

EUROSTER Q7TXRXGW



Programmable room thermostat for all types of heating and air-conditioning devices.

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

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

version: 27.11.2014

I. SAFETY RULES AND MAINTENANCE

DANGER!

- Please read this manual carefully prior to installing the thermostat.
- Voltages hazardous to life may be present on the thermostat output cables; therefore only qualified technicians may install the thermostat.
- Do not install any thermostats showing signs of mechanical damage.

1. THERMOSTAT MAINTENANCE

Do not use the thermostat in rooms with excessive humidity, significant dustiness or with presence of caustic or flammable vapors.

If necessary wipe it carefully with a damp cloth.

Do not use strong detergents, solvents or any other cleaning liquids or powders. Avoid contact with water or other liquids.

Do not lubricate, grease or apply any other preservatives.


Protect against high and freezing temperatures.

Movable elements should operate easily and do not need any force to be applied on them under any circumstances.

In case any problems occur with proper operation of the thermostat, please contact your technician or Euroster service.

2. BATTERIES

Low batteries indication

If the icon  appears on the display, it is necessary to replace the batteries.

It is recommended to replace the batteries with new ones prior to each heating season.

Use alkaline batteries only.

Do not use rechargeable batteries because their voltage is 1.2 V, which does not ensure the proper operation of the thermostat.

Replacement of batteries

The battery compartment cover is on the bottom of the thermostat.

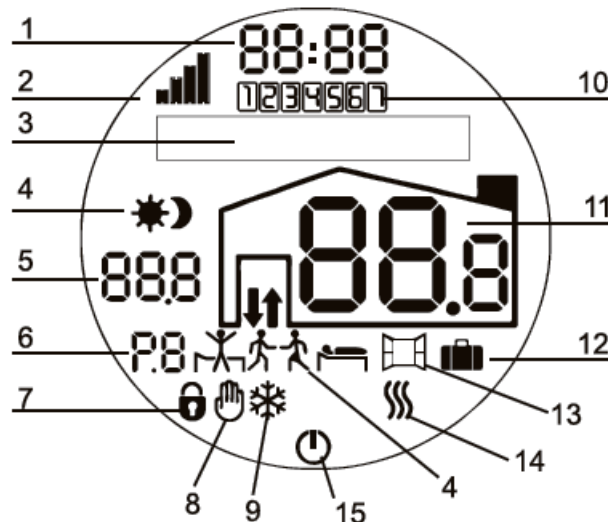
Secure the cover with your hand not to let the batteries fall out when pulling out the cover. Pull the cover to the right.

When replacing the batteries, pay particular attention to their polarity. There are markings for proper installation in the battery compartment.

II. USER FUNCTIONS

1. CONTROL OF THE THERMOSTAT

a. Display icons and operating window



1. Hour
2. Strength of radio communication between the thermostat and the receiver
3. Text box
4. Current setting (range) icon
5. Preset temperature of the current range or after entering the menu – item no.
6. Range no. (e.g. P1 – first range of the current day (moment) is effective)
7. Lock of access to the thermostat functions
8. Manual (one-off) temperature or operating mode setting
9. Air conditioner in operation
10. Current weekday, e.g. 1 – Monday, 7 – Sunday
11. Current room temperature
12. Vacation mode
13. Airing mode
14. Heat emitting device in operation
15. Thermostat switched off – temperature control suspended indefinitely

Standard appearance of the operating window:**Icon of the radio communication – the range of the device operation**

The range icon informs of a proper communication between the thermostat and the receiver and of the strength of the signal between them. If at least one unit of the signal icon is full, then the communication is proper.

The signal is sent to the receiver in the following cases only:

- when the change in the thermostat operating conditions occurs, e.g. the temperature raises or drops, when OK button is pressed, or when the thermostat requests turning the device on or off, etc.;
- 10 minutes after the last activity.

Maximum range inside buildings is 30 m. However, the radio communication depends on many factors (ceilings, thick walls, metal structural elements), which may reduce the distance.

Empty units of the signal icon indicate lack of communication. If the signal fades out permanently, then LACK OF COMMUNICATION appears in the text box. In such case moving the thermostat somewhere else may help. The range icon will be updated not later than after 10 minutes or after pressing OK shortly, when the display backlight is switched off.

If the thermostat cooperates with several receivers, then the displayed signal strength is the signal strength of the most distant thermostat (the thermostat with the weakest signal).

When there is no communication in one of the receivers, then the units of the signal strength icon will be empty but the thermostat and other receivers will operate properly. The lack of communication information will appear only when the signal fades out in all of the receivers.

Text box

Displays the names of the menu elements and messages particularly important for the operation of the thermostat.

Device operation icon 

There is a bidirectional communication between the thermostat and the receiver.

Therefore, the heating / cooling icon is displayed only when the receiver confirms receiving the signal of switching the transmitter on. This ensures that the heating or cooling device was actually switched on. This icon disappears when the receiver confirms switching off at the request of the thermostat.

When one receiver is controlled by several thermostats (and only some of them have a priority of switching the heating on), then it is possible that the icon at other thermostats is updated with a delay but not later than within 10 minutes after switching the device on.

Displaying the icons may be updated by pressing OK shortly.


b. Knob and button

- Pressing OK button for a short time backlights the display and unlocks the knob;
- Holding OK button longer (over 1 s) results in:
 - entering the main menu (release the button when SETTINGS is displayed),
 - deleting manual setting,
 - switching active modes off or
 - exiting the menu item, and after holding OK button longer again exiting the menu and returning to the operating window;
- Turning the knob enables adjusting the temperature or selecting the menu item.

If the menu is not exited manually, then after 30 s of idleness the thermostat automatically returns to the operating window.

c. Turning the thermostat off

Hold OK until the thermostat is switched off.

Switching the thermostat off suspends the temperature control indefinitely – a clock, weekday, current room temperature and  icon are displayed. In order to restore temperature control, hold OK for over 1 s.

d. Temperature sensor

The wireless thermostat may control the room temperature based on the measurements of the built-in sensor only.

e. RX receiver

The receiver is equipped with a pass-through socket enabling connecting a boiler or other device to the power supply. It is not a controllable socket. It is a simple 230 V socket, which does not take part in the temperature control.

The receiver display shows:

- the temperature sent from the thermostat,
- the transmitter status,
- the signal strength,
- type of connection: NO – the cables are open when not powered or NC – the cables are shorted when not powered,
- manual – informs that the heating device was switched on manually.

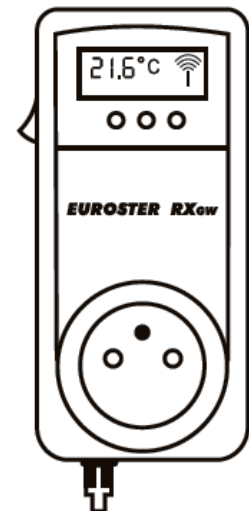
Apart from the display, there is a diode installed in the receiver to inform of the transmitter being switched on.

IMPORTANT NOTE! The switch at the left side of the receiver should be set to "0" position. This means that the device is being controlled by the thermostat.

Setting the switch to "I" position results in switching on of the device connected to the receiver. A red diode lights up and RX MANUAL is displayed for 10 minutes in the thermostat text box.

The orders sent from the thermostat are not taken into account. The heating / cooling device is switched on permanently until the switch is set to "0" position.

ATTENTION: Do not tamper the buttons neither make any modifications in the receiver settings prior to consulting your technician or Euroster service.



If several thermostats cooperate with one RX receiver, then the receiver display will alternately show the information concerning all of the thermostats.

First of all, digit 1 (designating thermostat number one) is displayed followed by the temperature measured with thermostat number one, then digit 2 is visible followed by the temperature measured with thermostat number two, etc.

If the receiver does not receive a signal confirming the operation of the thermostat within 15 minutes, the receiver(s) switches off the heating and reverts to the fail safe mode. Letter A will be displayed and the connected device will be switched on for 20 minutes every 3 h.

2. BASIC SETTINGS





The main menu consists of three basic items:

MODES (1)

PROGRAMS (2)

SERVICE (3)

The menu items with numbers assigned to them are listed in the table below.

ITEM NO.	MENU ITEM	ITEM NO.	MENU ITEM
1	MODES	101	VACATION 
		102	AIRING 
		103	PARTY 
		104	HOLD
		105	ECO
		106	EXIT
2	PROGRAMS	201	DAY
		202	EDIT
		203	COPY
		204	EXIT
3	SERVICE	301	OPERATING TIME
		302	MANUAL SETTING
		303	MODES
		304	YEAR TIME
		305	ALGORITHM
		306	LEARNING
		307	HEATING IN ADVANCE 
		308	ANTI-FREEZE PROTECTION
		309	CORRECTION OF SENSORS
		310	PIN
		311	RESETTING
312	AIR-CONDITIONING		
313	EXIT		
4	EXIT		

The following section describes the most useful functions for users.

a. Date and time

In order to set the time and date, enter SERVICE (item 3) menu and select YEAR TIME (item 304).

Select digits of the current date and hour, and confirm each of them subsequently. The following is set respectively:

- last two digits of year
- month
- day
- hour
- minutes.

After confirming minutes, the thermostat updates the entered date and the service menu may be exited or other functions may be selected.

b. Factory-set ranges

The thermostat is provided with the factory-programmed ranges, which may be freely adjusted and deleted. In case of resetting (item 311) all current ranges are replaced with the factory settings.

Heating:	Cooling:
<p>Mon-Thu P1 21°C 06:00 am – 08:30 am P2 18°C 08:30 am – 04:00 pm P3 21°C 04:00 pm – 11:00 pm P4 17°C 11:00 pm – 06:00 am</p> <p>Fri P1 21°C 06:00 am – 08:30 am P2 18°C 08:30 am – 04:00 pm P3 21°C 04:00 pm – 11:00 pm P4 17°C 11:00 pm – 08:00 am</p> <p>Sat P1 21°C 08:00 am – 11:00 pm P2 17°C 11:00 pm – 08:00 am</p> <p>Sun P1 21°C 08:00 am – 11:00 pm P2 17°C 11:00 pm – 06:00 am</p>	<p>Mon-Fri P1 23°C 06:00 am – 08:30 am P2 28°C 08:30 am – 03:00 pm P3 22°C 03:00 pm – 11:00 pm P4 25°C 11:00 pm – 06:00 am</p> <p>Sat-Sun P1 23°C 06:00 am – 11:00 am P2 22°C 11:00 am – 04:00 pm P3 23°C 04:00 pm – 11:00 pm P4 25°C 11:00 pm – 06:00 am</p>

c. Learning

The learning mode enables automatic storing of periodically repeated manual temperature settings. Based on them the thermostat creates ranges with suitable temperatures. It enables avoiding laborious programing. Based on manually input temperature settings the thermostat creates their time ranges. Separate ranges are created for weekdays (Mon-Fri), separate for weekends (Sat-Sun) and for single days of the week when a given temperature is set on the same day for two subsequent weeks (e.g. the same time on two subsequent Mondays).

The time when the temperature was set and the temperature itself do not have to be exactly the same. For a full description see: section III. Service functions.

In order to activate the learning mode, enter SERVICE (3) menu / LEARNING (item 306), select: YES and confirm.

d. Heating in advance

Heating a room in advance, which enables reaching the preset temperature on required time.

In order to activate heating in advance, enter SERVICE (3) menu / HEATING IN ADVANCE (item 307), select: YES, then option: COMPLETE or LIMITED and confirm.

For a full description see: section III. Service functions.

e. Operation algorithms

Two operational options of activating the heating (cooling) algorithm are available: HYSTERESIS or PWM.

In order to select between them, enter SERVICE (3) menu / ALGORITHM (item 305). Select HYSTERESIS or PWM accordingly and confirm.

Hysteresis: turning the heating (air-conditioning) device on is based only on a difference between the preset and current temperature.

PWM is a more advanced method of achieving the preset temperature, thus it requires setting three operating parameters. It is recommended to have them selected by a technician.

In order to avoid large temperature fluctuations when there is an increased inertia of the heating system, it is preferable to select the PWM algorithm, as it does not allow for significant cool down of the room, and at the same time it does not let the temperature get too high and exceed the setting.

For a full description see: section III. Service functions.


3. MANUAL (ONE-OFF) TEMPERATURE SETTING. TIME LIMIT OF THE MANUAL SETTING

Any required temperature may be preset manually at any time. The temperature will be effective until the end of the current range or for a preset time up to 24 h.

The thermostat provides two methods of manual temperature setting:

a. First method: selecting an exact temperature for one of the three preset duration values.

It enables selecting the exact temperature value required at the moment.

Press OK, select the required temperature with the knob and confirm. The temperature will be stored, the thermostat will return to the operating window and additional  icon will be displayed.


Manual setting is effective until the end of the current range or (in case there is no range) until the time of starting the next range.

Additionally, one of three duration options may be selected for this temperature. Then the next stored range will not delete it. Factory settings: 30 min, 2 h and 8 h. After confirming the temperature, press OK once, twice or three times. (DURATION will appear and one of the times will be displayed.)

All three duration values may be preset in any way in SERVICE (3) menu / MANUAL SETTING (item 302).

b. Second method: selecting one of the three temperatures and an exact duration

Enables a quick selection of one of the three temperatures preset in SERVICE (3) menu / MANUAL SETTING (item 302). Factory settings: 18°C, 20°C and 22°C.

Press OK, then press OK once, twice or three times. Leave the selected temperature (without confirming OK). After 5 s the setting will be stored and the thermostat will return to the operating window.  icon will be displayed.

This temperature setting will be effective until the end of the current range or the time of starting the next range.

The duration of the setting may be set up but only within 5 s until the temperature is stored.

In order to set up a duration value, immediately after selecting one of the three temperatures turn the knob (without pressing OK) and set the duration hours. Confirm. Set the duration minutes. Confirm. 🖱️ icon will be displayed.

4. PROGRAMS (RANGES) – PROGRAMING OF TEMPERATURES AND THEIR DURATION

It is possible to program up to 9 ranges with various temperatures per day. It is possible to set up various ranges for each day of the week.

In order to program temperatures and their time ranges, enter PROGRAMS menu (item 2) and then:

a. DAY – item 201 – selection of a weekday or a group of days to be programmed (edited)

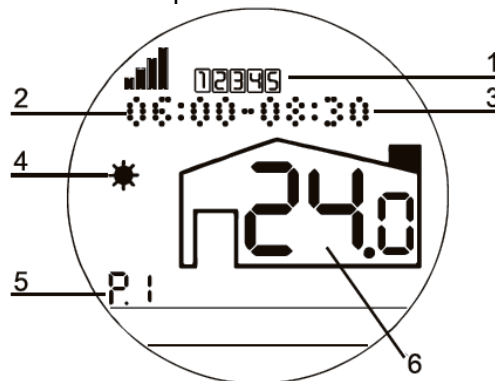
When DAY is displayed, press OK. The weekday digit will start flashing. Select any day or a group of days of the week using the knob. It is possible to program the following groups of days:

- from Monday through Friday – digits: 1, 2, 3, 4, 5 are flashing on the display;
- Saturday and Sunday – digits 6, 7 are flashing;
- the whole week – digits of all days of the week: 1, 2, 3, 4, 5, 6, 7 are flashing.

Select the proper day or group of days and confirm. After selecting, the device will automatically proceed to the next item – EDIT (item 202).

b. EDIT – item 202 – preview, establishment, change or deletion of the stored ranges for a previously selected day or group of days

After entering edit menu, the first program is displayed (P1 icon is flashing). Starting and ending hours of this range, selected temperature and icon are visible.



1. Day or group of days
2. Range starting time (hour and minutes)
3. Range ending time (hour and minutes)
4. Graphic icon of the range
5. Subsequent number of the range
6. Temperature set for this time range

Flashing of individual elements indicates that they may be changed.

In order to select a different range or add a new one, enter **edit** menu (item 202). P1 will start flashing. Turn the knob clockwise. ADD RANGE will be displayed. In order to store changes turn the knob until STORE appears and confirm.

When P1 (or any other program number) is flashing, the parameters of the program may be changed. To change them press OK, which will allow changing subsequently:

- temperature (when it starts flashing, it may be set with the knob),

- range starting hour and minutes,
- range ending hour and minutes,
- icon (if no icon is visible, turn the knob counterclockwise).

After confirming the icon, P with a proper number is displayed again. The thermostat will automatically arrange the ranges in the proper sequence; therefore their numbering may change.

When P1 is flashing, the knob may be turned to check other ranges of the same day. Exit editing by holding OK longer. Return the operating window by holding OK again. Exiting in this way does not enable storing the introduced changes.

In order to store the changes, exit editing with STORE option.

Duration of ranges. P0

Manually established range may not be shorter than 5 minutes and may not exceed 24 hours. However, it may start on one day and end on the next one. This enables establishing a range starting in the evening and ending in the morning.

In such case an additional number will be visible: P0. It is only informative. This range does not limit a new day and the hour of starting the first range may be set freely.

Deleting ranges

Time ranges must last for at least 5 minutes.

Setting a range lasting for a time shorter than 5 minutes leads to deleting it.

Please remember: there will be a pause in heating in the place of the deleted range.

Adding a new range with starting and ending hours completely overlapping another range also deletes the previous one.

A range set up with the same starting and ending hour will be effective for 24 hours.

Automatic shifting of range limits


If a starting or ending hour of a new range overlaps a different, previously established range, then the preprogrammed one will be automatically shortened.

a. COPY – (item 203) – copying all settings from one day to another or several other days

In order to copy any day to another or several other days, select COPY (item 203). Use the knob to select a day from which the settings will be copied. Confirm the selection. PASTE TO DAY is displayed. Use the knob to select a day or days to which the settings will be pasted. Confirm. After selecting all days to have the same ranges, turn the knob clockwise until STORE appears and confirm.


5. OPERATION MODES – VACATION, AIRING, PARTY, HOLD, ECO

The thermostat enables manual activation of different operation modes. Settings available in MODES (item 1) menu adjust the operation to the current user needs and do not alter the programmed ranges.

- 1. VACATION  – (item 101) – setting any temperature for a longer period (several hours, weeks or months), e.g. due to absence. It may start on the day of setting or in future, e.g. in a month or even a year time and may last for any required period.**

In order to set a vacation temperature, enter MODES (item 1) and take the following steps subsequently:

- Select VACATION (item 101) – use the knob to set YES and confirm;
- Set year of starting vacation period (START: YEAR) and confirm;
- Set month of starting vacation period (START: MONTH) and confirm;
- Set hour (without minutes) and confirm;
- Set year of ending vacation period (STOP: YEAR) and confirm;
- Set month of ending vacation period (STOP: MONTH) and confirm;
- Set hour of ending vacation period;
- Set temperature to be maintained during vacation period and confirm.

The operating window view reappears at the thermostat and  icon is visible.

Switching the vacation mode off:

- if it is active – press OK;
- if it is set for future activation – enter VACATION mode and select NO.

2. AIRING – (item 102) – switching the heating device off for the time of airing.

Activating the airing mode:

- Manual – switch the AIRING mode (item 102) on. It results in limiting the set temperature to the frost protection (item 308) temperature for the time ranging from 5 to 60 minutes (set in SERVICE / MODES / AIRING menu).
- Automatic – enter SERVICE / MODES / AIRING (item 303), select AUTO mode. Detection of a rapid drop of ambient temperature switches the heating device off for the preset time.

If frost protection temperature is not switched on (item 308 – NO), then airing mode limits the heating completely for the preset time.

Switching the airing mode off: hold OK for 2 s.

3. PARTY – (item 103) – locking automatic change of ranges until this mode is switched off. The thermostat will maintain the temperature of a range, during which the mode was turned on.

Switching the PARTY mode off: hold OK for 2 s.

4. HOLD – (item 104) activation of a preset temperature, which will not be changed until this mode is switched off manually.

In order to set the held temperature value, enter SERVICE / MODES (item 303) menu and use the knob to select HOLD. Then select any temperature and confirm.

In order to activate the preset temperature, select MODES / HOLD (item 304). All stored and implemented ranges will be suspended.

Switching the HOLD mode off: hold OK for 2 s.

5. ECO – (item 105) – reducing all temperatures preset in programs (ranges) by 1°C, 2°C or 3°C

In order to select a value by which all program temperatures will be reduced, enter SERVICE / MODES menu (item 303) and use the knob to select ECO, then select REDUCE -1, -2 or -3 and confirm. Switching the ECO mode on results in temporary reduction of all programmed temperatures by a preset value.

Switching the ECO mode off: hold OK for 2 s.

III. SERVICE FUNCTIONS

SERVICE menu (item 3) enables previewing and altering advanced functions of the thermostat.

Settings introduced by a technician at the time of the thermostat start-up are enough for the proper control of room temperatures without the need to correct any of the options. Therefore, the less experienced user does not need to enter service menu in order to take the full advantage of the thermostat capabilities. If more serious modifications are necessary, it is recommended to consult a technician or our technical service.

It is recommended to be very careful when modifying the service or installation settings, especially those unlisted above and to do it only if necessary.

Caution! Any intervention may cause malfunction of the system and in extreme cases may result in damaging some elements of the system.

1. OPERATING TIME (item 301) – operating time counter of a heating (air-conditioning) device

Checking the total time of relay operation.

In order to reset the counter, after displaying the time press OK shortly. After pressing OK again, the counter is zeroed.

In order to exit this item without resetting the counter, hold OK for 2 s.

2. MANUAL SETTING (item 302) – setting times and temperatures to be selected with the button (see: II. User functions, point 3.)

TEMPERATURE – three temperatures of manual setting – factory setting: 18°C, 20°C and 22°C.

DURATION – three duration values of manual setting – factory setting: 30 min, 2 h and 8 h.

LIMIT – a temperature range not to be exceeded when setting the temperature manually; default range: 5-35°C.

This setting in combination with a coded interlock (SERVICE / PIN / YES / MENU ONLY) prevents excessive temperature changes.

3. MODES (item 303) – operation mode settings

AIRING – (see: Section II. User functions, point 5b.)

- AUTO – automatic activation of the airing mode in case a rapid drop of temperature is detected – this mode is turned on only when a heating device is switched on;
- MANUAL – airing mode will be turned on only manually by a user (item 102);
- DURATION – duration of airing from 5 to 60 min – irrespective of the method of switching it on.

ECO – (see: Section II. User functions, point 5e.)

HOLD – (see: Section II. User functions, point 5d.)

4. YEAR TIME – (item 304) – setting the current date and time (see: Section II. User functions, point 2a.)

5. ALGORITHM – (item 305) – setting the thermostat operating algorithm (see: Section II. User functions, point 2e.)

HYSTERESIS – the hysteresis settings: from 0.1 to 5°C for heating or cooling.

PWM – algorithm, which shortens the heating time proportionally to the temperature increase. The closer the temperature to the preset one the shorter the cycles and longer time intervals between switch-ons.

- PWM CYCLES – allowable number of cycles during one hour is from 2 to 20. An hour divided by the number of cycles gives duration of one full cycle.
- MIN. PWM TIME – minimum duration of one cycle: from 1 to 10 minutes. In case of using devices that require a minimum start-up time or an operation lasting not less than a specific period, take it into account and adjust this parameter properly.
- PWM LIMIT – from 0.1 to 10°C – when the room temperature drops below the preset one by a whole limit value, then the heating device is switched on for a complete cycle; when the temperature increases, then the cycle is shortened proportionally and the time intervals between the switch-ons are lengthened.

6. LEARNING (item 306) – automatic storing of selected temperatures and their time ranges (see: Section II. User functions, point 2c.)

The thermostat stores the duration of a preset temperature and automatically establishes a time range in which this temperature is effective. This range will be effective for all days of the Mon-Fri period or Sat-Sun period depending on the period in which the setting was established and repeated.

When learning is active (item 306 – YES), the thermostat records the temperature and time when it was modified.

If similar temperatures (differing by no more than 0.4°C) will be set by a user at similar times (time difference not exceeding 60 minutes) in subsequent days of the Mon-Fri or Sat-Sun period, then such manual setting will be stored in the PROGRAMS menu (item 2). It will be implemented automatically. Time ranges are rounded by the learning mode to full ten minutes.

Settings for the individual days of the week are also stored and if they are repeated, e.g. on two subsequent Mondays or two subsequent Saturdays, then such setting will also be stored in the programs. It will be implemented always on these particular weekdays.

After switching the learning mode off and on again, all stored ranges and programs are deleted.

- Maximum number of ranges per day: 9
- Minimum duration: 60 minutes, maximum: 24 h

New ranges are established during first four weeks only. In that period the symbol of the first stage [I] will be visible in the text box. After that period, learning proceeds to the second stage [II], in which new ranges may not be added. One may only shift the limits of already stored ranges and change their temperatures. Since then [II] icon is visible in the text box.



Learning stage one



Learning stage two

The stored ranges may be modified any time by:

- changing temperature only at the beginning of a particular range;
- setting the same temperature but setting it earlier or later in order to change duration of a given period;
- changing the temperature and starting time of a range with the new temperature.

Repeating the settings at the same time the next day of the range updates the programs with new times and / or temperatures.

The algorithm may allow not all of the changes. In such case the change should be introduced manually in PROGRAMS menu.

When establishing a new range and when shifting its time limit, the RANGE TIME LIMIT CHANGED information appears in the text box. When changing the temperature, the RANGE TEMPERATURE CHANGED information appears. If both the time and the limit are changed, then both pieces of information are displayed.

Learning may be turned off (item 306 – NO) at any time without losing the stored ranges. Please remember that reactivating learning deletes all stored ranges.

Irrespective of the learning mode, the ranges may be deleted, freely changed or added manually in the PROGRAMS menu (item 2) at any time. Any manual temperature change may be set at any time (see: II. User functions, point 3). Setting it once does not affect the ranges established during learning.

7. HEATING IN ADVANCE – (item 307) – (see: Section II. User functions, point 2d.) – heating a room in advance

The time of turning the heating in advance on is calculated with a sophisticated algorithm, taking into account previous room heat-up times and currently measured temperature.

The thermostat needs several operating days to properly calculate times for various temperatures, thus for the first days the calculated times may not be enough to achieve precisely the preset temperatures at established times. Usually, the correct values are reached within two, three days.

For a proper operation of the advance-heating algorithm, at least two temperatures varying by minimum of 0.5°C must be set in the thermostat.

The time of advance is calculated and updated in the thermostat memory even if heating in advance is not switched on in the service menu (item 307). If the thermostat was already operated in a place and then moved to another room (building), then the advance times may vary from the required ones and will reach a stable value within several days. In particular cases, it is recommended to delete the stored advance times. In order to do so, switch off the advance function and then switch it on again.

After switching this function on, it is possible to select the mode of advance:

- COMPLETE – switching the heating on with the exact calculated period of heating in advance;
- LIMITED – the calculated time of heating in advance may be shorter than the one set with this item.

Time of advance may be limited within the range from 20 to 240 minutes. This ensures that the heating will not start too early. However, in such case, heating the room up to the preset level may be delayed. In special cases when the range in question is short, the preset temperature may not be achieved at all. However, it will be higher than without advance.

8. FROST PROTECTION – (item 308)

It maintains minimum temperature preventing freezing of the system. It is set within the range from 1 to 10°C. By default: 5°C.

In case there are gaps between ranges when the protection is active, the frost protection temperature will be implemented during these gaps.

Switching the thermostat off switches off this protection as well.

9. SENSOR CORRECTION (item 309) – modification of temperature readings and display by a preset value. It is recommended to leave this value unchanged, thus set to 0.

10.PIN (item 310) – restriction of access to all or selected thermostat functions

Factory preset code is 0000 and it can be changed to any other.

In order to set the lock, enter menu: SERVICE / PIN (item 310) / YES. Select the element to be locked and enter any four-digit code. From this moment, it will be used to unlock and to reset the thermostat (in the RESTORE FACTORY SETTINGS menu – item 311).

- ALL – interlocks access to all thermostat functions. Only the display backlight is operational and when holding OK longer, the request to enter the code appears. Enter the code using the knob while confirming each digit.
- MENU ONLY – temperatures and their durations may be set manually, but in order to enter the main menu (MODES, PROGRAMS, SERVICE), it is required to enter the code.
- SERVICE ONLY – interlocks only the possibility to enter the SERVICE item.

11.RESTORE FACTORY SETTINGS – (item 311) – deleting all settings and programs

Factory-code of reset is 0000 if the code of PIN item is changed, then the new one is also valid for reset. Resetting does not alter the settings entered in the technician's menu neither does it reset the date and time. It deletes all settings in the SERVICE menu along with the programmed ranges.

12.AIR-CONDITIONING – (item 312) – switch from a heating to air-conditioning device

When selecting SERVICE / AIR-CONDITIONING (item 312) / YES, the device connected to the receiver will be switched on when the temperature increases above the preset one.

It is also possible to connect two receivers, one for the heating and the other for the air-conditioning device. The thermostat set up to heating (AIR-CONDITIONING – NO) controls one receiver, while the other one is inactive. If operation with air-conditioning is set in the thermostat (AIR-CONDITIONING – YES), then the heating device receiver is automatically inactive and the air-conditioning receiver will control the cooling.

Switching on the air-conditioning operation enables the preset ranges to be replaced with others – the ones stored for cooling. After returning to heating functions, the previous ranges will be restored. This function enables the thermostat to operate with air-conditioning and heating without loss of settings.

After selecting SERVICE / AIR-CONDITIONING / AUTO, the thermostat automatically switches over between the heating and cooling mode. Set the limit temperature TURN OFF IF, above which the Q7 thermostat operates with cooling settings. If the temperature drops below the limit temperature by the value of hysteresis, which is adjustable as well, the thermostat switches over to heating control.

IV. TECHNICIAN'S MENU – quick start

The technician's menu facilitates installing the thermostat with proper settings without the need to modify them manually.

In order to enter these settings, hold OK. When SETUP appears, hold OK and turn the knob. INSTALL will appear.

1. The technician's menu consists of the following elements:

- RESET (item 1) – using it deletes all settings and restores the thermostat factory settings, including the installation settings and default interlock code. It is recommended to consult a technician or EUROSTER technical service prior to resetting the device. Reset is implemented with a separate code: 7153, irrespective of the code set in the service menu.

Caution! Restoring factory settings may lead to improper operation of the heating device and in extreme cases it may lead to a failure or damage of the system.

- INSTALL (item 2) – enables selection of the following:
 - language,
 - type of system: heating – air-conditioning (heats – cools down),
 - heat sources (water – electricity),
 - heating elements (radiators, floor or forced air) and
 - devices switched on by the thermostat (pump, valve, boiler or others).Setting these options enables selection of preliminary settings, mainly algorithms, to the particular configuration without the need to modify them manually in the service menu.
- RADIO (item 3) – enables pairing devices, establishing number of transmitters or receivers, assigning priorities to transmitters and copying the settings to / from RX modules (see: point 2).
- TEST (item 4) – enables checking of the following:
 - software version,
 - correct switching on and off for the receiver,
 - display,
 - signal strength,
 - temperature measurement.

In order to check the correct connection of the heating device to the receiver output, press OK – the receiver will be switched on. Then press OK again – the receiver is switched off.

2. DETAILED DESCRIPTION OF RADIO SETTINGS

- a. NEXT ITEM** – One Q7RX receiver (in a socket) may be switched on and off by several Q7TX thermostats (a unit with batteries), maximum of 6 pcs.

Switching on and off may be conditioned. It consists in establishing priorities determining which thermostats switch the device on and which switch it off and whether a selected one or all of them should switch the device on /off.

In order to do so, it is necessary to distinguish the thermostats by assigning a proper no. to each of them: from 1 to 6. A default setting is 1. Thermostat no. 1 is the main thermostat and the only one enabled to program all other radio functionalities. If no. 2 or higher is selected, the thermostat proceeds immediately to pairing the thermostat with the receiver. PAIR is displayed in the text box.

b. NUMBER OF TX – selecting from 1 to 6 determines how many thermostats will operate with one RX module

Setting a value of 1 enables operation with several RX modules. NUMBER OF RX option is available.

Setting a value of 2 or more disables the NUMBER OF RX option and requires establishing the switching on and off priorities for the thermostats. The following additional options are available:

TURN ON IF – determining which thermostats should switch the heating device on and when.

- EACH – switching the heating device on when the temperature at each of the selected thermostats drops below the set point (an equivalent of the serial connection of wired thermostats).
- ANY – switching the heating device on when the temperature at any of the selected thermostats drops below the set point (an equivalent of the parallel connection of wired thermostats).

TURN OFF IF – determining which thermostats should switch the heating device off and when.

- EACH – switching the heating device off when the preset temperature is reached at each of the selected thermostats (an equivalent of the parallel connection).
- ANY – switching the heating device off when the preset temperature is reached at any of the selected thermostats (an equivalent of the serial connection).

The priorities of switching on or off are selected with the knob by turning it to select the proper no. in the EACH or ANY item. Any, but only one, of these options may be assigned to switching the device on and one to switching it off.

E.g. when *turn on if – each* is set and only no. 3 is selected, then the receiver will only switch on the heating device if the temperature drops below the preset one in the three rooms with thermostats no. 1, 2 and 3.

When *turn off if – any* is set and no. 4 is selected, then the receiver will switch on the heating if the preset temperature is reached at least at one of thermostats no. 1, 2, 3 or 4, even if it will not be reached at the other ones.

Usually the priorities are set as in standard wired connections: the serial one (turn on if: each – turn off if: any) or the parallel one (turn on if: any – turn off if: each). It is also possible to set the priorities that are impossible in simple wired connection: EACH for switching on and EACH for switching off with the selection of all paired thermostats. It is also possible to set a number for switching on and a different one for switching off. Then, all others are not involved in switching on or off. Please remember that switching off is superior to switching on. If ANY is set for the switch off along with a number greater than for the switch on, then regardless of the priority (each or any) set for the switch on, all thermostats must require heating in order to make the receiver switching the device on.

It is possible to introduce settings enabling switching the heating on only when the temperature at all thermostats will be lower and switching it off when the temperature will be reached at the first one only (switch on if: each 6 – switch off if: each 1). It is also possible to introduce settings enabling only the first thermostat to switch the heating on and switch it off only when the temperature raises at all thermostats (switch on: each 1 – switch off: each 6). Should you experience any problems with setting priorities we recommend contacting our service.

c. NUMBER OF RX – selecting from 1 to 6 determines how many receivers will cooperate with one thermostat

The receivers will simultaneously switch the connected devices on and off.

It is possible to connect two receivers, one for the heating and the other for the air-conditioning device (see III. Service functions point 12).

The operation with several TX thermostats is possible only when value of 1 is selected. NUMBER OF TX option will be available. When value of 2 or higher is selected then the option NUMBER OF TX will not be available.

- d. CHANNEL** – in exceptional cases it is possible that some external interference will affect the operation of the thermostats. Therefore, the set enables selecting the radio channel for it to operate at. Any channel from 0 to 4 may be selected. After changing the channel, the set should be paired again. The channels should be changed only when the conditions dictate.
- e. PAIR** – each thermostat and each receiver has a unique no. distinguishing it from the other ones. It is not possible for any thermostat not paired with the particular receiver to interfere with the operation of another pair or set. Therefore, none of the thermostats requires assigning a separate code or number. Any wireless Q7TX thermostat may be paired with any Q7RX receiver.

Factory-established pairs are paired, however pairing may be repeated if necessary.

A thermostat may be paired with other receivers or several thermostats may be paired with one RX any time. A blackout, battery replacement as well as a complete reset of all thermostat settings do not affect pairing of devices in any way.

Prior to pairing select a subsequent no., then enter number of TX and RX, in case of several TX establish the priorities and possibly select a channel.

In order to pair:

- Enter PAIR item and press OK; WAIT... will be displayed;
- Then hold the left button of the RX receiver for 3 s; PROG will be displayed;
- Then hold the middle button longer; "P" letter will be displayed;
- Release the button and pairing will be complete.

Both devices should resume normal operation. When the thermostat backlight goes off, then the current signal strength transmitted from the thermostat is displayed at the receiver.

When several thermostats are to cooperate with one receiver WAIT... must be displayed at all of them, after that activate pairing at the receiver.

When several receivers are to cooperate with one thermostat, the thermostat will complete pairing when all receivers are synchronized.

- f. COPY TO RX** – all thermostat settings are stored in the receiver. This enables restoring all stored settings in case of thermostat replacement. The settings are stored automatically at least once a day, however this function enables storing the settings at any time.
- g. COPY FROM RX** – enables transfer of the previously stored settings to the new thermostat or to the reset one.

The function is particularly useful for the technicians who frequently install thermostats with their own well-proven settings. It enables the technicians to avoid entering the same settings every time. It is enough for the technician to have his own RX receiver with the previously stored settings, e.g. the ranges, then pair the thermostat of the client with his own receiver and copy his own settings to the new TX. If the devices are paired for more than 30 minutes and if the technician will not copy his settings within this time, then the factory settings from the new thermostat may replace the settings in the technician's thermostat.

After transferring the technician's own settings, it is enough to pair the thermostat (with the newly introduced settings) with the new receiver.

3. RX RECEIVER SETTINGS – "PROG" FUNCTION

To modify the settings, hold the left button for over 3 s. "Prog", NO and heating icon will be displayed. To switch the operation of the receiver to cooperating with air-conditioning (icon), push the left button shortly. To restore operation in the heating mode (icon), push the left button shortly again.

To switch the operation of the receiver from NO to NC (which enables switching inversely without the need to change over the cables), push the right button shortly.

To switch on pairing, hold the middle button longer.

To exit, hold the left button longer.

V. INSTALLATION AND CONNECTION

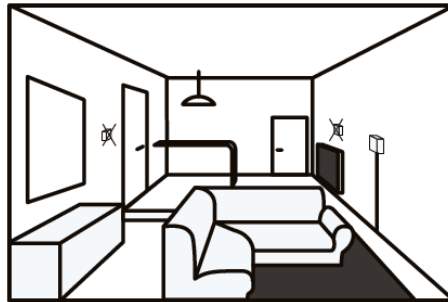
1. PROPER PLACE OF INSTALLATION

The thermostat is designed for indoor wall mounting or placing on a stand, at a height of approximately 1.5 m above the floor.

Avoid places with strong sunlight, near heating or air-conditioning devices, directly by the doors, windows and other similar locations, where the temperature measurement could be easily disturbed by external conditions.

Avoid places with poor air circulation, e.g. behind furniture.

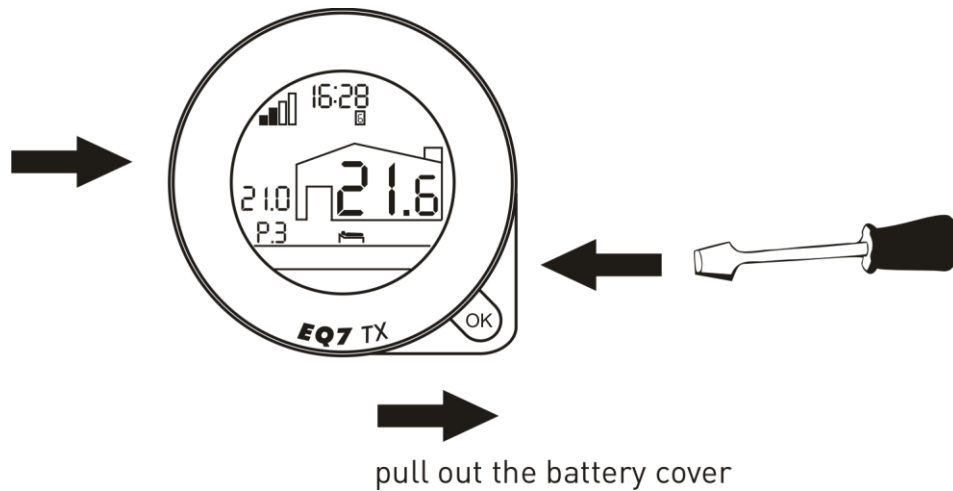
Avoid moist places due to the negative effect of moisture on the service life of the device.



2. OPENING THE THERMOSTAT

The thermostat enclosure consists of two main parts:

- a base,
- a front panel with a battery cover.

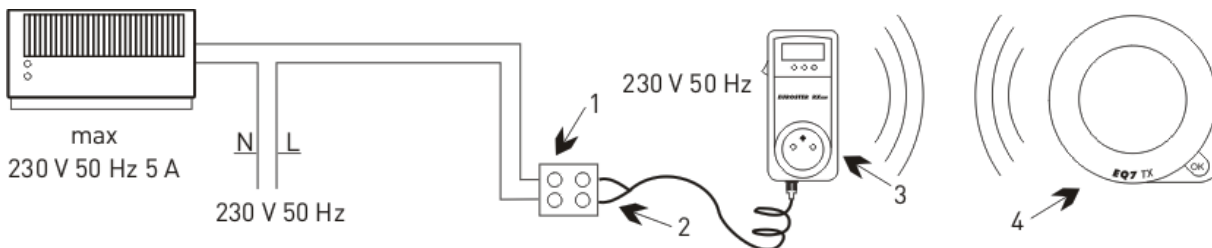


The thermostat elements are joined together with two latches. Pull out the battery cover in order to open the thermostat and press one of the hooks on the edge of the thermostat with a flat screwdriver, then press the other one. Carefully separate the front panel and the base.

3. SAMPLE CONNECTION DIAGRAMS

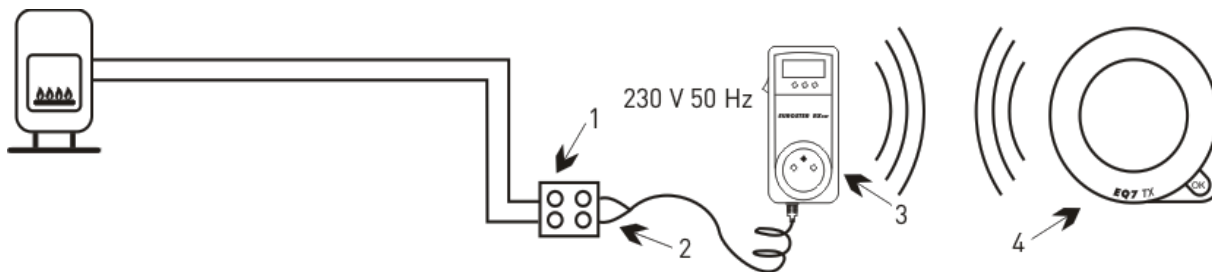
The following diagrams are simplified and do not cover all the elements necessary for the correct installation.

In arrangement with a 230 V 50 Hz device



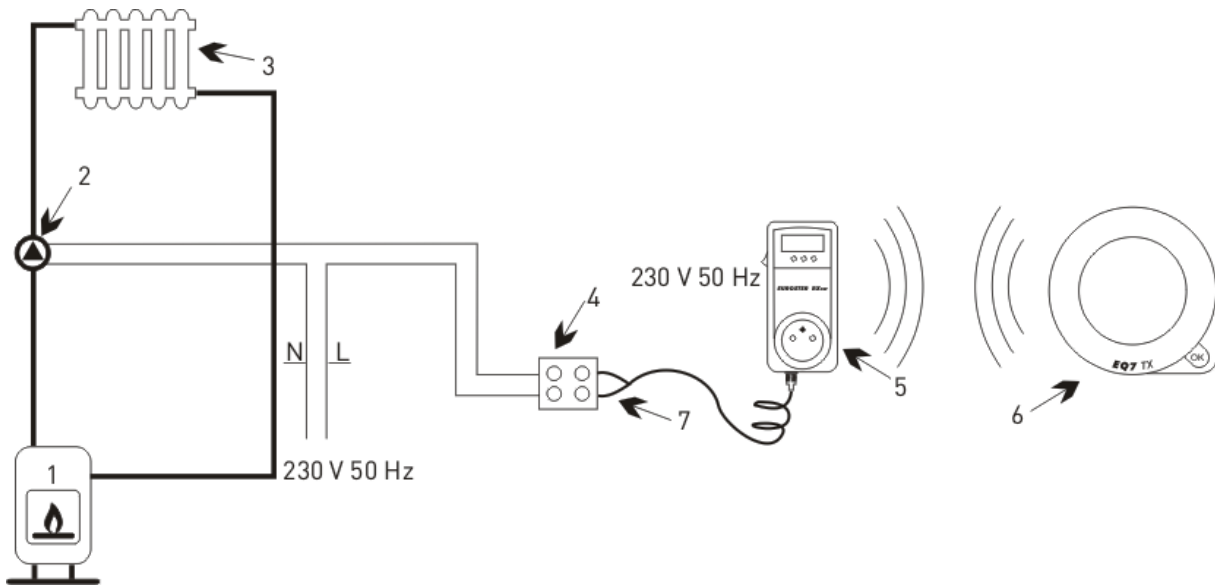
1. Electrical connection block
2. Output cable, using NO (normally open) mode
3. Euroster RXGW
4. Euroster Q7TX placed in any room

In arrangement with a gas boiler



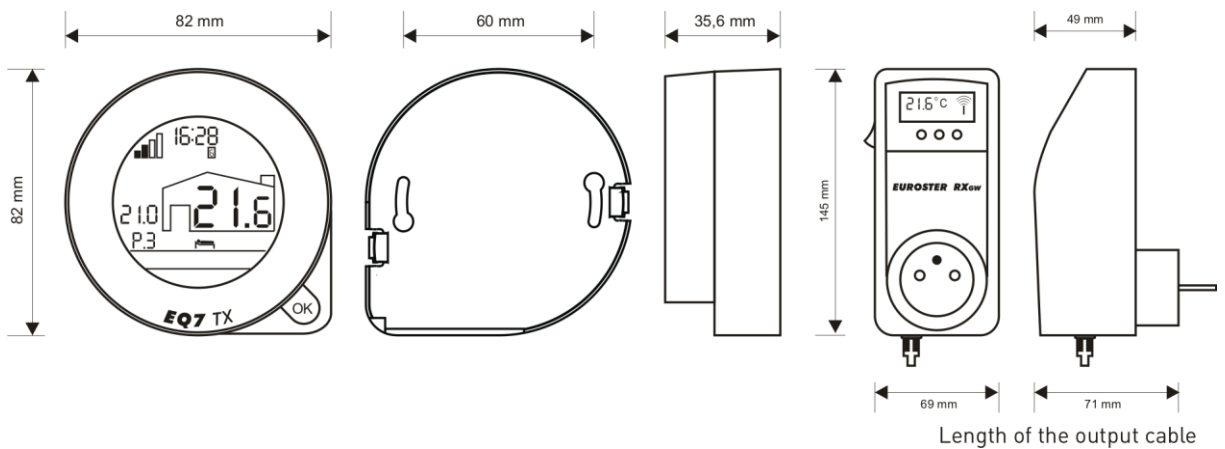
1. Electrical connection block
2. Output cable, using NO (normally open) mode
3. Euroster RXGW
4. Euroster Q7TX placed in any room

In arrangement with a central heating pump



1. CH boiler
2. CH pump
3. Heat consumer – radiator
4. Electrical connection block
5. Euroster RXGW
6. Euroster Q7TX
7. Output cable

4. DIMENSIONS



5. TECHNICAL DATA

Controlled device: air-conditioning / heating systems

Supply voltage: thermostat – 3 V (2 alkaline AA-type batteries); receiver – 230 V 50 Hz

Maximum power consumption of the receiver: 1.3 W

Receiver output: relay, voltage-free type, SPST

Maximum load: 5 A 230 V 50 Hz

Maximum range: up to 30 m (in built-up area)

Temperature measurement range: -10°C...+100°C

Temperature adjustment range: +5°C...+35°C

Temperature adjustment accuracy: 0.1°C

Temperature reading accuracy: 0.1°C

Visual signalization: thermostat – backlit display; receiver – display and LED

Operation temperature: +5°C...+45°C

Storage temperature: 0°C...+65°C

Ingress protection rating: IP20, Protection Class II

Color: white

Mounting method: thermostat – stand; receiver – 230 V 50 Hz socket

Thermostat weight without batteries: thermostat without batteries – 114 g; receiver – 359 g

Warranty period: 2 years

Dimensions (W/H/D) mm: the thermostat – 82/82/35.6; the receiver – 69/145/71

6. KIT CONTENTS

- Euroster Q7TX temperature thermostat
- RXGW receiver
- AA batteries
- Installation and Operation Manual with Warranty Certificate
- Stand

ELECTRONIC WASTE MANAGEMENT INFORMATION



We made every effort to ensure that this controller lifetime is as long as possible.

However, the device is subject to natural wear. If the device would not meet your requirements any more, you are kindly requested to have it brought in to an electronic waste management facility. Cardboard boxes must be disposed at a paper recycling facility. Used batteries are hazardous waste and must be disposed of in an electronic waste management facility or any retail establishment selling batteries.

WARRANTY CERTIFICATE
EUROSTER Q7TXRXGw thermostat

Warranty terms:

1. The warranty is valid for 24 months from the device sale date.
2. Claimed thermostat 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 manufacturer has received the claimed device.
4. The device may be repaired exclusively by the manufacturer or by other party clearly authorized by the manufacturer.
5. Warranty becomes invalidated in case of any mechanical damage, incorrect operation and/or making any repairs by unauthorized persons.
6. This consumer warranty does not exclude, restrict nor suspend any right of the Buyer ensuing if the product would not meet any of the sale contract terms.

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sale date	serial number / date of manufacture	stamp and signature	service: tel. 65-57-12-012
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Business entity that issued this warranty certificate is:

P.H.P.U. AS Agnieszka Szymańska-Kaczyńska, Chumiętki 4, 63-840 Krobia, Poland