EUROSTER C6RX

Wireless floor heating control module

In order to take full advantage of controller capabilities please read this installation and operation manual carefully.

MANUFACTURER: P.H.P.U. AS, Chumiętki 4, 63-840 Krobia, Poland

This manual is intended for v.1 08.2022 version of the controller.

1. APPLICATION

The Euroster underfloor water heating control system is a state-of-the-art solution ensuring the best temperature comfort and optimum use of heating energy.

Euroster **C6RX** module is designed to independently operate 6 heating zones. It controls the actuators installed on the floor heating distributor and controls the operation of the circulating pump and heating source.

The system's superiority lies in the possibility of connecting up to 4 C6RX modules (control of 24 zones) and adding an RXC6 receiver that switches the heating source on using wireless communication.

The module has an input to connect the external clock or room thermostat, e.g. Euroster 4040 Smart. Once the ECO input is shorted, the module switches all thermostats connected to the Euroster C6RX module to an economical temperature.

The components of the system:
- Wireless Euroster C6RX module
- Wireless Euroster 4040TXC6 weekly thermostat
- Wireless Euroster 4020TXC6 daily thermostat
- Wireless Euroster RXC6 receiver
- Wired Euroster T1NC actuator.

ATTENTION: The C6RX module does not control the water temperature in the system.
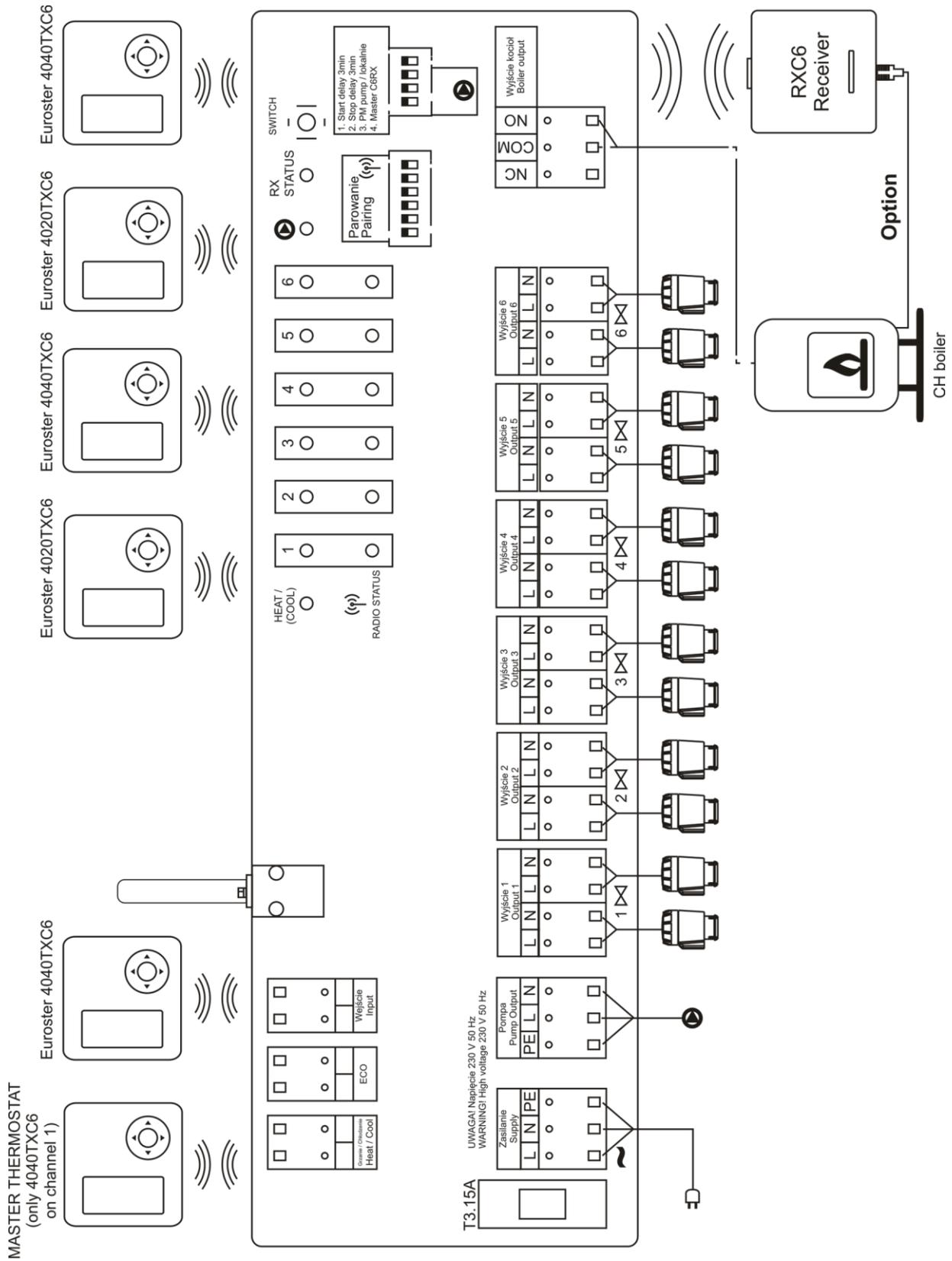
2. BASIC MODULE FUNCTIONS

- Independently operates 6 heating zones and a maximum of 12 actuators installed on the floor distributor
- Enables wireless connection of 4 C6RX modules in order to extend the heating system (24 independent zones with up to 48 actuators)
- Cooperates with Euroster 4040TXC6 and 4020TXC6 wireless room thermostats
- It is equipped with outputs used to control circulating pump and heating boiler
- Features possibility of wireless control of the boiler by assigning Euroster RXC6 receiver to the module
- Enables switch-over between heating and cooling operation
- Cooperates with thermoelectric, normally closed (NC) actuators featuring on-off control fed with 230 V 50 Hz,
- Possibility to delay pump switch on / switch off
- Input intended for switching on ECO mode
- Energy saving function
- Possible DIN rail mounting

EUROSTER C6RX module is equipped with an ANTI-STOP system that prevents the seizing of an idle pump rotor and valves. It regularly activates the actuator and pump outputs for 4 minutes when the heating season is over. Keep the device on to allow the Anti-Stop operation after the heating season.

C6RX module is further equipped with a frost protection system which runs a given heating zone with
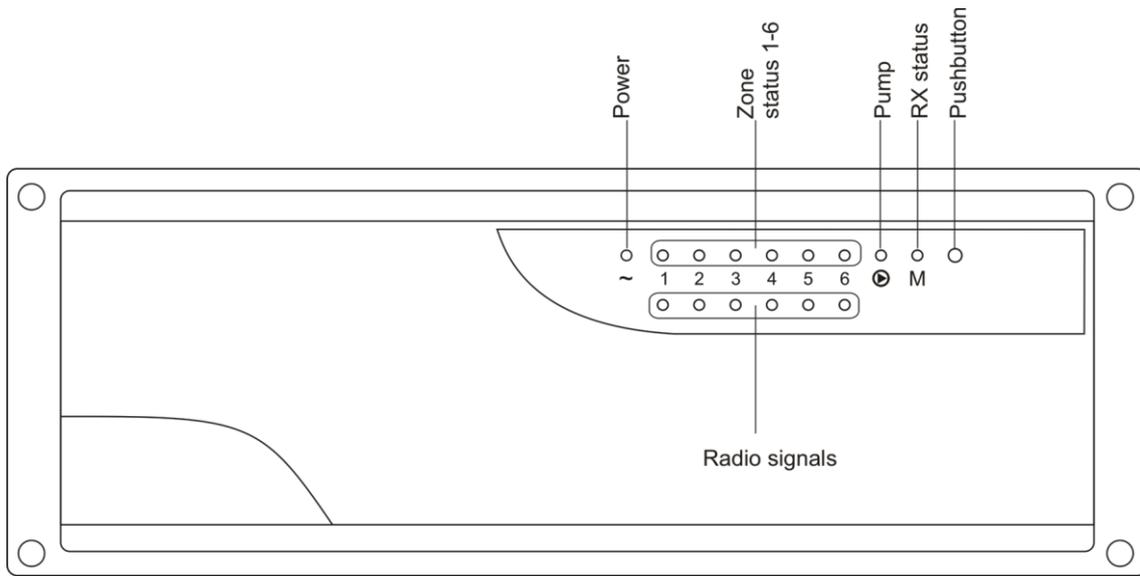
pump and boiler output for 20 minutes every 2 hours if the communication with the thermostat is lost.

3. SYSTEM DIAGRAM

4. C6RX MODULE VISIBLE ELEMENTS

5. SIGNALS
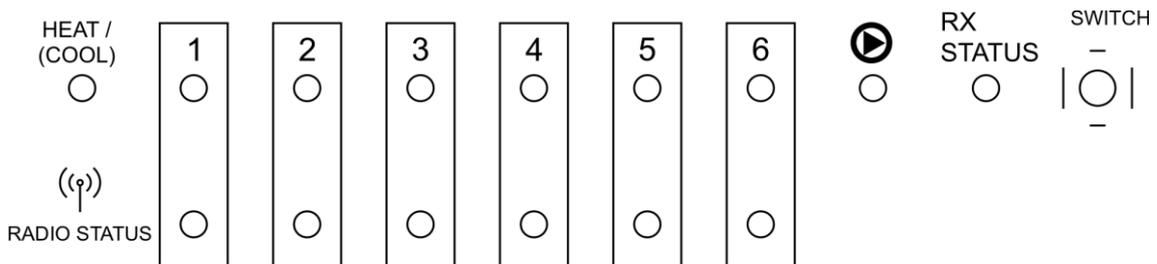
| Designation	Color	Signal
HEAT/COOL	Orange	Continuous light – heating mode Flashing – cooling mode
1, 2, 3, 4, 5, 6	Red	Signal of active actuator output
Radio status 1,2, 3, 4, 5, 6	Green	Signal of radio communication status Continuous light – correct operation Flashing – no communication with the thermostat
Pump	Orange	Continuous light – active CH pump output Flashing – active CH pump output, shorted INPUT
RX STATUS	Orange	Status of communication among other Euroster C6 heating control system components. Continuous light – MASTER switch is switched on (the master module communicates with other system components). Flashing – no communication with one of the connected devices (only in the case of cooperation with further C6RX modules or an RX receiver.)

6. DESCRIPTION OF INPUTS

Grzanie / Chłodzenie
Heat / Cool

ECO

Wejście
Input
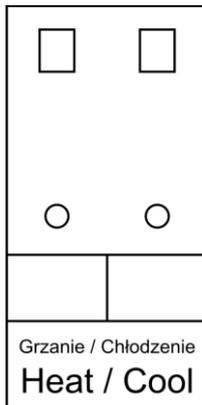
Heat/Cool – When the input is shorted the module operates in the cooling mode, otherwise it operates in the heating mode.

Signal:
Heating mode – HEAT/COOL light is on
Cooling mode – HEAT/COOL light flashes
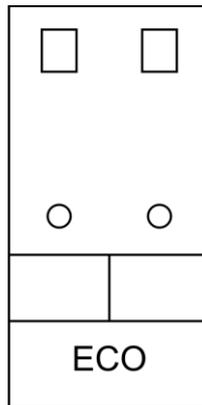
ECO – When the input is open the thermostats operate according to their own settings. When the input is shorted, the thermostats connected to the C6RX module switch into ECO mode.
ECO temperature is set individually at each thermostat and may be different in different rooms. You may connect e.g. an external controller or switch activating the economical temperature to the ECO input.
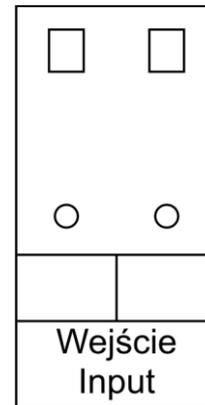
Input – shorting this input switches on the pump output and the boiler output. The input may be used to connect other floor heating modules, e.g. wired Euroster T6 module.

7. DESCRIPTION OF SWITCHES

Parowanie
Pairing ((ᵠ))
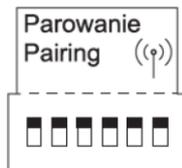
6-section switch:

Pairing – used to select a zone from 1 to 6 that we wish to assign to the thermostat.

1. Start delay 3min
2. Stop delay 3min
3. PM pump / lokalnie
4. Master C6RX
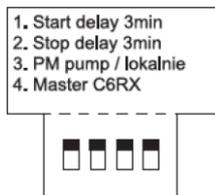
4-section switch:

1. **Start delay 3 min** – if switched on (ON position) then the pump is activated with a 3-minute delay. It is switched off by default.

2. **Stop delay 3 min** – if switched on (ON position) then the pump is stopped with a 3-minute delay. It is switched off by default.

3. **PM pump / local** – used if several C6RX modules cooperate. After switching the function on (ON position) the pump input is switched on in the module to which the controller is assigned. In the other C6RX modules the pump output is not activated. When this function is not active, the pump output is switched on in each C6RX module. It is switched off by default.

4. **Master C6RX** – it determines which C6RX module is the master. The module with MASTER switch active (ON position) is paired with further C6RX modules and a wireless RXC6 receiver.
The factory setting is the MASTER switch being switched off.

8. INSTALLATION

GENERAL SAFETY RULES

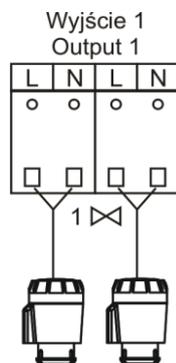- **Prior to the commencement of any installation works, read this manual carefully! Incorrect installation and control of the module result in the loss of the manufacturer's warranty.**
- **Prior to mounting or dismantling the device make sure that the module is de-energized. Connection and disconnection of actuators must also be performed when the device is de-energized.**
- **Voltages hazardous to life may be present on the module and its connections, therefore only qualified and authorized technicians may be entrusted with the installation of the controller.**
- **The performed electric connections and cables used shall be adequate to the applied loads and must conform to all requirements.**
- **Do not install the device in rooms with increased humidity; protect it against water and other liquids.**
- **The controller is designed for 35 mm DIN rail mounting in a distribution cabinet.**
- **Do not install a device showing signs of mechanical damage.**
- **The module is not a safety component. Additional protection devices must be used in systems prone to the risk of damage due to the failure of control systems.**
- **The device is not intended for use by children!**
- **Should there be any problem with the proper operation of the set, please contact your technician or the manufacturer!**

CAUTION! When connecting power cables, pay particular attention to the correct connection of protective conductor cores.

8.1 Connecting cables

Connecting actuators	Boiler Connection Output

The module cooperates only with NC-type (normally closed) actuators fed with 230 V 50 Hz. It is possible to connect up to two Euroster T1NC actuators to each of the six heating zones.
Connect the actuators to L and N terminals – output 1-6.

The (voltage-free, change-over) BOILER output is used to switch on the heating source, e.g. gas-fired boiler. It has 3 pin-outs marked as NC, COM and NO. It withstands the mains voltage of 230 V and the load of 3 A. The boiler is usually connected to the COM-NO terminals.
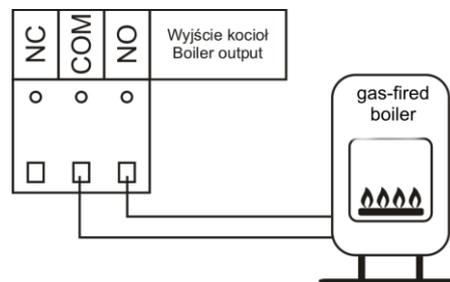
Output used to connect the CH PUMP.

Pump cables to be connected to the "PUMP" connector.

⚠ **CAUTION!** When connecting the power cables, pay particular attention to the correct connection of the PE conductor.
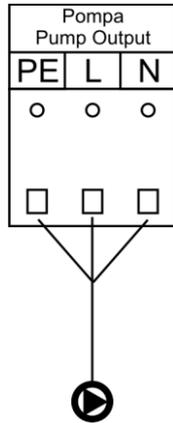
Antenna

The antenna is screwed into the antenna connector. It may operate in a vertical position.
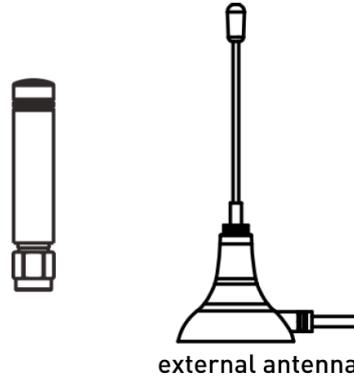
external antenna

Caution! In case, if the distances between Euroster C6 system devices are significant we recommend using an external antenna (with a magnet, to be installed on the outside of the distributor cabinet).

The external antenna is not included in the set and must be ordered separately!

Connecting power

The module is fed with 230 V 50 Hz.

⚠ **CAUTION!** When connecting the power cables, pay particular attention to the correct connection of the PE conductor.
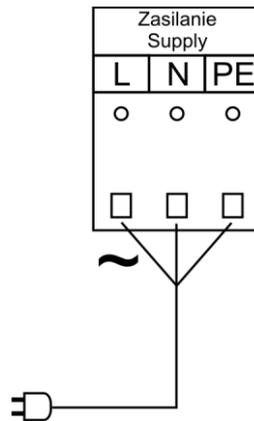
9. PROGRAMMING

9.1. Programming/pairing (assigning thermostats to individual zones)

Having checked the correct connection of cables assign the thermostats to individual zones. Prior to the commencement of programming make sure that the antenna is correctly connected.
Inside the device, there is a six-way switch intended for programming.
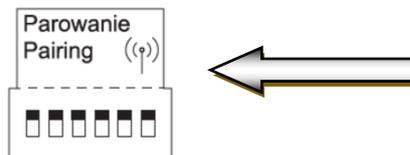
To enter the pairing mode switch a selected lever to the "ON" position.

The procedure of assigning a thermostat to a selected zone or zones:
- Unscrew the four screws and remove the front cover
- Connect the module to the mains power supply
- Put the switch of the selected zone (1-6) to the "ON" position – pairing mode is signaled by a flashing green light. Several zones may be assigned to one thermostat, as required.
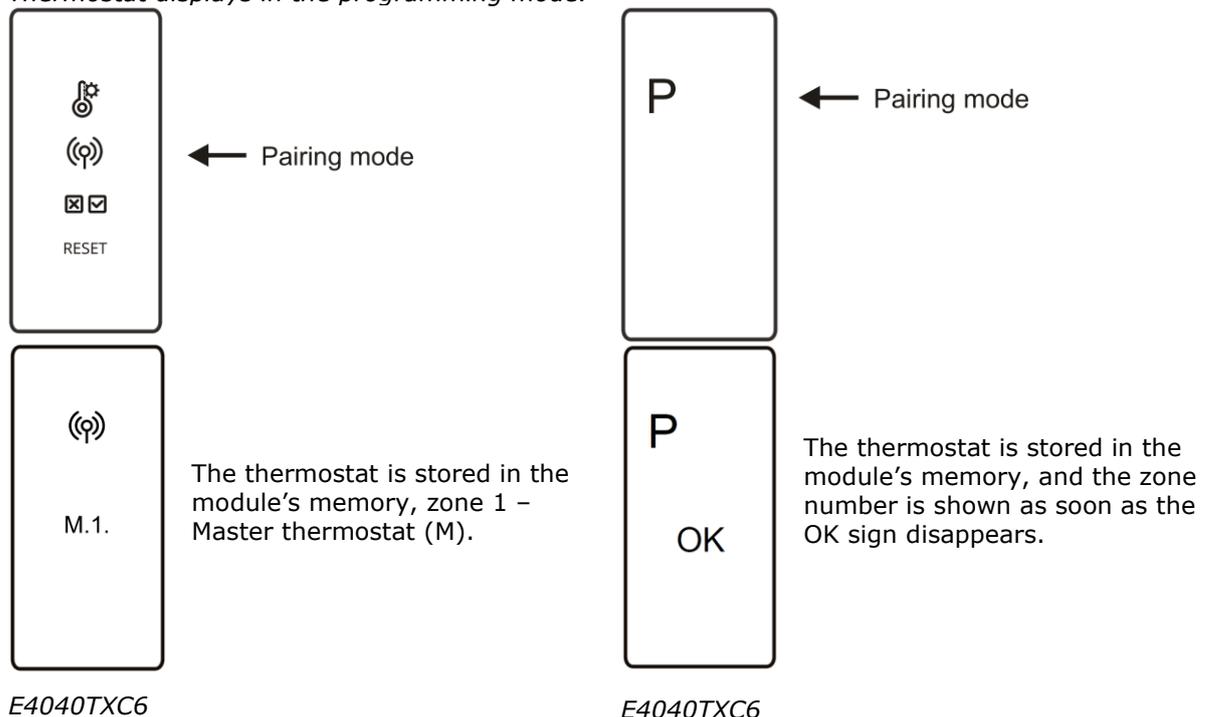- Insert the batteries to the thermostat to be assigned to the selected zone, enter the service menu (simultaneously press and hold the central and right button on the thermostat) and switch on the pairing option (E4040TXC6 – ((ᵢ)) icon, E4020TXC6 – P icon).
- Press (do not hold) the button on the **C6RX** module – the green and red lights start to flash alternately – the module waits for the signal from the thermostat Storing the thermostat in the module's memory is signaled with green light being lit.

Thermostat displays in the programming mode.

← Pairing mode

← Pairing mode

The thermostat is stored in the module's memory, zone 1 – Master thermostat (M).

The thermostat is stored in the module's memory, and the zone number is shown as soon as the OK sign disappears.

E4040TXC6

E4040TXC6

- Put the PROG switch into idle position (the switches down). Correctly programmed zones are signaled with green diodes lit up.
- Program the other zones in a similar manner
- Having programmed all zones, put the PROG switch in idle position (switched down) – make sure that the levers snapped in this position.
- Install the front cover.

Caution! Pairing mode is available only for 1 hour after connecting the module to power!

9.2. Deleting / Restoring factory settings

If you need to delete a channel, follow the procedure below:
- Set the PROG switch with the numbers of selected channels to the "ON" position – green lights will be lit in the selected channels.
- Press and hold for 5 seconds the button in the C6RX module, until the green light is switched off.
- Set the PROG switch to the idle position. The deleted channels will not be active until they are reprogrammed.

To restore the module's factory settings set switches nos. 1 to 6 to ON position and for 5 seconds hold the button on the C6RX module.

9.3. Pairing the C6RX module with another C6RX module.

Determine which C6RX module is intended to be the primary (MASTER) and which modules are to be secondary.
Pairing procedure:
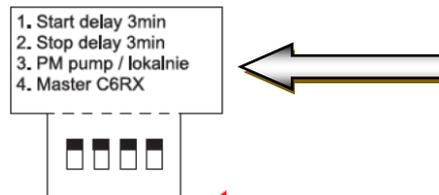
- In the primary module set the no. 4 MASTER switch to the ON position. The switched-on MASTER function is signaled by the lit RX status (M) light.
  In the secondary modules, the MASTER switch must be switched down – the RX status (M) light is not lit.
- Press the SWITCH button on the primary MASTER module 3 times – the green and orange lights start flashing alternately
- Then press the SWITCH button on the secondary module 3 times – the green and orange lights start flashing alternately
- Green lights in the modules lighting up for a moment notify that the pairing was successfully completed. No. 4 MASTER switch rests in the ON position.

Caution! Pairing mode is available only for 1 hour after connecting the module to power!

9.4. Pairing C6RX module with RXC6 receiver

If no cable is led **between** the distributor (module installation location) and the boiler, an RXC6 receiver may be used. The receiver is used to provide wireless control of the heating boiler. The RXC6 receiver should be paired to the primary (MASTER) module only.
Pairing procedure:
- Set MASTER switch to ON position. RX STATUS (M) light is lit in the module with MASTER mode on.
- Press the SWITCH button on the primary MASTER module 3 times – the green and orange lights start flashing alternately
- Press the button on the front cover of the RXC6 receiver 3 times – the blue light lights up.
- Green lights in the module and receiver lighting up for a moment notifies that the pairing was successfully completed.

Caution! Pairing mode is only available for 10 minutes after inserting the receiver into the power socket.

9.5. Heating / Cooling

The mode may only be switched over in the C6RX module by shorting **the Heat/cool input**. The notification of heating/cooling mode will be sent to the thermostats connected with the C6RX module.
In the cooling mode the power light flashes.

10. MODULE OPERATION

10.1. Connection test

Upon energizing the device red and yellow lights are switched on. Green lights are switched on only for the programmed channels that correctly communicate with the C6RX module. Then, the C6RX module waits for the correct radio connection with individual thermostats to be confirmed. The response to the thermostat sending the switch on or switch off signal is opening or closing the adequate actuator.
The pump is switched on when at least one actuator is open.
After the lapse of an hour upon connecting the power the Anti-stop function is switched on and switches subsequently all actuators and the pump.
The module enables you to check each output manually. To do so, follow the steps below:
- Press and hold the button for 5 seconds until the light for channel 1 starts flashing
- Press the button to switch the output on and off and then change to the subsequent channel

(Active output – the light is continuous).

10.2. Energy saving

The **C6RX** module was designed to have the lowest possible energy consumption. Therefore, after the lapse of a certain period, the signaling diodes fade. Their full brightness is restored upon pressing a button or entering the programming mode.

10.3. Protection against losing connection with the thermostat

Discharged batteries, radio interference or excessive distance between the thermostat and the **C6RX** module antenna may cause the loss of connection with the thermostat.
If the module stops receiving signals from a given thermostat, then after the lapse of 7 minutes it switches the actuator on for 20 minutes and repeats this cycle every 2 hours. It prevents excessive cooling of the rooms.
No radio communication in a given channel is signaled with the green light flashing fast.

11. TROUBLESHOOTING

One or several green lights flashing fast
No communication with the thermostats. Incorrectly located antenna, thermostats located too far or having nearly discharged batteries. It is recommended to have the batteries replaced before each heating season, do not use rechargeable batteries.

No light is on
No power supply, damaged fuse.

Problem with assigning a thermostat
Check the position of the thermostat programming/pairing switch.

Reverse operation of the device
If the device operates with the reverse effect, the device mode (heating/cooling) must be changed over.

12. SIMPLIFIED DECLARATION OF EU CONFORMITY

P.H.P.U. AS AGNIESZKA SZYMAŃSKA-KACZYŃSKA hereby represents that the type of Euroster C6RX equipment conforms to the following directives: (RoHS). The complete text of the Declaration of EU conformity is available at the following Internet address: **www.euroster.pl**

13. TECHNICAL DATA

   a) Module supply voltage: 230 V 50 Hz
   b) CH pump control voltage: 230 V 50 Hz
   c) Maximum power consumption: 3 W
      Type of supported actuators: electrothermal, normally closed (NC)
   d) Actuator supply voltage: 230 V 50 Hz
   e) Maximum load (total): 3 A 230 V 50 Hz,
   f) Frequency of operation: 868 MHz
   g) Mounting method: Wall–mounted – screw anchors or DIN 35 mm rail.
   h) Operation temperature: +5°C...+40°C
   i) Dimensions (width/height/depth) in mm: 270x97x50,

14. KIT CONTENTS

   a) **EUROSTER C6RX floor heating module** with 1.5 meter-long power cable
   b) Screw anchors
   c) User Manual with Warranty Certificate
   d) Antenna.

ELECTRONIC WASTE MANAGEMENT INFORMATION

This product is designed with and manufactured from high-quality materials and components suitable for reuse. If the equipment, packaging, user manual, etc. is provided with a crossed-out wheelie bin symbol, it means that the product should be selectively collected in accordance with the Directive 2012/19/EU of the European Parliament and of the Council. Such marking informs that the electrical and electronic equipment may not be disposed of together with other household waste after their service life. The user is obliged to take the used devices to a point of collection of waste electrical and electronic equipment. The entities collecting such equipment, including the collection points, shops, and municipal entities, set up an appropriate system enabling the handover of such equipment. The proper disposal of waste equipment contributes to the prevention of dangerous consequences to nature and human health, resulting from the possible presence of hazardous components in the equipment and from inaccurate storage and processing of such equipment. The selective collection contributes to the recovery of materials and components used for manufacturing the equipment. A household plays an important role in contributing to reuse and recovery including recycling, of waste equipment. The attitudes influencing the protection of the common good of a clean environment are shaped at this level. Households are also one of the larger users of small equipment and its rational management at this stage impacts the recovery of recyclables. Inaccurate disposal of this product may be penalized in accordance with national legislation.

MAINTENANCE

Before each and every heating season, the control module must be cleaned of any dust and other dirt, the cables must be checked for their technical condition and tight fixing.
Do not use solvents and aggressive detergents to clean the device, since they may damage the surface of the housing. If necessary, wipe it carefully with a soft cloth.

WARRANTY CERTIFICATE
WIRELESS EUROSTER C6RX CONTROL MODULE

Warranty terms:

1. The warranty is valid for 24 months from the device sale date.
2. The claimed module together with this warranty certificate must be supplied to the seller.
3. Warranty claims shall be processed within 14 business days from the date the guarantor has received the claimed device.
4. The device may be repaired exclusively by the guarantor, manufacturer or by other party clearly authorized by the manufacturer.
5. Warranty becomes void in case of any mechanical damage, incorrect operation and repairs made by unauthorized persons.
6. This consumer warranty does not exclude, restrict nor suspend any right of the buyer if the product does not meet any of the sale contract terms.

……..

| Sale date | Serial number / date of manufacture | stamp and signature | service: telephone No. (65) 57-12-012 |

Business entity that issued this warranty certificate (the guarantor) is:
P.H.P.U. AS Agnieszka Szymańska-Kaczyńska, Chumiętki 4, 63-840 Krobia, Poland