

USER MANUAL

PRD2WIFI

Universal Wi-Fi power and temperature controller

KEY BENEFITS**PRECISION**

Accurate process and measurement control

SAFETY

High-level protection

RELIABILITY

Stable and dependable operation

UPDATES

Continuous improvements and new features

PRECYZJA

Dokładna kontrola procesów i pomiarów

**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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DOCUMENT VERSION

22.08.2026

ISSUE DATE

22.08.2026

1. Key safety rules



WARNING

- Do not treat the illustrative photo as a binding source for the connector type - the connector table and wiring diagram are authoritative.
- Insert and remove probes by holding the plug / rubber sleeve, not the cable.
- Check T and - if required - Ta. A probe alarm blocks START.
- Disconnect the power immediately. Do not use the device until the power path has been checked.
- Check WIFI STATUS and IP ADDRESS; the phone must be on the same network.
- Before contacting service, prepare a description of the problem, the software version and - if possible - the service report.

ADDITIONALLY: do not coil the power cables into tight loops. After moving the device from a cold place to a warm room, wait until it warms up and is completely dry.

2. What PRD2WIFI is for and how it works

PRD2WIFI is a power and temperature controller. It controls a 230 V load through a triac, while an additional safety relay disconnects the power path at STOP or when an alarm occurs.

T	Main control temperature. The AUTO and AUTO PID modes and the safety limit operate on the basis of this temperature.
Ta	Second temperature. It can end the process when the Ta setpoint is reached.
P	Current output power shown as a percentage.
STOP	The heating output is switched off.
RUN	The controller is running the process and may supply power to the load.

VERSION-DEPENDENT FUNCTIONS Some functions described here may be test, optional or dependent on the software version and equipment. Not all functions have to be available in every controller unit.

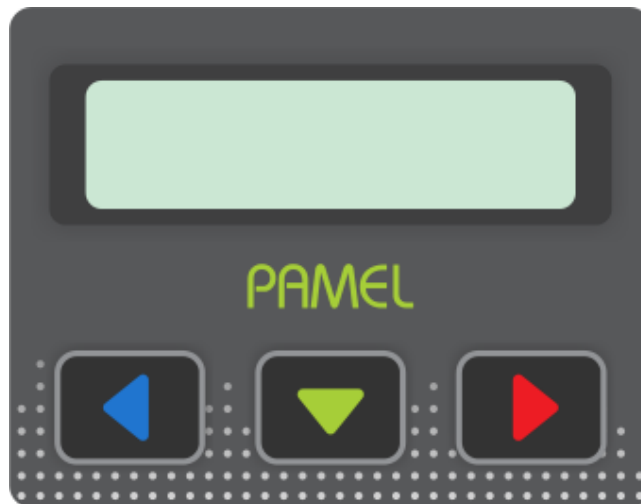
The controller can operate without probes as a power controller only if the installed software version allows it. In the standard PRD2WIFI configuration, working probes are required for START according to the "Ta REQUIRED" setting.

3. Technical data

Power supply	230 V AC, 50/60 Hz
Maximum load power	5.5 kW
Controller power consumption	approx. 1.5 W
Power switching element	triac
Additional power-path disconnection	safety relay
Fuse	25 A
Power supply cable	90 cm, 3×2.5 mm ² , rubber plug
Output cable	90 cm, 3×2.5 mm ² , rubber socket
Temperature probes	max. 2 × DS18B20
Usable T / Ta temperature range	-10...125°C
Display resolution	XXX or XXX.X
Display	2×16 character LCD
Wi-Fi	2.4 GHz; local web page / AP
Updates	OTA with package verification mechanism

5.5 kW INSTALLATION At 5.5 kW, the operating current is close to 24 A. The installation, protective devices, plug and socket must be selected for the actual load and the markings of the specific device version.

4. Device front panel and three buttons



Front panel as in PRD2: 2×16 LCD; left button - blue, centre button - green, right button - red.

LEFT	Decrease the value or select the previous item.
CENTRE / OK	Go forward, confirm, START/STOP on the relevant screen. At STOP, holding for approx. 5 s opens the menu.
RIGHT	Increase the value or select the next item.
OK for approx. 2.2 s in the menu	Back / go one level up.

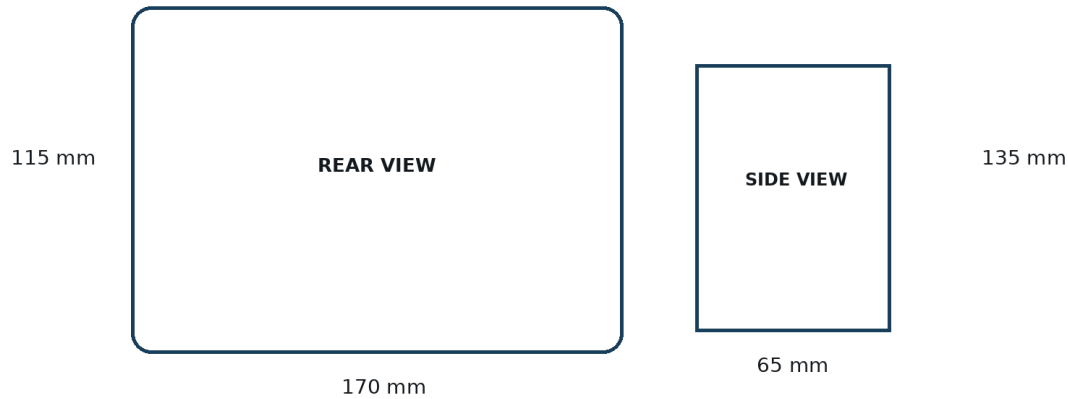
NOTICE From version 1.0.18, the functions of the physical LEFT and RIGHT buttons were swapped in software so that they match the current front panel.

5. Enclosure, dimensions and mounting

5. Enclosure, dimensions and mounting

PRD2WIFI

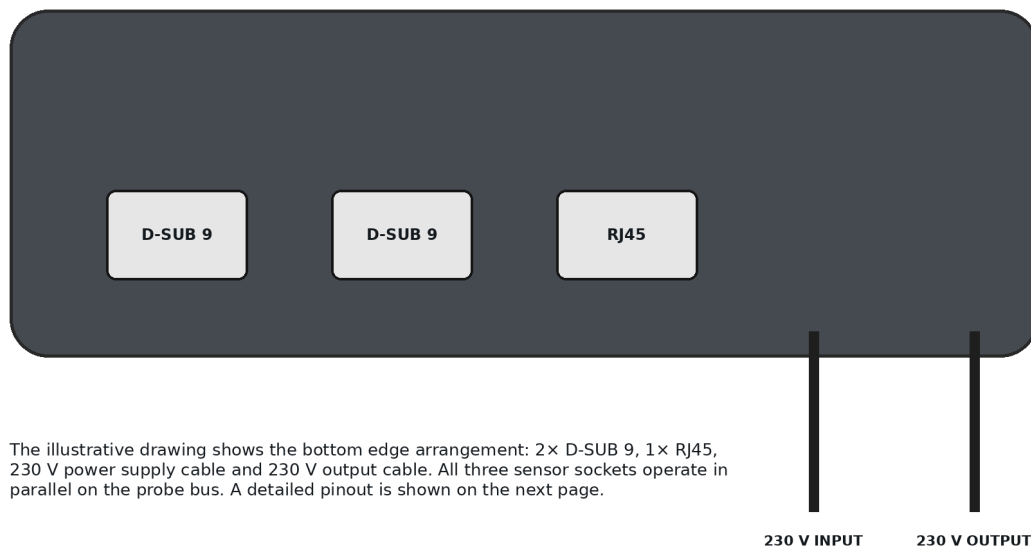
The enclosure has two upper mounting lugs with slotted holes.



- The enclosure has two upper mounting lugs with slotted holes.
- The power supply and output cables and the probe connectors exit from the bottom.
- The dimensions shown are approximate and may differ by a few millimetres between enclosure batches.
- Do not treat the illustrative photo as a binding source for the connector type - the connector table and wiring diagram are authoritative.

6. Bottom of the device - cables and connectors

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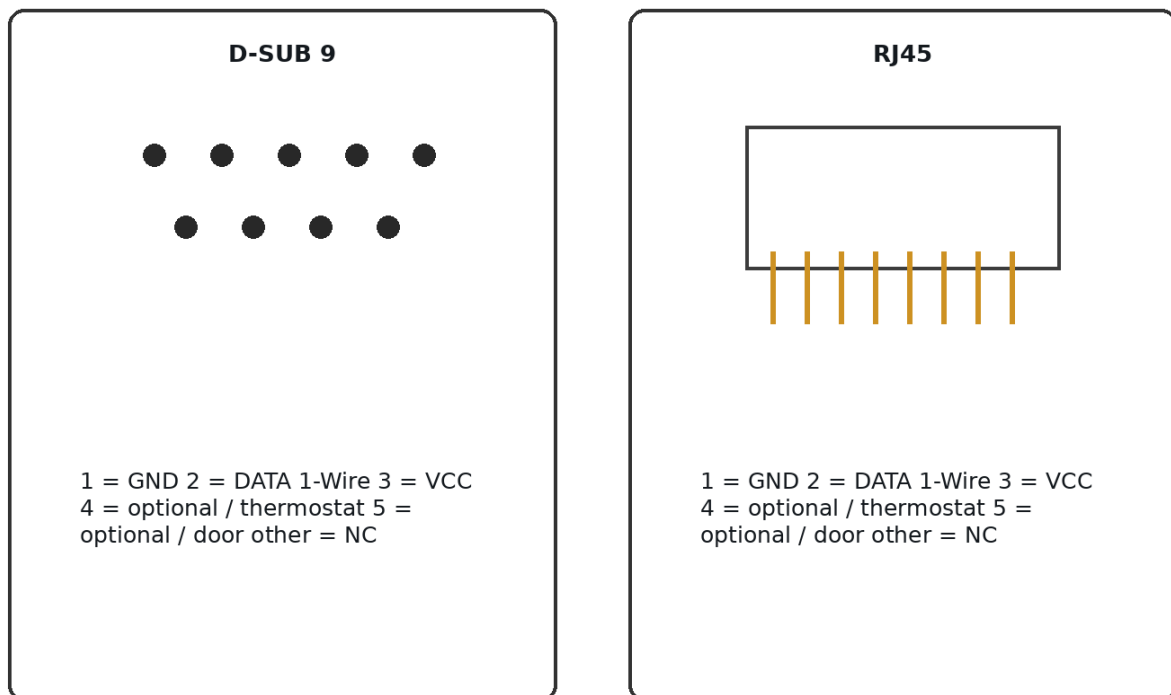


The illustrative drawing shows the bottom edge arrangement: 2× D-SUB 9, 1× RJ45, 230 V power supply cable and 230 V output cable. All three sensor sockets operate in parallel on the probe bus. A detailed pinout is shown on the next page.

ILLUSTRATIVE DRAWING The connector arrangement on the enclosure may differ depending on the version. Do not select a cable solely on the basis of a photograph.

7. Sensor and input connector pinout

7. Sensor and input connector pinout

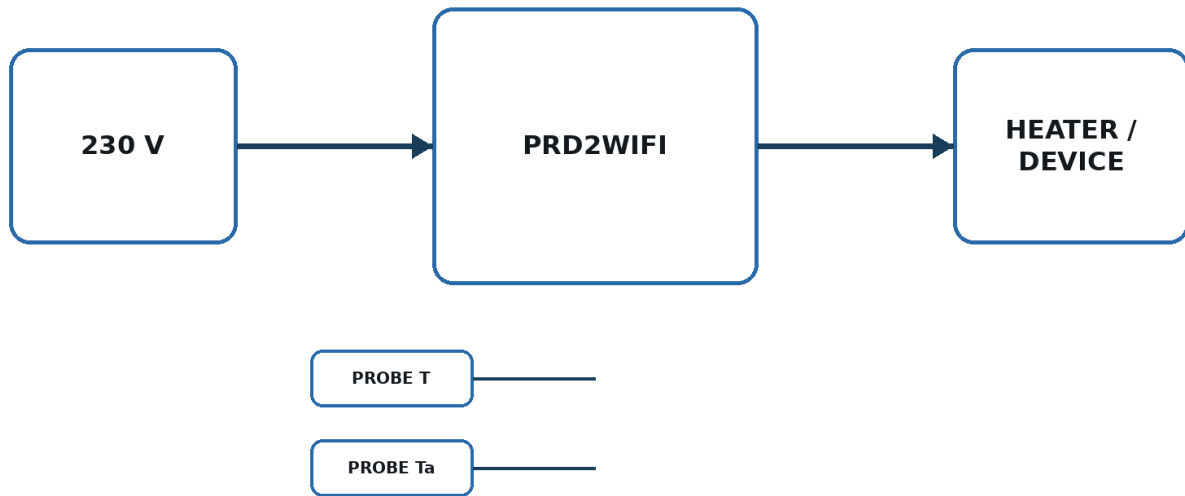


D-SUB 9: pin 1 = GND, pin 2 = DATA, pin 3 = VCC. Optionally, pin 4 may be used for a thermostat and pin 5 for a door limit switch. Support for these two inputs depends on the hardware and software version.

RJ45: pin 3 = GND, pin 4 = I/O (DATA), pin 6 = VCC; the other pins are not connected for a standard DS18B20 probe.

8. Example connection

8. Example connection



1. Connect the temperature probes to D-SUB 9 or RJ45.
2. Connect the resistive load to the controller's rubber output socket.
3. Connect the controller power plug to a properly protected 230 V installation.
4. If the load has its own controller, set it so that it does not limit the PAMEL controller - usually maximum temperature / power and the device switched on.
5. Switch on PRD2WIFI and check the readings before START.

9. First start-up and START / STOP

1. Before switching on the power, connect the probes and the load.
2. Switch on the power. Wait until the system finishes starting and connects to Wi-Fi.
3. Check the T and Ta temperatures. A “---” reading or an alarm indicates a probe problem.
4. Set the T setpoint and - if you use the second probe - the Ta setpoint.
5. Press OK briefly until you reach the “STATE: STOP / OK = START” screen.
6. Press OK. The controller checks the required probes and starts the process.
7. To stop the process, return to the START/STOP screen and press OK when “OK = STOP” is displayed.

T setpoint	-10...125°C; step 0.1°C or 1°C depending on the selected resolution; default 78°C.
Ta setpoint	-10...125°C; step 0.1°C or 1°C depending on the selected resolution; default 98°C.
Manual power	0–100%; default 75%.
STOP A normal STOP sets the power to zero, resets the controller, switches off the triac and then, after a short delay, disconnects the safety relay. A critical alarm switches the outputs off immediately.	
MEMORY Setpoints are stored in memory. The “REMEMBER P” option determines whether manual power is remembered.	

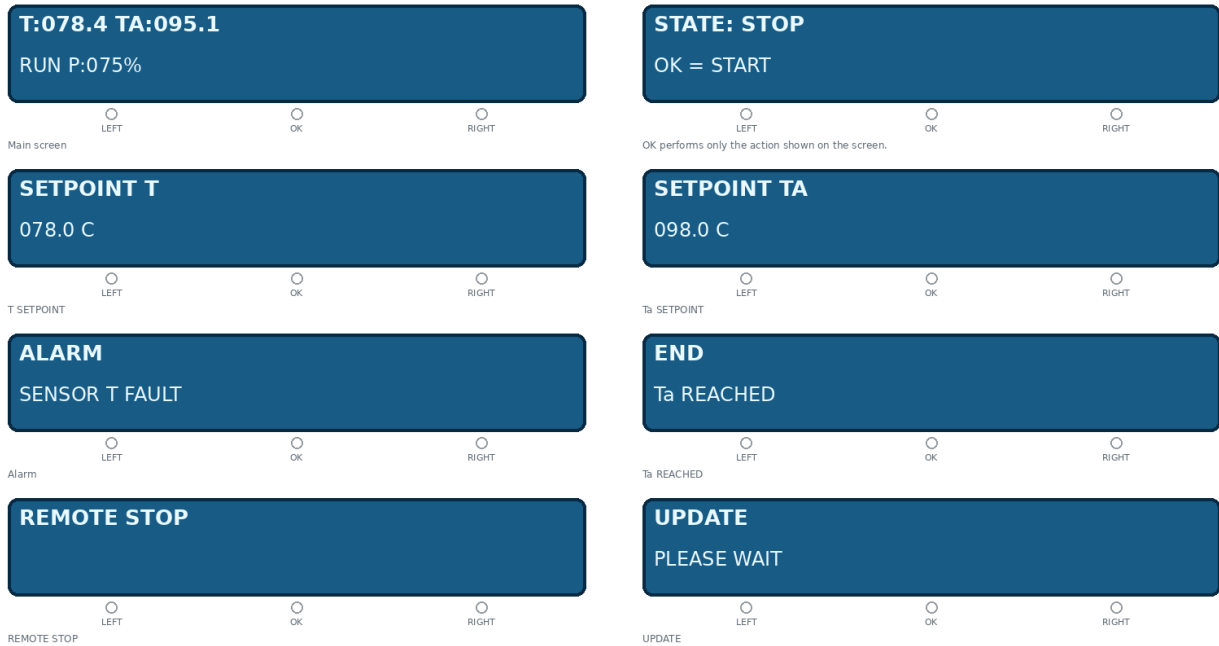


WARNING

- For reliable checking, use a stable temperature source; boiling water from a kettle is not an accurate reference.
- T LIMIT EXCEEDED
- Disconnect the power immediately. Do not use the device until the power path has been checked.

10. Main LCD screens

PRD2WIFI - 10. Main LCD screens



Main screen	Shows T, Ta, STOP/RUN state and current power P.
START/STOP	OK performs only the action shown on the screen.
T SETPOINT	LEFT/RIGHT changes T; holding the button accelerates the change.
Ta SETPOINT	LEFT/RIGHT changes Ta; the STOP/ALARM prefix depends on the STOP AFTER Ta setting.
Alarm	The alarm cause is displayed alternately with the main screen.

11. Settings menu - items 1-8

PRD2WIFI - 11. Settings menu - items 1-8

CONTROL MODE

<1/29> - OK

○
LEFT

○
OK

○
RIGHT

MINIMUM POWER

<2/29> - OK

○
LEFT

○
OK

○
RIGHT

MAXIMUM POWER

<3/29> - OK

○
LEFT

○
OK

○
RIGHT

WSP

<4/29> - OK

○
LEFT

○
OK

○
RIGHT

PID KP

<5/29> - OK

○
LEFT

○
OK

○
RIGHT

PID KI

<6/29> - OK

○
LEFT

○
OK

○
RIGHT

PID KD

<7/29> - OK

○
LEFT

○
OK

○
RIGHT

SAFETY TEMPERATURE

<8/29> - OK

○
LEFT

○
OK

○
RIGHT

OPERATING MODE	MANUAL / AUTO / AUTO PID
MIN POWER	0-100%
MAX POWER	MIN POWER-100%
AUTO WSP	1-30
PID Kp/Ki/Kd	PID controller settings
T LIMIT	50-130°C

12. Settings menu - items 9-14

PRD2WIFI - 12. Settings menu - items 9-14

STOP AT TA

<9/29> - OK

○
LEFT

○
OK

○
RIGHT

TA REQUIRED

<10/29> - OK

○
LEFT

○
OK

○
RIGHT

SOUND

<11/29> - OK

○
LEFT

○
OK

○
RIGHT

RESOLUTION

<12/29> - OK

○
LEFT

○
OK

○
RIGHT

REMEMBER POWER

<13/29> - OK

○
LEFT

○
OK

○
RIGHT

SWAP T / TA

<14/29> - OK

○
LEFT

○
OK

○
RIGHT

STOP AFTER Ta	end the process at Ta
Ta REQUIRED	missing Ta may block START
SOUND	buzzer and sound signals
RESOLUTION	XXX / XXX.X
REMEMBER P	manual power memory
SWAP T/Ta	swap probe assignment

13. Settings menu - items 15-21

PRD2WIFI - 13. Settings menu - items 15-21

T CALIBRATION ×

<15/29> - OK

○
LEFT

○
OK

○
RIGHT

T CALIBRATION +

<16/29> - OK

○
LEFT

○
OK

○
RIGHT

TA CALIBRATION ×

<17/29> - OK

○
LEFT

○
OK

○
RIGHT

TA CALIBRATION +

<18/29> - OK

○
LEFT

○
OK

○
RIGHT

DEVICE LANGUAGE

<19/29> - OK

○
LEFT

○
OK

○
RIGHT

VERSION

<20/29> - OK

○
LEFT

○
OK

○
RIGHT

STATISTICS

<21/29> - OK

○
LEFT

○
OK

○
RIGHT

CAL T / Ta	multiplier and correction for both probes
LANGUAGE	PL / CZ / SK / EN / DE
SOFTWARE VERSION	version preview
WIFI STATUS	connected / AP / none

14. Settings menu - items 22-29

PRD2WIFI - 14. Settings menu - items 22-29

WI-FI STATE

<22/29> - OK

○
LEFT

○
OK

○
RIGHT

WI-FI NETWORK

<23/29> - OK

○
LEFT

○
OK

○
RIGHT

IP ADDRESS

<24/29> - OK

○
LEFT

○
OK

○
RIGHT

WI-FI RESET

<25/29> - OK

○
LEFT

○
OK

○
RIGHT

FACTORY SETTINGS

<26/29> - OK

○
LEFT

○
OK

○
RIGHT

TESTS

<27/29> - OK

○
LEFT

○
OK

○
RIGHT

SALES BRAND

<28/29> - OK

○
LEFT

○
OK

○
RIGHT

EXIT

<29/29> - OK

○
LEFT

○
OK

○
RIGHT

WIFI NETWORK	current SSID
IP ADDRESS	address of the local web page
RESET WIFI	deletes Wi-Fi data
FACTORY RESET	restores settings; keeps activation and operating-time counters
STATISTICS	separate view of RUN TIME and HEATING TIME
TESTS	output and input tests at STOP
SALES VERSION	service function
EXIT	return to the main screen

15. Parameter editing screens - part 1

PRD2WIFI - 15. Parameter editing screens - part 1

CONTROL MODE <AUTO> ☐ LEFT ☐ OK ☐ RIGHT	MINIMUM POWER 0.0 % ☐ LEFT ☐ OK ☐ RIGHT
MAXIMUM POWER 100.0 % ☐ LEFT ☐ OK ☐ RIGHT	WSP <12.0> ☐ LEFT ☐ OK ☐ RIGHT
PID KP <12.00> ☐ LEFT ☐ OK ☐ RIGHT	PID KI <0.067> ☐ LEFT ☐ OK ☐ RIGHT
PID KD <18.00> ☐ LEFT ☐ OK ☐ RIGHT	SAFETY TEMPERATURE <120.0 C> ☐ LEFT ☐ OK ☐ RIGHT

OPERATING MODE	MANUAL / AUTO / AUTO PID; default AUTO.
MIN POWER	0-100%; default 0%.
MAX POWER	from MIN POWER to 100%; default 100%.
AUTO WSP	1-30; default 12.
PID Kp	0-100; default 12.0.
PID Ki	0-10; default 0.067.
PID Kd	0-100; default 18.0.

16. Parameter editing screens - part 2

PRD2WIFI - 16. Parameter editing screens - part 2

STOP AT TA <YES> ☐ LEFT ☐ OK ☐ RIGHT	TA REQUIRED <YES> ☐ LEFT ☐ OK ☐ RIGHT
SOUND <YES> ☐ LEFT ☐ OK ☐ RIGHT	RESOLUTION <XXX.X> ☐ LEFT ☐ OK ☐ RIGHT
REMEMBER POWER <YES> ☐ LEFT ☐ OK ☐ RIGHT	T CALIBRATION × <1.000> ☐ LEFT ☐ OK ☐ RIGHT
T CALIBRATION + <0.00 C> ☐ LEFT ☐ OK ☐ RIGHT	TA CALIBRATION × <1.000> ☐ LEFT ☐ OK ☐ RIGHT

T LIMIT	50-130°C; default 120°C.
STOP AFTER Ta	YES/NO; default YES.
Ta REQUIRED	YES/NO; default YES.
SOUND	YES/NO; default YES.
RESOLUTION	XXX or XXX.X; default XXX.X.
REMEMBER P	YES/NO; default YES.
Multiplier calibration	0.5-1.5; default 1.000.

17. Editing screens, Wi-Fi and service functions

PRD2WIFI - 17. Editing screens, Wi-Fi and service functions

TA CALIBRATION + <0.00 C> LEFT OK RIGHT	DEVICE LANGUAGE <ENGLISH> LEFT OK RIGHT
VERSION 1.0.22 LEFT OK RIGHT	WI-FI STATE CONNECTED LEFT OK RIGHT
WI-FI NETWORK HomeWiFi LEFT OK RIGHT	IP ADDRESS 192.168.1.64 LEFT OK RIGHT
WI-FI RESET <NO / YES> LEFT OK RIGHT	SERVICE PIN **** LEFT OK RIGHT

Offset calibration	-20...+20°C; default 0.00°C.
LANGUAGE	POLSKI / ČESKY / SLOVENSKY / ENGLISH / DEUTSCH.
WIFI STATUS/NETWORK/IP	view-only screens; OK returns to the menu.
RESET WIFI	requires YES/NO confirmation and restarts network configuration.
SERVICE PIN	screen intended for service personnel; the code is not published in the user manual.

18. Power control modes

MANUAL	The user sets power P. Temperature T does not change this power; probe protections and the temperature limit remain active. Manual power is limited by the MAX POWER setting.
AUTO	Power is calculated from the temperature error: $P \approx WSP \times (T_{\text{setpoint}} - T_{\text{measured}})$. When T is equal to or higher than the setpoint, power falls to 0%. A positive result is limited by MIN POWER / MAX POWER.
AUTO PID	Full PID controller with Kp, Ki, Kd parameters and MIN POWER / MAX POWER limits. The controller resets the regulator state at START/STOP and when changing the mode.

AUTO example: with WSP = 10 and a 3°C error, the controller calculates about 30% power unless the minimum or maximum power limits apply.

PID PID parameters depend on the inertia of the device and process. Factory values are a starting point; do not change them unless necessary.

Manual power	0-100%, default 75%
WSP	1-30, default 12
Kp	0-100, default 12
Ki	0-10, default 0.067
Kd	0-100, default 18

19. Alarms, buzzer and protections

T PROBE FAULT	No valid reading from the main probe. START is blocked or the process is stopped.
Ta PROBE FAULT	If Ta is required, the lack of a valid reading blocks START or stops the process.
T LIMIT EXCEEDED	T has reached T LIMIT. The outputs are disconnected immediately.
Ta REACHED	If STOP AFTER Ta = YES, reaching Ta ends the process.
REMOTE STOP	The process was stopped by the local web page or the remote PAMEL CLOUD channel. Remote START is not available.

- When an alarm is active, the buzzer signals the event approximately every 2 s if SOUND = YES.
- A short press of OK silences the alarm. A critical alarm can be cleared only after its cause has disappeared.
- After T LIMIT is exceeded, the alarm can be cleared only after the temperature falls about 2°C below the limit.
- In alarm mode, the cause screen is displayed alternately with the main screen.

DO NOT BYPASS THE ALARM If the alarm returns, remove its cause. Do not raise the safety limit merely to hide the problem.

20. User tests - screens

PRD2WIFI - Tests are available after device activation and only at STOP.

TESTS 1/7

<HEATER>

○ LEFT ○ OK ○ RIGHT

TESTS 2/7

<RELAY>

○ LEFT ○ OK ○ RIGHT

TESTS 3/7

<BUZZER>

○ LEFT ○ OK ○ RIGHT

TESTS 4/7

<PROBES>

○ LEFT ○ OK ○ RIGHT

TESTS 5/7

<BUTTONS>

○ LEFT ○ OK ○ RIGHT

TESTS 6/7

<WIFI>

○ LEFT ○ OK ○ RIGHT

TESTS 7/7

<EXIT>

○ LEFT ○ OK ○ RIGHT

TESTS 8/7

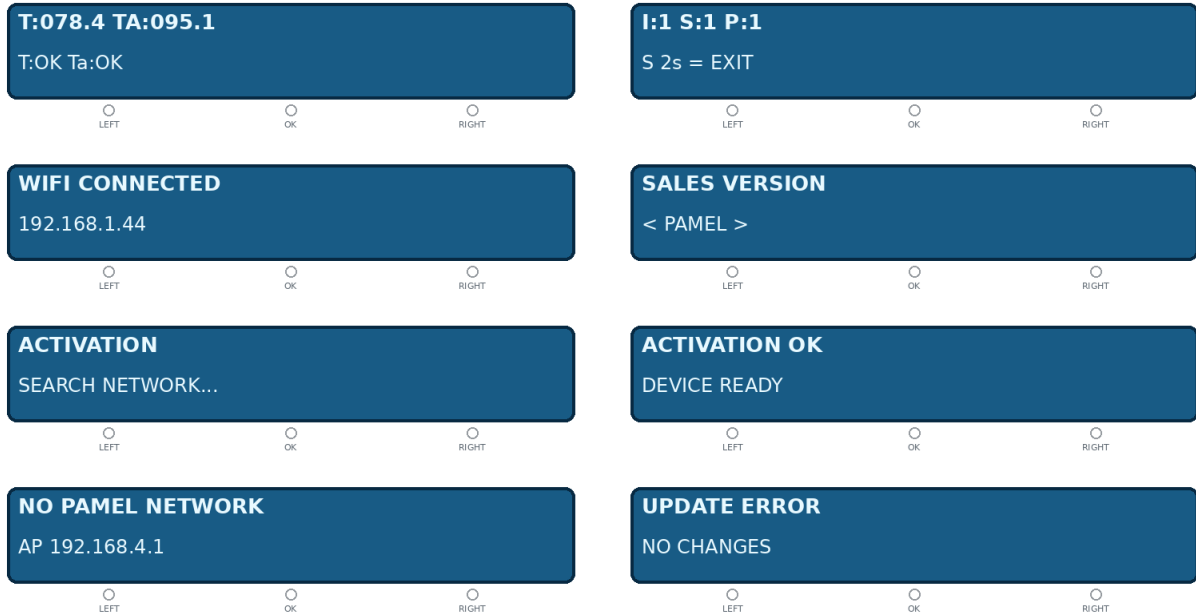
<HEATER>

○ LEFT ○ OK ○ RIGHT

HEATER	0 / 25 / 50 / 75 / 100%, max. 10 s.
RELAY	activation max. 5 s.
BUZZER	signal max. 1 s.
PROBES	T / Ta preview and OK / ERR status; in firmware 1.0.22 also assignment verification: YES keeps T/Ta, NO swaps T and Ta exactly once; a probe error blocks the swap.
BUTTONS	checks detection of LEFT / CENTRE / RIGHT.
WIFI	connection status and IP address.

21. Tests, activation and system messages

PRD2WIFI - Tests are available after device activation and only at STOP.



- Tests are available after device activation and only at STOP.
- The heater test switches on the safety relay first and then triac control. At the end, the triac switches off before the relay.
- Entering normal START during a test stops the test.
- Test results and test starts are recorded in the event log.
- The ACTIVATION screens are intended mainly for the production process. If a sold device stops at activation, contact service.

HEATER TEST Run it only when the connected load can operate safely.

22. Wi-Fi, AP mode and access to the web page

1. After start-up, the controller attempts to connect to the saved Wi-Fi network.
2. If the connection fails, it starts its own access point with a name beginning with "PRD2WIFI".
3. Connect your phone or computer to the controller network. In AP mode, the page address is 192.168.4.1.
4. In AP mode, the configuration page is protected by PIN 2009.
5. In the Wi-Fi section, use "SCAN AVAILABLE NETWORKS", select the network, enter the password and save the settings.
6. After restart, read the new IP address in the WIFI STATUS / WIFI NETWORK / IP ADDRESS menu.
7. The phone or computer must be on the same local network as the controller.

LOCAL WEB PAGE PRD2WIFI does not require PAMEL CLOUD for local operation. The basic web page works on the same Wi-Fi network or in AP mode. PAMEL CLOUD is a separate remote channel and its absence does not block local control.

The Wi-Fi password in PAMEL interfaces should remain visible while it is being entered, in accordance with the device operating standard. The appearance of the field may depend on the software / browser version.

23.1. Web page visualisation - part 1

PAMEL PRD2WIFI

23.2. Web page visualisation - part 2

T 78.4°C Ta 95.1°C

P 75% RUN

STOP

T setpoint

78.0°C

Ta setpoint

98.0°C

Top part of the page: temperature, power and state preview, START/STOP and quick adjustment of T and Ta setpoints.

23.2. Web page visualisation - part 2

PAMEL PRD2WIFI

23.3. Web page visualisation - part 3

Counters

AUTO

Tests

WSP 12 / Kp 12.0

Service report

T 1.000 / +0.00

Wi-Fi

HomeWiFi / 192.168.1.64

SOFTWARE VERSION

1.0.22

Middle part of the page: controller parameters, calibration, Wi-Fi, version information and contact.

23.3. Web page visualisation - part 3

PAMEL PRD2WIFI

24. Detailed description of web page functions

STATISTICS

RUN 0123h / HEAT 0087h

Event log

HEATER / RELAY / PROBES

DURING OPERATION

JSON

UPDATE

OTA 1.0.22

EVENT LOG

START • STOP • WIFI

Bottom part of the page: counters, tests, service report, update and event log.

24. Detailed description of web page functions

Overview	T, Ta, STOP/START, power P, Wi-Fi and IP address. Data refreshes automatically. The local web page operates independently of PAMEL CLOUD.
T / Ta setpoint	Change with -/+ buttons or by entering a number; automatic saving and a result message.
Parameters	Mode, manual power, Pmin/Pmax, WSP, PID, T limit, resolution, language, sound, Ta, calibration.
Wi-Fi	Network scan, save SSID/password, reset Wi-Fi data.
Counters	Number of processes, total controller operating time, total heater operating time.
Tests	Heater, relay, buzzer, probes, buttons, Wi-Fi - only at STOP.
Service report	Local JSON file containing parameters, status, counters and events. Passwords and secrets are not disclosed.
Update	Version check and OTA download and installation.
Event log	The last 100 events; always located at the end of the page.

DURING OPERATION During a process, the web page allows basic operating setpoints to be changed. Advanced settings are blocked during operation if the installed software version classifies them that way.

25. DS18B20 probes, installation and calibration



WARNING

- Insert and remove probes by holding the plug / rubber sleeve, not the cable.
- Do not treat the illustrative photo as a binding source for the connector type - the connector table and wiring diagram are authoritative.
- Disconnect the power immediately. Do not use the device until the power path has been checked.



WARNING

- Each probe calibration has a multiplier of 0.5-1.5 and an offset of -20...+20°C.
- For reliable checking, use a stable temperature source; boiling water from a kettle is not an accurate reference.
- Check the T and Ta temperatures. A "..." reading or an alarm indicates a probe problem.
- Insert and remove probes by holding the plug / rubber sleeve, not the cable.

- Insert and remove probes by holding the plug / rubber sleeve, not the cable.
- For DS probes, the physical socket should not determine the T / Ta function; assignment may be performed in software.
- "SWAP T / Ta" swaps the functions of two detected probes without moving the cables.
- Each probe calibration has a multiplier of 0.5-1.5 and an offset of -20...+20°C.
- For reliable checking, use a stable temperature source; boiling water from a kettle is not an accurate reference.

26. Diagnostics - before contacting service

START does not work	Check T and - if required - Ta. A probe alarm blocks START.
Power P = 0%	Check RUN state, control mode, T setpoint and active alarms.
Heater heats after STOP	Disconnect the power immediately. Do not use the device until the power path has been checked.
Temperature is not reached	Check Pmax, WSP / PID, load power, supply voltage and heat losses.
Ta ends the process too early	Check the Ta setpoint and STOP AFTER Ta.
No web page	Check WIFI STATUS and IP ADDRESS; the phone must be on the same network.
No AP	Wait until the connection attempt to the saved network has finished.
Web page in AP asks for a PIN	Use configuration PIN 2009.



BEFORE YOU CALL SERVICE

- Check T and - if required - Ta. A probe alarm blocks START.
- Check RUN state, control mode, T setpoint and active alarms.
- Check WIFI STATUS and IP ADDRESS; the phone must be on the same network.
- Before contacting service, prepare a description of the problem, the software version and - if possible - the service report.

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27. Expansion, PAMEL_BUS, environment and online help

PRD2WIFI can be expanded by software. Firmware 1.0.22 has no confirmed list of PAMEL_BUS modules intended for direct operation with this controller. The local web page, OTA and PAMEL CLOUD operate independently of the bus.

If support for PAMEL_BUS or additional devices is added in a later version, the list of compatible modules and the required software version should be published together with the manual update.

OPTIONAL INPUTS D-SUB 9 provides optional signals: pin 4 - thermostat, pin 5 - door limit switch. These functions may require the appropriate hardware and firmware version.

Online help and materials



PAMEL website:

[server.pamel.pl/](https://www.pamel.pl/)



PAMEL knowledge base:

www.pamel.pl/pl/i/Baza-wiedzy/1



PAMEL Facebook:

www.facebook.com/61590629211725/



PAMEL YouTube:

www.youtube.com/@PAMEL_STEROWNIKI

PAMEL website: <https://www.pamel.pl/>

PAMEL knowledge base: <https://www.pamel.pl/pl/i/Baza-wiedzy/1>

PAMEL Facebook: <https://www.facebook.com/61590629211725/>

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

ENVIRONMENTAL PROTECTION

BDO registration number: 000073814. Do not dispose of the used device with municipal waste. Take it to an appropriate collection point for waste electrical equipment or follow the manufacturer's current information.

CONTACT AND UPDATES

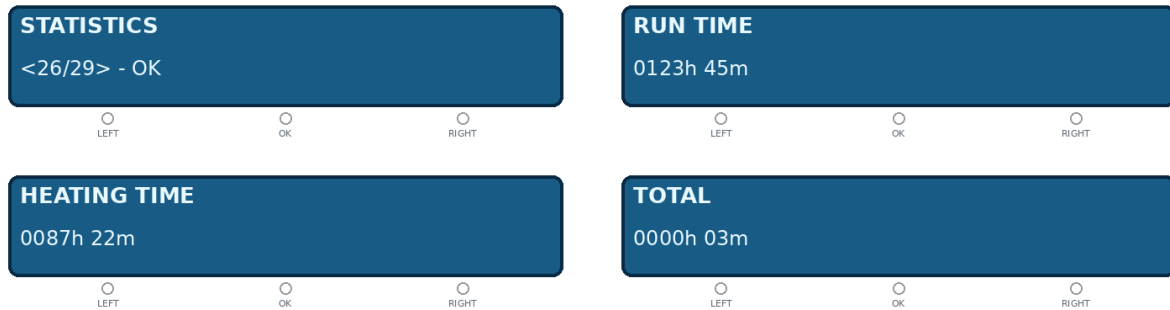
PAMEL, 42-300 Myszków, ul. Urodzajna 5E • tel. 453-343-360 • pamel@pamel.pl. The latest contact details, manuals, knowledge base and service information are always published at www.pamel.pl.

Current information: www.pamel.pl • Knowledge base • Facebook • YouTube

28. Operating statistics - LCD screens

Firmware 1.0.22 has a separate STATISTICS item. The screens show two independent operating counters.

PRD2WIFI 1.0.22 - 28. Operating statistics - LCD screens



RUN TIME	accumulated time when the controller is in the active RUN state; merely switching on the power does not increase this counter.
HEATING TIME	accumulated time for which commanded power is greater than 0%; one second at 1%, 25% or 100% counts equally as one second of heating.
SAVING	the counters are saved as a checkpoint about every 15 min of active operation and at STOP/reset. A factory reset does not clear these counters.

29. T / Ta probe assignment tester - firmware 1.0.22

Enter: MENU -> TESTS -> PROBES. The function is available at STOP and after the device has been activated.

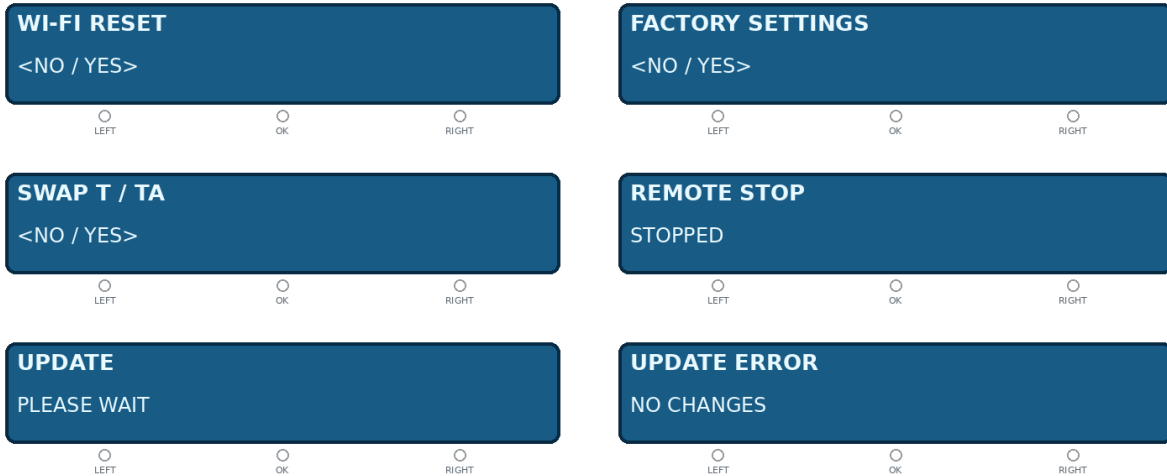
PRD2WIFI 1.0.22 - 29. T / Ta probe assignment tester - firmware 1.0.22

T:078.4 TA:095.1 T:OK Ta:OK ☐ LEFT ☐ OK ☐ RIGHT	CORRECT? <YES> ☐ LEFT ☐ OK ☐ RIGHT
YES / OK NO CHANGE ☐ LEFT ☐ OK ☐ RIGHT	NO / OK T <-> Ta ☐ LEFT ☐ OK ☐ RIGHT
PROBE ERROR SWAP BLOCKED ☐ LEFT ☐ OK ☐ RIGHT	PROBES OK T / Ta SAVED ☐ LEFT ☐ OK ☐ RIGHT

- The screen shows the actual T and Ta temperatures according to the currently stored probe addresses.
- RIGHT selects YES: the assignment is correct; after OK the controller does not swap anything.
- LEFT selects NO: after OK the controller swaps the T and Ta assignments exactly once.
- If either probe is missing or its reading is invalid, swapping is blocked.
- The separate SWAP T / Ta menu item remains available independently of the tester.

30. Confirmation screens and system messages

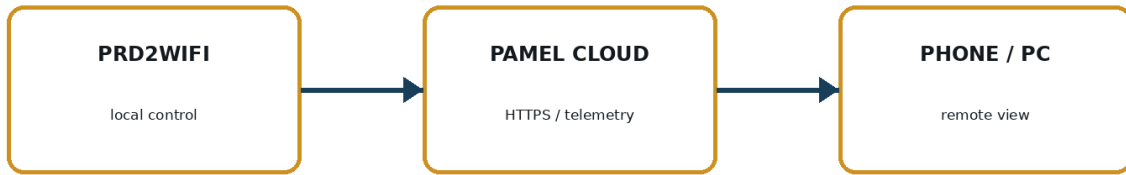
PRD2WIFI - 30. Confirmation screens and system messages



RESET WIFI	after confirmation, deletes saved network data and starts Wi-Fi configuration again.
FACTORY RESET	restores user settings; firmware 1.0.22 keeps activation and operating counters.
SWAP T / Ta	swaps the functions of two correctly detected probes without moving the plugs.
REMOTE STOP	informs that the process was stopped by the local web page or the remote PAMEL CLOUD channel. Remote START is not available.
UPDATE	do not switch off the power during OTA. An update error ends the operation without accepting an incomplete package; the mechanism includes verification and rollback.

31. PAMEL CLOUD - remote access, scope and documents

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PAMEL CLOUD is an addition to local operation. Lack of Internet, DNS or server access must not block control, alarms, AP mode or the local web page.

- PAMEL CLOUD is an addition to local operation. Lack of Internet, DNS or server access must not block control, alarms, AP mode or the local web page.
- The controller periodically sends telemetry and receives permitted remote commands. For PRD2WIFI, remote STOP is available; remote START is not provided.
- The remote view may show, among other things, T, Ta, setpoints, power P, RUN/STOP, local address and statistics, depending on the active service plan and server version.

PAMEL CLOUD Terms and Conditions	https://serwer.pamel.pl/legal/PAMEL_CLOUD_REGULAMIN.pdf	
PAMEL CLOUD Privacy Policy	https://serwer.pamel.pl/legal/PAMEL_CLOUD_POLITYKA_PRYWATNOSCIPDF	

WARRANTY TERMS

Dear User,

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

1. PAMEL provides a warranty for the controller (excluding additional equipment) within the territory of the Republic of Poland for a maximum period of 60 months:

- 24 months of basic warranty,
- 6 months of manufacturer's extended warranty,
- additionally, a warranty extension to 40 or 50 months may be purchased.

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

Additional equipment (e.g. probes, heaters) is covered by the standard warranty resulting from the Polish Civil Code.

A purchased warranty extension is confirmed by a holographic sticker on the warranty card.

2. The warranty does not cover consumable parts and accessories intended for self-installation (e.g. antennas, sensors, holders, heaters, cables, batteries).

3. During the warranty period, the manufacturer undertakes to remedy 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 is entitled to replacement with a new unit of equivalent parameters or to a refund of the purchase price.

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

5. Claims should be submitted by e-mail (pamel@pamel.pl) or by telephone. The manufacturer will first attempt to resolve the problem remotely and will indicate the further steps of the claims procedure.

6. At the manufacturer's request, the Buyer is required to complete a complaint report.

7. The warranty covers only defects arising from causes inherent in the device.

8. The warranty does not cover damage resulting from:

- improper installation, operation or maintenance,
- storage under unsuitable conditions,
- use of improper consumables,
- unauthorised repairs or modifications,
- mechanical damage, flooding, condensation, contamination, atmospheric phenomena or random events,
- exceeding rated parameters.

9. The warranty does not cover claims concerning the technical parameters of the device if they comply with the manufacturer's data.

WARRANTY TERMS - continued • version dated 16.05.2026

10. To retain warranty rights, the device must be delivered:

- complete,
- in packaging protecting it against damage,
- together with documentation, cables and additional components,
- with seals and labels intact and not removed,
- with the original warranty card signed by both parties and a sticker showing the production date.

11. The warranty does not cover services and materials associated with normal operating maintenance (e.g. installation, programming, cleaning, maintenance, replacement of fuses and bulbs). These services are chargeable.

12. Service may refuse to perform a warranty repair in the event of:

- inconsistency between the data in the documentation and the actual condition of the device,
- unauthorised alterations to documents,
- removal of device identification marks (e.g. labels).

13. Warranty repairs are performed within up to 21 days from the date the device is delivered to service. If parts must be sourced from abroad, this period may be extended - the Buyer will be informed by e-mail.

14. The device must be installed in accordance with the standards and the user manual. Where required by law, installation must be carried out by a person holding the appropriate qualifications.

15. The scope of the parties' rights and obligations is governed exclusively by this document.

16. Equipment not collected from service within 3 months after completion of the repair becomes the property of the service centre.

17. Parts replaced during repair remain the property of the manufacturer.

18. The manufacturer is not responsible for loss of user data stored in the device. After repair, the device is returned restored to factory settings.

19. By signing the warranty card, the Buyer confirms that they have read and accept the warranty terms.

A card without a signature and without the original sticker showing the production date is invalid.

Note: The number of repairs does not include maintenance activities, cleaning, replacement of bulbs, fuses, consumable components or repairs resulting from natural wear (e.g. potentiometers).

WARRANTY PERIOD START DATE	SELLER'S STAMP	CUSTOMER SIGNATURE