ROOM THERMOSTAT
WITH BACKLIT DISPLAY

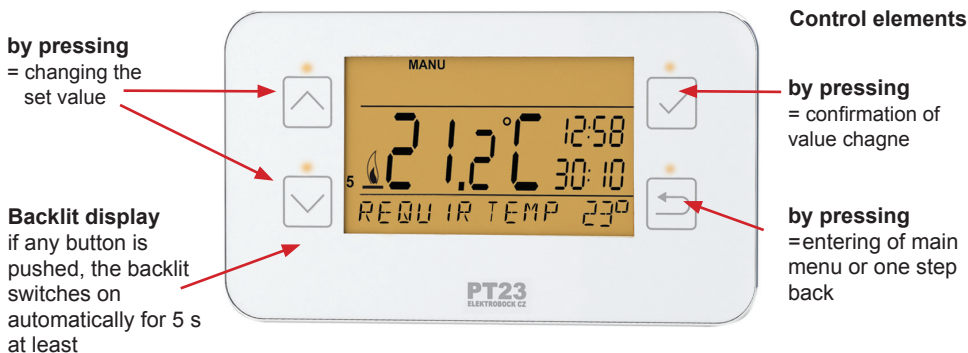# PT23

LARGE WELL-ARRANGED DISPLAY
WITH TOUCHING CONTROL

- **for all types boilers with ON / OFF**
- **weekly program (preset)**
- **6 temp. changes per every day**
- **anti-freeze mode**
- **easy installation**
- **modern design**

DESCRIPTION

PT23 is digital room thermostat with backlit display for automatic regulation of heating.
Its advantages involve a quick change in the desired temperature by simply press the button, and possibility of setting up to weekly program with 6 temperature changes per day.

Control elements

by pressing
= changing the set value

by pressing
= confirmation of value chagne

Backlit display
if any button is pushed, the backlit switches on automatically for 5 s at least

by pressing
=entering of main menu or one step back

MANU

21.2°C 12:58
5   30:10
REQUIR TEMP 23°

PT23
ELEKTROBOCK CZ

INSTALLATION

1. Switch off the main circuit breaker.
2. Remove the control part from the lower cover of the device (Fig.1).
3. Chip away the central plastic piece from the lower cover to lead in conductors.
4. Run the conductor through the hole and connect it to the terminal acc. to the diagram.
5. Fasten the lower cover to the wiring box with screws (Fig. 2).
6. Batteries are located at the back of the control part. Remove their protective paper (on first use), or insert new batteries (Fig. 3).
7. Mount the control part on the lower cover.
8. Switch on the main circuit breaker and test correct connection of the thermostat, see page 5 (TEST).
9. Upon first start (or reset), the thermostat displays "SET CLOCK", set the current time and date according to page 4.

LOCATION

Install the thermostat at a suitable place where its operation cannot be affected by direct flow of hot air from the heater, sunshine or other disturbing effects. Do not install it on an external wall either. The installation height should be approx. 1.5 m above the floor. Place the thermostat in the "reference room", such as the living room (the heating source will switch according to the temperature in this room).

Wiring diagram:

* The thermostat terminals are marked differently with every type of boiler. Therefore, follow the wiring prescribed by the boiler manufacturer!
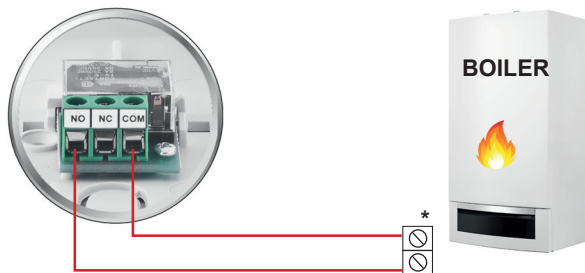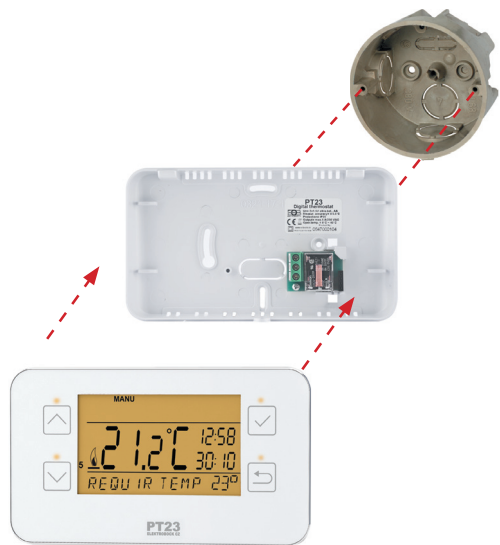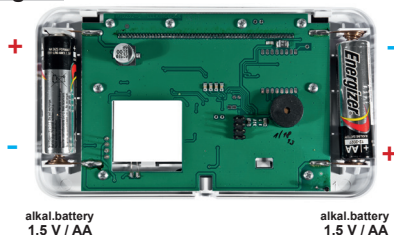
NO NC COM

BOILER

*

Fig.1

Fig.2

Fig.3

alkal.battery
1,5 V / AA

alkal.battery
1,5 V / AA

HINTS FOR THE USER

QUICK CHANGE OF THE DESIRED TEMPERATURE

Press the „ ⊡ “ button twice, the desired temperature starts blinking on the display. With buttons „ ⊡⊡ “ change the required temperature and press the „ ⊡ “ button.

In the AUTO mode, the change lasts until the next program

change.

In the MANU mode, the change is permanent.

BATTERY REPLACEMENT

As soon as „ ■ “ appears on the display, you must replace the batteries.

1. Remove the control part from the lower cover of the device (Fig. 1).
2. Replace the batteries. Heed the correct polarity marked in the battery compartment (Fig. 3). After removing the batteries, all setting of the thermostat are saved in the memory 20 sec, only!

Always use the **type AA, 2 x 1.5 V**, alkaline batteries!

Recommendation: Check the batteries before every heating season!

Dispose of old batteries in conformity with regulations on hazardous waste treatment!

The device can only be installed by a person with adequate qualification!
The installation must be executed in a voltage-free state!
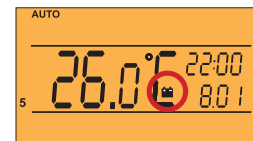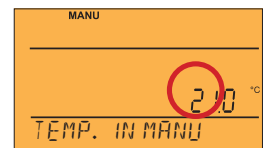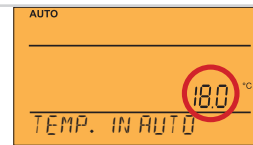
OPERATIONAL MODES

The first push of any button activates the display backlight. Pushing the „ ⟳ " button shortly again, you open the main menu where you can choose the operational mode.

AUTO   (weekly program is factory-set, see page 8)

The thermostat works according to the weekly program pre-set (this program can be changed; see PROG for detailed description).
Press the „⟳" button twice, using the „ ⋁⋀ " buttons choose the AUTO-Mode and confirm with the „ ☑ " button.

MANU   (the 21 °C temperature is factory - set).

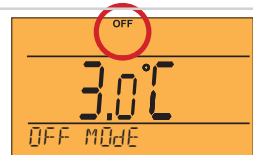The thermostat works according to the temperature preset until the next manual change.

Press the „⟳ " button twice, using the „ ⋁⋀ " buttons choose the MANU-Mode and confirm with the „ ☑ " button.

OFF   (anti-freeze temperature of 3 °C is kept – can not be changed)

The thermostat is off until the next manual change of the mode.
Press the „⟳ " button twice, using the „ ⋁⋀ " buttons choose the OFF-Mode and confirm with the „ ☑ " button.

HOLIDAY

The thermostat keeps the temperature preset until the given date. When the preset time lapses, it automatically returns to the last-selected AUTO/MANU mode before the holiday.

Press the „⟳ " button twice, with buttons „ ⋁⋀ " choose the 🧳 and confirm with the „ ☑ " button. Stepwise, set the temperature which the thermostat should keep during the holiday, and date of your return from the holiday. Using the „ ⋁⋀ " buttons make the change of value and always confirm them pushing the „ ☑ " button.
When the setting is finished, press the „ ⟳ " button to return to the basic screen.
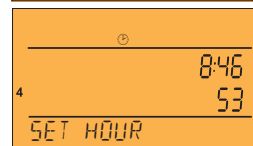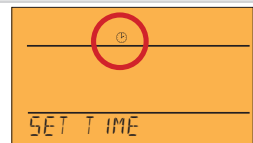Note: You can cancel the holiday mode any time by choosing another AUTO or MANU mode.
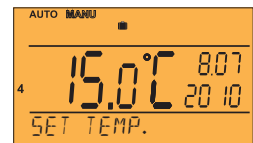
CLOCK SETTING

Setting the current time and date.

Press the „⟳" button twice, by using„ ⋁⋀ " choose CLOCK-MODE and confirm with the „ ☑ " button.
Using the „ ⋁⋀ " button make the change of value. Always push the„ ☑ " button to confirm (the value set is always flashing; the „ ⟳ " button returns you to the menu).

PROG   (PROGRAMMING)

Setting the weekly program with up to 6 changes per day.
Press twice the" ↻ "button, by using " ⌄⌃ " buttons choose the PROG mode and press the" ☑ "button to confirm. The number of days to be programmed is flashing on the display, by using " ⌄⌃ " buttons choose on of the option (you can program day-by-day or 1-5 = Mon-Fri, 6-7 = Sat-Sun or 1-7 =Mon-Sun) and press the" ☑ " button to confirm.
**The 1st change time** starts flashing, by using " ⌄⌃ " buttons set time and press the" ☑ " button to confirm. To this time assign with " ⌄⌃ " buttons the temperature and press again the" ☑ " button to confirm. **The 2nd change time** appears on the display. Proceed in the same way as with the first change setting. In this way, you can 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 changes made conform to your requirements!
It is not necessary to apply all six changes in one day!

PROG
PROGRAMMING

PROG 1
SELECT dAY

PROG 1 2 3   5:00 4 5   21.0 °C 6 7 TIME CHANGES
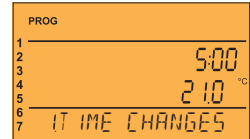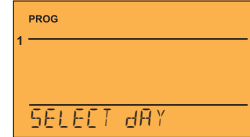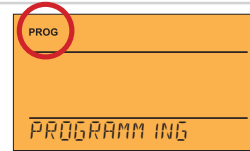
CONST   (CONSTANTS)

Setting the control parameters.

Press twice the "↻" button, by using " ⌄⌃ " buttons choose CONST mode and press the" ☑ " button to confirm.

CONST
CONSTANTS
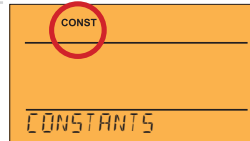
1   ENGLISH   (English language set by default)

Language selection (CZ/PL/EN/DE/RU/SK).
By using " ⌄⌃ " buttons choose languge and press the" ☑ " button to confirm.

CONST
1 ENGLISH
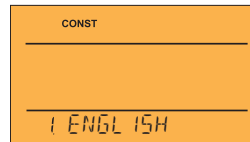
### 2 HYSTERESIS   (0.5°C set by default)

The hysteresis can be set from 0,1 to 6°C. Example: If the hysteresis is 1 °C and the required temperature 20 °C, the thermostat switches off at 20 °C and on again at 19 °C. By using " ⌄⌃ " buttons set required value and press the " ☑ " button to confirm.

| CONST |
| --- |
| 0.5 °C
2 HYSTERESIS |
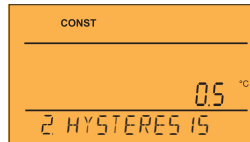
3   TEST

We recommend you to use the test when you first use the thermostat!
By using " ⌄⌃ " the test starts and the output relay is switched on/off several times (the display shows the ON/OFF message) Pressing the " ☑ " button, you can view the next constant; to return to the main menu press the " ↻ " button.

CONST
tESt 3 RELAY TEST
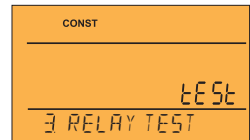
4   TOUCH SOUND

By using" ⌄⌃ „ buttons you can switch on and off the sound of buttons.

| CONST |
| --- |
| YES
4 SOUNd OF bU |
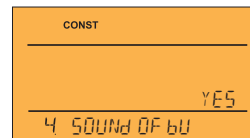
5 SUMMER/WINTER TIME CHANGE

By choosing YES with " ▽△ „ buttons you can activate automatic SUMMER/WINTER time change according calendar. You don´t need to take care about the time change, thermostat make automatic setting for actual season.

```
CONST

                    YES
 5.TIME CHANGE
```
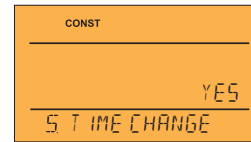
6 VERSION (restoring the default settings)

Firmware version, informative parameter only. If you press the " ▽ " button long (for about 3 s) together with ⤺ „, the RESET message appears shortly on the LCD and the thermostat returns to the default settings!

```
CONST

                  10.03
 6 VERSION
```
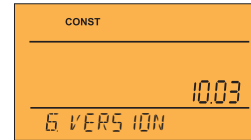
DISPLAY DESCRIPTION
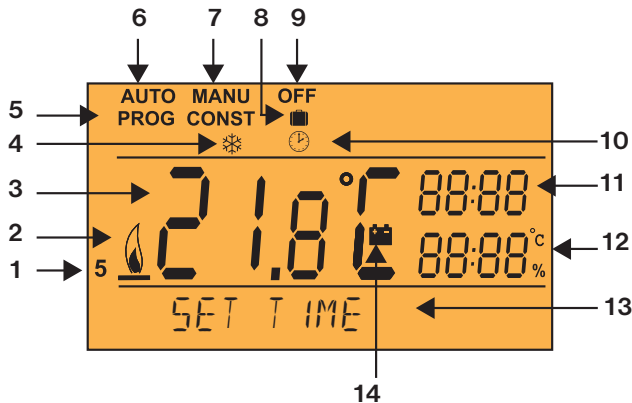
1. Current day (in the Prog mode, selection of days to be programmed)
2. Heating on indication
3. Current room temperature
4. Anti-freeze temperature
5. Modes for setting programs (PROG) and constants (CONST)
6. Automatic mode
7. Manual mode
8. Holiday mode
9. Permanent shut-off
10. Clock setting mode
11. Current time
12. Current date (various parameters in the CONST mode)
13. Status line, dynamically changing according to the process running
14. Low battery indication

CONTROL MENU - PROGRAMING METHOD

level 0

AUTO
s **26.0℃** 22:00 8.0 1

↑ ∧ or ∨ ↓   Temporary change of required temperature.
In AUTO mode till next temperature change.

↺

level 1   **level 2**

↓ **2 ×** ↺

OPERATING MODES

Aut0 ────── ✓ ───── AUTOMATIC MODE
↑∧ ∨

MAnU ────── ✓ ───── MANUAL MODE
↑∧ ∨

OFF ────── ✓ ───── OFF MODE - thermostat is permanent switched
OFF. Antifreeze protection 3 ℃ is still active!
↑∧ ∨

HOLIDAY ────── ✓ ───── HOLIDAY | Setting of required temperature and point of holiday ending
↑∧ ∨

PARAMETER SETTING

Clock Setting ────── ✓ ───── Setting of actual time and date
↑∧ ∨

Programming ────── ✓ ───── Setting of week programms P1, P2
↑∧ ∨

Constants ────── ✓ ───── Language selection
↓ ✓
Hysteresis
↓ ✓
Relay test
↓ ✓
Touch sound
✓
Summer/winter time change
✓
Firmware version; factory setting
↑∧ ∨

ROOM THERMOSTAT   PT23

PT23 is a battery-powered room temperature. The big, well-arranged
graphic display offers intuitive navigation in the selected language (CZ/PL/EN/DE/RU/SK) .
The backlit display enables thermostat control even in dark. With preset program can PT23,
after installation, and set the current time, immediately used without further adjustment.

Properties:

- preset weekly program
- powered by batteries 2 x 1,5 V / AA
- 6 temp. changes per day
- programming by 10 minutes and 0.5 °C
- programming "day-by-day" or Mon-Fri, Sat-Sun or Mon-Sun
- anti-freeze protection (3 °C)
- short-term change in the required temp.
- auto SUMMER/ WINTER time change
- big backlit display
- output (potential-free contact) max. 5 A / 250 V AC
- intuitive navigation in the selected language (CZ / SK / PL / EN / DE / RU)
- possibility of setting HYSTERESIS
- manual mode (MANU)
- permanent switch-off (OFF)
- HOLIDAY mode
- low battery indication
- light and sound indication of buttons

Preset weekly program:

Technical parameters	
Power supply	2 x 1.5 V alkal. batteries type AA
Number of temp. changes	6 temperature changes per day
Hysteresis	0,1 to 6°C
Minimum program. time	10 minutes
Adjustable temp. range	+5°C to 39°C
Temperature setting	in 0.5°C steps
Minimal indication step	0,1°C
Measurement accuracy	± 0,5°C
Battery life	heating season
Protection	IP20
Output	max.5A (potential-free contacts)
Working temp.	0 to 40 °C

8 594012 220416

CE

Pb
LEAD FREE
gemäß RoHS
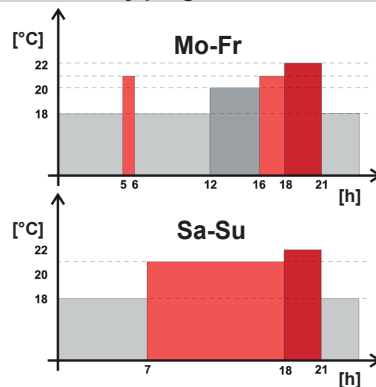
In case of guarantee or
post-guarantee service,
send the thermostat to
the manufacturer's
address.

21
PAP

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