



# RIDO

## BORD 161

# OPERATIONAL MANUAL

EN 

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**BRAGER**<sup>®</sup>

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# **EU Declaration of Conformity**

## **No. 0037/2019**

Brager Sp. z o. o. Pleszew ul. Rolna 11,  
63-300 Pleszew declares that the product manufactured by us:

**Room temperature regulator: RIDO BORD 161**

meets the requirements of the following directives:

**R & TTE Directive 1999/5 / EC replaced by Directive 2014/53 / UE**

As well as

**2014/30/EU Electromagnetic Compatibility Directive (EMC)**

Based on harmonized standards:

**PN-EN 55022/2011 replaced with PN EN 50561 – 1/2013**

**ETSI EN 301-489-1 V2.1.1**

**ETSI EN 301-489-3 V2.1.1**

**PN EN 607-30-1, PN EN 607-30-2-9**



# 1. Safety

## 1.1 General safety notes



Please read the following regulations before using the product. Failure to comply with them may result in personal injury or damage to the device. To ensure the safety of life and property, take the precautions contained in the following manual, as the manufacturer is not responsible for losses caused by improper use of the device or the User's negligence.

## 1.2 Warnings

- The assembly of the device should be performed by a person having the appropriate electrician qualifications.
- The device may only be operated by adults.
- Incorrect wiring can damage the device!
- Lightning can damage the device, so during a storm it should be disconnected from the network by removing the main plug from the socket.
- The unit must not be used for purposes other than those intended.
- Before and during the heating season it is necessary to check the technical condition of the cables, check the fixing of the unit, clean it from dust and other dirt.
- The manufacturer reserves the right to make changes in the software and principle of the device's operation without modification of the contents of the manual every time.

## 1.3 Warranty notes



Any modifications and repairs made to the device on one's own may result in the deterioration of its operating parameters and safety of its use. Carrying them out is tantamount to losing the warranty for the device.

## 2. *Intended use*

Wireless room temperature regulator **AIDO** BORD 161 performs several basic functions, significantly increasing comfort of operating heating system and regulating the temperature in controlled room. It is a modern room control panel, equipped with a large TFT screen and an intuitive user interface. Having numbers of functionalities, it allows to set and control temperature in the selected room, based upon temperature of air. For higher user comfort, it's possible to choose from several predefined modes, including: Constant, Holidays, Economic, Airing and Time zones, automatically adjusting temperature to residents' individual needs.

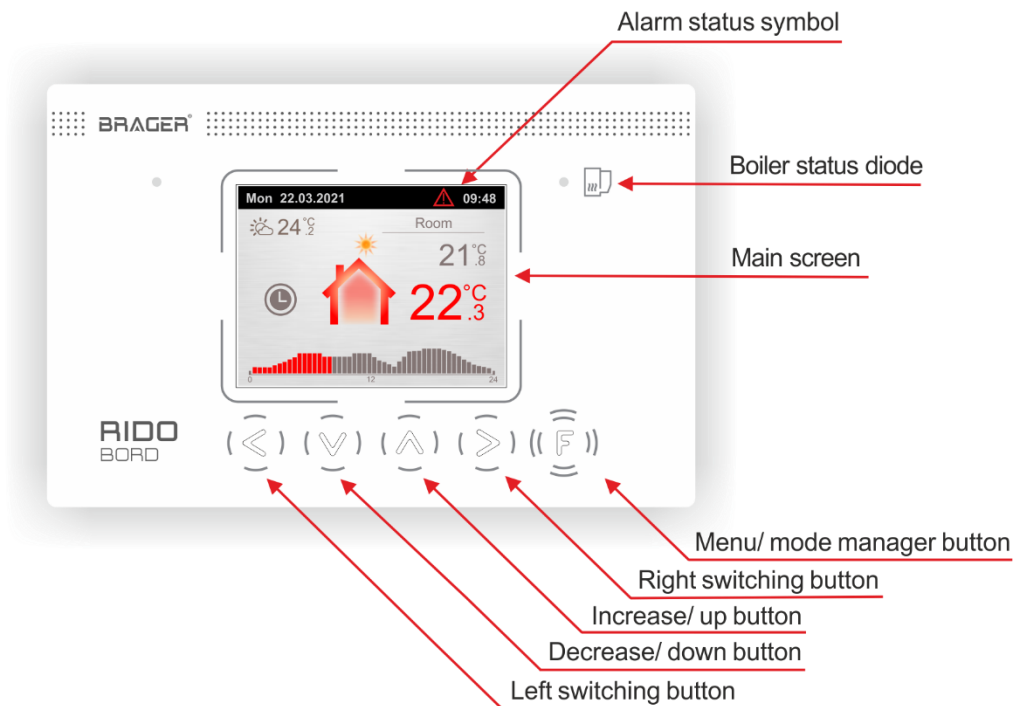
Device is fulfilling the role of a remote panel, enabling the management of boiler's, DHW's, buffer's and/or mixing valves' temperature. It displays current amount of fuel in the tank and informs if any irregularities were to occur. Panel allows to stop and start operation of the pellet boiler and modify basic operating parameters of the heating system.


### **Most important advantages of the device:**




- Wireless communication
- Controlling room temperature based on temperature of air.
- Ability to change temperature of boiler, DHW, mixing valves and buffer.
- Preview of outdoor temperature.
- Variety of available operating modes.
- PIN lock keeping unauthorized access from parameter modification.
- Changing pump operating mode in heating system.
- Ambient light sensor, adjusting screen brightness accordingly to lighting's intensity.
- Sound alarm.

### 3. Room control panel

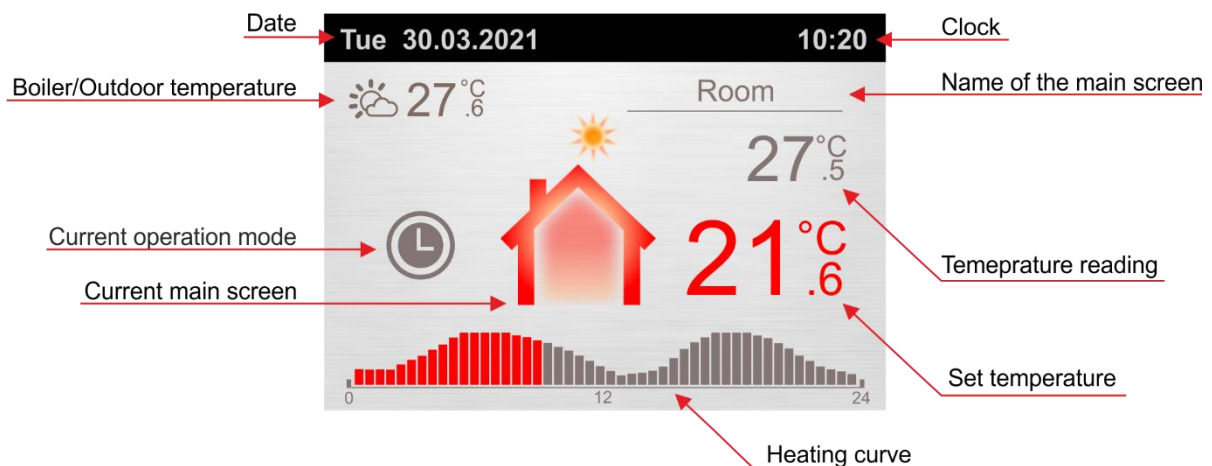
#### 3.1. Visualization of a display, panel and marking of signalling diode



**Boiler status**  - Diode signals current operating state of boiler

-  - Boiler operating
-  - Boiler stopped
-  - Alarm

#### 3.2. Display's view and description



### 3.3. Button functions



**FUNCTION** - this button's functionality depends on the current place in the user interface:

- on main screen “room” short press shows operating mode manager. Long press allows user to enter device's main menu
- on main screen: boiler, valve, buffer and DHW, button prompts “insert pin” screen
- within operating mode manager, returns user to main screen room
- within time zones configuration screen, allows to modify chosen parameter



**LEFT POINTING ARROW** - this button's functionality depends on the current place in the user interface:

- on main screens, allows to switch between available modules
- within operating mode manager, allows to move through available modes (party, eco, constant, time zones, airing, holidays)
- within main menu, returns user to the previous screen
- within time zones configuration screen, allows to move cursor left, between blocks



**DOWN POINTING ARROW** - this button's functionality depends on the current place in the user interface:

- on main screens, allows to change value of currently selected element. Long press accelerates speed with which setting is being changed.
- within operating mode manager, leaves function without saving any changes
- within main menu, allows scrolling through available options
- within time zones configuration screen, allows to move cursor down a block and reduce marked value



**UP POINTING ARROW** - this button's functionality depends on the current place in the user interface:

- on main screens, allows to change value of currently selected element. Long press accelerates speed with which setting is being changed.
- within operating mode manager, saves currently selected operating mode
- within main menu, allows scrolling through available options
- within time zones configuration screen, allows to move cursor up a block and increase marked value



**RIGHT POINTING ARROW** - this button's functionality depends on the current place in the user interface:

- on main screens, allows to switch between available modules
- within operating mode manager, allows to move through available modes (party, eco, constant, time zones, airing, holidays)
- within main menu, moves user to next screen
- within time zones configuration screen, allows to move cursor right, between blocks

## 4. Handling of the regulator

### 4.1 First start-up

After starting room temperature regulator **RIDO BORD 161** and display of splash screen, panel will show main screen responsible for adjusting room temperature. Device gets data directly from boiler regulator, thus number of available screens on the panel depends on the current number of activated modules within the operated installation.

At any point in time user can configure the panel according to their own needs: Change temperature value of the room, change basic settings related to operating the boiler, DHW, and mixing valves, choose one from six predefined operating modes and change the primary functions specifying work and behaviour of room control panel.

To improve handling of the device, most important settings and temperature readings are found on the main screens. Moving through these screens is possible with short press of ( $\leftarrow$ ) and ( $\rightarrow$ ). Number of main screens depends on the number of connected modules and functions in the boiler regulator (Fig1).

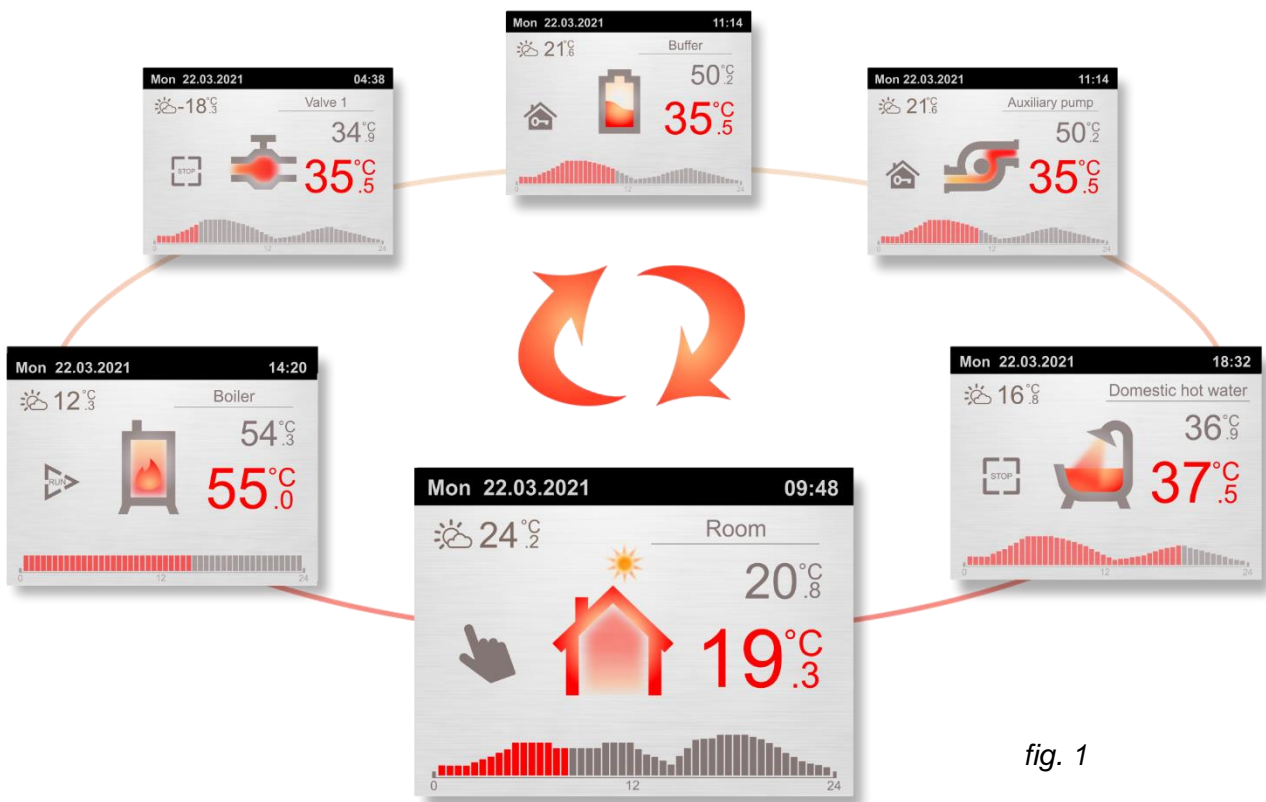


fig. 1



E Besides displaying current parameters, main screens allow for changes in basic settings. Example screen (fig.2) presents temperature readings in the room (value 21,8°C on the example screen) as well as set temperature (value 22,3°C on the example screen). Increasing and decreasing setting values happens by pressing (or holding) (▼) and (▲), respectively. Top bar informs about current date (format: weekday dd:mm:yyyy) and hour, if an external temperature sensor is attached to the thermostat, its readings are displayed in upper-left corner, right beneath the date section of the bar. In the absence of such sensor, temperature from the boiler will be displayed. Below that reading an icon of currently active operation mode can be found. In the example screen it's the clock icon, representing "time zones" mode. Choosing this mode will activate temperature histogram in the lower part of the display, that illustrates time lapse with values of set temperatures for each individual segment of time.



fig. 2

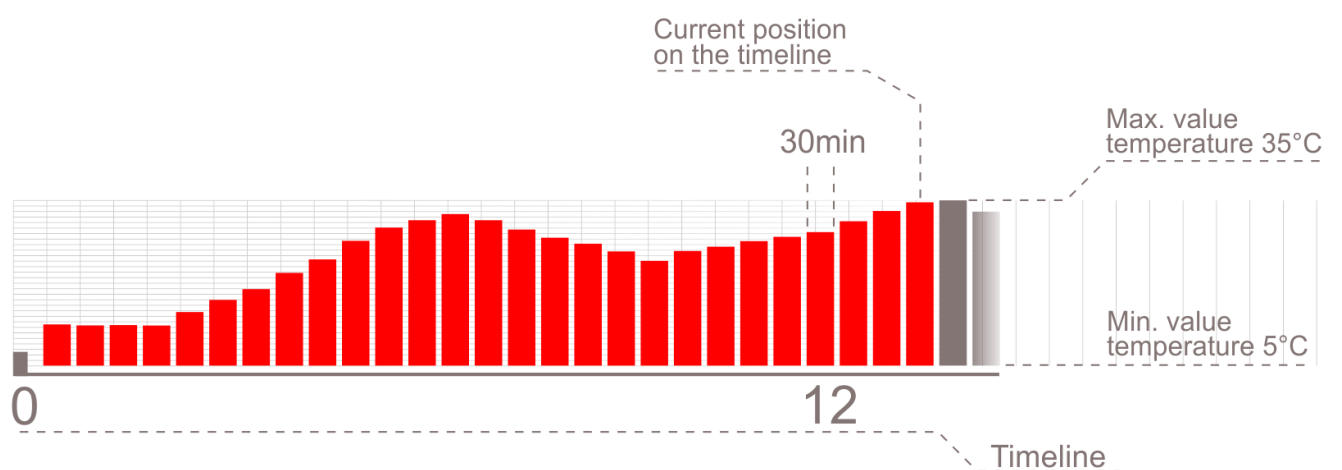


Figure 3 presents main screen of DHW. Besides visible set and temperature reading of the domestic hot water module, there is also symbol signifying boiler operating state:



fig. 3

Histogram found on the bottom of display illustrates time lapse. In case of active "time zones" in the main regulator controlling boiler, heating curve will be displayed corresponding to set temperature corrections within time zones.

Figure 4 presents “boiler” main screen with visible current temperature reading (value 54,3°C in example screen) and value of set temperature (55,0°C in example screen). To protect unauthorized access from changing set temperature, screen can be locked, as shown in figure 5. After pressing or (⬆) (⬇) picture of a red lock will cover the screen, stopping any potential malicious change.

Pressing (⏏) will show bar with area to enter safety password on the bottom of the screen (fig.6).

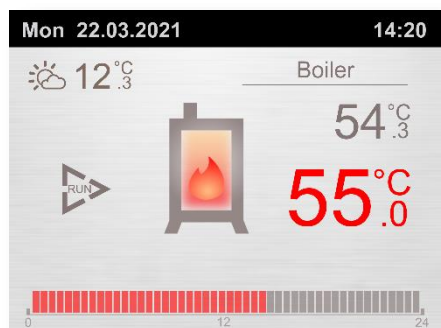


fig. 4

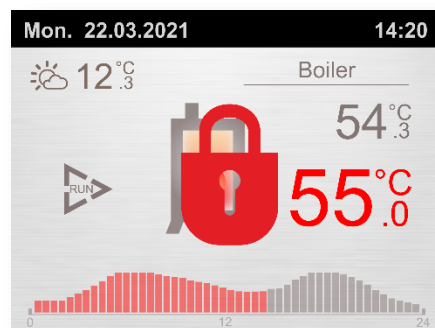


fig. 5

Buttons (⬅) and (➡) are responsible for moving back and forth between digits, while (⬆) and (⬇) allow for increasing and decreasing value of the chosen number. Confirming the password is done by pressing (pravo) while on the last digit. Additionally, throughout the entire operation bottom bar will display information about each of the buttons' function.

Entered password grants access to modifications of boiler's set temperature for a time set in “Pin activity time”. More on regulator security measures can be found in point 4.4.

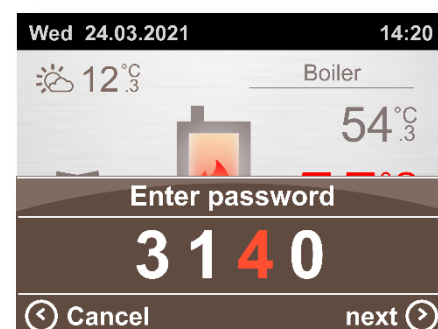


fig. 6

**WARNING!!!** - In the room control panel **RIDO BORD 161** it's possible to permanently enable or disable password protection. More information can be found in point 4.4.

## 4.2 Initial configuration

Entering main menu is possible by a long press (holding button for at least 3 sec) of (⏏) button. In order to simplify moving through menu, it has been divided into theme blocks. Buttons (⬆) and (⬇) are used to navigate between different setting options, while button (➡) allows to enter selected block. To return to the previous position in the menu (⬅) button must be pressed.

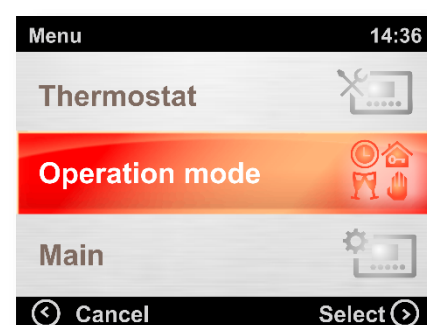


fig. 7

Most important **RIDO BORD 161** configuration settings include:

## Assigning heating circuit



Room control panel is **RIDO BORD 161** suited to operate one circulation pump. In case of more advanced installations with more than one heating circuit it's important to specify, which one is to be controlled by the room control panel. Figure 8 illustrates main screen of valve 1. Red colouring in the name of the screen (upper right corner) means that heating circuit is currently assigned to pump of valve 1.

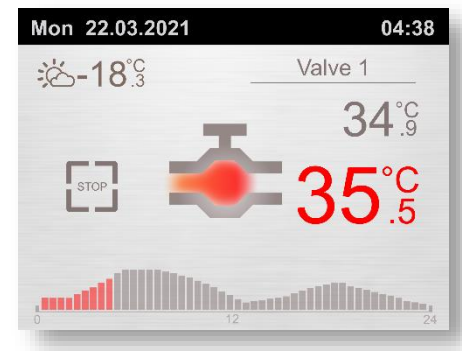


fig. 8

## Setting present date and time

It's possible to set date and time by entering Main menu, Main and choosing block "Date and Time". It's crucial to set date and time correctly, otherwise "time zones" wouldn't work as intended. Temperature regulator displays current time and date in the top bar on the main screens and screen saver, while it's active.



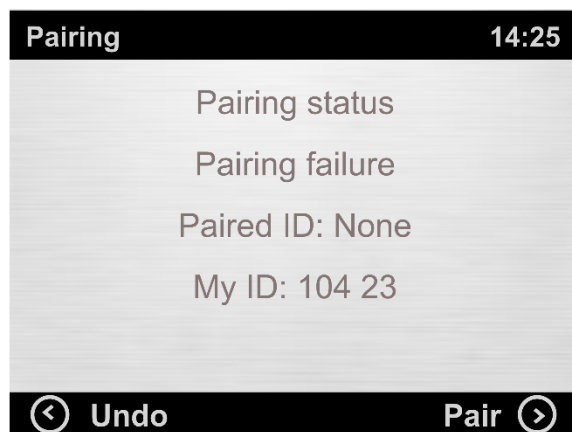
Changing current date and time is possible with buttons  $\leftarrow$   $\rightarrow$  and  $\wedge$   $\vee$ .

Moving between parameters is done by pressing buttons  $\leftarrow$   $\rightarrow$ , while buttons  $\wedge$   $\vee$  are responsible for changing values of the parameters.

## Pairing room control panel with boiler regulator

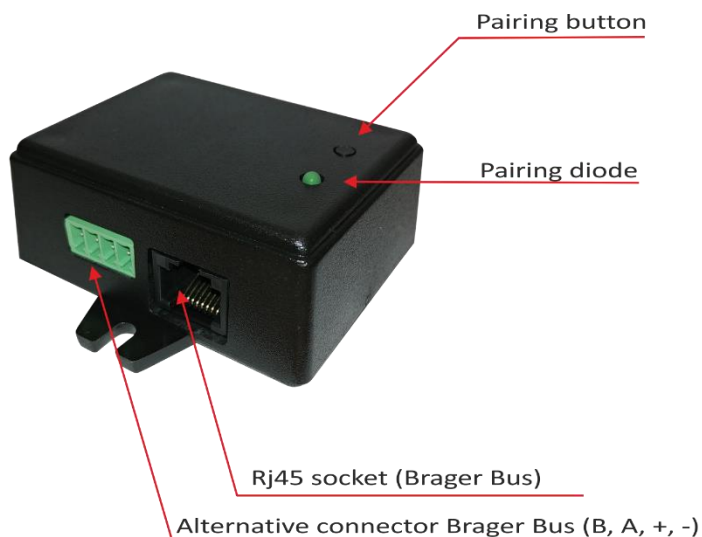
First step is to connect **RIDO** BOX receiver to regulator. It can happen by RJ45 cable (included with room control panel), both regulator and receiver are equipped with rj45 sockets. If regulator already uses all of its rj45 sockets, it's possible to choose alternative connection (A, B, +, -). Diagram describing the wiring in the connector rj45 can be found in the point 7.1.

Next step is to pair room control panel **RIDO** BORD 161 with boiler regulator.



Correctly paired devices will change status to "Paired" and diode on **RIDO** BOX receiver will light up with green colour.

### Receiver **RIDO** BOX



## 4.3 Operating modes

Room control **RIDO BORD 161** panel can work at any given moment with one of the six available operating modes. Each one is characterized by different behaviour of thermostat and individual parameters specifying their workings. In the figure 9 operating mode manager is shown. It's accessible by holding ((F)) button on the "room" main screen. Buttons (←) and (→) are responsible for moving between different modes.

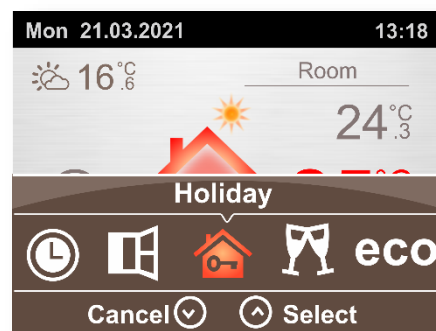


fig. 9

Accepting chosen mode is done by (↑) pressing, (↓) pressing exits operating mode manager without saving any changes. Pressing ((F)) will open basic settings of a selected mode. Current mode is signified by an icon in the upper left corner of the display.

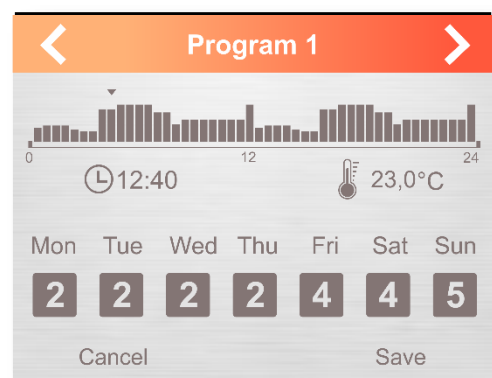


**Time zones** – in time zones mode it's possible to create 7 independent programs. Defined and selected program will be displayed on main screen in form of a histogram, divided into 30 minutes time segments, in form of rectangular bars. Height of each bar represents value of set temperature. Additionally, as time passes, more bars will be coloured red, illustrating current place on the histogram.

Configuration of time zones settings can be found after entering main menu, choosing operation mode and selecting "time zone" block.



or in the operating mode manager choosing basic settings of this mode, by pressing ((F)).



Men Time zones configuration menu is divided into four main blocks. First two blocks are responsible for program configuration and selection. Editing selected program is done in the first block, switching program number with (⏪) and (⏩) buttons. Pressing (⏴) enters second block within which it's possible to change set temperature for specific hours (fig 10).

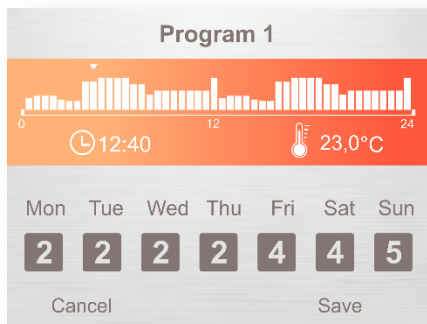


fig. 10

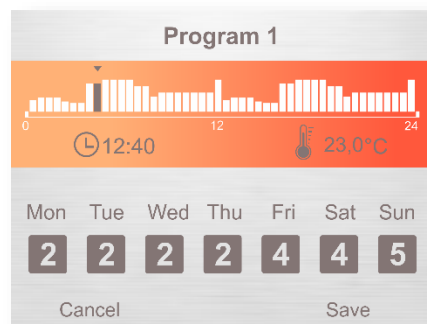


fig. 11

Arrows (⏪) and (⏩) allow for movement between bars, each of them signifies 30 minutes interval. (⏴) button enters edit mode. Selected parameter in edit mode, its set temperature and time, will be marked brown (fig. 11). Set temperature can be changed with (⏶) and (⏷) buttons.

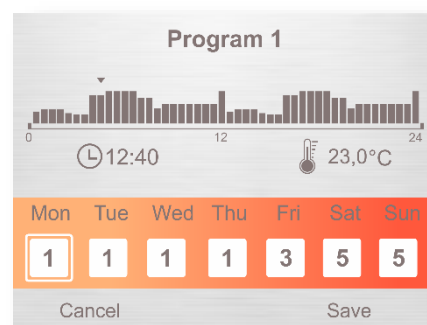


fig. 12

It's possible to copy temperature value from one block to adjacent ones in the edit mode by moving with (⏪) and (⏩) buttons. To cancel editing second block (⏴) button must be pressed.

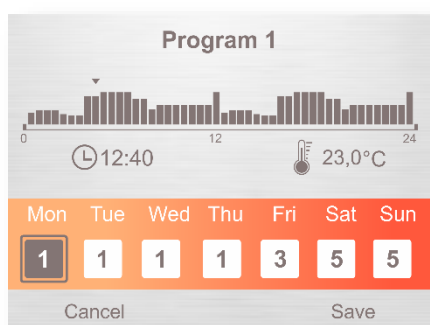


fig. 13

Third block (fig.12) functions as a way to assign previously configured programs to specific days of the week. Moving between days is done with (⏪) and (⏩) buttons.

(⏴) button enters edit mode (fig.13), causing selected parameter to be marked brown. Buttons (⏶) and (⏷) move allow for switching through existing programs for selected day.

It's possible to copy chosen program from one day to adjacent ones in the edit mode by moving with (⏪) and (⏩) buttons. To cancel editing third block (⏴) button must be pressed.



Pressing (⏮) button enters final, fourth block. This block allows to save all the implemented changes with (⏸) button, or (⏭) exit configuration mode without saving any changes (fig.16).

To improve comfort gained from “time zones” operation mode, there is an additional function, allowing user to temporarily change temperature value based on their needs. Temperature correction is done directly on “room” main screen with (⏮) and (⏭) buttons.

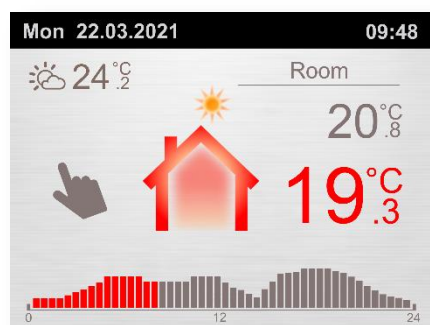
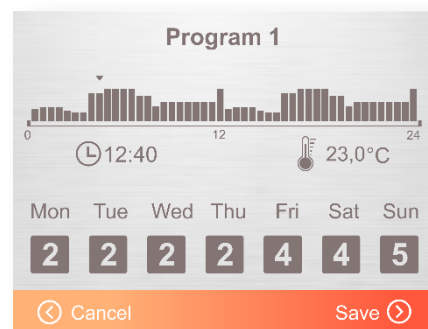


fig. 14

Any changes are illustrated by a hand icon on the left side of the screen. Temperature correction is only temporary, it doesn't have any effect on heating curve created by time zone configurator.

Temporary temperature correction stays for the duration of current time interval with the same temperature value. Implemented temperature correction can be seen on heating curve in figure 15.

As the duration of inserted correction passes, regulator will return to operating on preestablished heating curve and hand icon would revert to clock icon, symbolizing time zones.

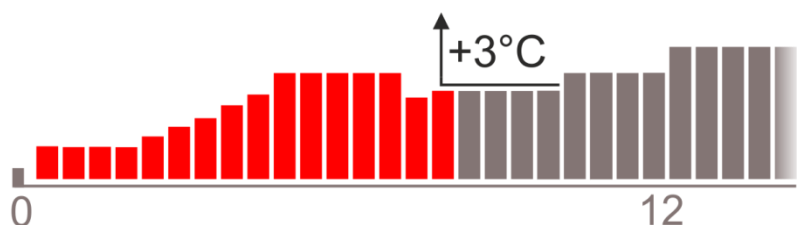


fig. 15



**Airing** – This mode is designed to work during airing of the room. Selecting this mode will shut down heating for time specified in “Airing time” parameter. Entering airing mode settings is done from main menu, after choosing “Operation mode” and later “Airing mode”



or while in operating mode manager, found in basic settings, accessed by holding **(F)** button.



In room control panel **RIDO BORD 161** it's possible to turn on automatic airing mode. After activation whenever device detects sudden and dynamic temperature decrease in controlled room, "Airing" mode will turn on automatically. This function can be found within "operation mode" menu.



After activation of "Airing" mode and specified time ("Airing Time") has passed regulator will revert back to previous operation mode.



**Holiday** - Holiday mode is adapted to situation, when longer absence from home is planned. Holiday mode configuration is divided into 3 blocks, found in "operation mode" menu.



## Holiday mode temperature:

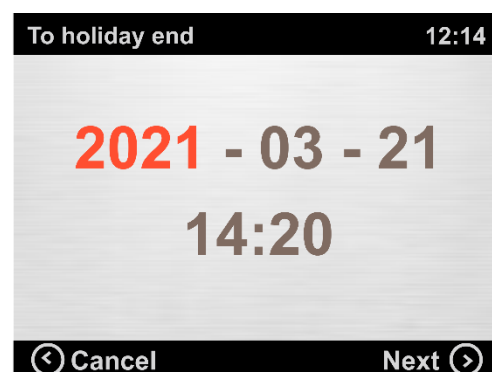
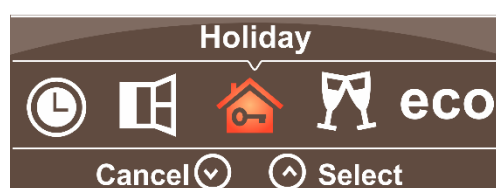
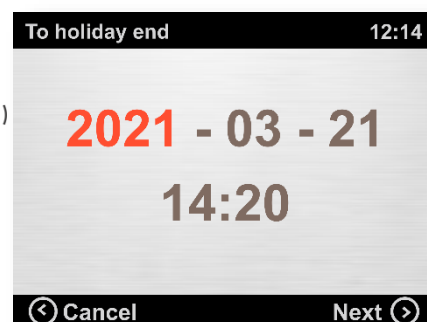
This parameter specifies value of temperature during time of departure. After choosing "holiday" mode value of the set temperature can be changed on room main screen with **(^)** and **(v)** buttons.



## To holiday end:

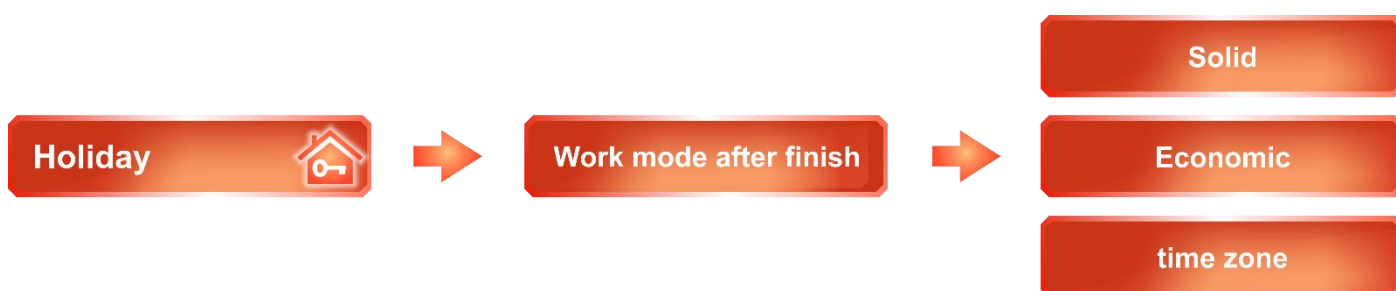
This parameter is the date signalling end of holidays, disabling “holiday” mode. Setting end date is done with  $\left(\overset{\sim}{\rightarrow}\right)$ ,  $\left(\overset{\sim}{\leftarrow}\right)$  and  $\left(\overset{\sim}{\wedge}\right)$ ,  $\left(\overset{\sim}{\vee}\right)$  buttons.  $\left(\overset{\sim}{\rightarrow}\right)$  and  $\left(\overset{\sim}{\leftarrow}\right)$  are used to switch between active parameters, while  $\left(\overset{\sim}{\wedge}\right)$  and  $\left(\overset{\sim}{\vee}\right)$  change selected parameter’s value. Bottom bar informs about buttons functionality through an entire process.

In addition, it's possible to set holiday end date from operation mode manager by pressing  $\left(\overset{\sim}{F}\right)$  button.



## Work mode after finish:

This parameter defines what operation mode would be selected, after “holiday” mode has ended.



Selecting “constant” mode also reveals “constant mode temperature” parameter, which will replace set temperature after “holiday” mode ends.





**Party** – Mode adapted for more demanding situations, when there are more people in the room, than usually. Key feature of this mode is security lock, stopping any unauthorized access to parameters and interference with them. Mode can be automatically disabled, after time set in “Turn off after”, available in the operation mode manager



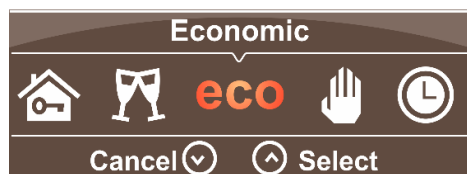
As well as in main menu within “operation mode” menu.



Enabling party mode, thermostat will try to keep constant temperature value, equal to the one achieved at the moment of turning this mode on, for time specified in “turn off after”. Option to change any set temperatures is disabled for the duration of “party” mode, main menu and operation mode manager are locked with password for that time. After entering correct password user regains full access to the regulator functions.



Thanks to the economic mode, it's possible to enter a constant value of temperature correction to “time zones” mode, for example, setting “Temperature drop” to 3°C, regulator will still work based upon heating curve, however correction will have influence on it. Selected Eco mode is illustrated by eco sign on the left part of the screen and temperature value is displayed with already applied correction. Correction value can be set directly within operation mode manager:



Correction value can be set directly within operation mode manager:



**Constant** – Picking “constant” mode allows for setting one temperature value for an entire day. Value of the temperature can be changed on the main screen with (▲) and (▼) buttons.

## 4.4 Password management

Room control panel is also equipped with optional password protection, from any unauthorized access. Setting up password prevents:

- changing boiler set temperature as well as other devices, such as DHW pump or valve pump,
- changing set temperature in the room, while “party” mode is active,
- entering main menu, while “party” mode is active.

Entering boiler’s menu (whether password protection is turned on or not) is also secured with factory password, that can be changed in device’s main menu:

0 0 0 0

The password protection function is activated in regulator’s main menu, inside boiler tab:



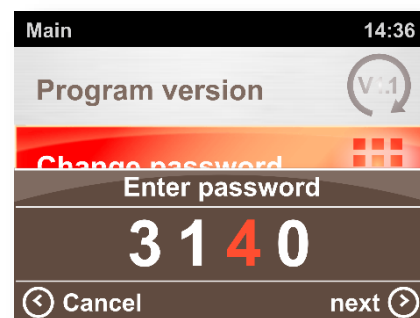
After activating password protection, a new parameter will appear that sets the time during which the parameters can be edited after entering the password:



Password change can be accessed in main menu, inside “main” block:



Buttons (←) and (→) are responsible for moving back and forth between digits, while (↓) and (↑) allow for increasing and decreasing value of the chosen number. Confirming the password is done by pressing (→) while on the last digit. Additionally, throughout the entire operation bottom bar will display information about each of the buttons' function.



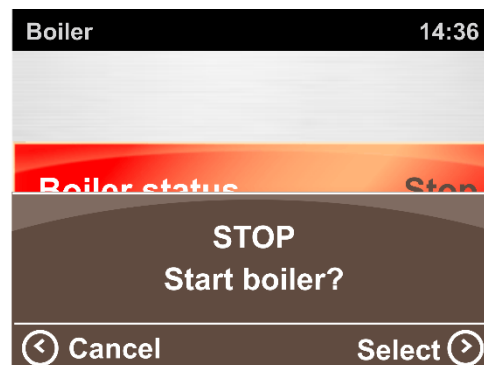
**WARNING!!!** - Set password is global, it's valid within any of the regulator's blocks.

## 4.5 Boiler configuration

Access to boiler tab is protected with password (whether password protection is turned on or not). After writing the password, access to regulator's (controlling the boiler) advanced settings is granted. Number of displayed parameters depends on type of the boiler, type of the regulator and its functions.

### Boiler status

In standard boilers this function is for reference only, determining current status of the boiler (run/stop). In pellet boilers, equipped with automatic igniter, it's possible to set status of the boiler, putting boiler into operation or stopping it.



## Boiler operating mode

Room control panel **RIDO BORD 161** is equipped with functions, enabling it to choose operating mode for circulation pumps, installed in the central heating system.



In order to improve handling of different operating modes, they've been divided into following blocks:

Summer	Winter only heating	Winter	Parallel operation of pumps
Only DHW pump is operating	Only Central Heating pump is operating DHW pump is disabled	Both pumps are operating (Central heating and DHW) DHW priority function is enabled	Both pumps are operating (Central heating and DHW) DHW priority function is disabled

## Temperature set lock

Enabling and handling the protection code is addressed in the point 4.4.

### 4.6 Parameters configuration

#### Thermostat



**Heating circuit** – Parameter defines pump (heating circuit), to be operated by the room control panel. More on configuration found in point 4.2.

**Antifreeze temperature** Parameter sets the lowest value of temperature allowed in the chosen heating circuit. Below that temperature, room control panel **RIDO BORD 161** enters emergency operating mode, to no let water freeze within the installation. Parameter can take value from 5°C, up to 10°C, otherwise this function can be entirely disabled.

**Ambient temperature hysteresis** Parameter determines the temperature difference needed for pump restart. After achieving set temperature in the room, pump is turned off, only dropping temperature by the value of hysteresis will turn pump back on. For example, if temperature set in the room is 22°C and hysteresis' value is 2°C, for pump to start working again temperature in the room must drop to 20°C. (Available range: 0,1 - 5°C, factory setting: 0,3°C)

**Ambient temperature sensor correction** – Parameter allows for small adjustments to room temperature reading, eliminating any difference between real temperature and one measured by ambient sensor.

**Alarm signal** – Parameter lets to enable/disable sound signalling in the device.

**Temperature unit** – this parameter enables switching display unit between Celsius and Fahrenheit degrees. Unit change on panel is global, influencing the way unit is displayed on the regulator.

**Warning!!!** – Setting is active only, when regulator is capable of displaying temperature in Fahrenheit degrees

Main



**Brightness** – Room control panel **RIDO BORD 161** operates brightness system of both display and buttons. Access to settings is available in main menu, within “brightness” block.



Brand new, device is set to automatic mode, adjusting brightness level based on the ambient lighting.



In this mode, it's possible to set own brightness correction, separately for display and buttons.

**LCD brightness correction** – this parameter allows for the screen brightness adjustments in the automatic mode within –50% to +50% range.

**Button brightness correction** – this parameter allows for the button brightness adjustments in the automatic mode within - 50% to +50% range.



It's possible to switch automatic brightness adjustment mode to manual brightness adjustment mode.



In this mode, room control panel isn't affected by ambient lighting, it's based on values set in parameters for display and buttons brightness.

**LCD brightness** – this parameter allows to adjust the brightness of the display in 10-100% range.

**Button brightness** – this parameter allows to adjust the brightness of the buttons in 10-100% range.



**Date and time** – date and time parameters can be found in “general” menu in “Date and time” block. Setting current date and time is crucial for proper functioning of operation modes. Date and time are always present on the top bar on main screens as well as on the screen saver, if it's enabled.



Changing current date and time is possible with buttons  $\leftarrow$   $\rightarrow$  and  $\uparrow$   $\downarrow$ . Moving between parameters is done by pressing buttons  $\leftarrow$  and  $\rightarrow$ , while buttons  $\uparrow$  and  $\downarrow$  are responsible for changing values of the parameters.



**Screen saver** – this option allows for screen saver to show, each time panel stays inactive for time longer than set in “idle time”. Function can be activated in the main menu, general, in the “screen saver” tab.



**Idle time** - this parameter time, panel needs to stay inactive to display screen saver.



**Program version** – this function displays current software version of the devices connected to regulator.



**Change password** – this function allows to change security password, stopping any unauthorized interference. More on that can be found in point 4.4.



**Restore factory settings** – this function cleans all settings, time zones and passwords, and replaces them with factory settings.

## 5. Device parameters

### 5.1 Regulator operating conditions

Parameter	Value/Range
Power supply	6-9V DC
Humidity range	30 - 75%
Ambient temperature	5 - 40°C
Maximum operating temperature of temperature sensors	100°C
Maximum range*	50m

*\*range in open field*

### 5.2 List of device parameters

#### Thermostat

Heating circuit	Antifreeze temperature
Alarm signal	Ambient temperature sensor correction
Ambient temperature sensor hysteresis	

#### Boiler

Boiler status	Boiler config lock
Pin activity time	Boiler operating mode



## General

Brightness	Date and time
Brightness mode	Screen saver
LCD brightness	Idle time
Button brightness	Program version
LCD brightness correction	Change password
Button brightness correction	Restore factor settings

## Operation modes

Time zones	Holiday
Airing	Holiday mode temperature
Airing time	To holiday end
Automatic airing	Work mode after finish
Economic	Party
Temperature drop	Turn off after

## 6. Alarms

During room control panel **RIDO BORD 161** work, emergency situations and alarming states can occur, signalized by a red diode, found on the right side of the panel as well as red exclamation mark on the display, in the upper right corner (fig. 16) . All alarms, those that occurred on the room control panel and those from boiler regulator, are shown on the alarm list, on one of the main screens. (fig 17)



Main screen with list of alarms can be found by using (  ) and (  ) buttons.



fig. 16

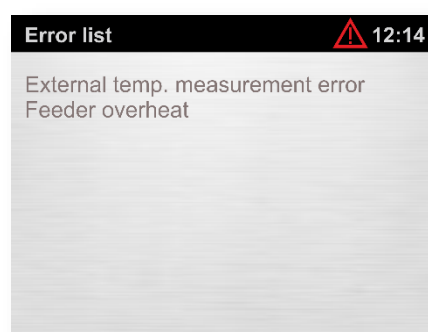


fig. 17

**WARNING!!!** - - Alarms found in the room control panel are deleted, after their cause is resolved.

**Alarms listed below can appear in the room control panel:**

Errors sent from boiler regulator:

- Boiler temp. Measurement error
- Domestic hot water temp. Measurement error
- Feeder temp. Measurement error
- Feeder error
- Maximum boiler settings exceeded
- Domestic hot water overheat
- Feeder overheating
- STB overheating
- No fuel

Errors caused by the room control panel:

- Wireless connection lost

## 7. Assembly

### 7.1 Device assembly

In order to mount **RIDO BORD 161** on the wall, it's important to read manuals below, especially regarding order of fulfilling steps.

#### Step 1 – Opening back cover

Press two small handles, found on the bottom of the panel (fig. 18) and next separate back cover from the main panel (fig. 19).

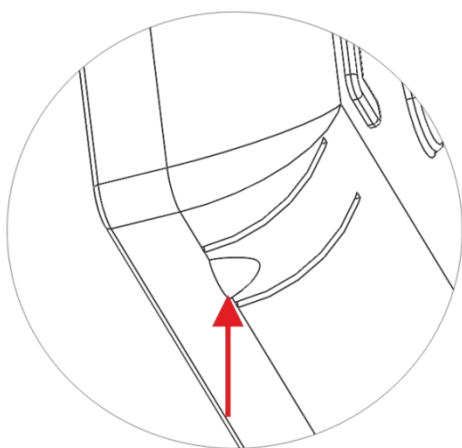


fig. 18

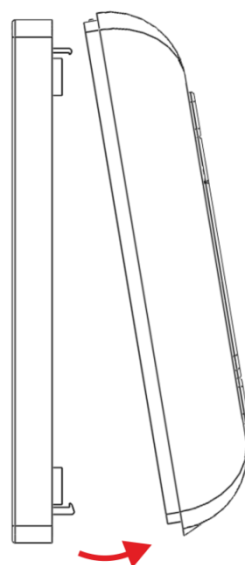


fig. 19

#### Step 2 – Mounting back cover on the wall

Place 2 expansion plugs, keeping distance of 60mm between them. Next, like in the picture 20 and 21, position back cover in horizontal position, using small spirit level inside back cover.

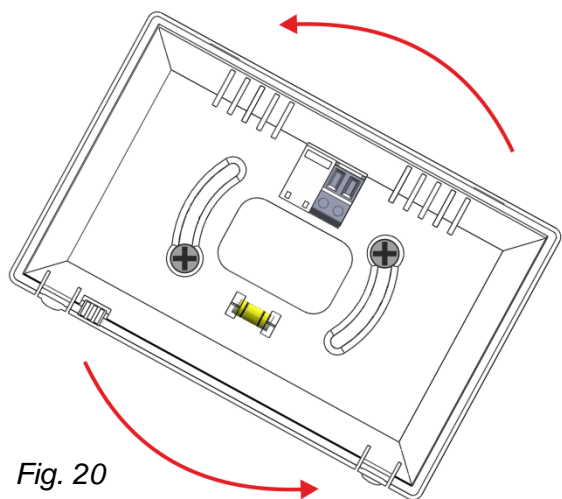


Fig. 20

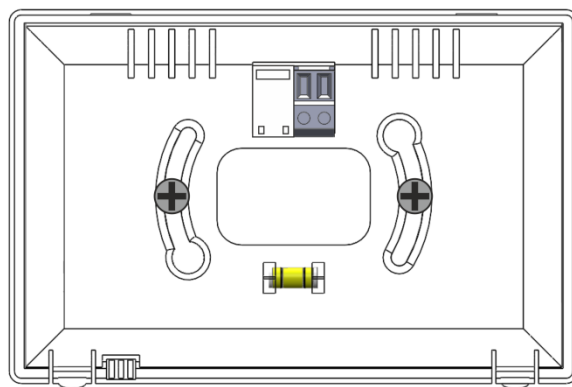
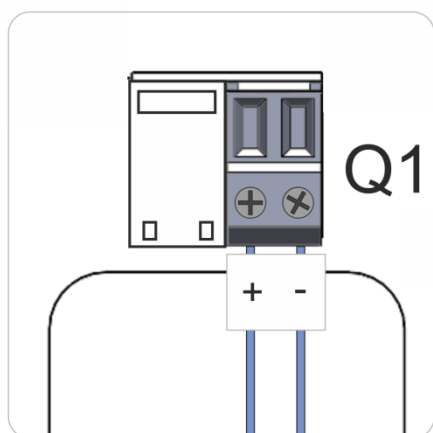


Fig. 21

### Step 3 – Connecting the wires

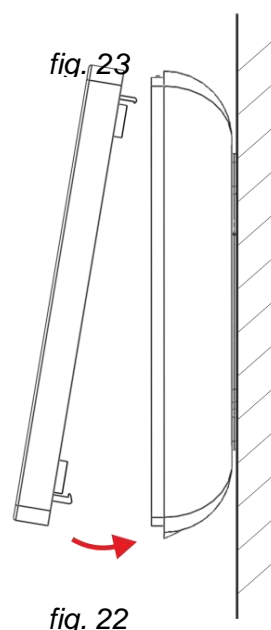
Carry to wires by the window in the back cover, then connect them according to scheme presented in the picture 22.



Q1	Panel power supply:
	(+)
	(-)

### Step 4 – Assembling the device and start-up

To assembly the device, follow first step in the reverse order. First connect upper part of the panel, then the bottom part, like in the picture 23. Correctly assembled device should start immediately.



To power the room control panel with boiler regulator, package contains:

- AC adapter 5 VDC,
- connection cable (two-wire),)
- adapter (Fig. 24),
- RJ45 cable,
- receiver **AIDO** BOX

Two-wire cable has to be connected to room control panel, according to the sign on the back of the device, then both wires should be connected to adapter (with correct polarity) to which AC adapter ha to be plugged.



fig. 24

Picture 25 illustrates the location of pins in the RJ45 plug. Pin numeration and their functions can be found in the table below.

Pin number	Explanation
6	Transmission (B)
3	Transmission (A)
4	power (+)
8	power (-)

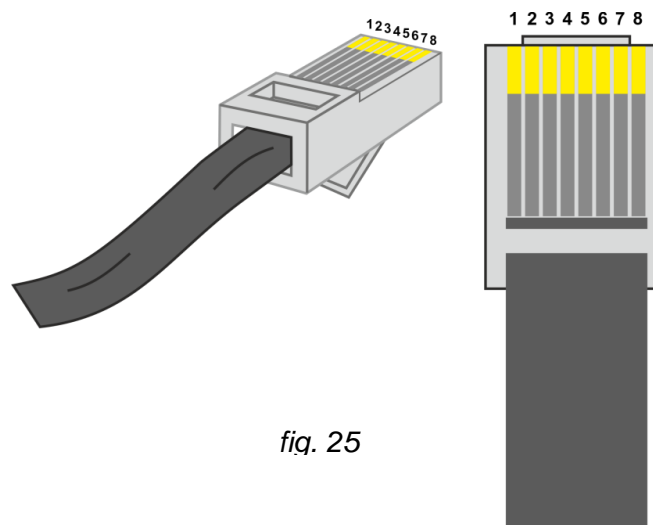


fig. 25

## Disposal of electrical and electronic waste



V. 1.02

Taking care of the natural environment is our top priority. Awareness that we produce electronic devices obliges us to dispose of waste electronic components in a nature-friendly way. Therefore, the company received a registration number assigned by the Chief Inspector of Environmental Protection.

**000002627**

The symbol of a crossed-out waste container on a product means that the product must not be disposed of in normal waste bins. By sorting recyclable waste, we help to protect the environment. It is the user's responsibility to deliver the waste equipment to a designated collection point for recycling of waste from electrical and electronic equipment.

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## Warranty conditions and service conditions

The condition for granting the warranty is the proper use of the unit as specified in the instruction's manual.

1. Warranty for the proper operation of the equipment is given by Brager Sp. z o. o. for a period of 24 months, not exceeding 36 months from the date of manufacture. The date from which the warranty applies is the date of the purchase document, which is recorded on the Warranty Card. The warranty is valid in the territory of the Republic of Poland.
2. If the complaint is considered legitimate, defects revealed during the warranty period will be removed free of charge by the service of the guarantor Brager Sp. z o.o. Rolna 11, 63-300 Pleszew e-mail: serwis@brager.com.pl tel. 795 750 933, 795 750 678. Any defect shall be remedied - at the discretion of Brager sp. z o.o. - by repairing or replacing the defective product, or, if the repair or replacement is impossible or very difficult to make, by refunding the purchase price of the defective product in part or in whole.
3. This warranty covers equipment defects caused by defective parts and/or faulty workmanship.
4. The customer is obliged to allow Brager sp. z o.o. to verify the reported defects and repair or replace the claimed product. For this purpose, the Customer shall immediately send the defective product at the Customer's expense, together with a valid Warranty Card, to the address of the service provider: Brager Sp. z. o. o. ul. Rolna 11, 63-300 Pleszew. Brager sp. z o.o. may also, at its option, release the Customer from the obligation to send back the claimed product and examine the product at the place where it is located, in which case the Customer shall provide Brager sp. z o.o. service technician with access to the product and present a valid Warranty Card.
5. Brager sp. z o.o. is entitled to refrain from satisfying the complaint until the claimed product is sent to it and is not responsible for any resulting damages.
6. The product and all parts, components, etc. subject to replacement are the property of Brager sp. z o.o.
7. If Brager sp. z o.o. takes action to execute the complaint before receiving the defective product from the Customer, this shall not release the Customer from the obligation to send the claimed product in the manner specified in Section 4. If the Customer fails to send the claimed product in the situation described in the previous sentence, Brager sp. z o.o. will be entitled to charge the Customer with a contractual penalty in the amount of 150 PLN, which shall not exclude the right of Brager sp. z o.o. to claim release of the item or compensation for damage exceeding the contractual penalty.
8. The Customer is not entitled to destroy, dispose of, throw away, etc. the claimed product before it has been examined by Brager sp. z o.o. If Customer does so, Brager sp. z o.o. shall be relieved of any liability under the warranty.
9. The Customer sending back the claimed product is obliged to protect it properly for the time of shipment. Packages sent COD shall not be accepted by Brager sp. z o.o.
10. Before making a claim, the Customer must thoroughly check the product, in particular to connect it, turn it on, use it correctly, in order to limit obviously unjustified claims.
11. To be effective, the complaint must include a detailed description of the damage to the equipment and the circumstances in which the defect was revealed. Brager sp. z o.o. reserves the right to require the Customer to provide additional information and materials (especially photographic documentation) that may be relevant to the proper identification of the complaint.

12. If the complaint is legitimate, Brager sp. z o.o. shall remove the defects of the product revealed during the warranty period within 6 working days, but in justified cases this period may be extended, but no longer than 14 days from the date of delivery of equipment to our service, unless the repair or replacement within this period is not possible for reasons beyond the control of Brager sp. z o.o. (especially due to waiting for parts or materials to be delivered). The Service is not responsible for the time of delivery/receipt of equipment (postal/courier time).
13. The warranty does not cover any damages and defects resulting from: improper or inconsistent with the instructions for use, unauthorized repairs, modifications, tuning or structural changes made by the Customer/User.
14. Warranty claims and inquiries concerning the Controller must be addressed to the manufacturer. i.e. Brager Sp. z o. o.
15. After the repair or replacement, the equipment shall be returned to the Customer (at the Service expense) through the Polish Post, courier company or to the point of sale where the Customer made the purchase.
16. This warranty shall not exclude, limit or suspend any Buyer's rights under the obligatory guarantee regulations for defects of the sold goods, except for recipients to whom the provisions of the General Terms and Conditions of Sale published on the website apply <https://brager.com.pl/ows>.

### Warranty repair annotations

Date of repair	Description of the fault	Signature



## Notes

This image shows a full page of a document template designed for handwriting practice. It consists of approximately 30 evenly spaced horizontal dotted lines across the entire width of the page, providing a guide for letter height and placement. The background is plain white, and there are no margins, text, or other markings present.

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[illegible]

# Unit Warranty Certificate

.....  
Symbol and serial number

.....  
Date of manufacture

.....  
(Date of sale)

.....  
(Stamp of the seller)

Warranty claims and inquiries regarding the  
controller should be addressed to the manufacturer:

**BRAGER<sup>®</sup>**

Brager Sp. z o. o.  
Pleszew ul. Rolna 11 63-300 Pleszew  
e-mail: [serwis@brager.com.pl](mailto:serwis@brager.com.pl)  
phone no. 795 750 933