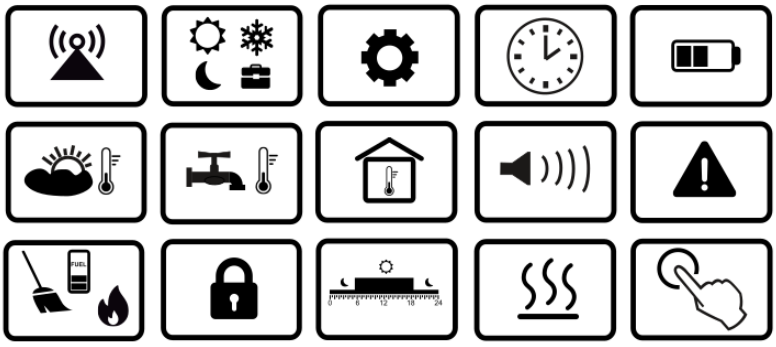
WIRELESS ROOM THERMOSTAT

eSTER_x40

FOR HEATING CIRCUIT CONTROLLERS

ONLY COOPERATES WITH THE ecoMAX SERIES OF THE BOILER CONTROLLERS

ISM_xSMART*



* The ISM_xSMART radio module is standard equipment for the thermostat.

INSTALLATION AND OPERATING MANUAL

ISSUE: 1.0

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CONTENTS

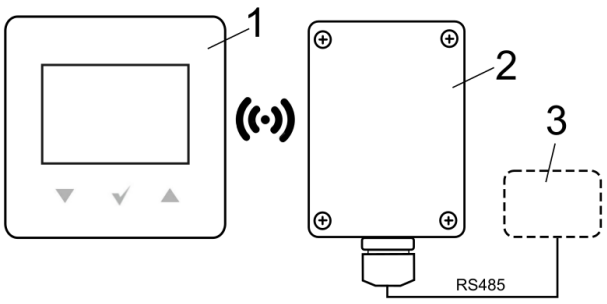
1. Recommendations regarding safety

The following requirements shall be complied with.

- The device should be used as intended, keeping it in a dry environment, and installing it only indoors.
- The thermostat has small parts, so keep it away from children.
- Before connecting the radio module to the main controller, absolutely stop the operation of the main controller by switching it off and disconnecting it from the main power supply.
- Non-compliant with the manual or incorrect connection of the radio module to the main controller may be a source of malfunction of the main controller and the radio module itself.
- The device should only be started up by a person who is familiar with these instructions.
- Under no circumstances may the device construction be modified.

2. General information

Room thermostat eSTER_x40 is designed for wireless cooperation with external radio transmission module ISM_xSMART, which is wired to the main controller. The thermostat is installed in a selected room, eg a living room, and is designed to maintain a preset room temperature by sending a radio signal to a module connected to the main controller. The implemented encrypted, two-way radio communication allows the transmission of information from the main controller to the thermostat, including the fuel level in the fuel tank, alarm statuses of the regulator and external temperature values. The thermostat on the backlit LCD display shows information about the room temperature value, selected operating mode, current time with simultaneous clock synchronization with the main controller.



Radio communication: 1 - eSTER_x40 thermostat, 2 - ISM_xSMART radio module, 3 - main controller.

3. Information about documentation

The thermostat manual is a supplement for the main controller manual. In particular, except for this manual, the main controller manual should also be followed. Manufacturer is not responsible for any damages caused by failure to following these instructions.

4. Storage of documentation

This assembly and operation manual, as well as any other applicable documentation, should be stored diligently, so that it is available at any time. In the case of removal or sale of the device, the attached documentation should be handed over to the new user / owner.

5. Applied symbols

In this manual the following graphic symbols are used:

 - the symbol indicates additional advice and information.

 - the symbol indicates important information.

Caution: the symbols indicate important information, in order to make the manual more user friendly. Yet, this does not exempt the user from the obligation to comply with requirements which are not marked with a graphic symbol!

6. Declaration of conformity

The purchased product meets the requirements of **Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014** on the harmonization of the laws of the Member States concerning making available on the market of radio equipment and does not cause harmful interference with radio communications to other equipment, in a residential area, provided that the product is correctly installed and used in accordance with the requirements of this manual.

The full text of the Declaration of Conformity is available at www.plum.pl in the Downloads section of the appliance website.

7. Directive WEEE 2012/19/UE

Purchased product is designed and made of materials of highest quality.

The product meets the requirements of the **Directive 2012/19/EU of 4 July 2012 on waste electrical and electronic equipment (WEEE)**, according to which it is marked by the symbol of crossed-out wheeled bin (like below), meaning that product is subjected to separate collection.

Responsibilities after finishing a period of using product:

- dispose of the packaging and product at the end of their period of use in an appropriate recycling facility,
- do not dispose of the product with other unsorted waste,
- do not burn the product.

By adhering obligations of waste electrical and electronic equipment controlled disposal mentioned above, you avoid harmful.

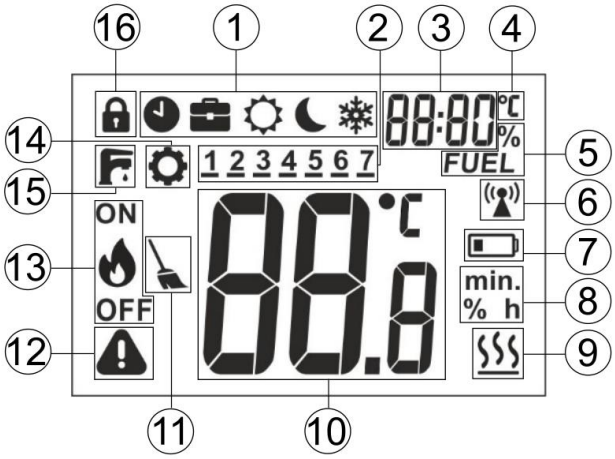
8. The first start of the thermostat

After inserting the battery into the thermostat, according to point 14.1 and electrical connection of the ISM_xSMART radio module to the main controller, in accordance with point 15.5 it is necessary to perform the thermostat pairing with the radio module, as described in point 15.2.

The clock synchronization function with the main controller automatically sets the clock in the thermostat. The clock can also be set directly in the thermostat from the User menu (**P04**).

The change of time in the thermostat will also cause a change in the main controller and the devices connected to the main controller.

9. Thermostat main screen



Legend:

1. Operation modes:
   - Schedule;
   - Holiday;
   - Comfortable;
   - Economic;
   - Antifreeze;

   „Air" – Airing;
   „out" – Out of house;
   „PrtY" – Party;
   - one time charging of the HUW;
2. day of the week: 1 – Mon., 2 – Tue., 3 – Wed., 4 – Thu., 5 –Fri., 6 – Sat., 7 – Sun.;
3. clock and the field of information displayed, eg menu descriptions, additional operating modes, fuel level, and external temperature;
4. symbol when displaying the external temperature value;
5. fuel level;
6. radio connection symbol - visible only during an active radio connection with the radio module. When it is always visible, the thermostat is not paired with the radio module, and when it is flashing, there is permanent loss of radio connection with this module;
7. indicator of battery discharge - when it is constantly on, it means that the batteries are on depletion, and when it flashes, it means that the batteries are already depleted and the thermostat has stopped communicating with the radio module;
8. unit symbols;
9. heating symbol - the symbol is visible when the heating signal is being sent to

the main controller and the preset temperature in the room is not reached;

10. value of room temperature and edition of the preset room temperature;
11. prompting to clean the boiler – the symbol reminds to perform cleaning the burner and to empty the ash pan (optional, depending on the software of the main controller);
12. alarm – the symbol flashes when:
    - an alarm occurred in the main controller,
    - there is no radio connection with the radio module,

    the symbol is constantly displayed when:
    - notification was received at the main controller (prompt),
    - the thermostat is not paired with the radio module;
13. operating status of the burner – the symbol is displayed only when the program of the main controller with the radio module is fully compatible, in accordance with point 15.4. Visible flame symbol means that the burner is currently working (it is burning), while the flame symbol with OFF means that the burner has been turned off by the user;
14. parameter editing symbol;
15. signaling of one time charging of the HUW container;
16. activated parental lock - unblocking occurs after holding the ✓ button for 5 seconds.

10. Thermostat settings

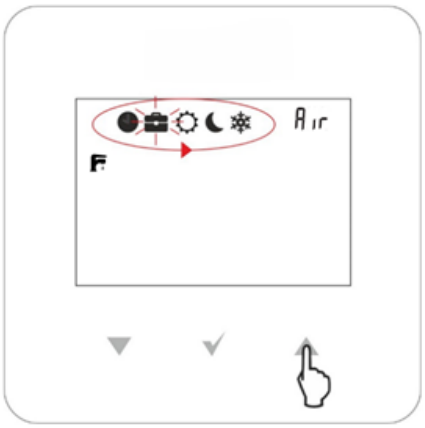
9.1. Edition of the preset temperature

Pressing ▼ or ▲ brings to the check / edit of the preset temperature which starts to flash.

The first press causes to edit the current preset temperature, but does not change the value. Only another press changes the value. The saving and exit from the edition takes place after pressing ✓ button. If the change of the preset temperature value is not confirmed with the ✓ button, then after the inactivity time of 5 seconds the thermostat will exit the editing menu, without changing the preset temperature value. The preset temperature value changes every 0,1ºC. Note: holding ▼ or ▲ button for 2 seconds causes a fast, cyclical change of the parameter.

9.2. Edition of the operation modes

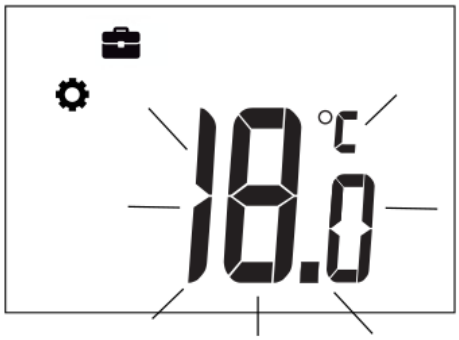
Editing the operating modes is enabled by briefly pressing the ✓ button, then the operating modes are displayed, with the current operating mode flashing.



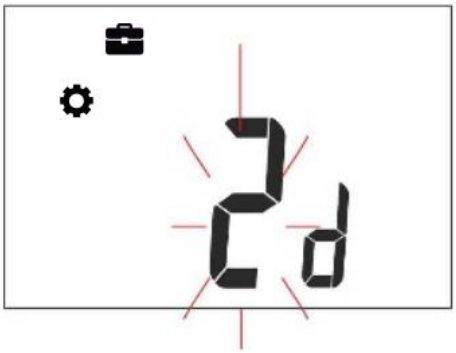
The operating mode is changed with ▼ or ▲ buttons. The saving and exit from the edition takes place after pressing the ✓ button. Exit from editing the operating modes to the main screen, without saving the change of the working mode, by pressing the A key for 2 seconds or after an idle time

of 5 seconds. Editable operating modes that are related to parameter settings in the user menu (point 11):

- **Schedule** – the preset temperature changes between the "Night" temperature (**P06**) and the "Day" temperature (**P05**), according to the programmed time schedule (**P01**).
- **Holiday** – the preset temperature is set single time to the "Holiday" temperature (**P10**), which appears for editing:

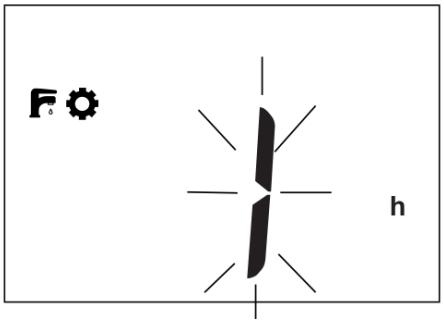


for the duration time (**P11**) of this mode, which appears for editing immediately after the temperature:



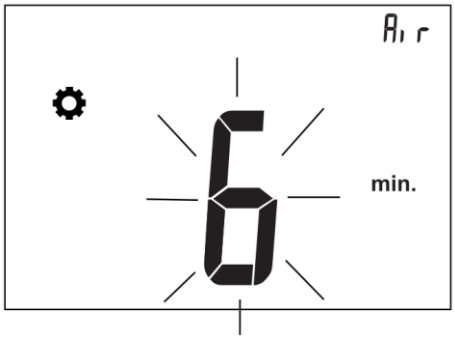
After this time, the thermostat goes into the mode in which he worked before turning on the "Holiday" mode. This mode is useful when traveling on holidays.

- **Comfortable** - thermostat works with a constant preset temperature "Day" (**P05**), which ensures a comfortable temperature in a heated room.
- **Economical** - the thermostat operates at a constant preset temperature "Night" (**P06**), which saves fuel.
- **Antifreeze** - the thermostat works with a constant preset temperature "Antifreeze" (**P07**), which ensures protection against freezing of water in the heating circuit. This mode is useful when there is no one in the heated rooms.
- - the mode enables a single charging of the HUW container for the set time (**P14**), which appears for editing:



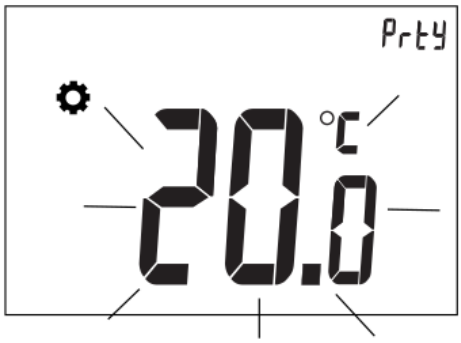
During the active single charging HUW container, time schedules for HUW are switched off.

- **Airing** (text information on 3rd item of the main screen) – the preset temperature is set single time to the "Night" temperature (**P06**), for the duration time (**P13**) of the of the airing mode that appears for editing:

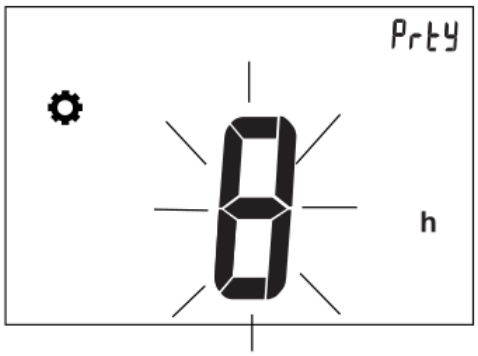


After this time, the thermostat switches to the mode in which it worked before turning on the "Airing" mode. This mode is particularly useful when ventilating rooms.

- **Party** (text information on 3rd item of the main screen) – the preset temperature is set single time for the "Party" temperature (**P08**), which appears for editing:

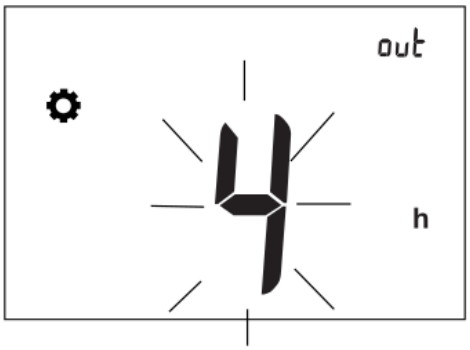


for the duration time (**P09**) of the of the "Party" mode, which appears for editing immediately after the temperature:



After this time, the thermostat switches to the mode in which it worked before turning on the "Party" mode.

- **Out of house** (text information on 3rd item of the main screen) – the preset temperature is set single time to the "Night" temperature (**P06**), for the duration time (**P12**) of the of the "Out of house" mode, which appears for editing:

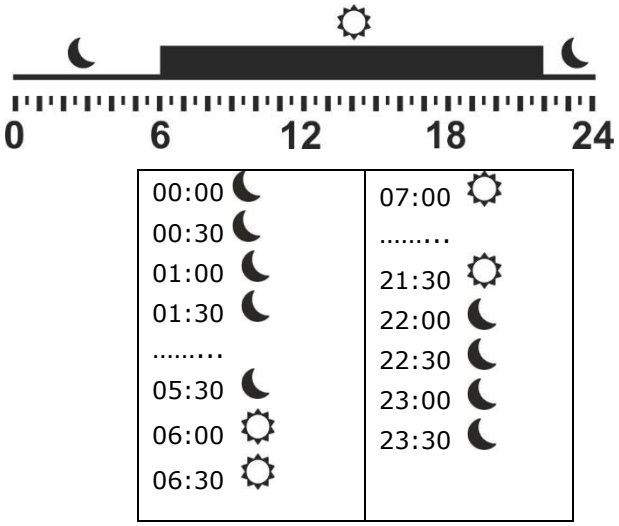


After this time, the thermostat switches to the mode in which it worked before turning on the "Out of house" mode. Useful mode when the user leaves the heated room.

9.3. Edition of the schedules

Holding ▼ and ▲ buttons for 2 seconds will enter the user menu. Select the user menu item (**P01**) with the word "**Sch**" and press ✓ button.
The flashing line indicates the edited day, where: 1 - means Monday, 2 - Tuesday, 3 - Wednesday, etc. With the ▼ or ▲ buttons we can change the day of the week. After pressing the ✓ button, we enter the programming of intervals on that day.

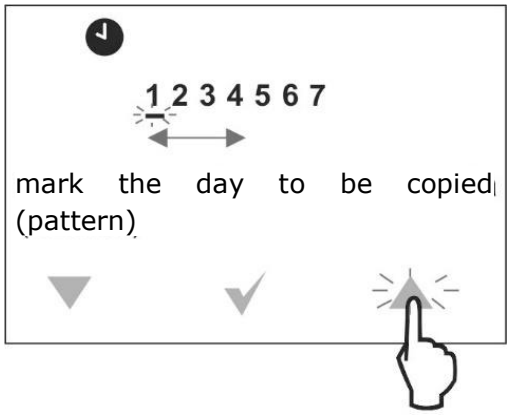
The first time interval lights up, which is expressed by the beginning of the interval: 00:00 (which means the interval 00.00-00.30). The second interval is 00:30 (which means the interval 00.30-01: 00). Use ▼ or ▲ buttons to move between intervals (48 intervals, every 0.5 h). For each interval, the preset temperature "Night" or "Day" can be set. The ✓ button assigns the night or day temperature for a given interval. The moon represents the preset night temperature, whereas the sun - the preset day temperature. Save / exit follows after holding ✓ button for 2 seconds.
Example:

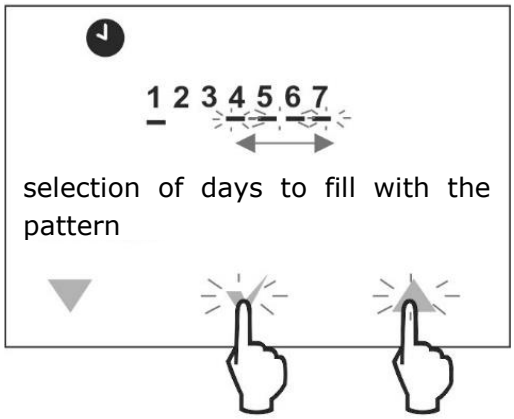


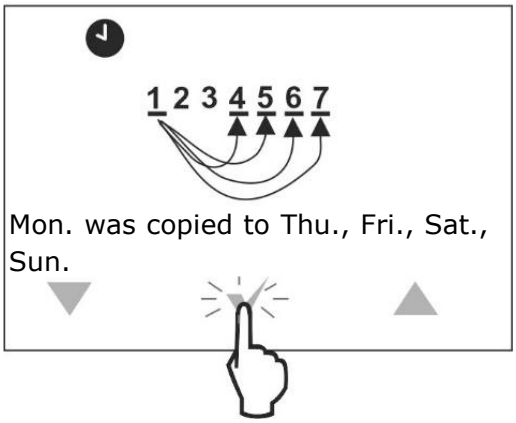
By default, all time intervals throughout the week are set according to the above example. The intervals can also be edited from the main controller.

9.4. Copying of the intervals

Holding both ▼ and ▲ buttons at the same time for 2 seconds will enter the user menu. Select the user menu (**P02**) item with the word "**cPy**" and press the ✓ button. The flashing line indicates the reference day to be copied to other days, where: 1 - Monday, 2 - Tuesday, 3 - Wednesday, etc. By ▼ or ▲ buttons we can change it. After accepting with ✓ button, the reference day stops flashing and the day to which the pattern is to be pasted begins to flash. You can select several days to fill with the pattern, but you can't change the reference day anymore. Confirm, save and exit by holding ✓ button for 3 seconds.







11.User menu

The user menu is entered by holding simultaneously the ▼ and ▲ buttons for 2 seconds.

Individual parameters of the user menu are visible as consecutive indications displayed on the main screen in item no. 3, as described in the table below.

The parameters are selected using the ▼ or ▲ buttons and the ✓ button is confirmed by the selection.

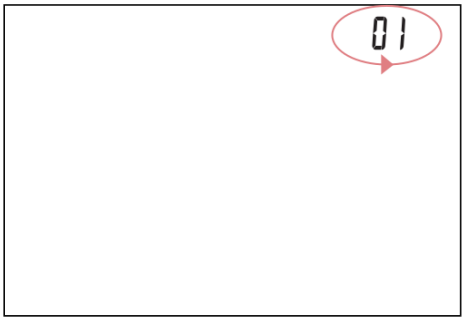
No.	Description
P01	„**Sch**” Schedules, point 9.3
P02	„**CPy**” Copying schedules, point 9.4
P03	„**PAr**” Paring, point 15.2
P04	Setting the clock
P05	„Day” Preset temp. [°C]
P06	„Night” Preset temp. [°C]
P07	„Antifreeze” Preset temp. [°C]
P08	„Party” Preset temp. [°C]
P09	Time duration of the "Party" mode [h]
P10	„Holiday” Preset temp. [°C]
P11	Time duration of the "Holiday" mode [day]
P12	Time duration of the "Out of house" mode [h]
P13	Time duration of the "Airing" mode [min.]
P14	Time one time of the HUW charging [h]
P15	Turning on (**on**) or off (**oFF**) sound of pressing the buttons.
P16	Turning on (**on**) or off (**oFF**) sound alarms. At the (**oFF**) setting, alarm notification is only visible in the information field of the main screen (item 3).
P17	Turning on (**on**) or off (**oFF**) sound notification of alarms at night from 22:00 to 6:00.
P18	Screen contrast. [%]
P19	Brightness of the screen backlight. [%]
P20	Room thermostat temperature hysteresis. [°C]
P21	Turning on (**on**) or off (**oFF**) of the parental lock.
P30	The strength of the radio signal between the thermostat and the radio module. [%]
P31	Thermostat program version.
P32	Correction of the accuracy of the displayed temperature. [°C]
P34	Restoring on (**on**) or off (**oFF**) factory settings.
P35	Thermostat address, point 15.4
P40	Turning on (**on**) or off (**oFF**) of the fuel

	level indicator.
P41	Turning on (**on**) or off (**oFF**) the weather temperature indication.
P42	Turning on (**on**) or off (**oFF**) display on the clock screen.

Holding the button for 2 seconds will exit the user menu to the main screen.

11.1 Service menu

The entry to the service menu is done by holding simultaneously the and buttons for 2 seconds. After entering the menu, enter the following password using the and buttons: 1410 and confirm by pressing the button. The individual parameters in the service menu are visible as consecutive markings displayed on the screen in 3rd item, as described in the table below.



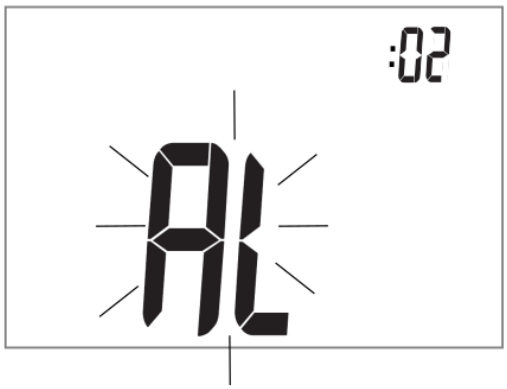
No.	Description
1	Turing (**on**) or off (**oFF**) the possibility of changing parameters from other thermostats. The default setting is (**on**).
2	Turning on (**on**) or off (**oFF**) of the hotel mode in which the possibility of changing the main controller parameters by the thermostat is blocked. The default setting is (**oFF**).

Holding the button for 2 seconds will exit the menu to the main screen.

12.Signaling of the alarms and prompts

12.1 Alarms

The thermostat signals the alarm states sent from the main controller. During the alarm, the flashing "**AL**" is displayed, the alarm number and the beep - if (**P16**) parameter is set to on.



The first press of the button silences the alarm sound. With and buttons you can check successive alarm numbers if there are more of them at the same time.

Pressing the button again takes you to the main thermostat screen. If the alarm is still in progress, the flashing ⚠ symbol is still displayed on the thermostat's main screen and the alarm code is displayed in the information field (item 3). It is possible to enable or disable sound signaling from the user menu.

12.2 Prompts

In the case when the main controller sends prompts (an information), the "**In**" message and the prompt number are displayed on the thermostat's screen. There is no audible signal when there is a prompt. With and buttons you can check the successive numbers of prompts if there are more of them at the same time. The first press of the button confirms the reading of the prompt. Pressing button again takes you to the main thermostat screen. If the prompt is still in progress, the ⚠ symbol is still displayed on the thermostat's main screen and the confirmation code is displayed in the information field (item 3).

13.Settings of the main controller parameters

The thermostat allows you to change selected parameters of the main controller.

☞ The possibility to change selected parameters of the main controller depends on its program version.

The entry to the main regulator parameters menu is made by pressing the button for 2 seconds. Individual menu parameters are visible as consecutive markings displayed on the screen in no. 3 item, as described in the table below.

The parameters are selected using the or buttons and the button confirmes the selection.

No.	Description
b01	Changing the preset HUW temperature.
b02	Changing the preset boiler temperature.
b03	Turning on (**on**) or switching off (**oFF**) the burner operation (turn the boiler on and off).
b04	Settings of SUMMER function: – Winter; – Summer; – Auto.
b05	HUW settings: – Off; – Priority; – No priority.

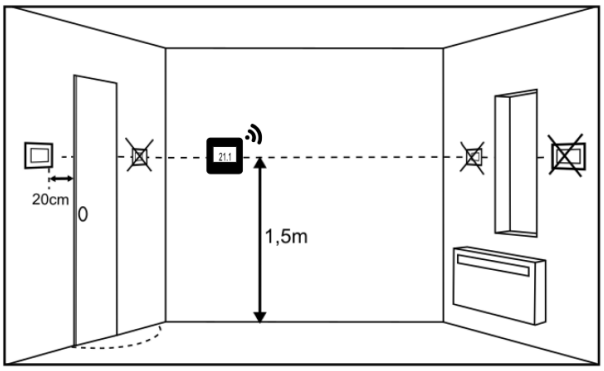
Holding the button for 2 seconds will exit the menu to the main screen.

14.Installation of the thermostat

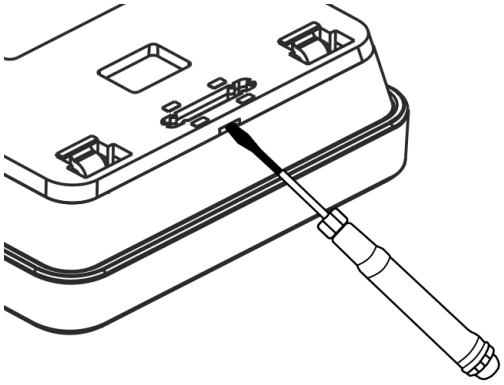
The eSTER_x40 thermostat is intended for installation only in a dry habitable room and should be mounted on a wall or placed on a flat surface (as a free-standing device) in a room representative for a given heating circuit. After choosing the place of assembly, make sure that:

- the selected location is free of excessive humidity and the ambient temperature of the thermostat should be within the range of 5..35°C,
- the chosen location should ensure free air circulation and should be located away from heat-emitting sources, eg electronic equipment, fireplace, heater and direct sunlight,
- the selected place must not cause interference or a lack of radio signal. Description in point 15.4.

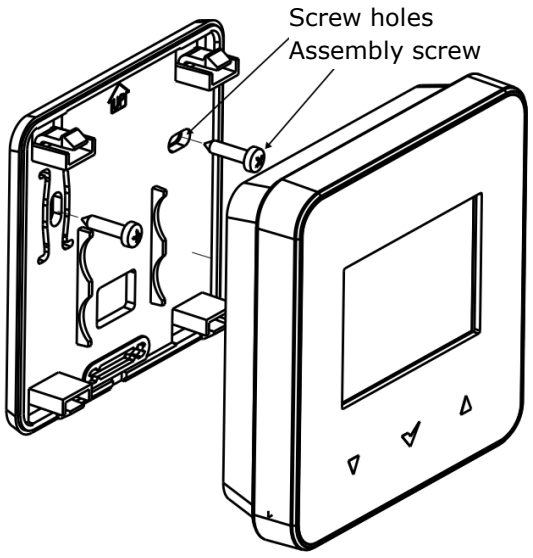
The thermostat should be mounted at a height enabling convenient operation, typically 1.5 m above the floor.



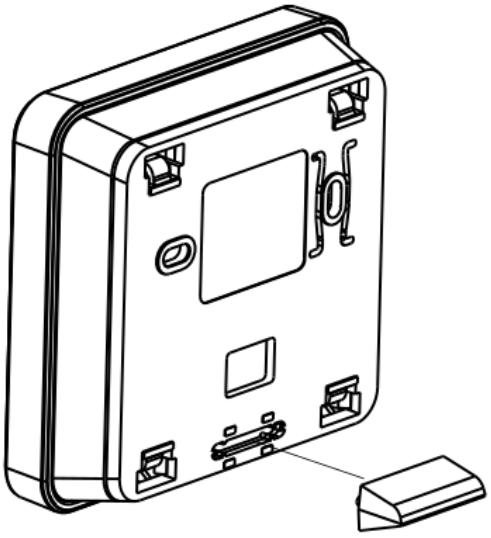
The thermostat should be screwed to the wall with mounting screws. Access to the screw holes is obtained by opening and removing the back cover of the thermostat. A flat screwdriver can be used to open the cover.



The cover is screwed to the selected location of the wall with the appropriate position, as shown in the figure below. The hole spacing can be determined by attaching the cover to the wall.



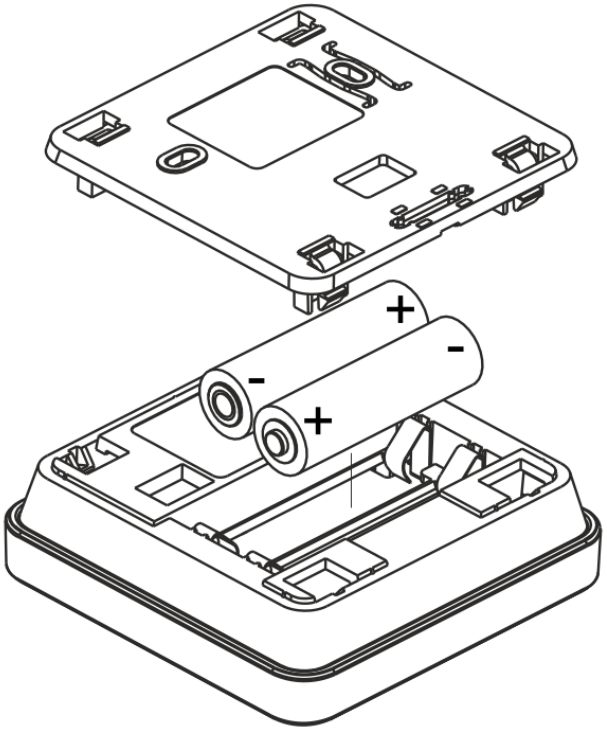
In order to place the thermostat on a flat surface, use a dedicated stand.



14.1 Inserting or replacing the batteries in the thermostat

To insert or replace the battery, remove the back cover of the thermostat housing.

When inserting the batteries, the battery poles have to be positioned correctly.



It is recommended to use alkaline batteries to power the thermostat. The thermostat's working time depends on the quality of the batteries used.

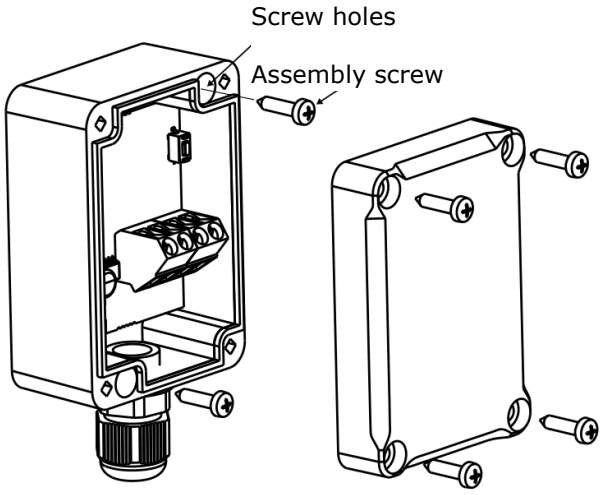
15.Radio module

15.1 Installation and connection of the radio module to the main controller

The ISM_xSMART radio module should be mounted on a wall near the installation location of the main controller. If the radio connection is poor, try placing the module in other places. Moving the module even by a few centimeters can affect the quality of the connection.

Placing a radio module in a metal casing, eg a mounting box, a metal boiler casing, etc., will dampen the radio signal and thus interfere with the operation of this module.

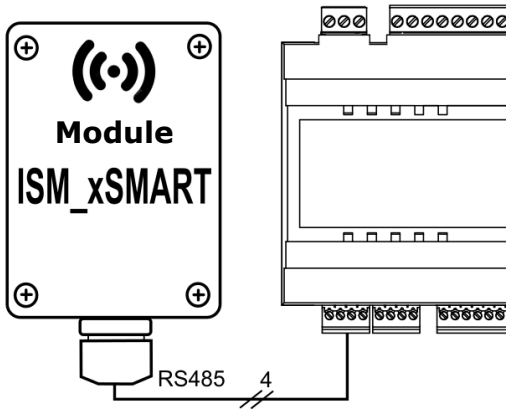
The radio module should be screwed to the wall with mounting screws. Access to holes for assembly screws is obtained after unscrewing the cover of this module.

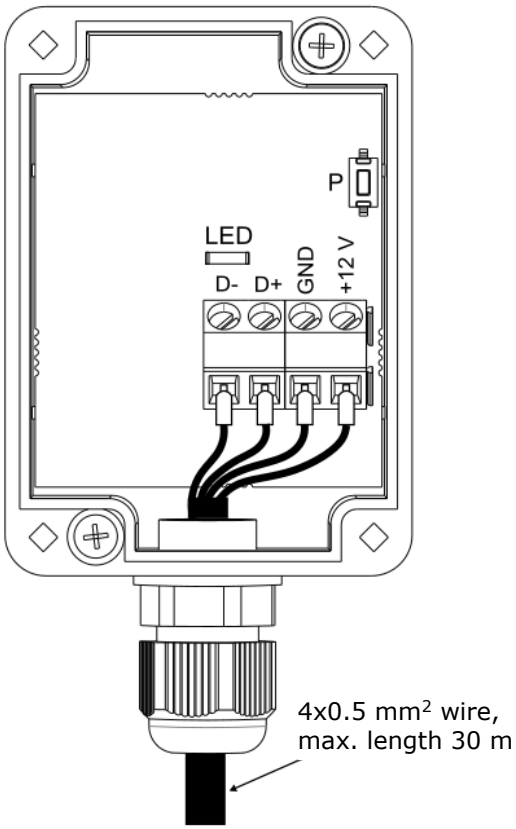


Terminals D +, D-, GND, 12 VDC of the radio module should be connected to the RS485 transmission socket of the main controller, in accordance with point. 15.5

When connecting the transmission and power supply attention should be paid to the proper polarity of connection of D +, D- and GND, 12 V between the radio module and the main controller. Improper connection may lead to damage to the main controller or errors in its operation.

The maximum cable length depends on the cross-section of the wires. For a 0.5 mm^2 wire, it should not exceed 30 m. The cross-section should not, however, be less than 0.5 mm^2.





15.2 Pairing the radio module with the thermostat

The radio module connected electrically to the main controller requires pairing with a thermostat.

Until the pairing with the radio module on the thermostat screen is complete, the ⚠ and (( )) symbols are permanently displayed.

Pairing from the main controller menu:

The pairing method is only available when the main controller program is fully compatible with the radio module.

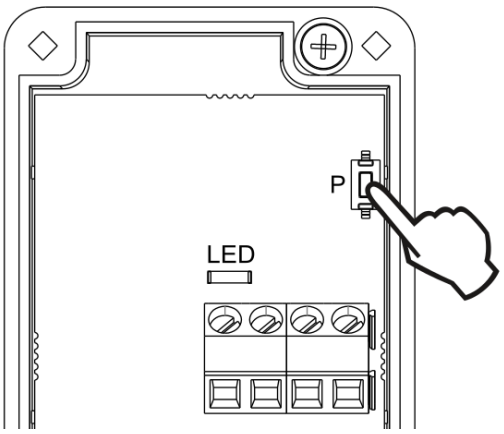
Enter the main regulator menu:
MENU → General settings → Radio module settings → Pairing mode and set the *Pairing mode* to *Yes*, then the pairing mode will be activated for 4 minutes, during this time the thermostat with the radio module should be paired. To do this, hold simultaneously ▼ and ▲ button for 2 seconds in the thermostat and then select the program (**P03**) in the user menu of the thermostat, where "**PAr**" is displayed on the screen. After accepting with ✓ button, the pairing will start (the word "**PAr**" begins to flash).

If the thermostat has never been paired with the radio module (factory setting), then pairing occurs after pressing the ✓ button, without having to enter the user menu.

The correctness of the pairing will be confirmed by the message "**END**" and "**Succ**" on the thermostat. The ⚠ and ((•)) symbols are also no longer visible on the thermostat screen. During the active pairing mode, you can pair, in the same way, subsequent thermostats. After correctly pairing the thermostats with the radio module, end the pairing mode in the main regulator menu or you can wait for the active pairing time to expire.
After establishing the radio connection with the thermostat in the main controller **Information** menu, the thermostats will be shown as eSTER_x40, with the version of the software displayed.

Connecting the radio module to the master controller again does not require pairing if the thermostats have previously been paired.

Pairing directly from the radio module:
With limited compatibility of the main controller program with the radio module, the **P** button of the radio module is used to start the pairing mode, which should be briefly pressed once - then the LED will start to flash, which means that the pairing mode will be activated for 4 minutes.



Only one thermostat should be paired at this time, analogously as described during pairing from the main controller menu level. After correct pairing of the thermostat, end the pairing mode by briefly pressing the **P** button or wait until the active pairing time expires.
After establishing the radio connection with the thermostat in the main controller **Information** menu, the thermostat will be visible as ecoSTER TOUCH, with the given version of the software.

The pairing method with the P button can also be used when the radio module program is fully compatible with the main controller.

15.3 Resetting the memory of the radio module pairing

The radio module stores data on paired thermostats in its memory, so after replacing any thermostat it is necessary to reset the memory of the radio module by setting the parameter in the main controller menu:
MENU → General settings → Radio module settings → Delete the device association = Yes.
Memory reset can also be performed by pressing the **P** button of the radio module for about 8 seconds. Confirmation of removing the pairing memory is to turn off the LED for a moment, immediately after releasing the P button.

The reset radio module requires re-pairing with thermostats.

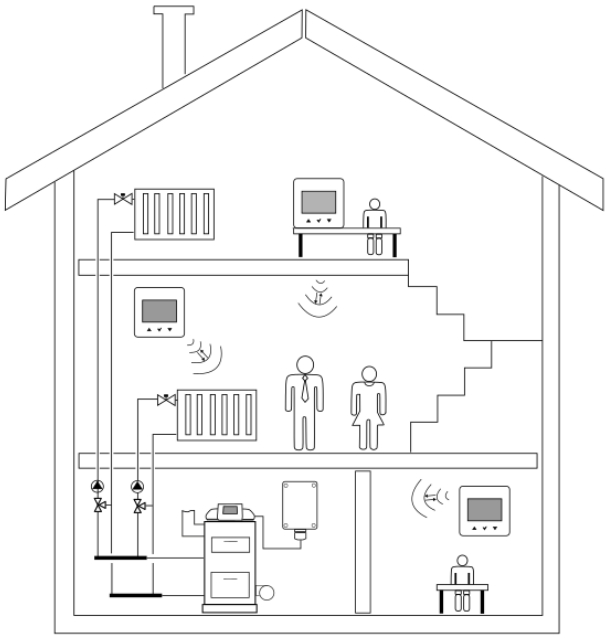
15.4 Cooperation of the radio module with several thermostats

The cooperation of the main controller with more than one thermostat is possible only when the radio module program is fully compatible with the main controller.

To check if the main controller program is fully compatible with the radio module, select the tab in the main controller menu:
MENU → Information → Programs versions and if ISM_xSMART information is visible, with the displayed version of the program, the radio module will work with up to three thermostats, if there is no information, the radio module can work with only one thermostat. In order to check if it is possible to get full cooperation with subsequent thermostats, contact the manufacturer of the main regulator, who will determine if it will be possible to update the

software of the main controller so that this cooperation will be ensured.

The radio module can operate with up to three thermostats.



Correctly paired thermostats with a radio module require setting an individual address for each of the thermostats.

The address for the thermostat is set in the user menu, parameter (**P35**). One should set a different address for each thermostat in the range 1..3.

The correctness of the individual address settings can be checked in the main controller **Information** menu, where the individual thermostats will be displayed as: eSTER_x40 T1, eSTER_x40 T2, eSTER_x40 T3.

The structural elements of the building, the layout and equipment of rooms, the amount of electronic equipment, the distance between the installation place of the radio module and the thermostat affect the level of the received radio signal, therefore when choosing a place to install the thermostat, take into account the obtained signal level in the selected location by observing the symbol on thermostat screen. If the symbol:

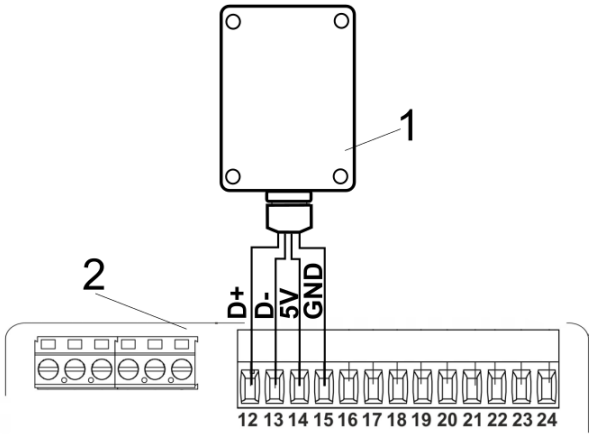
- is not displayed, the radio connection with the radio module is correct. The symbol is shown only briefly during active radio communication with the radio module,
- flashing, there is no radio connection or there is a weak signal and you should choose a different place to install the thermostat.

The value of the radio signal strength can be read in parameter (**P30**) of the thermostat user menu.

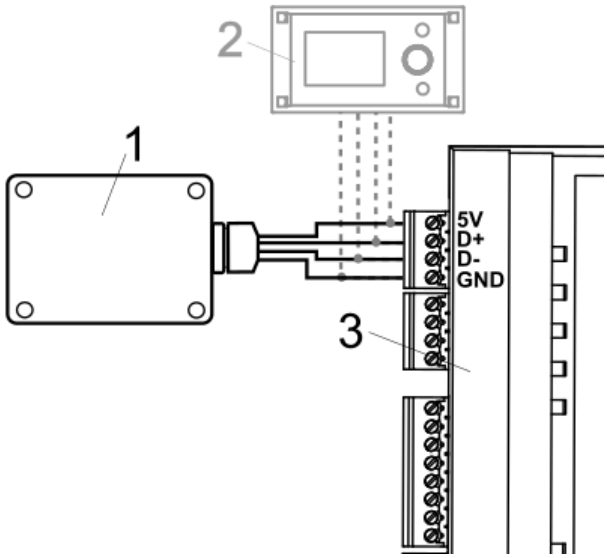
If the radio connection to the thermostat is lost, the main controller will go into operating mode without a thermostat after a few minutes.

15.5 Connecting the radio module to selected main controllers

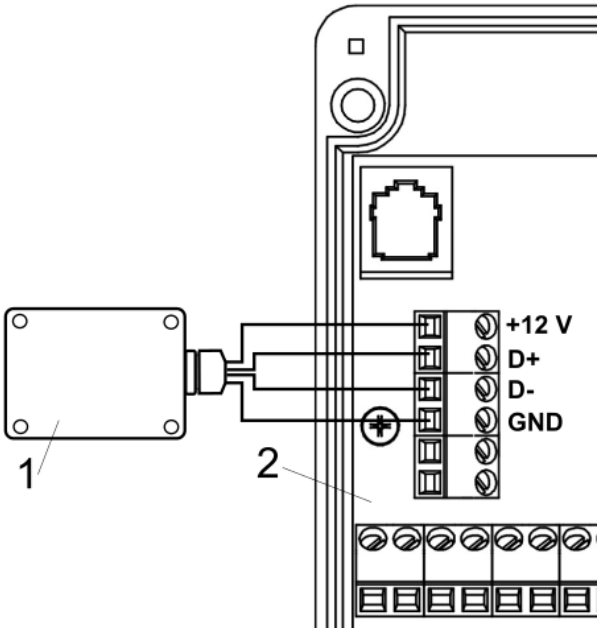
The electrical schemes of the radio module's electrical connections to the main controller's terminals are shown below.



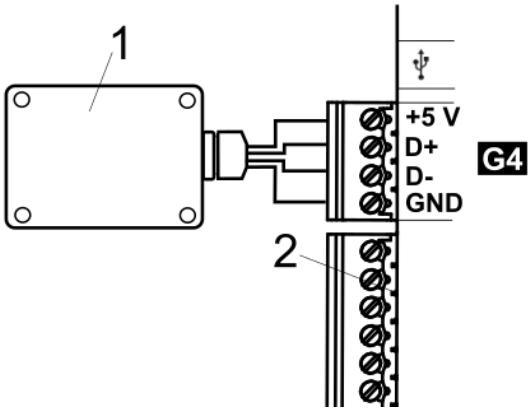
Connection of the module to the **ecoMAX350P1, P2, R1, R2**: 1 – radio module, 2 – main controller.



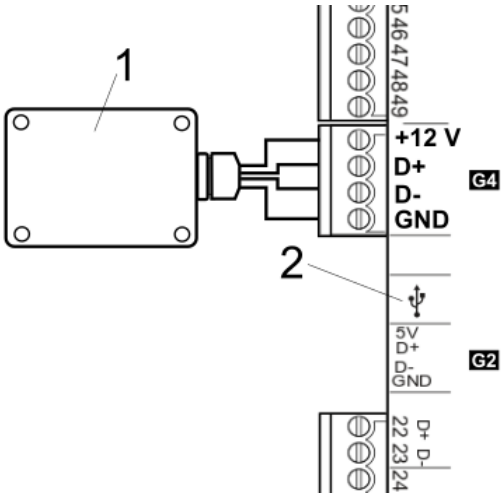
Connection of the module to the **ecoMAX800P3, D3** and **ecoMAXX800R3, T3**: 1 - radio module, 2 – control panel, 3 – main controller.



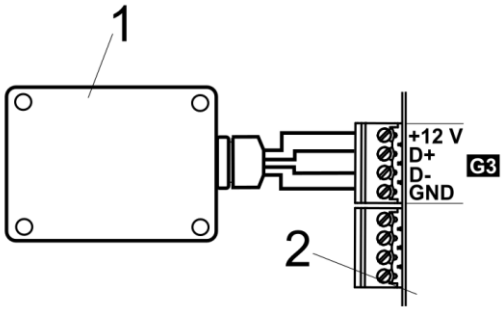
Connection of the module to the **ecoMAX850P2, R2, D2**: 1 - radio module, 2 – main controller.



Connection of the module to the **ecoMAX860P1, P2, D1, D2:** 1 - radio module, 2 – main controller.



Connection of the module to the **ecoMAX860P3, D3**: 1 - radio module, 2 – main controller.



Connection of the module to the **ecoMAX910R1, ecoMAX920P1**: 1 - radio module, 2 – main controller.

It is not recommended to turn off the power supply of the main regulator due to frequent attempts to obtain a radio connection of the thermostat with a radio module, which leads to a quick discharge of the battery in the thermostat.

16.Technical data

eSTER_x40 thermostat power supply	2 x AA (LR6) 1,5V - alkaline batteries
ISM_xSMART radio module power supply	5..12 VDC - directly from the main controller socket
Degree of protection for the thermostat / radio module	IP 20 / IP 40
Relative humidity	5…85% without steam condensation
Storage temperature of the thermostat and radio module	-10..60°C
Working temperature of the thermostat and radio module	5..35°C
Communication	Bi-directional ISM radio communication
The band of radio transmission	ISM 868 MHz, (the band 865…868 MHz)
Transmission power of the thermostat and radio module	20 mW (+13 dBm)
Radio network topology	One radio module and many subordinate thermostats
Display	LCD with backlight
Controlling	Capacitive buttons
Dimensions	Thermostat: 87 mm x 87 mm x 27,3 mm Radio module: 70 mm x 50 mm x 7,7 mm
Thermostat / radio module weight	0,2 kg / 0,16 kg
The thermostat installation method	On the wall or free-standing
The module installation method	On the wall

Composition of the set:

- eSTER_x40 thermostat 1 piece.
- thermostat stand 1 piece.
- ISM_xSMART radio module 1 piece.
- AA LR6 battery 2 pieces.

17.Storage and transport conditions

The thermostat and radio module must not be exposed to the direct influence of atmospheric conditions, i.e. rain and sun rays, and vibrations higher than typical during road transport. Storage and transport temperature should not exceed -10…60°C.

18.Description of possible faults

Symptoms	Tips
The thermostat is not working. The display shows nothing.	Check the correct installation of the battery - point 14.1 or whether the batteries used are not discharged.
The thermostat is working but there is no backlight on the display.	This is a normal phenomenon that occurs with partially discharged batteries. The thermostat is still working correctly. If the backlight is required, replace the batteries with new ones - point. 14.1
Buttons for changing settings do not work.	Check if the buttons are not blocked and if necessary disable the child lock - point 9 (item 16).
The thermostat does not start the heating mode.	The preset temperature may be lower than the current room temperature - increase the preset temperature.
The radio module can't be paired with a thermostat or several thermostats.	The cause may be a lack of coverage. For the time of pairing with the radio module, place the thermostat near this radio module.
The battery in the thermostat is discharging too quickly.	Check that the batteries used comply with the recommendations and are of good quality. The cause may also be frequent attempts to connect the thermostat with the radio module, eg during longer interruptions in the power supply of the main controller.

Revision history:

ul. Wspólna 19, Ignatki
16-001 Kleosin
Poland
plum@plum.pl
www.plum.pl