the output circuit is electrically similar to a contactor. If someone does not believe it, he can go to a trusted electronics service and ask about the same situation with connecting speakers to the amplifier, 99.99999% is caused by the wrong treatment of the output, not the fault of the device. Repairs of such damage are paid (flat fee of PLN 20 + cost of components)

www.pamel.pl/faq

AUTOMATIC PROGRAMS

Smoker temperature/maximum product temperature/smoking time

Pork

Karkówka 75/62/12H

Pork loin 72/62/11H

Polędwica 72/62/7 H

Bacon 70/60/10

Słonina 52/41/12H

Cold Smoking 25/95/60H

Cold cuts

Traditional 78/72/3H

Wiener 78/72/3H

Dziczyzna 78/72/7H

Drobiowa 65/58/6H

Pork 75/68/7H

Cold Smoking 25/95/25H

Fishes

Eel 70/61/5H

Salmon 70/61/6H

Carp 70/61/6H

Mackerel 70/61/5H

Trout 70/61/5H

Cold Smoking 25/95/14

Cheese

Hot Smoking 80/95/4

Cold Smoking 25/95/5

Poultry

Hen 75/65/6H

Turkey 75/65/7H

Duck 75/65/6H

Chicken breast 75/65/6H

Turkey breast 75/65/7H

Duck breast 75/65/6H

FIRST LAUNCH

REMARK!
We suggest that the first start-up should be carried out on an empty chamber.
Once the probes and power outputs are properly functioning, commissioning can be carried out on the load.

1. Connect the device according to the diagram.
2.Connect probes (if any)
3. If two probes are connected, it is necessary to recognize which probe is used to regulate the power (chamber) and which is used as an alarm (sausage). It is best to do this by heating one of the probes (e.g. with the warmth of your hands), observing which temperature changes.
T1 power control temperature (chamber)
T2 alarm temperature (sausage)
The probes can be swapped physically (sensors, not sockets) or by hardware by changing the KOL PROBE parameter
4.Attach the probes to the smoker
5.Turn on the power.
6.Touch the middle button (longer touch). In the service menu, set the operating mode (MANUAL, PID) and other parameters according to the description of the MENU chapter
7.Exit the menu.
8. Set the temperature of the smokehouse chamber and the alarm temperature (of meat).

Below are examples of settings.

Chamber	Cold cuts
T2=65degrees	T2=50degrees

9.Start the process.
10.During the first process, observe the temperatures.

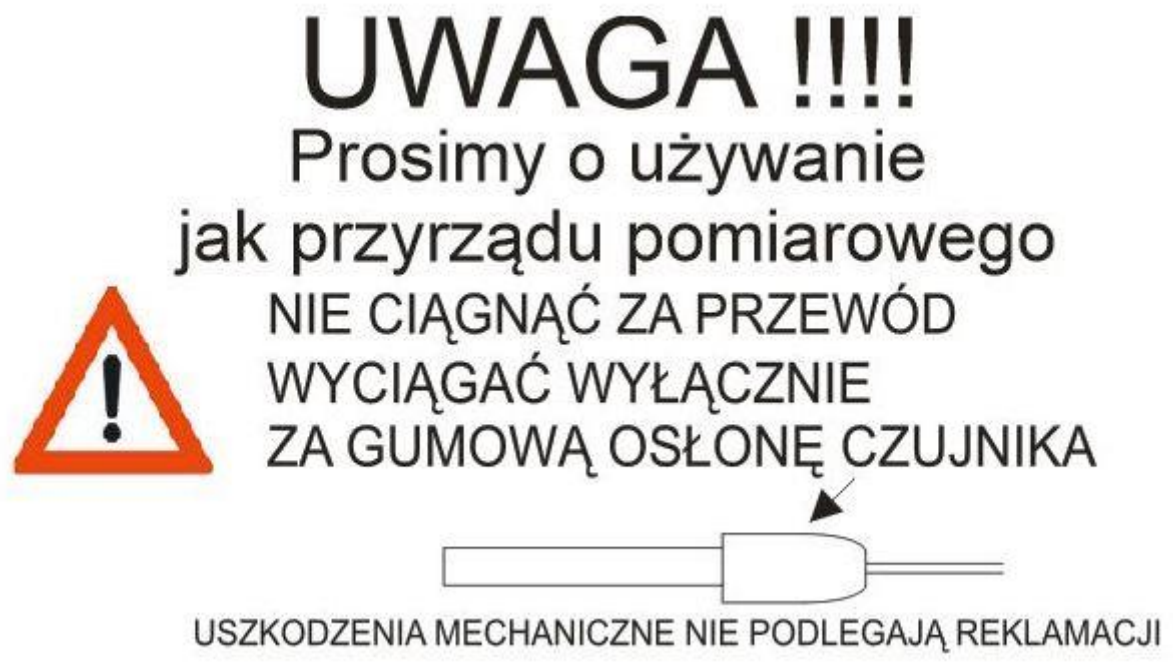
The temperature difference mainly depends, for example, on the height and location of the analog and digital sensors.

Any wire connections, if not properly made and carefully maintained, can cause melting due to excessive heating.

The cause of this phenomenon is loosening of metallic contacts due to damage to the terminals or their corrosion, or insufficient tightening of the terminals.

Similar effects can also be caused by sparks in the multi-core cable in which the vein has been broken. Such a place heats up quite strongly and the resulting sparks can melt the insulation.

With 25A current, there is no joke, so please pay attention to the proper tightening of the terminals.



The probes are additional accessories and are subject to natural wear and tear. Therefore, a standard warranty (not 5 years) applies to these elements

In addition, it should be remembered that threaded probes are a whole. Do not tear the sensors out of the metal covers.

This results in the loss of the warranty.

From 09.2021, all probes have a warranty seal specifying the date of manufacture. Destruction of the seal is considered to be the blurring of the marks identifying the product

DISASSEMBLE THE PROBES ONLY WHEN THEY ARE COLD. NOT TO PULL THEM OUT "HOT"

As professionals, we operate legally, which is why our products are registered in the Chief Inspectorate of Environmental Protection under number BDO000073814. **When you buy equipment from us, you do not expose yourself to control problems.**
After using the purchased items, you have the right to take them to a disposal point in your own city or send them to us.
When reselling unregistered equipment, it is your responsibility to place it on the market. There is a penalty of PLN 5000 and more. Calculate whether it is worth the risk or whether it is better to buy a registered, legal device from us.

CE

All our products have a certificate or declaration of conformity. All equipment is subject to high standards and equipment that does not meet these conditions must not be introduced. Devices that meet the standards are easy to distinguish by the CE mark.

In Polish, it is not allowed to sell devices without meeting these two conditions. Otherwise, it means that there is a reason for circumventing the norms, and the company is operating illegally.

A warranty card without the Buyer's signature and the original sticker with the date of production on the bottom of the controller will be considered invalid.

https://www.youtube.com/@PAMEL_STEROWNIKI/

42-300 Myszków, ul. Uródna 5E

Dear User,

First of all, we would like to thank you for choosing a PAMEL product. We are sure that you will be satisfied with this choice. We design our devices to meet your requirements and guarantee future trouble-free use.

Before using the equipment, carefully read the installation procedures and operating conditions described in the Owner's Manual.

If you have any doubts, please contact us.

453-343-360 (OFFICE 9-14 weekdays)
453-343-360 (Technical Support 16-19 Monday-Saturday)

WARRANTY CONDITIONS.

1. **PAMEL provides a warranty for the controller (without additional equipment) in the Republic of Poland for a maximum period of 60 months (24 months for the basic and 6 months for the manufacturer's extended warranty) + possibly purchased warranty extensions up to 40 or 50 months; counting from the date of commencement of the warranty period, but no longer than 80 months from the date of production placed on the Product for which the warranty card is issued, provided that the equipment is used in accordance with the intended use and technical and operational conditions described in the User Manual.**2. The warranty does not cover movable elements of the product's equipment (accessories) intended for self-assembly by the user, e.g. antennas, sensors, handles, heaters, wires, power batteries.

3. The guarantor undertakes to remove physical defects free of charge, if these defects become apparent during the warranty period or to deliver the item free from defects, if within the period
At least 4 repairs have been made to the item and the item is still defective.
In the event of replacement, the product will be replaced with a new one, the same model or with similar, not worse technical parameters. If such an exchange is impossible, the Buyer will receive a refund.

3. The period of the basic warranty, provided for in point 1, is extended by the duration of the repair.

4. The duration of the repair is counted from the date of delivery of the item to the service point until the date of handing over the item to the carrier for delivery to the Buyer.

5. In the event of a defect, the Buyer reports this fact to the Guarantor by post Internet (pamel@pamel.pl) or by phone, then the Guarantor first tries to solve the problem remotely and indicates the further way of the complaint procedure.

6. At the Guarantor's request, the Buyer is obliged to diligently fill in the Complaint Notification Report made available by the Guarantor.

7. The guarantor is responsible only for defects arising from reasons inherent in the subject of sale.

8. The warranty does not cover damage to equipment caused by improper or use inconsistent with the installation and assembly, in particular, storage, maintenance, misuse, use of improper consumables,
unauthorized repairs or improvements, mechanical damage, fault of the user, due to external reasons such as pollution, flooding, condensation of water vapour, atmospheric phenomena, random events. Damage to electronic components resulting from exceeding the rating parameters is also not covered by the warranty.

9. The warranty does not cover claims for the technical parameters of the devices, as long as they are in accordance with those specified by the manufacturer.

10. **The condition for the Buyer to retain the rights under the warranty is the delivery of the equipment to the service point specified in point 5, in complete condition, in packaging to reduce the risk of damage, with documentation, cables and all other elements issued in connection with the performance of the sales contract, without tampered seals or stickers and the original warranty card signed by both parties.**

11. The warranty does not cover materials and operations that are part of normal operation, e.g. installation of equipment, programming, cleaning and maintenance, replacement of bulbs and fuses, function check. The above-mentioned services are paid.

12. In addition to the situations referred to in points 7-11, the service point may refuse to make a warranty repair also in the case of:
- finding inconsistencies between the data contained in the sales documentation and the data of the device
- corrections made to documents by unauthorized persons
- removal of identification marks (stickers on the bottom of the device)
13. Physical defects of the device revealed during the warranty period will be removed within 21 days, counted from the day following the date of delivery of the device to the point of delivery of the Service. If you need to import spare parts from abroad
The guarantor reserves the right to extend the warranty period for the time necessary to repair, of which the Buyer will be informed each time by means of a Email.
14. The device should be installed in accordance with the required standards, technical requirements contained in the manual. If there is a legal requirement, the installation of the device must be carried out by a person with the appropriate authorization in this respect.
15. The rights and obligations of the parties in respect of the guarantee shall be governed solely by the Herein.
16. Equipment not collected from the service within 3 months from the completion of the repair is forfeited to the service.
17. In the event that the warranty repair requires the replacement of parts, the replaced element remains the property of the Guarantor.
18. The guarantor is not responsible for damage caused by the loss of user data stored in the device, we also inform you that the device will be returned in accordance with the production condition.
19. **By signing, the buyer declares that he has read the warranty conditions and accepts them.**

A warranty card without the Buyer's signature and the original sticker with the date of production on the bottom of the controller will be considered invalid.

REMARK!
The number of repairs does not include, in particular: cleaning, maintenance, replacement bulbs, filaments or fuses, repairs resulting from wear and tear due to the e.g. wear of potentiometers, etc.

WARRANTY PERIOD START DATE	SELLER'S STAMP	CUSTOMER SIGNATURE

VER 3.09.2025