

## EUROSTER 3000TX

This thermostat has been designed to provide you with years of troublefree service. Proper understanding of any product is the key to successfully using it. By spending only a few moments reading through this manual, you will become acquainted with the many features built into this thermostat.

Following the procedures listed within this manual will minimize the chance of damaging the thermostat or any of the equipment it controls.

Take special notice of all as these contain important information and safety tips.

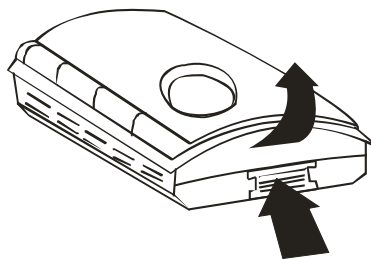
### THERMOSTAT LOCATION

Proper location of the thermostat is very important to insure a comfortable temperature. Observe the following general rules for best results.

1. The thermostat should be on the inside wall of a room that is often used, approx. 5 ft. (1.5m) above the floor.
2. Avoid areas that exhibit unusual heating or cooling conditions such as in direct sunlight, near a fireplace, stove, register, door, window, or stair well.
3. Be aware of furnishings which may block airflow or alter temperature such as: sofas, chairs, bookcases, track lighting, lamps, stereo components, television sets.
4. Hot water pipes in the wall, a stove, refrigerator, or fireplace on the other side of a prospective wall may affect the accuracy of your thermostat.
5. Locating any control in a damp area will cause corrosion, and shorten the life of the control.
6. Do not install where air circulation is poor (ie. in a corner, or an alcove, or behind an open door).
7. All construction work and painting should be complete before installing unit.
8. This thermostat does not require leveling.

**To avoid electrical shock and to prevent damage to the furnace, air conditioner, and thermostat, disconnect the power supply before beginning work. This can be done at the fuse box, at the circuit breaker, or at the appliance.**

While holding the thermostat face in the palm of your hand, press in on release button with your thumb. Hold the base plate firmly with your other hand by placing your fingers in the holes on the back of the thermostat. Keeping release button pressed in, swing thermostat away from base.



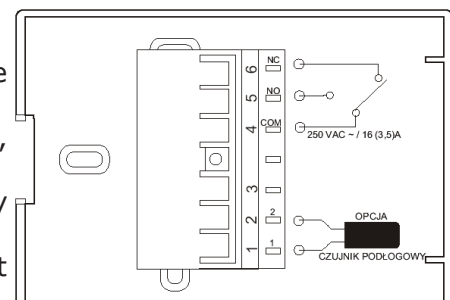
**Be careful not to drop the body or to disturb electronic parts. Leave the cover closed or removed whole the body from the base.**

You will need to remove the Base Plate to gain access to the Battery Compartment and jumper Section.

While holding the thermostat face in the palm of your hand, press in on release button with you thumb.

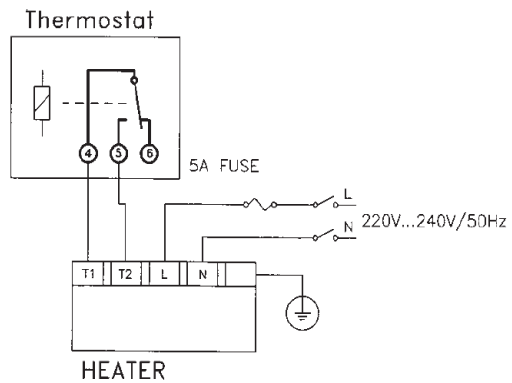
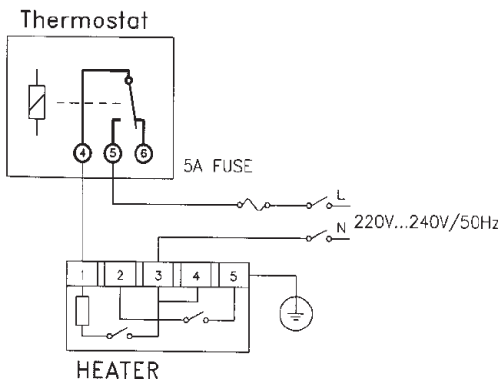
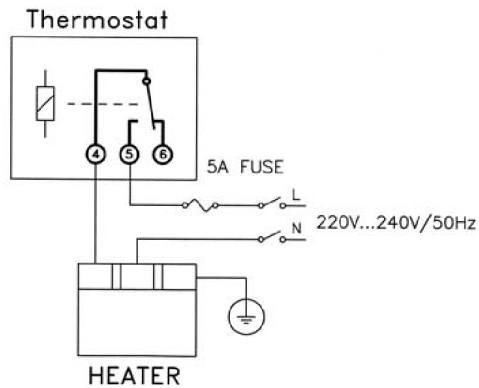
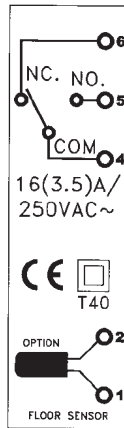
Hold on to the base plate firmly with your other hand by placing your fingers on both side of the thermostat.

Keeping release button pressed in, swing the thermostat away from the base.

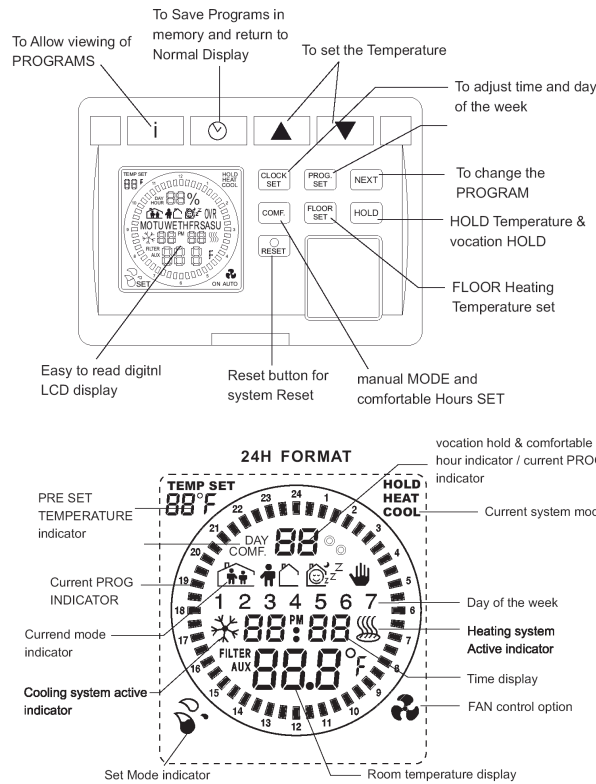


When remounting the thermostat face to the base plate, hook the top of the face onto the top of the base plate. Swing the face down until the face snaps into the base. Press in on the face, firmly, in the middle, to seat the terminal pins. This is necessary to secure face!

Before you install the wires, you must check your system's wiring diagram or consult with a professional electrician. There are basically three types of system which can be used with this unit. If your system is other than these three types please check with you local dealer.



FEATURE



**The thermostat you have purchased is programmable type**, which simply means it has a built in clock and can change it's temperature settings automatically throughout the day. This may be confusing at a glance, but there are some very good reasons why this may be desirable.

For example, let's say you live in an area where it is cold outside, and you have your heating system running to heat up the inside temperature to 21°C . This is comfortable temperature in the house when you're sitting around with your family, but it uses a lot of electricity or gas to maintain that temperature all day, when you are at work a good part of that day.

With a programmable thermostat you can set the temperature back, perhaps to 16°C while you are away at work, and to 18°C at night while you are sleeping and still have it set to a comfortable level during the times that you are relaxing at home.

An efficient heat system should "kick on", or cycle, four to six times an hour while maintaining one set temperature. However, if the temperature has been set back to a lower level or set up to a higher level, the unit will have to run much longer to recover to the comfort level.

The big question here is, how many degrees can you set the temperature back to keep the heat from cycling on when you don't need it, and still be able to bring the temperature back up to your comfort level without the heating unit having to run excessively? Many factors will affect this balance: How big is the difference between outside and inside temperatures? How big is your house? How efficient is your heating unit? How well insulated is your house?

How many and what hours are you away from home? How many and what hours do you sleep? The pre-programmed set of times and temperatures within your new thermostat can be altered to better match your needs if you so desire. Be sure to also read the section on the next few page for more information on determining the best settings for your situation.

**Pre-programmed Times & Temperatures**

At the first use of this digital programmable thermostat, there are two modes that can be chosen. Mode "5:2d" indicates to set up week days and weekends (Saturday and Sunday).

Mode "7d" indicates to set up the day of the week and the programs for each day can be set

up separately.

After installing the batteries, the LCD SCREEN will display all for five seconds. Five seconds later, LCD SCREEN will display "5:2d" (default). You can press "Next" button to select "7d". Also you can press the "Next" button repeatedly to switch "5:2d" or "7d".

### Pre-programmed Times & Temperatures

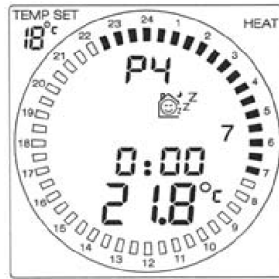
MODE "5:2d" FACTORY PRE-SET TIME AND TEMPERATURE PROGRAM:

<i>WEEKDAY</i>	<i>TIME</i>	<i>TEMPERATURE</i>
P1	08:00	21°C
P2	08:30	16°C
P3	12:00	21°C
P4	14:00	16°C
P5	16:30	21°C
P6	22:30	18°C
SATURDAY	TIME	TEMPERATURE
P1	07:00	21°C
P2	08:30	21°C
P3	16:30	21°C
P4	22:30	18°C
SUNDAY	TIME	TEMPERATURE
P1	07:00	21°C
P2	08:30	21°C
P3	16:30	21°C
P4	22:30	16°C

MODE "7d" FACTORY PRE-SET TIME AND TEMPERATURE PROGRAM:

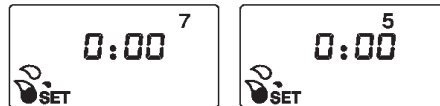
<i>MON, TUE, WED, THU, FRI</i>	<i>TIME</i>	<i>TEMPERATURE</i>
P1	08:00	21°C
P2	08:30	16°C
P3	12:00	21°C
P4	14:00	16°C
P5	16:30	21°C
P6	22:30	18°C
SATURDAY	TIME	TEMPERATURE
P1	07:00	21°C
P2	08:30	21°C
P3	16:30	21°C
P4	22:30	18°C
SUNDAY	TIME	TEMPERATURE
P1	07:00	21°C
P2	08:30	21°C
P3	16:30	21°C
P4	22:30	16°C

After selecting the mode, you can press ☺ key or wait for 10 seconds, then the thermostat automatically set, the day and time to SUNDAY, 0:00, shows the current room temperature.

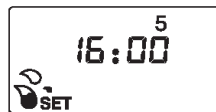


**CLOCK SETTING**

1. To begin setting the clock press the button "CLOCK SET" (it may require a second press if you have just installed the batteries). The day of the week will start flashing. Use the ▲ and ▼ buttons to choose the current day. Press NEXT to set the hour, the hour digits in the display will start flashing.



2. Use the ▲ and ▼ buttons to select the current hour. To configure, press the "NEXT" button to set the minutes. The minutes in the display will start flashing.



Use the ▲ and ▼ buttons to select the current minute. "NEXT" will continue cycling through the options. To return to normal operation press the ☺. The display will stop flashing

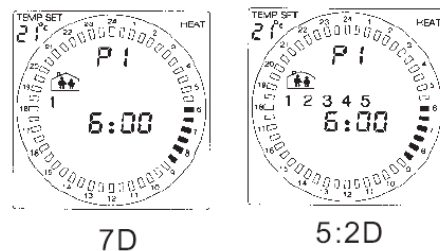
**PROGRAMME SETTING**

By following these simple steps you will be able to customize your new thermostat to better meet your needs.

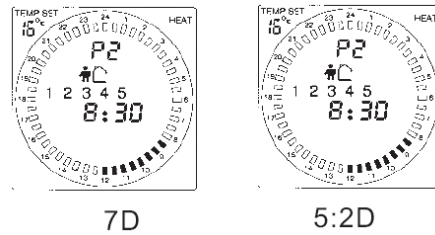
**! THE DATE & TIME MUST HAVE BEEN SET AS DESCRIBED IN THE EARLIER SECTION**

Press and hold ☺ button and then press the "NEXT" button, hold both of them together for 3 seconds, the device will change into "Programme Mode":5:2D or 7D. To review without changing any setting press the □ button.

The display should change to the 1st Period (P1) and show the start time and the Temp Set for P1.



Each subsequent press of the i button steps the display to the next period (P1, P2, P3,...)

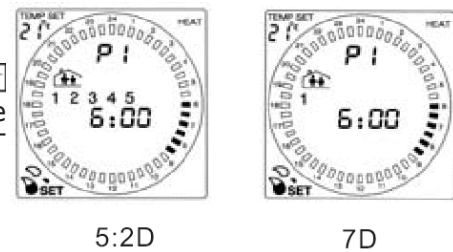


Each period contains a time and a temperature. The thermostat will change to that temperature at this time.

However, it may take some time to achieve the set temperature (see Theory of Operation). When you have finished reviewing the program (S), press ⏸ to return the display to normal mode. If no key is pressed LCD Display will automatically display every program period for 5 sec till return normal.

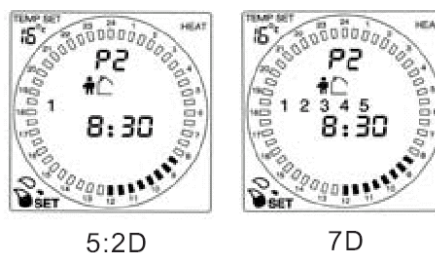
**READ ENTIRE STEP'S DIRECTIONS BEFORE SETUP**

TO CHANGE a program memory, press **PROG SET** then press the specific program you wish to enter and repeat. The display should change to the 1st Period (P1) with the SET TEMPERATURE flashing.



Use the ▲ and ▼ buttons to adjust the temperature: When you have set the new Set Temperature correctly, or if the Set Temperature did not require changing, press the NEXT button again to move to the Set Temperature.

Use the ▲ button to set the time forward. Use the ▼ button to set the time back. When you have set the new Start Time correctly, or if the Start Time did not require changing, press the "NEXT" button again to move to the set temperature for the 2nd period (P2).



Use the ▲ and ▼ buttons to make adjustments where necessary. Continue cycling through each period's Set Temperature and then Start Time by pressing the "NEXT" button. When you have finished making adjustments to this program, press the **PROG SET** button to go to NEXT DAY PROGRAM BLOCK, Or press ⏸ button to return to normal operation.

**THE DIFFERENTIAL**

The differential is the term given to the amount the thermostat will allow the temperature to vary from the Set Temperature. This feature allows you to decide how closely the thermostat will control the temperature in the room. The less time the unit runs, the less money you spend on utilities!




Your new thermostat comes to you preset to allow the room temperature to climb 1 above the Set Temperature, and then will let it fall 0.5°C below the Set Temp. This has been found to be a balance between energy savings and comfort for most average people.

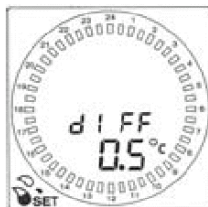
For example: It's winter, the heating unit is running and has just brought the room temperature up to 21°C. You have your new thermostat set to 21°C and have not altered the preset differential. The heating unit will continue running until the room temperature reaches 21.5°C before turning off. The temperature will then begin to fall, and will continue falling until the heating unit turns back on when the room temperature falls to 20.5°C.



In this example you have a differential of 1°C of the Set Temp.

Let's say you set your thermostat at 21°C. You set the Differential setting to 0.5°C. Your room's temperature would be allowed to vary from 20.75°C~21.25°C. Differential is adjustable and can be set at 0.5°C or 1°C.

Which settings will work best in your home, controlling your heating units, can best be determined by simple experimentation.

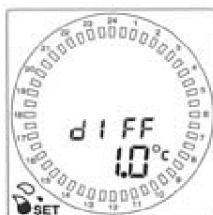
To review and NOT CHANGE the differential just press and hold for more than 3 seconds   buttons. The display should change to show the differential setting. Press  to return to normal operation (the unit automatically returns if no key is pressed for 10 secs).



TO CHANGE the differential press and hold for more than 3 seconds  buttons press . The display should change to show the differential setting.



Use the NEXT button select 0.5 or 1.0 of differential



When you are satisfied with your settings press  to return to normal operation (automatic if no key is pressed for 10 seconds).

### MANUAL OPERATION MODE

By simply pressing the HOLD button you can place your new thermostat into a manual operation mode, where you set the desired temperature and it is maintained. The Hold indicator will appear on the display confirming that you have entered Hold mode.

The ▲ and ▼ buttons are used to adjust the temperature. If no key is pressed for 10 seconds the Thermostat will change into HOLD MODE and display the current temperature. At any time you can return to the Program controlled mode by pressing HOLD or ☺.

This Manual mode is more desirable in some cases. You may feel more comfortable with a conventional thermostat.

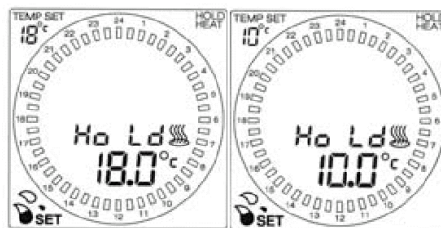
Or, you may have experimented with different programmed times and temperatures, and discovered that you are not achieving the level of savings or comfort that you had hoped for. This may be due to the amount of insulation in your home, or a heating that may have too slow recovery rate to allow for setting the temperature back or forward. Your lifestyle or job may have your home occupied so much of the time that it is simply impractical to have the temperature vary at different times. It may also be that you find that you are not maintaining the level of comfort that you are used to from a constant temperature.

Regardless of the reasons, your new thermostat can still provide you with years of service, while providing you with many features not available in conventional thermostats.

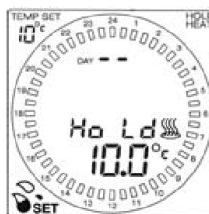
### FEATURE MANUAL MODE / VACATION HOLD

You can use MANUAL MODE/VACATION HOLD to set up the desired temperature while you are on vacation. Thus the energy usage of your heating system can be lowered well by using this function.

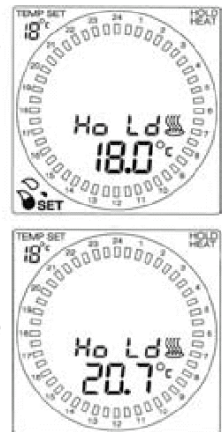
1. PRESS HOLD button and use ▲ or ▼ to select the desired temperature.



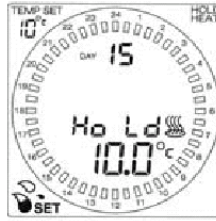
2. When you are satisfied with your set temperature press, NEXT to set the vacation days.




3. Use the ▲ button to increase the number of vacation days. Use the ▼ button to decrease the number of vacation days. If no key is pressed within 10 secs the THERMOSTAT will Run the vacation HOLD MODE and display the current temperature.





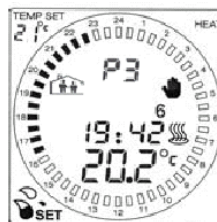




4. At any time you can return to the program controlled mode by pressing HOLD or .

**TEMPORARY OVERRIDE**



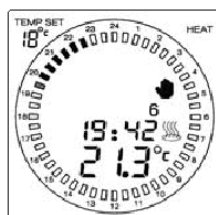
A Temporary Override has been provided to allow you to temporarily change the temperature without altering the thermostat's program. The thermostat will use the new temperature setting during the duration of this program period. At the start of the next program period, the override will be cancelled and the thermostat will return to the temperatures stored within the program.



To activate the override all you need to do is adjust the temperature using the  and  buttons.



The Override indicator will light up just beside the set temperature (Temp Set). In approx. 10 seconds the thermostat will begin to run temporary override mode. The Rotary Time Display shows the desired time under Temporary Override mode. (The present time will start flashing. )

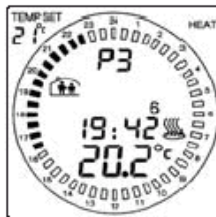


If the time remaining until the next program period is not practical for your needs, such as,

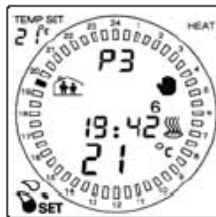
you have friends over and the house is getting too warm, you can override the temperature to lower it. The display shows the override will only last for an hour and two minutes. Your company may be staying longer than an hour or two. You would be better off using Comfort Override (see the next section). As always, you may return to the Program mode at any time by pressing  $\oplus$ .

**COMFORT OVERRIDE**

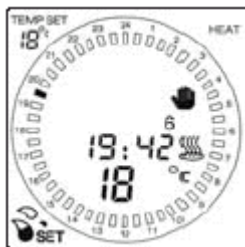
Comfort Override allows you to change the temperature for a specific number of hours (from one to nine) without altering the thermostat's program. The thermostat will use the new temperature setting for the specified amount of time, then the thermostat will return to the temperatures stored within the program.



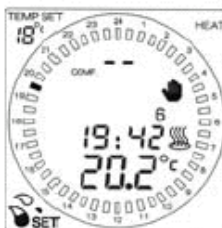
To activate Comfort Override press COMF button. Simply adjust the set temperature (Temp Set) using the  $\blacktriangle$  and  $\blacktriangledown$  buttons.



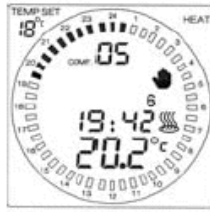
Press NEXT button the COMF. indicator will light up just as it does with comfort hours.



You now have approx. 10 seconds to enter the desired length of time by pressing the button once for each hour the new Temp Set should be in effect. The display indicator will display Comfort Hours and the Rotary Time Display shows the number of hours left.

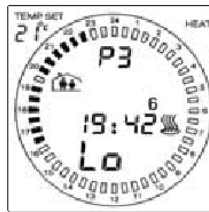


After about 10 seconds the display will begin to current time and the number of hours your over ride will be in effect. As always, you may return to the Program mode at any time by pressing COMF. or  $\oplus$ .

**LOW BATTERY INDICATOR**

As the batteries within your thermostat begin to weaken, you will notice the LCD display begin to dim. The thermostat will continue to function properly, however the display will become increasingly harder to see.

The time, programs, and all modifications you have made to the differential, etc are saved by the batteries. When the batteries become too low, the thermostat will replace the room temperature in the display with the word "Lo". When this appears you will need to replace the batteries as soon as possible.



From the time you remove the batteries from the thermostat, you will have approx, 45 seconds to install new batteries with only date losing.

You will need to remove the face from the wall mount to gain access to the Battery Compartment.

Push up on release button with your thumb. Keeping release button pressed in swing thermostat out and sway from base.

**When remounting the thermostat face to the base plate, hook the top of the face onto the top of the base plate. Swing the face down until the face snaps into the base. Press in on the face, firmly, in the middle, to seat the terminal pins. This is necessary to secure the face!**

## WIRELESS TEMPERATURE CONTROLLERS

### USER MANUAL

Important: Any guarantee claims will be processed only if both the transmitter and receiver have been delivered to the point of sale, accompanied with the guarantee certificate.  
Euroster with wireless technology – TX RX

#### A. Overview

Programmable temperature controllers Euroster TX RX are a wireless version of the relevant wired models, with the same programming functions. **Therefore, the user manual of the relevant wired model is attached herewith.** The difference is in the method of transferring the switch on/ off signals.

EUROSTER TX RX utilises wireless technology, thus eliminating the need for routing of cables between the transmitter unit EUROSTER TX and the appliance, which is controlled by receiver unit EUROSTER RX.

The operating range of the transmitter/ receiver pair depends to a large extent on the materials used for construction of the building. In the open the operating range is ca. 100 m. With up to 30 m range inside buildings the signal will pass several storeys. In reinforced concrete enclosures signal attenuation is very high and consequently the operating range drops.

**IMPORTANT!** The low battery lamp LED will come on when the voltage has dropped below the minimum admissible level. Then the batteries must be replaced and EUROSTER TX must be programmed anew.

#### B. First start-up

1. Insert new alkali batteries
2. Fully extend the telescopic antenna of the RX unit
3. Green LED indicates that the receiver unit is in the range of the transmitter. For the first minute upon connection of the TX/ RX pair the green lamp comes on every 3 seconds to indicate communication between the units. After that time communication is tested every minute for ca. 1 second. When the green LED does not light up the receiver unit is beyond the range.
4. Red LED indicates that the heating/ cooling appliance has been switched on.

#### C. Protections

1. If due to external interference such as strong electromagnetic pulse or low battery in EUROSTER TX confirmation of switch on/ off signal has not been received by EUROSTER RX for seven subsequent cycles the heating appliance will be switched off to prevent potential overheating. When communication has been restored the system automatically returns to the current program. EUROSTER TX must be programmed anew after each replacement of batteries.
2. Coded digital transmission technology, as used in EUROSTER TX allows for operation of several units in a limited area without any disturbance. A minimum distance of 0.5 m should be kept between two RX units. Modules are not interchangeable as the transmitter and receiver form a pair with the same unique code. The code is given both on the RX unit (sticker at the plug side) and on the TX unit (on the left-hand side in the battery compartment).

For any doubts or queries, please do not hesitate to contact us or your local distributor.

#### D. Operation

As it is required due to one-way transmission of signal and as a protection of the controlled heating/ cooling appliance every minute a momentary coded signal is sent by EUROSTER TX to verify the status of the relay of EUROSTER RX, which is signalled by green LED. For this reason the on/ off lamp on the controller may come on before the appliance has been actually switched on. This difference should not exceed 1 minute. Similarly, this may

happen during switching off the appliance. Taking into account the heat capacity of buildings this has no effect on the energy efficiency and, consequently, on the heating cost.

**Note:** The controller may be connected to an electrical, gas-fired or oil-fired appliance with rated power exceeding the contact rating only through an intermediate switch with load rating and performance appropriate for the controlled appliance parameters.

**Note:** High inductive and capacitive loads should be avoided as they shorten the life of relay contacts.

**Note:** Green LED on the receiver unit confirms receiving of signal from the transmitter. Normally it lights up at ca. 1 second intervals.

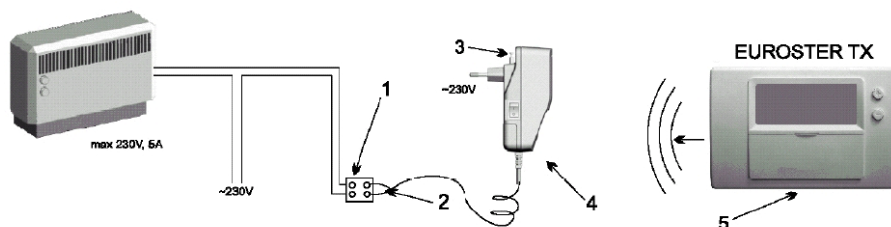
If it does not, do the following:

1. **Reduce the transmitter/ receiver distance**
2. **Check the battery charge status, and replace with new alkaline type ones, if required. With low batteries the operating range will be reduced and replacement is recommended.**

**Red LED signals switching on of the heating or other controlled appliance.**

**Danger! Hazardous voltage is present inside the enclosure. Any tampering with the unit may result in a life-threatening electrical injury!**

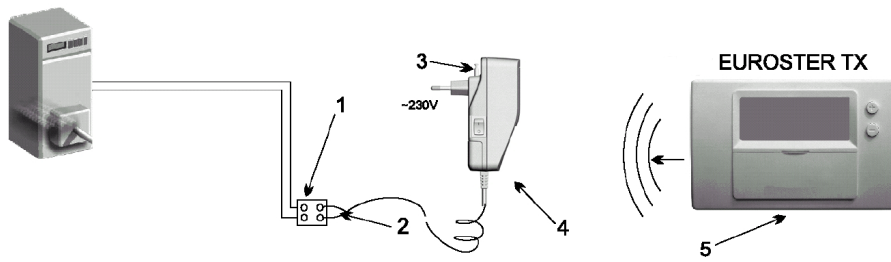
### S1. Wiring example: EUROSTER TX RX connected to a heating/cooling appliance



#### Legend:

1. Terminal block
2. Two-conductor cable, voltage-free relay output of EUROSTER RX, normally open, contact rating: 5A, 230 V AC
3. Antenna
4. EUROSTER RX (receiver)
5. Euroster TX installed at a preferred location

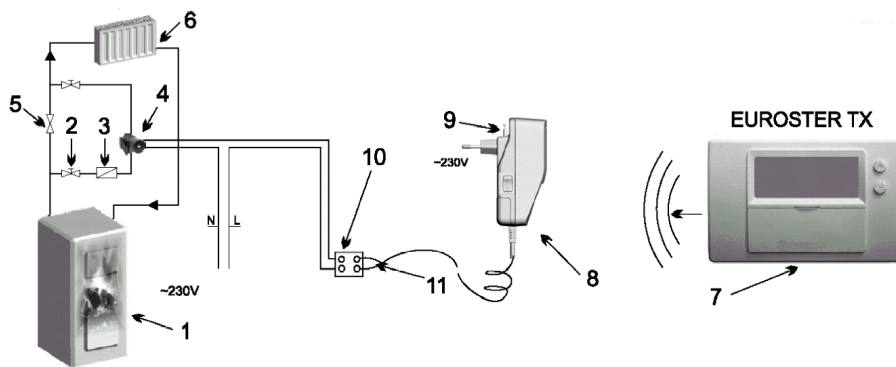
**S2. Wiring example: EUROSTER TX RX connected to a gas-fired boiler**



**Legend:**

- 1. Terminal block
- 2. Two-conductor cable, voltage-free relay output of EUROSTER RX, normally open, contact rating: 5A, 230 V AC
- 3. Antenna
- 4. EUROSTER RX (receiver)
- 5. Euroster TX installed at a preferred location

**S3. Wiring example: EUROSTER TX RX connected to a heating water circulating pump**



**Legend:**

- 1. Heating boiler
- 2. Shutoff valve
- 3. Strainer
- 4. Heating water circulating pump
- 5. Check valve
- 6. Heating unit – radiator
- 7. Euroster TX (transmitter unit)
- 8. Euroster RX (receiver unit)
- 9. Antenna
- 10. Terminal block
- 11. Two-conductor cable, voltage-free relay output of EUROSTER RX, normally open, contact rating: 5A, 230 V AC

## E. Troubleshooting list

1. The controller does not switch on the heating appliance
  - replace the batteries - use only new alkaline batteries;
  - reset and program the controller;
  - move the controller to another place;
  - verify the operation of LEDs on the receiver unit (green and red);
  - verify connection between the receiver and the controlled appliance;
  - disconnect the receiver unit from the controlled appliance and check the operation of the latter;
  - check if the code given on the transmitter is the same as on the receiver;
  - fully extend the antenna.
2. Blinking LCD display on the controller
  - replace the batteries - use only new alkaline batteries;
  - reset and program the controller.
3. Blinking battery charge indicator on the LCD display:
  - replace the batteries - use only new alkaline batteries;
  - make sure the battery contacts are clean.
4. Lack of windmill icon on the LCD display, which indicates that the appliance is switched off:
  - verify the setting of DIP switches on the controller;
  - verify the settings of operating parameters: day, hour, temperature.