

WIRELESS RF ROOM THERMOSTAT WITH 24-HOURS CLOCK

Vokèra
heating for life

Thank you for choosing Vokèra's radio frequency (RF) Radiostat. This central heating control device is easy to fit, and with correct use, will deliver improved comfort levels in your home whilst saving you money.

This thermostat is designed to be used only with heating controls system with a maximum switching load of 1 Ampere.

If installing for someone else, please ensure that the instructions are handed to the householder.

WARNING: Please read this manual prior to installation or use.

SHOCK HAZARD: This unit must be installed by a competent person, in accordance with BS 7671 (the IEE Wiring Regulations), or other relevant national regulations and codes of good practice. Always isolate the AC Mains supply before installing this unit.



This product is according R&TTE Directive 1999/5/EC

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QUICK START GUIDE

To be read and used after a proper installation has been made and after the encoding, the hours and the working mode has been set.

WORKING MODE: This central heating control device provides you both the room thermostat function and the 24-hour clock function. When in PROG mode, the central heating will be ON/OFF according to the programmed fascia and according to the set temperature. The master will be the set temperature in the case of programming time ON; in the case of programming timed OFF the central heating will be off whatever the set temperature. Switching to AUTO mode the clock is excluded and the device becomes a standard room thermostat.

ENCODER

The encoder has two functions: selection of the set temp. and setting the thermostat.



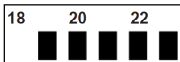
1. Rotate to select the desired temperature and press to enter.
2. Press once to enter menu. Rotate to scroll menu choosing between time of day, mode or programmed times. Press again to modify selected item.

Time of the day: rotate to change the hours, press to save and move to minutes; rotate to change minutes, press to save.

Mode: rotate to change the mode between PROG and AUTO, press to save.

Programmed times: rotate to select the hours use the (h) button to set hour ON or the (o) button to set hour OFF. Press to save the settings.

Example how to read the programmed times: The heating fascia is OFF from 18.00 to 18.59 and it is ON from 19.00 to 23.59.



ENCODING BUTTON



Press to change the mode between PROG and AUTO. Select PROGR mode if timed ON/OFF period are required. Select AUTO mode for constant ON (24-hours)

TEMPERATURE BUTTON



Press to view set temperature

DISPLAY



FROST PROTECTION	MODE	HOURS	PROGRAMMED TIMES	TEMP.	ROOM TEMP.	CENTRAL HEATING ON	BATTERIES LOW
**	AUTO PROG	08:30	18 20 22	20.3 °C	🏠	🔥	🔋

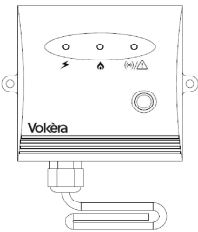
INSTALLATION AND OPERATING INSTRUCTIONS

Unlike the conventional thermostat, this control separates the function in two units. The receiver serves for wiring connections and heat on/off control. The transmitter serves as the user interface and for temperature sensing/control. The two units are linked by radio frequency (RF).

THE TRANSMITTER is a wall-mounted timer-thermostat. The transmitter can be located wherever a conventional room thermostat would normally be sited. No wiring is required, as the transmitter is battery powered.



THE RECEIVER is connected to the boiler, and can replace a conventional mechanical or electronic time clock.



IMPORTANT: these instructions should be read in conjunction with the appliance installation

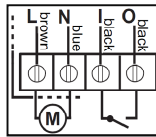
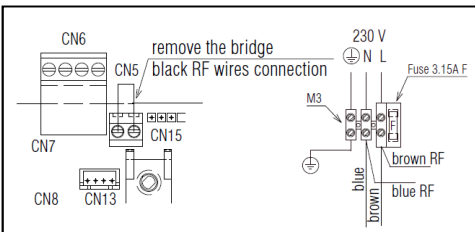
instructions. It is recommended that this device is installed by a qualified electrician.

PACKING LIST

	QTY
• RF receiver with 4 cables wires fitted	1
• RF transmitter	1
• Anchors and screws	4
• Double side adhesive	3
• Instructions	1
• Carton internal packaging	1
• Batteries	2

PREPARATION: Isolate the appliance from the electrical supply and remove the appliance casing and PCB cover (refer to boiler installation instructions for specific details).

Connect the spade terminals from the receiver to the PCB terminals (figure below for boiler Compact A)



Blue = main supply 230 Vac = neutral N

Brown = main supply 230 Vac = line L

Black & Black = room thermostat = I-O

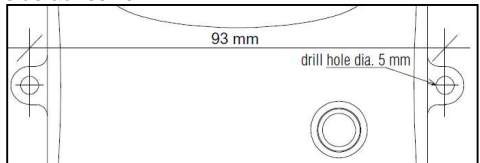
See above picture for the receiver internal connections.

IMPORTANT: the link-wire (if fitted) must be removed from room thermostat terminals

IMPORTANT: Secure the receiver wiring harness to the internal boiler cable anchors

INSTALLATION OF RECEIVER

Secure the receiver in the proximity of the boiler using 2 anchors (see picture below for drill holes specifications) and screws or the enclosed double side adhesive.



The location should be chosen in order to see the receiver leds and have access to the receiver encoding button. For no reason should the receiver box be opened. The appliance can only be mounted indoors and in areas free from any water or moisture. Wiring must conform to IEE regulations. RF Address Code Setting, if there is another user nearby, e.g. in the next dwelling, you receiver may be operated in error by their transmitter. You may select a different RF address code to prevent this. (see encoding section)

NOTE: do not fix the receiver to the boiler casing.

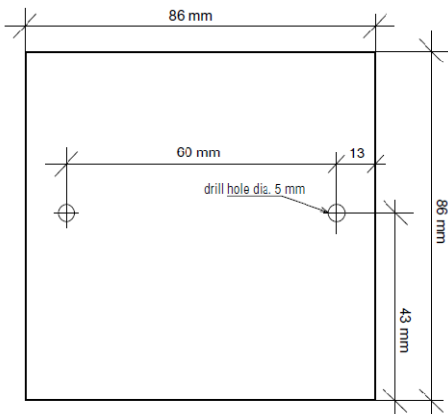
INSTALLATION OF TRANSMITTER

Before installing the transmitter proceed to the encoding instruction while the receiver and the transmitter are still very near.

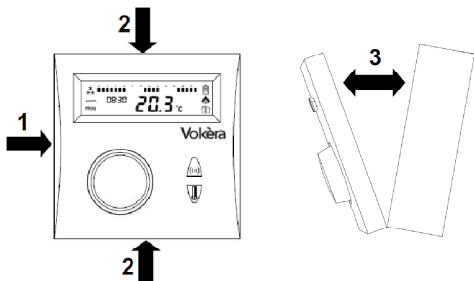
Before fixing the transmitter check that the radio signal is active (if there is no communication the receiver will flash orange after 350 sec the communication is lost). Because the transmitter uses radio waves to communicate with the receiver, you should also bear in mind that metallic objects can weaken or deflect radio signals: this includes steel reinforced walls, filing cabinets, kitchen appliances, mirrors. The range of the Radiostat is 40 metres in open air, and 20 metres inside buildings, dependent on RF obstructions as mentioned above.

Position the Radiostat on a wall surface away from obstructions and direct heat sources or draughts, in a room that is warmed by the heating system. The fixing of the transmitter can be done either with the anchors and screws or with the double

sided adhesive (both supplied). See the diagram below as reference to drill the wall.



In the case of using anchors, the transmitter box must be open to fix the screws to the anchors internally the box. See the diagrams below for removal from and re-assembly to backplate. Pay attention not to damage the internal cable that connects the two parts.



WARNING! Do not touch the printed circuit board of the transmitter as it contains electrostatically sensitive components.

FUNCTIONS

The Vokèra wireless RF room thermostat with 24-hr clock has the following functions:

- Room thermostat: the internal temperature sensor detects the temperature and, comparing with the set point, switches ON or OFF the heating request (according to the programmed timing). The temperature sensor is located on the left side of the item.
- Time: on the display it is possible to set and read the time (24 hours display mode)
- Programming timing: it is possible by selecting the relative timing fascia to select the desired time. The programming is possible during one day 24-hours and the minimum time fascia is one hour.

- PROG/AUTO: Select PROGR mode if timed ON/OFF period are required. Select AUTO mode for constant ON (24-hours).
- Frost protection
- Battery low
- alarm of missing radio frequency communication on the receiver.
- Room temperature calibration
- Reset to factory set.
- Automatically boiler switch off for radio communication errors.

OPERATING INSTRUCTIONS

ENCODING

The transmitter and the receiver are supplied not encoded, it is necessary to follow this procedure to allow the product to function.

- Electric Supply must be ON, this means that the red led on the receiver is ON
- Press the button on the receiver for 5 sec.
- The orange led starts to blink regularly
- On the transmitter press the encoding button for 5 sec until an encoding address appears on the display.
- Leave the receiver and the transmitter for reciprocal codification until the orange led on the receiver stops blinking (or blinks in a different frequency compare to the beginning). This will take up to a few minutes.
- Press once the encoding button on the transmitter to memorize the code.
- Now the receiver and the transmitter are connected, please make a test to check if, when there is a flame icon on the display, it corresponds a flame ON on the receiver (green led ON).
- If the encoding procedure fails, restart from the beginning, the transmitter automatically changes to a new encoding address.

SET THE TIME

- Have the display in a stable condition, this means no flashing icons (if so press the button to escape).
- Press only once the encoder, the time starts to flash
- Press again, the hours start to flash: select the hour rotating the encoder. Press the encoder to memorize and to move to the minutes flashing. Select the minute rotating the encoder.
- Press the encoder to memorize and to escape.


ERRORS

- In the case of missing communication between the receiver and the transmitter, the orange led on the receiver starts to blink not regularly after 350 sec of the communication being lost.

- The above error can happen either when the battery power on the transmitter is low (battery icon ON on the transmitter display) and when the location of the transmitter is not suitable (too far distance or internal home disturbs like big concrete wall or electronic disturbs).
- Once the communication is returned the transmitter automatically returns to a normal working mode (not orange led flashing).
- If there was a flame icon ON at the moment of the missing communication, the receiver will automatically move in the safety mode, switching off the boiler.
- If the receiver is located at the limit of wireless maximum distance, the receiver can lose the communication for a while and then back to normal working mode.
- In the case of missing supply to the receiver (electrical black out), the communication will be lost but at the return of the electricity, the receiver will automatically return in a standard working mode according the transmitter signal. There is no requirement for any special operation on the receiver/transmitter in the case of missing communication unless it is necessary to change location of the transmitter.
- Automatically switches boiler off in the case of no communication between the receiver and the transmitter. This function avoids any inconvenience in the case that there are problems of radio communication, inconvenient like continuous heat request to the boiler.
- This product is one-direction radio frequency from the transmitter to the receiver, this means that only the transmitter can recognize the missing communication. No advise will be displayed on the transmitter in the case of missing communication.

SPECIAL FUNCTIONS

- **RESET THE APPLIANCE**


It is possible to reset the appliance to the factory setting by pressing for more than 5 sec the  button. This function will cancel the programmed timing, the set temperature and the encoded radio frequency. After reset it is necessary to encode the RF transmitter and the RF receiver as per above encoding procedure.

- **CALIBRATE THE TEMPERATURE SENSOR**

It is possible to calibrate the transmitter temperature sensor by pressing together the 2 buttons on the transmitter. On the display will appear only the temperature. Use the encoder to increase or decrease the temperature. Press the encoder to enter the new value. From now the transmitter uses the new value as current room temperature. Please note that for the calibration it is necessary to have a second thermometer that will be used as master.

- **LOW BATTERIES**

The two supplied batteries are guaranteed to supply the power for at least 2 years in a normal usage.

When the batteries are low, the relative icon  will appear on the display. It is better to change the batteries on time in order avoid any lack of heating supply during the day.

Follow the right positioning of the batteries according to the internal transmitter battery box indications.

Every time the battery flap is open the transmitter loses only the time; the programmed times and the set temperature are maintained memorized.

- **ANTI-FROST PROTECTION**

The Vokèra RF room thermostat has an internal anti-frost function that switches on the boiler (in the case the boiler is properly set to allow the room thermostat to activate/deactivate the boiler, i.e. boiler in winter mode) if the room temperature drop-off under 5 °C. this function is active all the time whatever the programming time or the set temperature.

WARNING! this anti-frost protection is not intended to be the main control to protect the entire heating system and the boiler during a freezing period.

TECHNICAL SPECIFICATIONS

RECEIVER

Linked with transmitter via RF: frequency 868 MHz

Power rating: 230 VAC ± 10%, 50 Hz

Switching capacity:

- Min 1mA,
- Max 2A at 30 VDC
- Max 0,25A at 230 VAC

TRANSMITTER

Linked with receiver via RF: frequency 868 MHz

Power rating: 2 x 1,5AA - Alkaline batteries

Temperature setting: 5°C to 30°C in 0.1°C resolution

Display temperature: -5°C to 40°C in 0.1°C resolution

Anti-Frost protection activation: below 5°C

Install transmitter and receiver in an environment with normal pollution level.

Radio range 40 m in free space, (the range can be altered depending on the installation conditions and on the electromagnetic environment).

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