

USER MANUAL

PZW2WIFI

Controller set for heating, smoking and temperature measurement applications

KEY BENEFITS**PRECISION**

Accurate process and measurement control

**SAFETY**

High-level protection

**RELIABILITY**

Stable and dependable operation

**UPDATES**

Continuous improvements and new features

**IN THIS MANUAL**

- Device and safety information
- Installation and connection
- Configuration and operation
- Functions and settings
- Troubleshooting
- Updates and service

DOCUMENTATION & SUPPORT

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PZW2WIFI — Electric smoker heating set with Wi-Fi controller

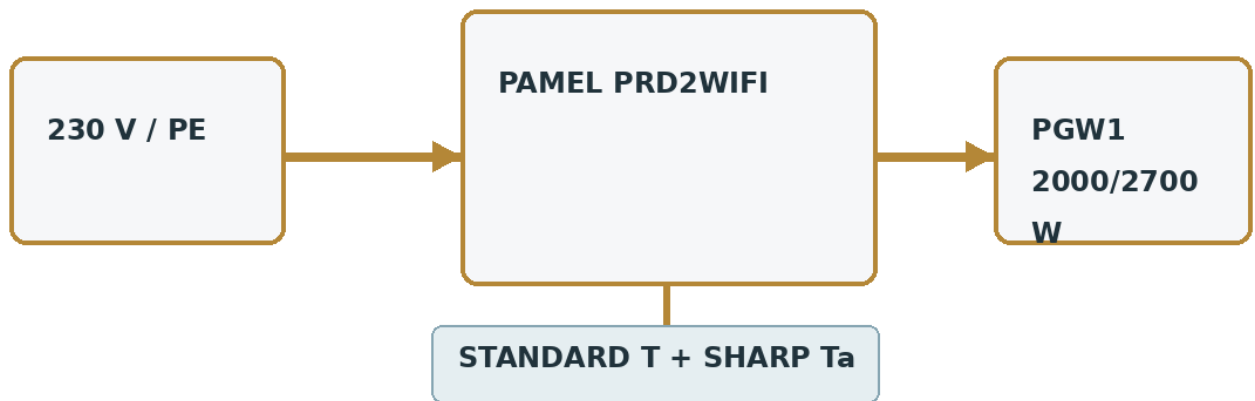
PZW2WIFI combines the PAMEL PRD2WIFI controller, a PGW1 heater and two temperature probes. The heater warms the chamber while the controller adjusts power. The STANDARD probe measures chamber temperature T; the SHARP probe measures the temperature inside the product Ta.

You can operate the set using the three buttons on the controller or from a phone or computer on the local Wi-Fi network. Access over the Internet is a separate optional PAMEL Cloud service. The set does not include or control a fan or smoke generator.

Read the safety section before use. Never modify electrical connections while the system is powered.

What is included

Item	2000 W	2700 W
Controller	PAMEL PRD2WIFI	PAMEL PRD2WIFI
PGW1 heater	PGW1 2000 W	PGW1 2700 W
Chamber probe T	STANDARD DS18B20	STANDARD DS18B20
Meat probe Ta	SHARP / OSTRASDS18B20	SHARP / OSTRASDS18B20
Cables	90 + 90 cm / 2 m	90 + 90 cm / 2 m
Tray	✓	✓
Fan	—	—



230 V / PE → PRD2WIFI → PGW1 | STANDARD T / OSTRATa

SAFETY

DANGER The set operates at 230 V. Do not work on it while the power is connected. The smokehouse should be supplied from a circuit with a correctly connected PE protective conductor and a 30 mA residual-current device.

- The heater protective PE conductor must be connected correctly. Do not

use the heater without protective earthing.

- Route power cables and probe leads so that they do not form loops on

the heater and do not touch hot parts.

- Do not use damaged or melted cables. A damaged connection can become very hot.

- Do not pour water onto a hot heater and do not pressure-wash the heating element.

Cables should be routed as straight as possible, away from the heater.

INSTALLING THE PGW1 HEATER

The heater operates inside the smokehouse chamber. The deflector distributes heat, limits grease contamination of the heating element and provides a place for the drip tray.

Keep at least 50 mm clearance between the heater and the chamber walls or other components. 1. Place the heater assembly stably on the bottom of the chamber.

2. Keep at least 50 mm of free space on all sides.

3. Fit the drip tray so that it does not block the flow of hot air.

4. Make sure that cables and probes cannot fall onto the heater when the

door is closed.

5. Before applying power, make sure that the PE conductor is connected.

WARNING Grease and carbon deposits are flammable. Clean the tray and deflector regularly, preferably after every smoking cycle.

CONNECTING THE PZW2WIFI

PZW2WIFI is supplied with prepared set cables. Connect the components with the power disconnected and do not open the controller if the cables have already been factory-terminated.

1. Connect the STANDARD probe to the controller.

2. Connect the SHARP probe to the controller.

3. Connect the PGW1 heater to the controller power output using the heater cable.

4. Check the protective PE connection of the heater and smokehouse.

5. Connect the 230 V supply only at the end.

PROBE POSITIONING

The STANDARD probe should measure the air temperature in a place representative of the load. Do not mount it directly at the wall, above the heater or in a stream of very hot air.

Insert the SHARP probe into the thickest part of the meat. The measuring tip should be inside the product, not near the surface. Avoid contact with bone and metal hooks.

PRACTICAL TIP If the temperatures respond opposite to what you expect, do not swap plugs blindly. First warm one probe with your hand and check whether T or Ta changes. The probe roles can be swapped with the PROBE ORDER parameter.

First start-up — test with an empty chamber

1. Install the PGW1 heater, deflector and drip tray, leaving the required clearances.
2. Check protective earthing PE and the condition of all cables.
3. Place the STANDARD probe in the chamber and the SHARP probe in a test sample or away from the hot zone.
4. Switch on the power and identify T and Ta by warming each probe in your hand.
5. If T and Ta are reversed, use MENU → TESTS → PROBES or SWAP T / Ta.
6. For normal probe-based control choose AUTO, set T and Ta and check STOP AFTER Ta.
7. On the OK = START screen press the middle button. Check that heating follows the settings.

LCD and three buttons

The left button decreases a value or moves left; the right button increases or moves right; the middle OK button confirms. While stopped, hold OK for about 5 seconds to open the menu. On the START/STOP page, OK starts or stops the process. The four home views show temperatures and power, START/STOP, setpoint T and setpoint Ta.

T:065,0 Ta:053,5
STOP P:000%

STAN: STOP
OK = START

NASTAWA T
< 70,0 C >

NASTAWA Ta
STOP < 67,0 >

PRD2WIFI LCD | T / Ta / P / START / STOP

Settings explained

The figures below describe PRD2WIFI firmware 1.3.13. When changing a setting, check Pmin, Pmax, required probes and the safety limit.

Screen	Function / range
CONTROL MODE	MANUAL / AUTO / AUTO_PID
MIN POWER	0-100 % / default 0 %
MAX POWER	0-100 % / default 100 %
AUTO FACTOR	1-30 / default 12
PID Kp	0-100 / default 30
PID Ki	0-10 / default 0.02

Screen	Function / range
PID Kd	0-100 / default 5
T LIMIT	50-124 °C / default 120 °C
STOP AT Ta	ON/OFF / default ON
Ta REQUIRED	ON/OFF / default ON
SOUND	ON/OFF / default ON
RESOLUTION	XXX / XXX.X
REMEMBER P	ON/OFF / default ON
SWAP T / Ta	T ↔ Ta
CAL T MULT.	0.50-1.50 / default 1.00
CAL T OFFSET	-20...+20 °C / default 0
CAL Ta MULT.	0.50-1.50 / default 1.00
CAL Ta OFFSET	-20...+20 °C / default 0
LANGUAGE	PL / CZ / SK / EN / DE
DOWNLOAD SW	OTA / STOP
SOFT VERSION	1.3.13
STATISTICS	RUN TIME / HEATING TIME
WIFI STATUS	connected / AP / off
WIFI NETWORK	SSID
IP ADDRESS	IP
RESET WIFI	reset
FACTORY RESET	RESET / Wi-Fi ✓

Screen	Function / range
TESTS	heater / buzzer / probes / keys / Wi-Fi
EXIT	OK

Wi-Fi — step-by-step connection

With no home network saved, the controller creates the PRD2WIFI_PAMEL network. This access point is for configuration, not for Internet access.

1. Connect your phone or computer to PRD2WIFI_PAMEL. Stay connected even if the phone reports no Internet.
2. Open <http://192.168.4.1> in a browser and enter configuration PIN 2009.
3. Open NETWORK / Wi-Fi, select your 2.4 GHz home network, enter its password and save.
4. The controller restarts. Read its IP address in MENU → IP ADDRESS and open it on a device connected to the same network.
5. If connection fails, check the password, signal and 2.4 GHz band; RESET WIFI allows a fresh setup.

Local web page — all tabs

The web interface works without a subscription on your local network. Its five pages are CONTROL, PARAMETERS, NETWORK, SERVICE and SYSTEM. T, Ta and manual power can also be saved while heating; advanced settings are then locked.

1. CONTROL

Live T/Ta, power, state, START/STOP and saving temperature/manual-power settings.

CONTROL

SETTINGS

WI-FI / CLOUD

SERVICE / TESTS

SYSTEM / VERSION

CONTROL

CONTROL

T
65.0 °C

Ta
55.0 °C

Power P
58 %

Setpoint T

State
START

T / Ta
70.0 °C / 67.0 °C

SEND SETPOINTS
✓

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PRD2WIFI | CONTROL

2. SETTINGS

Mode, Pmin/Pmax, WSP, PID, safety, probes and calibration.
AUTOTUNE only in AUTO_PID while stopped.

CONTROL

SETTINGS

WI-FI / CLOUD

SERVICE / TESTS

SYSTEM / VERSION

SETTINGS

Parameters

Mode

AUTO

Minimum power [%]

0 %

Maximum power [%]

100 %

Calibration

WSP

12.0

Kp / Ki / Kd

30.0 / 0.02 / 5.0

PI/PID autotuning

AUTO_PID / STOP

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PRD2WIFI | SETTINGS

3. WI-FI / CLOUD

Wi-Fi scan, SSID/password, current IP, Wi-Fi reset and PAMEL Cloud link.

CONTROL

SETTINGS

WI-FI / CLOUD

SERVICE / TESTS

SYSTEM / VERSION

WI-FI / CLOUD

Wi-Fi

Current network

HOME_2G

address

192.168.1.45

SCAN NETWORKS

2.4 GHz

PAMEL CLOUD

Network name

HOME_2G

SAVE WIFI AND RESTART

Wi-Fi

OPEN PAMEL CLOUD

server.pamel.pl

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PRD2WIFI | WI-FI / CLOUD

4. SERVICE / TESTS

Statistics, heater tests at 0/25/50/75/100%, buzzer, events and JSON report. Tests only at STOP.

CONTROL

SETTINGS

WI-FI / CLOUD

SERVICE / TESTS

SYSTEM / VERSION

SERVICE / TESTS

Counters

Processes started

36

Total controller run time

182h 14m

Total heater heating time

156h 03m

Tests

Triac / heater

0 / 25 / 50 / 75 / 100 %

Event log

100

DOWNLOAD REPORT

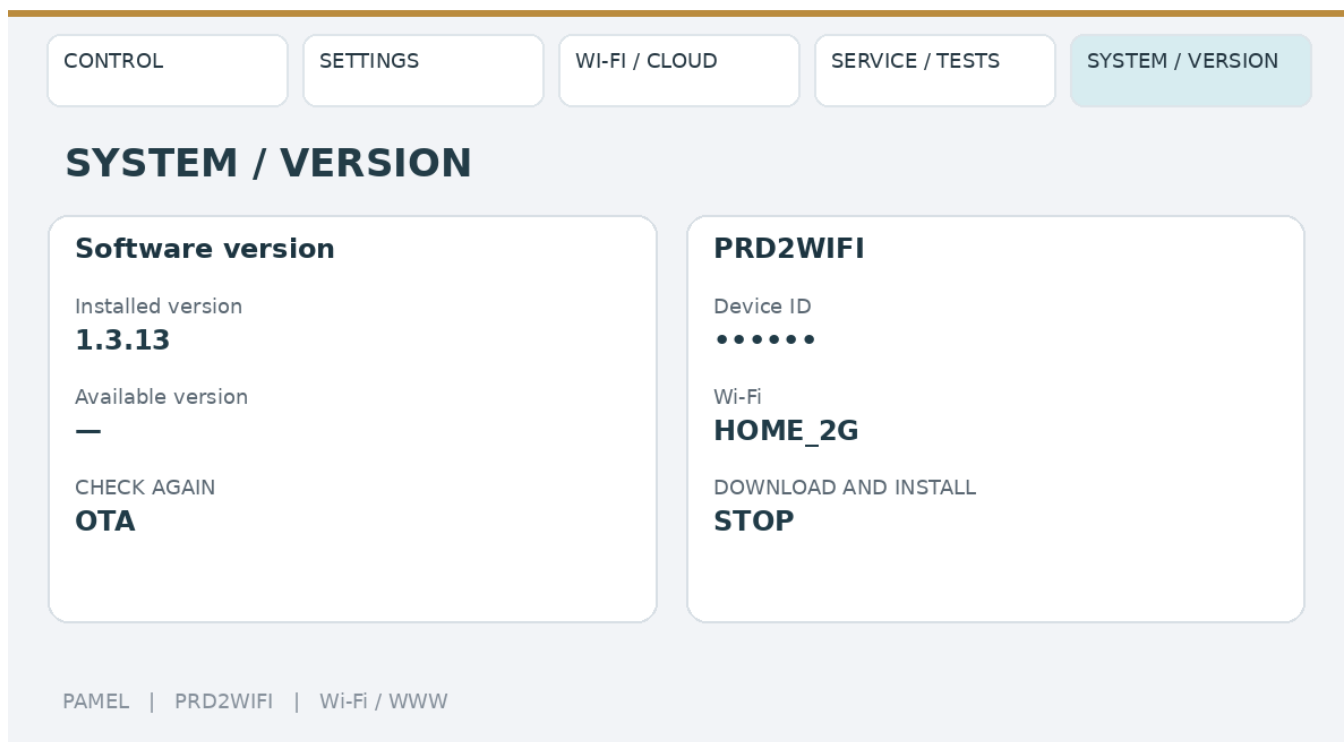
JSON

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PRD2WIFI | SERVICE / TESTS

5. SYSTEM / VERSION

Firmware version, checking and installing OTA updates. Heating must be stopped.



PRD2WIFI | SYSTEM / VERSION

PAMEL Cloud versus local control

Local buttons and the local web page do not require Internet access or a subscription. PAMEL Cloud offers optional remote access and functions subject to the active plan and service terms. Cloud downtime does not prevent local control.

Smoking — practical operation

1. Prepare the chamber, clean the tray and position probe T away from the heater and walls.
2. Insert probe Ta into the centre of the thickest piece of meat, away from bone.
3. Select AUTO and set chamber temperature T according to your recipe, not the factory setpoint.
4. To stop heating at the product temperature, enable STOP AFTER Ta and set the Ta threshold.

5. Start the process. Watch both readings, power and messages. Heating stops when Ta is reached.

PZW2WIFI controls heating but does not automatically sequence drying/smoking stages or control a fan or smoke generator. Choose food processing temperatures according to the product and method.

Technical specifications

Item	Function / range
Mains voltage	230 V AC / 50 Hz
PGW1 heater	2000 W / 2700 W
Current	≈ 8.7 A / 11.7 A @ 230 V
Controller	PAMEL PRD2WIFI
Display	LCD 2 × 16
Control modes	MANUAL / AUTO / AUTO_PID
Connectivity	2.4 GHz Wi-Fi (AP / LAN / optional Cloud)
Heater clearance	≥ 50 mm
T / Ta setpoint	0–150 °C
LCD safety limit	50–124 °C
DS18B20	2 probes / 1-Wire
Pmin / Pmax	0–100 %

MAINTENANCE AND CLEANING

BEFORE CLEANING Disconnect the set from 230 V and wait until the heater and metal parts have cooled completely.

After each cycle:

- remove grease and deposits from the drip tray,

- remove heavy deposits from the deflector,
- check that nothing touches the heating element,
- wipe the probes with a soft damp cloth; do not pull on the cable,
- check that the cables are not melted or crushed. Every few uses:
- inspect the condition of the cables, including the PE conductor,
- check that the heating element has no cracks, local bulges or signs of short circuit,
- remove carbon deposits from places where they could ignite.

DO NOT PRESSURE-WASH Do not flood the heating element, controller or cables. If the heater has become damp, do not switch it on until it has dried and the insulation condition has been checked.

Before contacting support

Read the safety section before use. Never modify electrical connections while the system is powered.

Before contacting support	State / action
No heating	Check START, Pmax, T safety limit, alarms and probes. In MANUAL check power setting.
START is refused	AUTO requires a valid T reading; when Ta REQUIRED is enabled, Ta must also be valid. Clear the cause of the alarm.
END / Ta reached	STOP AFTER Ta ended heating when the second probe reached its setpoint.
No Wi-Fi	Check network name, password, signal and 2.4 GHz. Use RESET WIFI if needed.
Web page unavailable	Phone and controller must share the same LAN. Check the IP address in the device menu.

Before contacting support	State / action
Probe error	With power disconnected check connector, cable and T/Ta assignment.
Temperature overshoot	Check the position of T, WSP / Pmin values and the T safety limit.
Breaker or RCD trips	Disconnect the unit; have the wiring and heater checked by a qualified electrician.

Documentation, statistics and support

MENU → STATISTICS shows controller operating time and heater operating time. The SERVICE page also includes cycle count, event log and a downloadable report. The device may transmit general technical and operating data to PAMEL servers. Start at <https://serwer.pamel.pl/>. Support: pamel@pamel.pl, +48 453 343 360.

STATISTICS AND TECHNICAL DATA. The controller maintains operating statistics, including total operating time and the heater running time during active heating. A network-connected controller may send general technical data to PAMEL servers, such as a technical identifier, model, software version, temperatures, power, alarms, operating state and counters. The scope depends on the model. These technical data do not contain the customer's name, address, email address or order number. The technical identifier is not linked to customer personal details in the telemetry database, and statistics are presented in aggregate form.



<https://serwer.pamel.pl/>

PZW2WIFI_MAN_EN | 1.0 | 2026-10-13

PAMEL | serwer.pamel.pl | PZW2WIFI_MAN_EN

<https://serwer.pamel.pl/> | pamel@pamel.pl | +48 453 343 360 | BDO
000073814

PAMEL, ul. Urodzajna 5E, 42-300 Myszków, Polska. Wi-Fi:

https://serwer.pamel.pl/legal/PAMEL_CLOUD_REGULAMIN.pdf | https://serwer.pamel.pl/legal/PAMEL_CLOUD_POLITYKA_PRYWATNOSCI.pdf

PZW2WIFI_MAN_EN | 2026-10-13 | PRD2WIFI 1.3.13 | 1.0

PZW2WIFI | EN | NOTES

WARRANTY TERMS

PAMEL, 42-300 Myszków, ul. Urodzajna 5E

1. PAMEL provides a warranty for the controller (without additional accessories) within the territory of the Republic of Poland: 24 months basic warranty, 6 months extended manufacturer's warranty, and the option to purchase an extension of up to 40 or 50 months. The total warranty period cannot exceed 80 months from the device's production date. The purchased extension is confirmed by a hologram sticker on the warranty card.

2. Additional accessories and consumables, including probes, heaters, antennas, sensors, holders, cables, and batteries, are not covered by the device's extended warranty; they are subject to the rules of law and the terms and conditions of sale.

3. During the warranty period, the manufacturer undertakes to repair any physical defects free of charge. If at least four repairs have been performed under the basic warranty and the device remains defective, the Buyer may request a replacement with a device of equivalent parameters or a refund. The warranty period is extended by the duration of the repair.

4. Complaints should be submitted by email to pamel@pamel.pl or by phone. The manufacturer will first attempt to resolve the problem remotely and recommend further steps. At the manufacturer's request, the Buyer will complete a complaint report.

5. The warranty covers only defects resulting from causes inherent in the device. It does not cover damage resulting from, among other things, improper installation, operation, or maintenance, poor storage conditions, inappropriate consumables, unauthorized repairs or modifications, mechanical damage, flooding, condensation, contamination, atmospheric phenomena, fortuitous events, or exceeding the rated parameters.

6. The warranty does not cover claims regarding the technical parameters of the device if they are consistent with the manufacturer's specifications.

7. The warranty is valid only if the device is delivered complete, in packaging that protects it from damage, along with documentation, cables, and additional components, without broken seals or identification marks, and with the original warranty card signed by both parties and a sticker with the production date.

8. The warranty does not cover services and materials related to normal operation, such as assembly, programming, cleaning, maintenance, replacement of fuses, light bulbs, and consumables. Such services are subject to a fee.

WARRANTY TERMS

9. The service center may refuse warranty repairs if the data in the documentation does not match the condition of the device, unauthorized changes to the documents have been made, or identification marks have been removed.
10. Warranty repairs are completed within 21 days of the device's delivery to the service center. If it is necessary to import parts from abroad, the deadline may be extended, of which the Buyer will be informed by email.
11. The device must be installed in accordance with standards and the operating instructions; if required by regulations, by a qualified person.
12. The rights and obligations of the parties are governed by this document. Equipment not collected from the service center within 3 months of the repair becoming the property of the service center. Parts replaced during the repair remain the property of the manufacturer.
13. The manufacturer is not responsible for the loss of user data stored on the device. The device can be returned with factory settings after repair.
14. Your signature on the warranty card confirms that you have read and accepted the terms and conditions. A warranty card without a signature and the original production date sticker is invalid.
15. The number of repairs does not include maintenance, cleaning, replacing light bulbs, fuses, consumables, or repairs resulting from normal wear and tear.

DATE	SELLER	CUSTOMER