

PAMEL

PGW1

USER MANUAL

SMOKER HEATER



2000 W / 2700 W • 230 V AC



Main entry point for manuals, FAQ,
PAMEL EDU, documents and support:

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

pamel@pamel.pl • 453-343-360

Operating principle and intended use

- The heater with a stainless deflector is designed for electric smokers. The deflector reduces grease contamination of the heating element and allows you to place a drip tray/condensate container on it. The heater works with PAMEL regulators (e.g. PRW/PRW DUO/PRW3F). Power supply: 230 V AC.
- Heating the smoker chamber evenly. More uniform dyeing of the load.
- Stainless steel – deflector and spacer bottom plate, easy to clean.
- Protection of the chamber under the heater (the bottom plate acts as a cover and spacer).
- Simple connection – standard 6.3 mm connectors; power cord available as an option.
- Expandable – optional fan for better circulation.
- When power is supplied and controlled by an external smoker controller, the heating element heats the deflector, which dissipates heat and protects the heater from direct contact with fat. The bottom plate stabilizes the installation and covers the bottom of the chamber. The process temperature is regulated by the controller (not by the heater).

Safety

- DANGER: 230 V mains. Electrical installation must be carried out by a suitably qualified person.
- Supply the assembly from a circuit protected by a 30 mA RCD/GFCI and a correct PE protective conductor.
- Keep at least 50 mm clearance between the heater and every smoker wall or combustible material.
- Do not allow the tray, food load or chamber wall to touch the heating element.
- Grease is fuel. Clean the deflector and drip tray regularly. Never extinguish a grease fire with water.

Mechanical installation

- Place the assembly on a stable, non-combustible surface inside the smoker.
- Keep at least 50 mm free space from all chamber walls.
- Leave free space above the deflector for hot-air and smoke circulation.
- The deflector and heating element must not touch the drip tray, food load or enclosure.

≥ 50 mm	PGW1	≥ 50 mm
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Electrical connection

- Connect 230 V AC to the two 6.3 mm terminals.
- Connect the PE protective conductor to the ring terminal.
- Two 6.3 mm female terminals are supplied. The power cable may be optional.
- Connections must be tight. A loose terminal heats up and can melt insulation.
- The heater is controlled by an external smoker controller; the heater itself does not regulate temperature.

Typical damage and diagnostics

- Wires/connectors: discoloration (brown/black), melted insulation, loose 6.3mm nipples → replace terminals and shorten wires for insulation; Wear silicone t-shirts.
- Heating element: mechanical cracks, point "bubbles" on the tube, traces of short circuits to the housing → do not use, replace the assembly.
- Moisture: do not wash the heating element with water/pressure; after dampness – drying and checking the insulation, in case of doubt, replacement.
- Short circuits/leaks: frequent RCD/GFCI tripping may indicate leakage to ground or damaged component/wiring;

Operation, fire safety and cleaning

- Fat is fuel: carbon and grease are a real risk of fire. Clean the deflector and drip tray regularly. Ideally, adopt the principle of cleaning after each cycle, thoroughly every few uses
- Fat fire: do not use water. Disconnect the power, do not open abruptly – keep the door closed to suppress the flame
- Fuel: use wood chips/wood for smoking, no lighters/gasoline; Do not use a briquette with kindling in an electrician.
- Heater: Do not bend or deform the heating element. Make sure that the coils of the heater do not come into contact with each other – this may damage or short-circuit the coil.
- Once cooled, remove the grease from the deflector and tray; Check that no residue is touching the heating element.
- Do not flood the heating element; Wipe dry/slightly damp cloth around the fasteners, without soaking.
- Control the tightening of the PE wire and the condition of the 6.3mm connectors (clearances heat the connector).

Technical data

- Power: 2000 W or 2700 W (depending on the variant selected).
- Power supply: 230 V AC.
- External dimensions of the assembly (deflector + bottom plate): approx. 250 × 250 × 140 mm.
- Material: stainless steel (deflector and bottom plate, sheet metal approx. 1 mm).
- Electrical connections: 2× 6.3 mm male connector (2× 6.3 mm female included) + PE eye clamp.
- Variants/extras: power cord (optional), fan fan (optional), drip tray (optional).
- Compatibility: electric smokers; cooperation with PPOWER/ PRW/PRW DUO/PRW3F controllers.

Convection fan - optional

- Note on adjusting the rotation of the fan (optional)
- The fan must work with speed control in the range of:
 - 0% – fan shutdown,
 - 40–100% – continuous operation (smooth speed regulation).
- If the power/rpm is below 40%, the fan motor may not start or rotate properly despite the voltage being supplied. This causes increased heating of the motor windings and can consequently lead to damage (burning) of the fan.
- Long-term operation in the range of 0-40% should be avoided during use. If the fan does not rotate after setting the set power, immediately increase the power (above 40%) or turn off the fan.

0%	1-39%	40-100%
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Effect of supply voltage on heater power

- Effect of supply voltage on heater power (important)
- The resistive heater has a power dependent on the supply voltage according to the dependence:
- $P \approx P_n \times (U/U_n)^2$
- where:
- P_n – rated power of the heater at U_n voltage (usually 230 V),
- U – the actual voltage in the socket during operation (measured under load).
- This means that a voltage drop causes a significant drop in power (and an increase in voltage – an increase in power).
- Example (230V heater):
- 210 V → power approx. 83% of rated power (decrease by approx. 17%)
- 230V → 100%
- 250 V → power approx. 118% of rated power (increase by approx. 18%)
- For orientation:
- 2000 W / 230 V heater at 210 V has approx. 1660 W
- the 2000 W / 230 V heater at 250 V has approx. 2360 W

$$P \approx P_n \times (U / U_n)^2$$

Winter operation and power selection

- Why it can "not heat up" in winter
- In winter, the following often occur at the same time:
 - lower ambient temperature → higher heat loss from the chamber,
 - voltage drops in the mains (e.g. up to ~210 V) → the heater has less power in real terms.
- If the heater is selected "for contact", then in such conditions it may not reach the set temperature.
- Practical recommendations
 - Choose a heater with a power reserve (typically +20-30% of the minimum calculation), especially for winter operation.
 - Check the voltage during the heater operation (meter in the socket, during heating).
 - Avoid long/overloaded extension cords and thin wires – they cause additional voltage drops.
 - Provide as dedicated a power circuit as possible (less drops, more stable operation).
- Note: At high voltage (e.g. in summer when a PV system is running), the power of the heater increases, which can shorten the heating time.
- 42-300 Myszków, 5E Urodzajna
- 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.

Before contacting service

SYMPTOM	POSSIBLE CAUSE	WHAT TO DO
Heater does not heat	No supply or the controller does not energize the output	Check mains supply, protection devices and the controller output.
RCD/GFCI trips	Moisture, damaged insulation or leakage to PE	Disconnect power. Dry the assembly and have insulation measured; do not use a damaged element.
Terminal becomes hot or dark	Loose or worn connector	Replace the connector and damaged wire section; do not reuse a burnt end.
Smoker cannot reach temperature in winter	High heat loss or low mains voltage	Measure voltage while heating, avoid thin extension leads and consider a higher-power variant.

Before first use

- Before first start check the minimum 50 mm wall clearance.
- Check the PE conductor and all terminals.
- Make sure the heating element is not deformed and its loops do not touch each other.
- Remove combustible materials and grease deposits from the chamber.
- If a fan is used, select 0% or 40-100%; prolonged operation at 1-39% is not recommended.

PAMEL Product Center



Main entry point for manuals, FAQ, PAMEL EDU, documents and support:

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

Scan the QR code with your phone and select PGW1 in the Product Center.

Support: pamel@pamel.pl | 453-343-360

Manual version: 23.08.2026

WARRANTY CONDITIONS

PAMEL provides a warranty for the controller (without additional equipment) in the Republic of Poland for a maximum period of 60 months:

24 months basic warranty,

6 months extended manufacturer's warranty,

In addition, it is possible to purchase a warranty extension of up to 40 or 50 months.

The total warranty period must not exceed 80 months from the date of manufacture of the device.

Additional equipment (e.g. probes, heaters) is covered by a standard warranty under the Civil Code. The purchased warranty extension is confirmed by a hologram sticker on the warranty card.

The warranty does not cover consumables and accessories intended for self-assembly (e.g. antennas, sensors, holders, heaters, cables, batteries).

During the warranty period, the manufacturer undertakes to remove physical defects free of charge. If at least four repairs have been carried out under the basic warranty and the device is still defective, the Buyer has the right to exchange it for a new copy with equivalent parameters or to a refund.

The warranty period is extended by the duration of the repair.

Complaints should be submitted by e-mail (pamel@pamel.pl) or by phone. The manufacturer will first try to solve the problem remotely and indicate further complaint steps.

At the manufacturer's request, the Buyer is obliged to fill in the complaint protocol.

The warranty covers only defects caused by the device.

The warranty does not cover damage resulting from:

improper installation, operation or maintenance,

storage in inappropriate conditions,

use of improper consumables,

independent repairs or modifications,

mechanical damage, flooding, condensation of water vapour, pollution, atmospheric phenomena,

random events,

exceeded the nominal parameters.

The warranty does not cover claims regarding the technical parameters of the device, as long as they are in accordance with the manufacturer's data.

The condition for maintaining warranty rights is the delivery of the device:

in complete condition,

WARRANTY CONDITIONS

in packaging that protects against damage,
with documentation, cables and additional elements,
without removed or damaged seals and stickers,
with the original warranty card signed by both parties and a sticker with the date of manufacture.
The warranty does not cover services and materials related to normal operating (e.g., assembly, programming, cleaning, maintenance, replacement of fuses and bulbs). These services are charged.
The Service may refuse to perform a warranty repair in the event of:
inconsistency of the data in the documentation with the actual state of the device,
unauthorized amendments to documents,
remove device identification marks (e.g. stickers).
Warranty repairs are carried out within 21 days from the date of delivery of the device for service. If it is necessary to import a part from abroad, this deadline may be extended – the Buyer will be informed about it by e-mail.
Installation of the appliance must be carried out in accordance with the standards and the operating instructions. If required by law, the installation must be carried out by a person with the appropriate permissions.
The scope of the rights and obligations of the parties is governed exclusively by this document.
Equipment not collected from the service within 3 months of the completion of the repair becomes the property of the service.
The parts replaced during the repair remain the property of the manufacturer.
The manufacturer is not responsible for the loss of user data stored on the device. After repair, the device is returned in a state restored to factory settings.
By signing the warranty card, the buyer confirms that he has read the terms of the warranty and accepts them. A card without a signature and without an original sticker with the date of production is invalid.
Note: The number of repairs does not include maintenance, cleaning, replacement of bulbs, fuses, wear and tear or repairs resulting from natural wear and tear (e.g. potentiometers).

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WARRANTY START DATE	SELLER STAMP	CUSTOMER SIGNATURE