BT22
WIRELESS THERMOSTAT
with the receiver to the socket

BT22 is an ideal solution for places where it is expensive or completely impossible to pull wires from thermostat to the boiler. It is designed for automatic regulation of heating systems in family houses and housing units with own boiler (gas, electric). Large backlit display on allows the transmitter to control the thermostat even in the dark. In addition, it offers intuitive navigation in the selected language (CZ / PL / EN / DE / RU / SK). The receiver is equipped with a code self-learning system and E-EPROM memory, which stores the save code even in the event of a power failure. BT22 works with two-way communication on the frequency 433.92 MHz. The range of the set can be up to 35 m (built-in).

receiver - to the socket

- Receiver power supply 230 V / 50 Hz
- Receiver with CODE SELF-LEARNING system and with E-EPROM memory (retains the code even when power failure)
- Two-wire connection to the boiler (potential-free contact)
- Indication LED for status signaling

- power indication
- signal transmission / reception
- fault condition
- relay closed

BIDIRECTIONAL COMMUNICATION
- guarantees the reliability of signal transmission and enables obtain feedback

transmitter

- is freely portable
- in a modern design
- with stand for stable placement in the most suitable place (included in the package)

- Large clear and backlit display
- Intuitive navigation in the selected language (CZ / PL / EN / DE / RU / SK)
- Preset weekly program
- 6 temperature changes for each day
- Programming after 10 minutes and 0.5 ° C
- Programming by day or Mon-Fri, Sat-Sun and Mon-Sun
- HYSTERESIS selection 0.1 ° C to 6 ° C
- Possibility of short-term temperature change
- Manual mode (MANU)
- Permanent OFF
- Holiday mode
- Antifreeze mode (3 ° C)
- Function to test the correct connection (TEST)
- Adjustable temperature correction
- Auto selection. DST / WINTER time changes
- Alkaline power supply. batteries 2 x 1.5 V / AA

ELEKTROBOCK CZ
MADE IN CZECH REPUBLIC

RECEIVER CONTROLS

Indication LEDs:

GREEN LITS - correct connection to the mains

ORANGE LITS - closed relay1

YELLOW FLASHES - transmitting or receiving a signal

RED FLASHES - empty E-EPROM memory

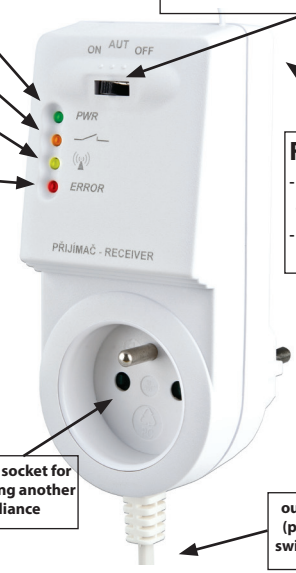
RED LITS - FAILURE (if within about 6 hours does not receive any signal from the transmitter switches to 2 min mode. ON and 8 min. OFF)

YELLOW+RED FLASH ALTERNATELY - code learning mode

YELLOW+RED FLASH AT THE SAME TIME - the code has been learnt

YELLOW+RED LIT AT THE SAME TIME - memory clear mode

Switch function:
AUT - works according to the program
ON - permanently on OFF - permanently off



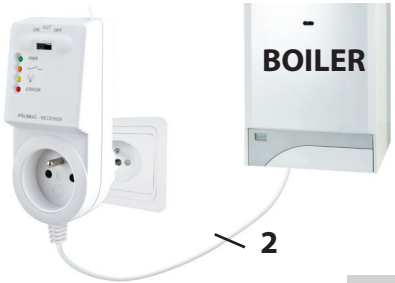
FUNCTION BUTTON
- short press (approx. 1 s)
CODE LEARNING mode
- long press (approx. 5 s)
RESET (deleting memory)

power supply 230 V/50 Hz

through socket for connecting another appliance

output for boiler (potential - free) switching contact)

Diagram of connection:



RECEIVER ASSEMBLY

- switch off the main circuit breaker
- connect the receiver to the boiler according to the diagram (for the boiler use the terminals designed for room thermostat 2 wires!)
- connect the receiver to the 230V / 50Hz mains
- switch on the main circuit breaker, the green LED on the receiver lights up and the receiver is ready to the next setting

Install the receiver (indoors) as far away as possible from large metal objects (min. 0.5 m) and outside power lines due to signal reception! We recommend that the installation is carried out by a person with the appropriate electrical qualification!

LEARNING CODE

The BT22 assembly is factory configured and ready for use - after commissioning the receiver and transmitter, simply use the TEST function (see page 6)! However, if the receiver's memory is cleared - the red LED flashes, use the following procedure:

1. **Press the "FUNCTION BUTTON" on the receiver for approx. 1.5 s, the yellow and red LED, the receiver is waiting for a code (so-called learning mode).**
2. **On the transmitter (after inserting the batteries, see page 3), press the "MENU" button twice, turn the button** " " choose CONST mode and pressing the button several times." " go to TEST. Turn the button " ", the signal is sent to the receiver. The for sign appears briefly on the transmitter wireless broadcasting"" and when communication is established, RFM lights up permanently.
3. Acceptance of the code into the receiver is indicated by the simultaneous flashing of the yellow and red LEDs, that is code learned. After receiving the code, the output relay will be closed several times for verification correct function BT22.

TRANSMITTER DESCRIPTION

Fig.1

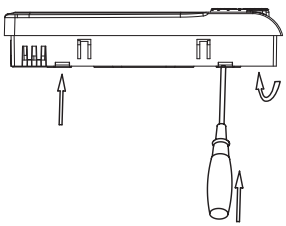


Fig.2

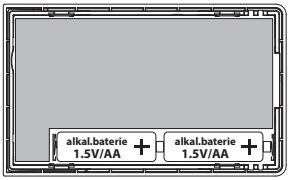
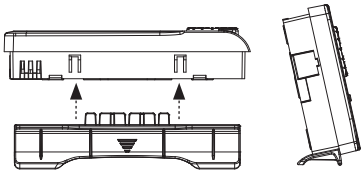
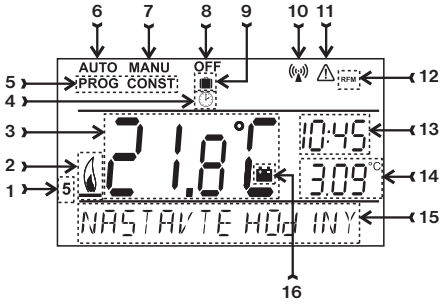


Fig.3



DISPLAY DESCRIPTION



1. Current day (in Prog select number of days for programming)
2. Heating on indication
3. Current temperature in the room
4. CLOC mode indication (current day setting and time)
5. Setting modes programs (PROG) and constant (CONST) (p.5-6)
6. Auto mode (p.4)
7. Manual mode (p.4)
8. Permanent shutdown (p.4)
9. Holiday mode (p.4)
10. Signal transmission indication
11. Signal transmission ERROR
12. Wireless indication mode
13. Current time
14. Current date / required temperature
15. The status bar that appears dynamically changes according to running process
16. Low battery indication

TRANSMITTER INSTALLATION

The transmitter must be located as far away as possible from sources of interference (TV, PC, etc.) and must not be located on a metal base. When placing it, pay attention to the thermal properties of the place.

- open the rear cover of the transmitter according to Fig.1
- we will remove the protective paper from the batteries and the transmitter will be fully functional (BT22 are batteries) a part of the package)
- snap the back cover back - the transmitter is freely portable and can be placed, for example, on a table. We recommend using table stand, which is part of the package (assembly see Fig.3)
- when installing on the wall, make sure that no high-current lines pass around the thermostat!

BATTERY REPLACEMENT

When appears on the display " " the batteries must be replaced.

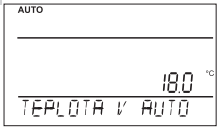
1. **Remove the control unit from the bottom cover of the appliance (fig.1).**
2. **Replace the batteries. Make sure the polarity is correct marked in the battery compartment (Fig.2). After removing the batteries of the thermostat retains all settings in memory. Always use alkaline 2 x 1.5 V AA batteries!**

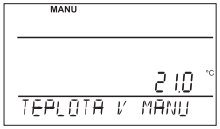
Check the time setting after replacing the batteries!

Recommendation: replace the batteries before each heating season!

Dispose of used batteries in accordance with hazardous waste regulations!

QUICK CHANGE OF REQUIRED TEMPERATURE





Press twice on the button "⏎", the required temperature flashes on the display. By turning the button " 🔧 " change the desired temperature and press the button " ⏎ ".

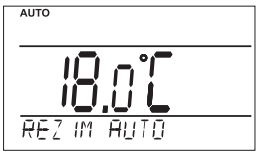
In AUTO mode, the change will last until the next change is given program.

In MANU mode, the change will be permanent.

MODE SELECTION AND TRANSMISSION PARAMETER SETTINGS

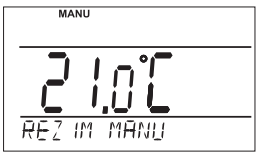
The first long press of any button activates the display backlight. Another short press of the „MENU" button will enter the main menu, where it is possible to select operating modes.

AUTO (factory set weekly program see p.6)



The thermostat works according to the set weekly program (this program can be changed, see PROG for a detailed description).
Press twice on the button "**MENU**", by turning the button " 🔧 " select AUTO mode and confirm by the button " ⏎ ".

MANU (factory set temperature 21 ° C)



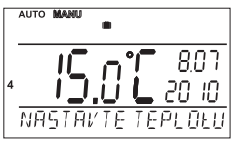
The thermostat works according to the set temperature until the next manual change.

Press twice on the button "**MENU**", by turning the button " 🔧 " select MANU mode and confirm with button " ⏎ ".

OFF (non-freezing temperature of 3 ° C is maintained - cannot be changed)

The thermostat is switched off until the next manual mode change.
Press twice on the button "**MENU**", by turning the button " 🔧 " select OFF mode and confirm with the button " ⏎ ".

HOLIDAY



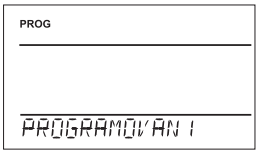
The thermostat maintains the set temperature until the set date. After the set time has elapsed, it automatically returns to AUTO mode.
Press twice on the button "**MENU**", by turning the button " 🔧 " select mode 💼 and confirm with the button " ⏎ ".
Gradually set the temperature that the thermostat should maintain during the holiday and the return date from the holiday. By turning the button " 🔧 " change the values and press the button " ⏎ " always confirm.
After setting, press the button " Esc " to return to basic display.
Note: the holiday can be canceled at any time by selecting another AUTO or MANU mode.

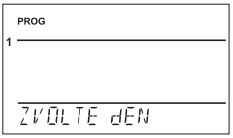
CLOCK SETTING

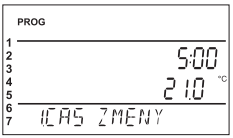
Set the current time and date.
Press twice on the button "**MENU**", by turning the button " 🔧 " select the CLOCK mode and confirm with the button " ⏎ ".
By turning the button " 🔧 " change the values and press the button " ⏎ " always confirm (set value always flashes, by the button " Esc " you return to the menu.

PROG (programming)

Weekly program settings with up to 6 changes per day.
Press twice on the button "**MENU**", by turning the button " " select PROG mode and confirm with the button " ".
The number of days for programming flashes on the display, by turning the button " " select one of the options (it is possible to program day by day or 1-5 = Mon - Fri, 6-7 = Sat - Sun and 1-7 = Mon - Sun) and confirm with " ". The 1st change time flashes, by turning the button " " set the time and confirm with the button " ". Set to this time by turning the button " " temperature and confirm again with button " ". The 2nd change time appears on the LCD. Follow the same procedure as for the first change settings.
In this way it is possible to set up to 6 temperature changes per day. To return to the menu, press the button " ".
After changing the preset program, check whether all the set changes correspond to your requirements!



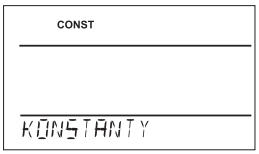




It is not a condition to use all six changes in one day!

CONST (CONSTANTS)

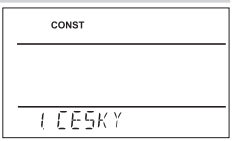
Setting of control parameters.
Press twice on the button "**MENU**", by turning the button " " select the CONST mode and confirm with " ".



1 CZECH (from the factory is set Czech language)

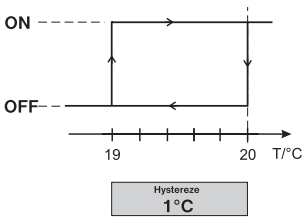
Language selection (CZ/PL/EN/DE/RU/SK).

By turning the button " " select the language and confirm with " ".

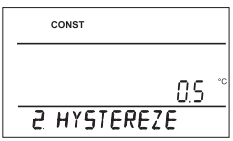


2 HYSTERESIS (factory set 0.5 ° C)

The hysteresis can be set from 0.1 to 6 ° C.
E.g. if the hysteresis is 1 ° C, required temperature 20 ° C, the thermostat switches off at 20 ° C and closes again at 19 ° C.

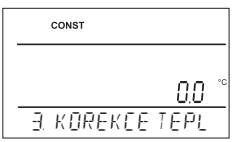


By turning the button " " set the value and confirm with the button " ".



3 TEMPERATURE CORRECTION (factory setting 0 ° C)

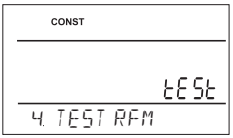
It is used to correct the temperature measured by the thermostat. The setting must be made only after 12 hours of operation, when the temperature of the internal sensor stabilizes. Measure the room temperature with a thermometer, if the temperature differs from the temperature on the thermostat, set the correction from -5 ° C to + 5 ° C.
By turning the button " " set the value and confirm with the button " ".



4 TEST

We recommend using the thermostat the first time you use the receiver, to verify the correct connection and signal quality!

By turning the button " " the test starts and the output relay is switched on / off several times (ON / OFF appears on the LCD). By the button " " the next constant is displayed, to return to the main menu press the button " ".



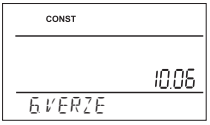
5 TIME CHANGE (from the factory is set YES)

If YES is selected, then SUMMER / WINTER time changes automatically according to the calendar. You don't have to watch when the time changes, the thermostat will take care of the automatic time setting for the given period. By turning the button." " set YES / NO and confirm " ".

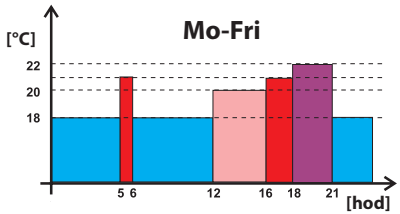
6 VERSION (factory reset)

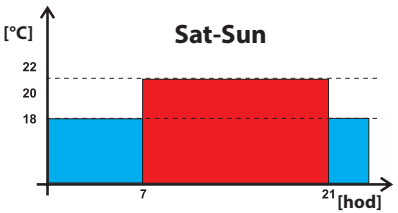
Firmware version, information only.

If you press and hold (approx. 3 s) the button " ", RESET appears briefly on the LCD and the thermostat returns to the factory settings!



PRESET WEEKLY PROGRAM





TECHNICAL PARAMETERS

Receiver	
Power supply	230 V/ 50 Hz
Type of communication	bidirectional
Frequency	433.92 MHz
Range	300 m (free area) 35 m (built-in area)
Sensitivity	< -102 dBm
Output	relay, max. 8 A
Degree of protection	IP20
Dimensions	57 x 130 x 85 mm
Operating temperature	0°C up to +40°C

Transmitter	
Power supply	2 x1.5 V alk. AA batteries
Type of communication	bidirectional
RF power	< 10 mW
Frequency	433,92 MHz
Hystereze	0.1 up to 6°C
Adjustable temperature range	+5°C up to 39°C
Temperature settings	each 0.5°C
Measurement accuracy	± 0.5°C
Degree of protection	IP20
Battery lifetime	heating season
Dimensions	136,5 x 83 x 28,5 mm
Operating temperature	0°C up to +40°C

Here is ELEKTROBOCK CZ s.r.o. declares that the BT22 type of radio equipment complies with Directive 2014/53 / EU. The full text of the EU Declaration of Conformity is available at the following Internet address: www.elbock.cz

8 594012 224339

In case of warranty and post-warranty service, send the product to the address of the distributor or manufacturer.

LEAD FREE RoHS compliant

21 PAP

ELEKTROBOCK CZ
MADE IN CZECH REPUBLIC

ELEKTROBOCK CZ s.r.o.
Blanenská 1763
Kuřim 664 34
Tel.: +420 541 230 216
Technical support (up to 2 pm)
Mobile: +420 724 001 633
+420 725 027 685
www.elbock.cz