

## User's manual VER-15



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## I. Safety

Before using the device for the first time the user should read the following regulations carefully. Not obeying the rules included in this manual may lead to personal injuries or controller damage. The user's manual should be stored in a safe place for further reference. In order to avoid accidents and errors it should be ensured that every person using the device has familiarized themselves with the principle of operation as well as security functions of the controller. If the device is to be sold or put in a different place, make sure that the user's manual is there with the device so that any potential user has access to essential information about the device.

The manufacturer does not accept responsibility for any injuries or damage resulting from negligence; therefore, users are obliged to take the necessary safety measures listed in this manual to protect their lives and property.



### WARNING

- The device should be installed by a qualified electrician.
- The regulator should not be operated by children.



### WARNING

- Any use other than specified by the manufacturer is forbidden.
- Before and during the heating season, the controller should be checked for condition of its cables. The user should also check if the controller is properly mounted and clean it if dusty or dirty.



Care for the natural environment is our priority. Being aware of the fact that we manufacture electronic devices obligates us to dispose of used elements and electronic equipment in a manner which is safe for nature. As a result, the company has received a registry number assigned by the Main Inspector of Environmental Protection. The symbol of a crossed out rubbish bin on a product means that the product must not be thrown out to ordinary waste bins. By segregating waste intended for recycling, we help protect the natural environment. It is the user's responsibility to transfer waste electrical and electronic equipment to the selected collection point for recycling of waste generated from electronic and electrical equipment.

## II. Description of the device

VER-15 room regulator is intended for controlling the heating or cooling device (e.g. gas, oil or electric furnace or the CH boiler controller). Its main task is to maintain the pre-set temperature in the flat by sending a signal to the heating/cooling device (contact opening) when the desired temperature is reached.

Advanced software enables the regulator to fulfil a wide range of functions:

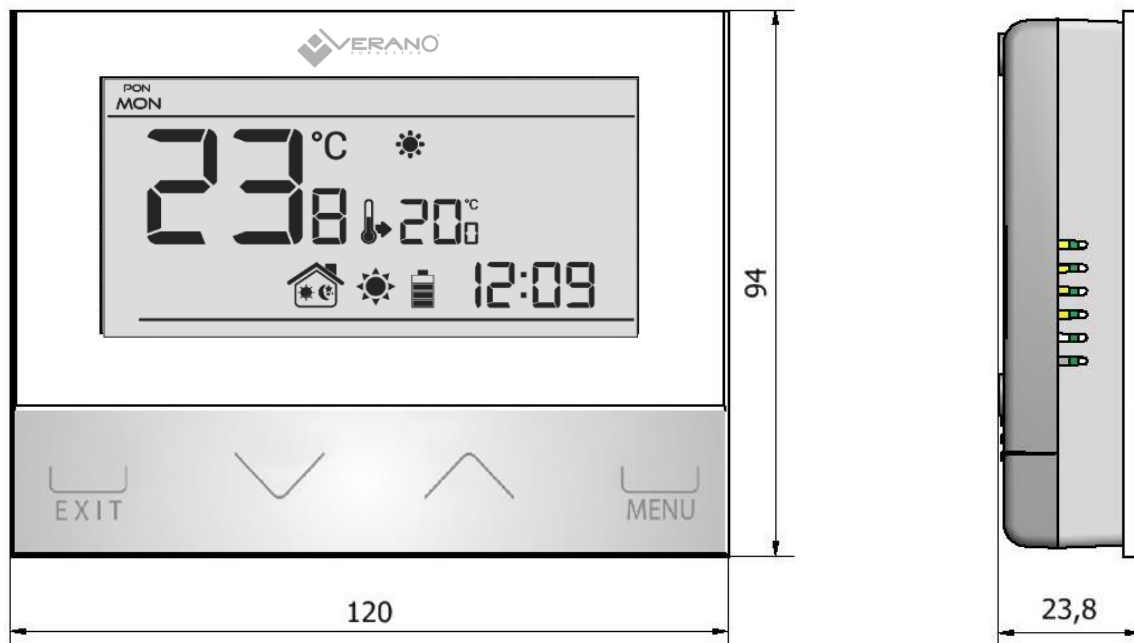
- maintaining the pre-set room temperature
- manual mode
- day/night program
- weekly control
- control of the underfloor heating system (optional; an additional temperature sensor is necessary)

Controller equipment:

- touch buttons
- front panel made of 3mm glass
- built-in temperature sensor
- batteries

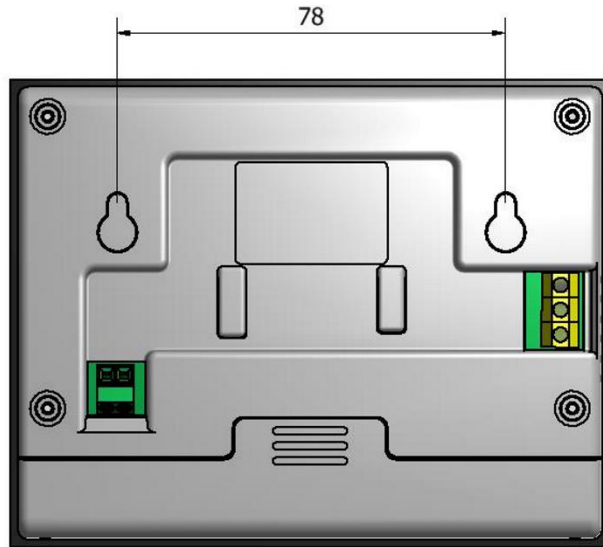
## III. Installation

The controller should be installed by a qualified person.



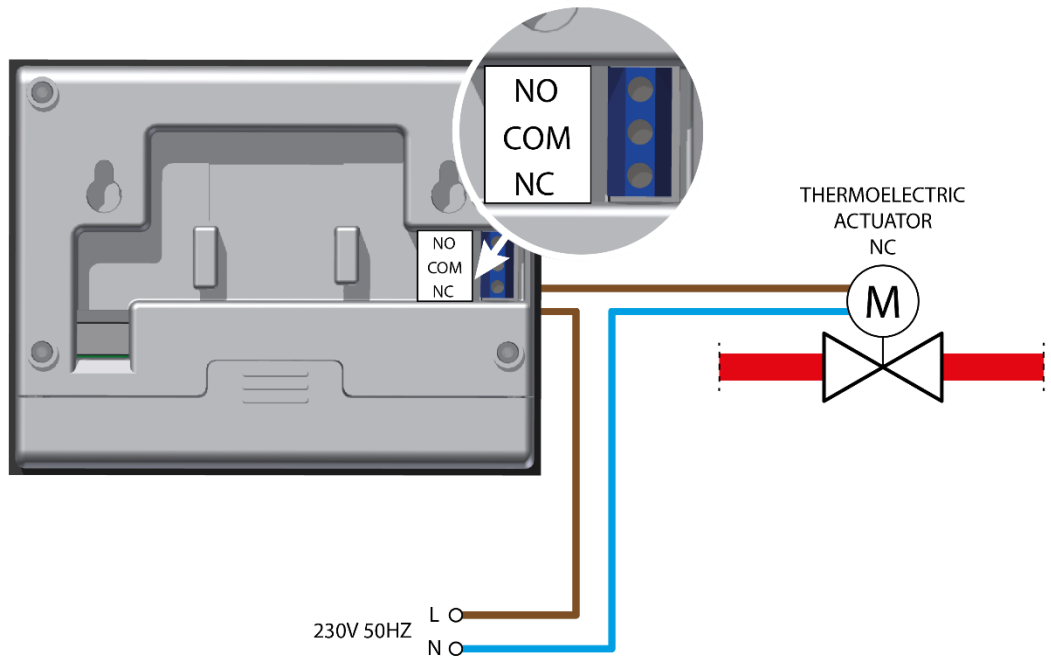
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VER-15 controller may be installed as a panel mountable on the wall.



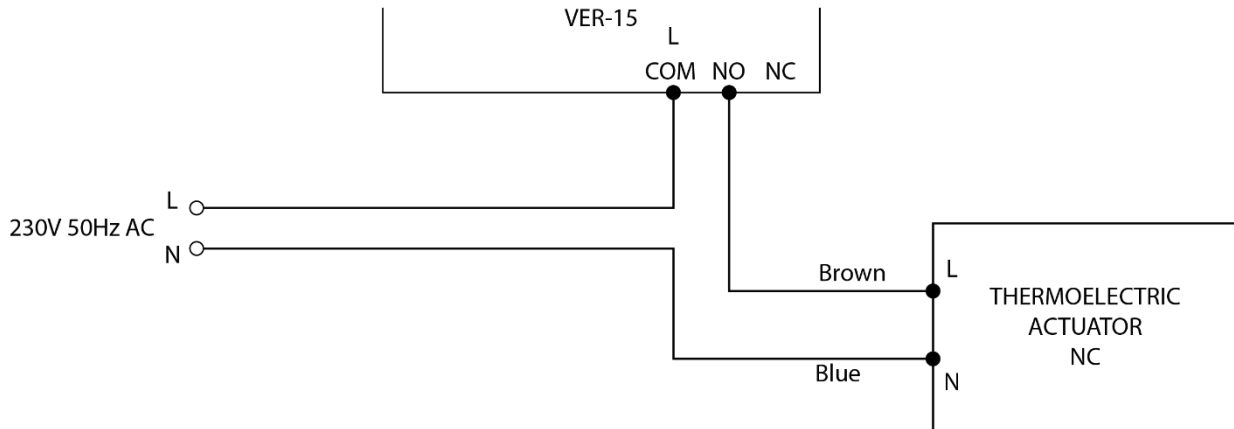
## III.a) Connection diagram

Room regulator should be connected with actuator with two-wired cable. Connection of both devices is shown on a diagram below:



### ATTENTION:

Marking on the back of the controller refers to built-in relay. Marking do not describe the type of connected actuator.

**ATTENTION:**

Regulator is powered by batteries - it is necessary to check the batteries state periodically.

Batteries should be changed at least once during a season.

To provide proper operation of control circuit, it is necessary to supply 230V AC to regulator - according to diagram below.

## IV. First start-up

In order for the controller to operate correctly, the user must follow these steps when starting the device for the first time:

1. Remove the front cover of the controller and insert the batteries.
2. In the case of VER-15 connect the two-core cable to appropriate sockets in the receiver.

## V. How to use the controller

### V.a) Principle of operation

VER-15 room regulator is designed to maintain desired room temperature by sending signal to actuator (contact closure) with information about necessity of heating.

After receiving that signal actuator unlocks flow on thermostatic valve.

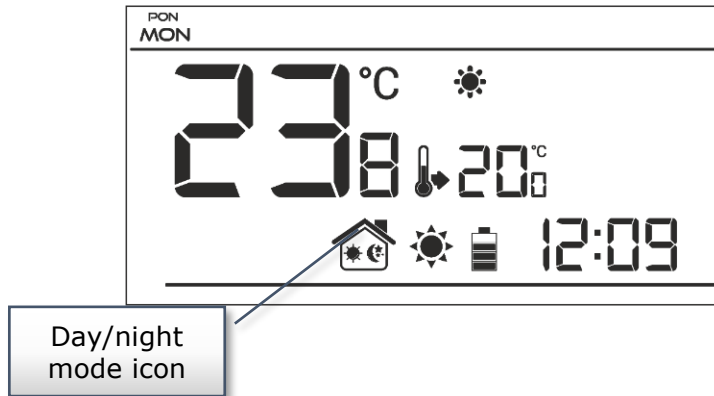
### V.b) Operation modes

The user has three operation modes to choose from:

# User's manual

## • Day/night mode

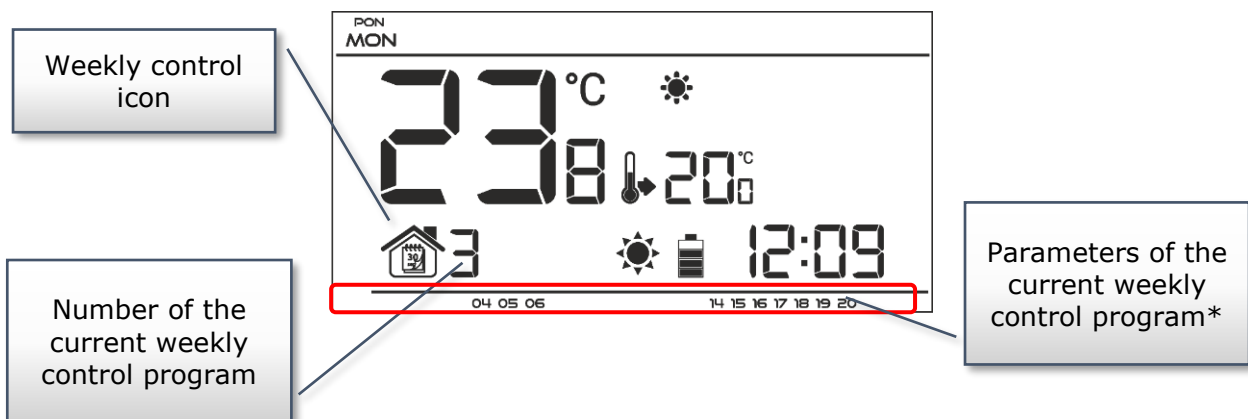
In this mode the pre-set temperature value depends on the current time of the day. The user may set different temperature values for the daytime and nighttime (comfort temperature and economical temperature) as well as define the exact time of entering day mode and night mode. In order to activate this mode, press EXIT button until *day/night mode* icon appears on the main screen.



## • Weekly control

This mode enables the user to define the time when the pre-set comfort temperature and the pre-set economical temperature will apply. The user may set 9 different programs divided into three groups:

- *programs 1÷3* – daily temperature values are set for all days of the week;
- *programs 4÷6* – daily temperature values are set separately for the weekdays (Monday-Friday) and for the weekend (Saturday-Sunday);
- *programs 7÷9* – daily temperature values are set for each day of the week separately.



\* The display shows the hours when the comfort temperature applies. In the remaining time period economical temperature applies.

In order to activate this mode, press and hold EXIT button until the weekly control icon appears on the main screen.

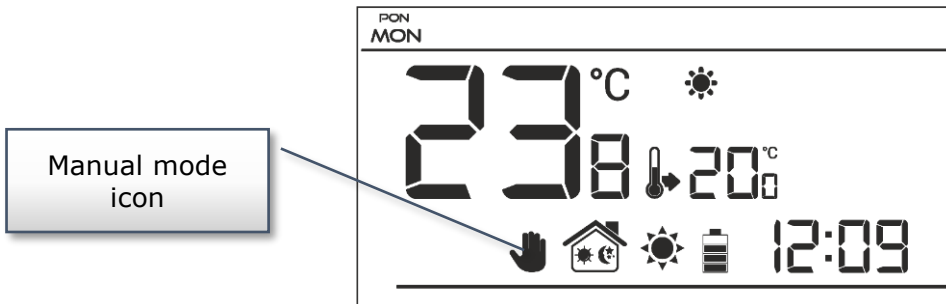


• **Manual mode**

In this mode the pre-set temperature is adjusted manually from the main screen view with the use of these buttons: ^ or v . Manual mode is activated when one of these buttons is pressed. When the manual mode is activated, the previous operation mode enters 'sleep mode' until the next pre-programmed temperature change. Manual mode may be deactivated by pressing EXIT button.

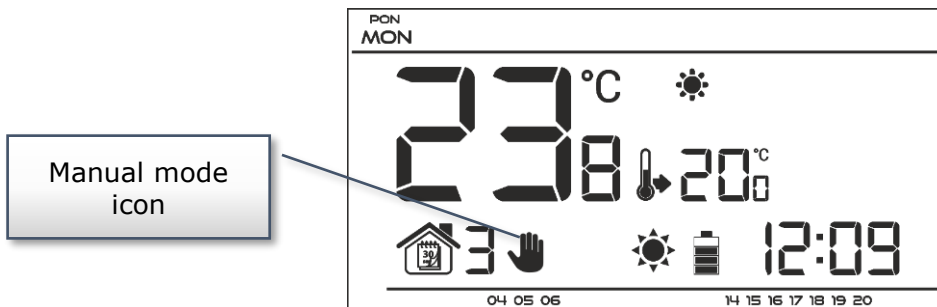
Example 1 – manual mode activation in Day/night mode

When *Day/night mode* is active, the user changes the pre-set temperature by pressing ^ or v which automatically activates manual mode. The controller returns to Day/night mode when daytime changes into nighttime (or the other way round) or when the user presses EXIT button.



Example 2 – manual mode activation in weekly control mode

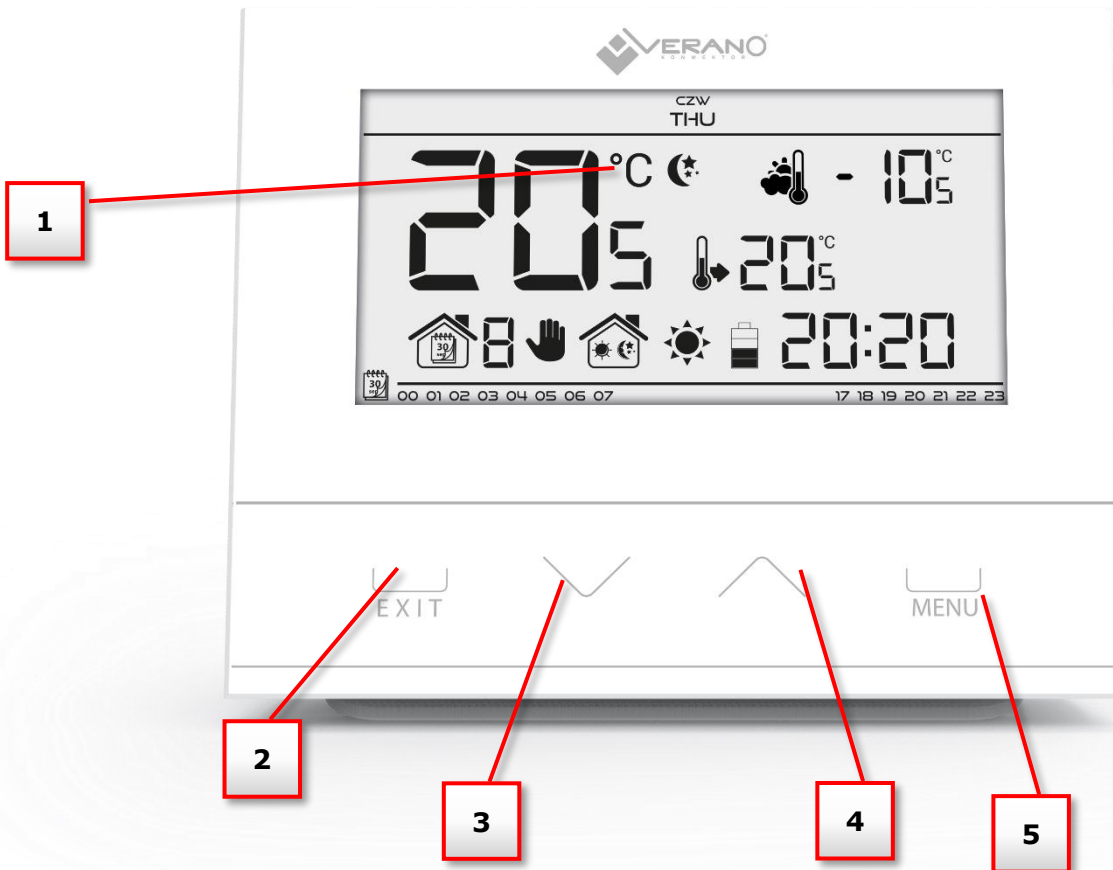
When *weekly control* is active, the user changes the pre-set temperature by pressing ^ or v, which automatically activates manual mode. The controller returns to weekly control mode when, according to the weekly schedule, economical temperature changes into comfort temperature (or the other way round) or when the user presses EXIT button.



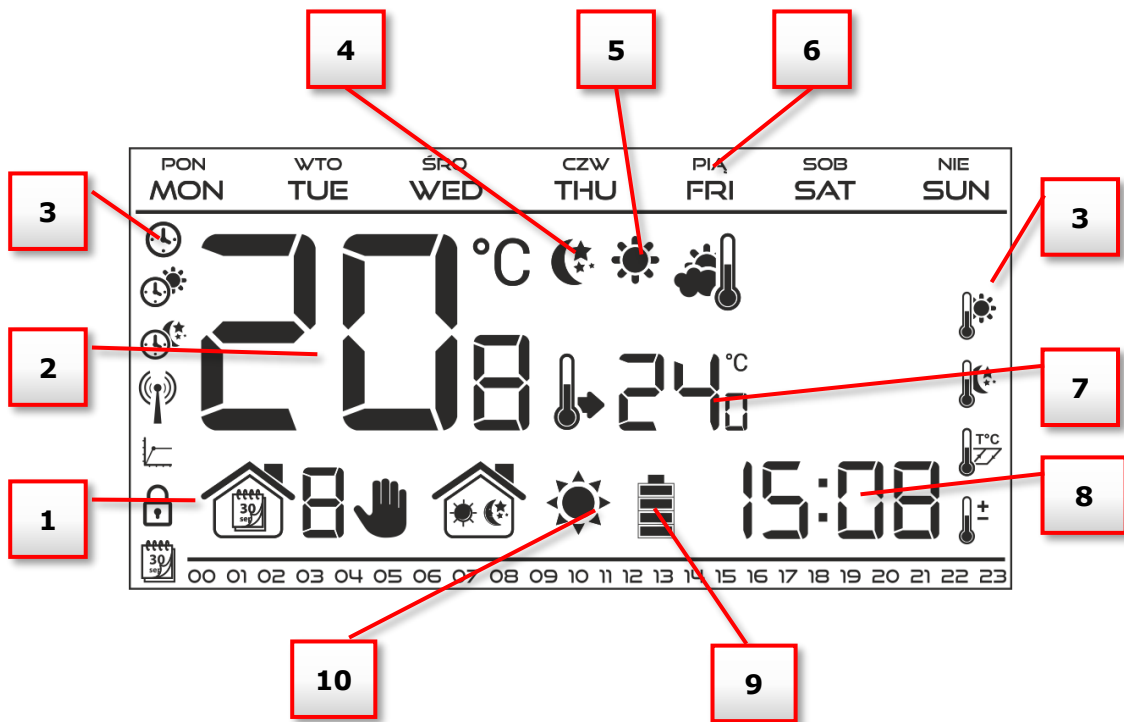
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## V.b) Main screen view and description

The user operates the device using buttons. While one parameter is being edited, the remaining icons are not displayed.














1. Display
2. **EXIT** - pressing this button in the main screen view activates weekly control mode or day/night mode. After entering the menu, this button is used to confirm the settings and return to the main screen view.
3. Minus button (∇) - pressing this button in the main screen view activates manual mode and decreases the pre-set temperature. After entering the menu, this button is used to adjust parameters, enter the service code etc.
4. Plus button (∧) - pressing this button in the main screen view activates manual mode and increases the pre-set temperature. After entering the menu, this button is used to adjust parameters, enter the service code etc.
5. **MENU** button - hold this button in order to enter the controller menu. While editing parameters press this button to confirm the changes and move on to edit the next parameter.



1. Current operation mode:
  - a. weekly
  - b. manual
  - c. day/night
2. Current temperature of the room
3. Parameters icons (see: table below)
4. Icon indicating economical temperature (according to weekly control or day/night settings)
5. Icon indicating comfort temperature (according to weekly control or day/night settings)
6. Day of the week
7. Pre-set temperature of the room
8. Time
9. Battery level
10. Temperature information (depending on the current operation mode):
  - o heating mode - the icon is flashing when the pre-set temperature of the room has not been reached and it is steady when the pre-set temperature has been reached.
  - o cooling mode - the icon is moving when the room temperature is above the pre-set value and it is steady when the pre-set temperature has been reached.

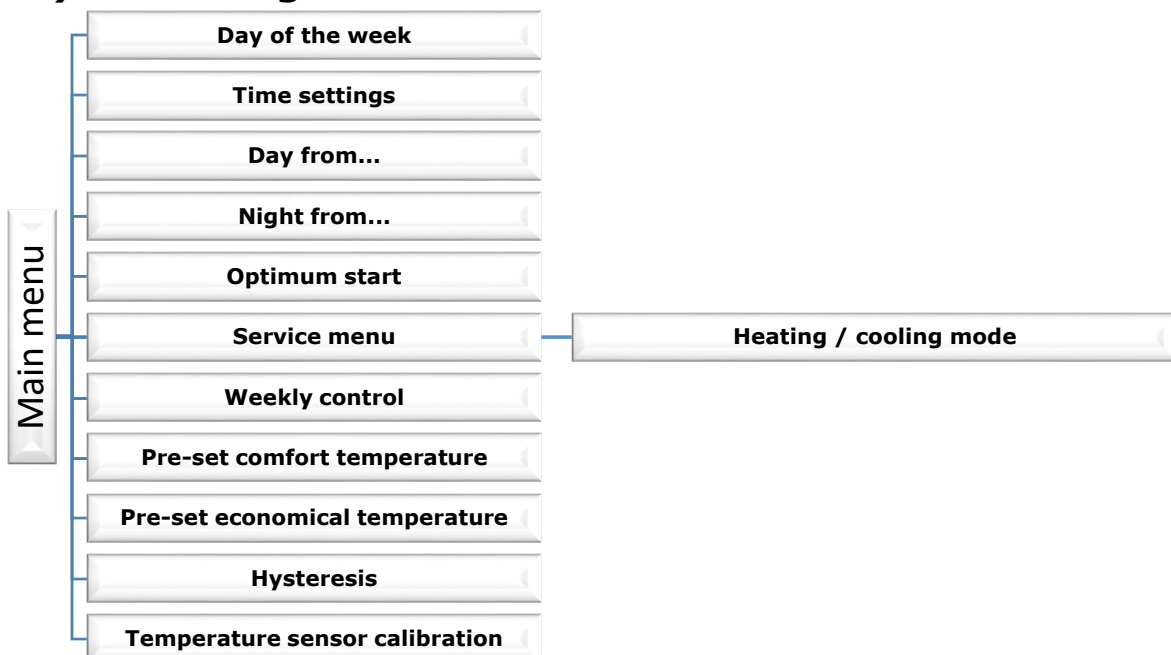
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Parameters icons:			
	Time settings		Weekly control settings
	Day from...		Comfort temperature
	Night from...		Economical temperature
	Optimum start / heating-cooling mode selection (in service menu)		Hysteresis
	Enter service menu / zone selection (EU-292v4)		Temperature sensor calibration
	Channel selection		

## V.c) Controller functions

The user navigates the menu structure using  $\nabla$ ,  $\wedge$ , EXIT and MENU. In order to edit particular parameters, press MENU. Next, press MENU to view the controller functions – the edited parameter is flashing whereas the remaining parameters are not displayed. Use  $\nabla$  or  $\wedge$  to change the parameter settings. Press MENU to confirm the changes and move on to edit the next parameter or press EXIT to confirm the changes and return to the main screen view.

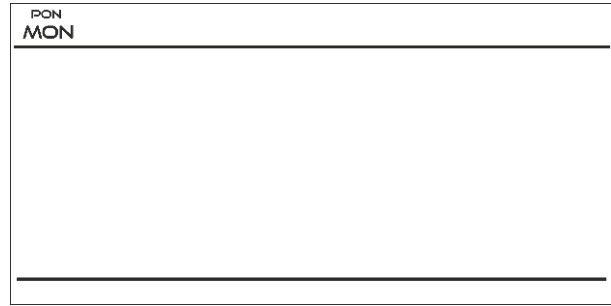
### V.c.1) Block diagram – main menu



### V.c.2) Day of the week

After entering the main menu, all icons which are not connected with the parameter which is being edited are not displayed. The first parameter is day of the week.

Press  $\nabla$  or  $\wedge$  until the current day of the week is displayed. Press MENU to confirm and move on to the next parameter or press EXIT to confirm and return to the main screen view.



### VII.c.3) Time settings

In order to set current time, press MENU until time setting panel is displayed on the screen.

By pressing  $\nabla$  or  $\wedge$  set the hour and minutes. Press MENU to confirm and move on to the next parameter or press EXIT to confirm and return to the main screen view.



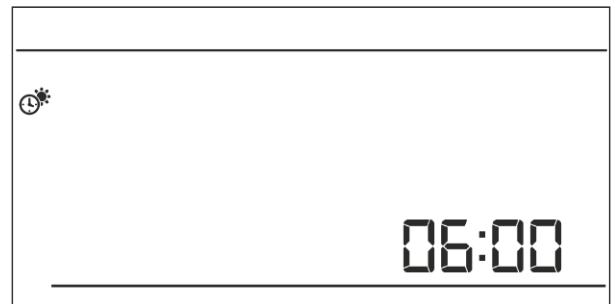
### VII.c.4) Day from...

This function enables the user to define the exact time of entering the day mode. When Day/night mode is active, comfort temperature applies at daytime.

To configure this parameter press MENU until *Day from...* setting appears on the screen.

By pressing  $\nabla$  or  $\wedge$  set the hour and minute of day mode activation.

Press MENU to confirm and move on to the next parameter or EXIT to confirm and return to the main screen view



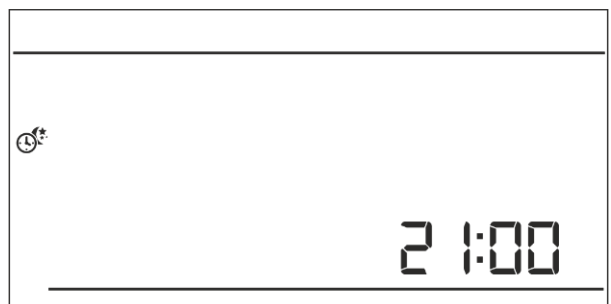
### VII.c.5) Night from...

This function enables the user to define the exact time of entering the night mode. When Day/night mode is active, economical temperature applies at nighttime.

To configure this parameter press MENU until *Night from...* setting appears on the screen.

By pressing  $\nabla$  or  $\wedge$  set the hour and minute of night mode activation.

Press MENU to confirm and move on to the next parameter or press EXIT to confirm and return to the main screen view.

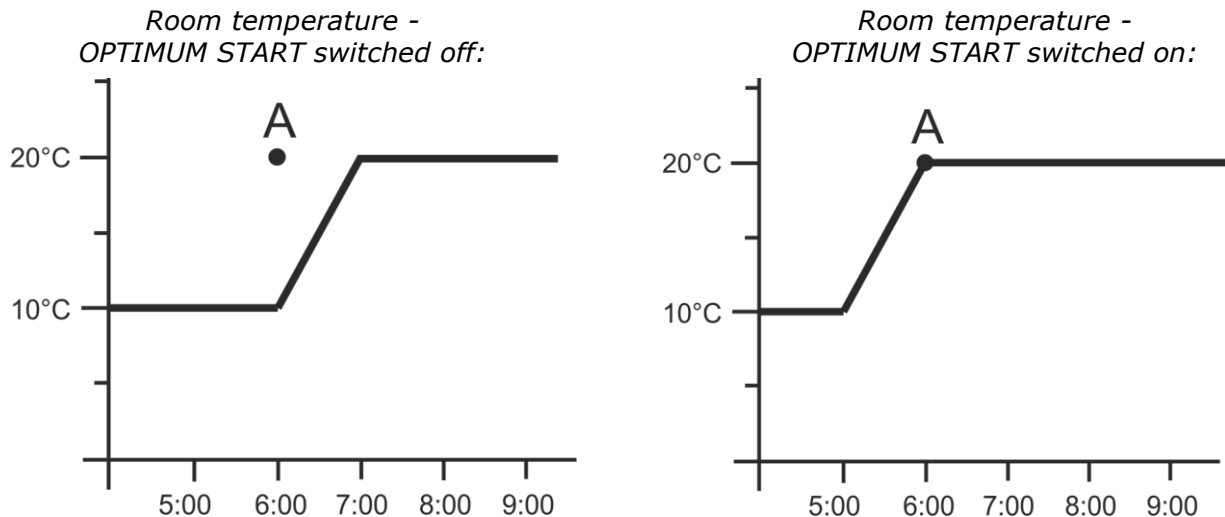


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### V.c.6) Optimum start

Optimum start is an intelligent system controlling the heating/cooling process. It involves constant monitoring of the heating/cooling system efficiency and using the information to activate the heating/cooling process in advance in order to reach the pre-set temperatures.

The system requires no user intervention. It precisely reacts to any changes that affect the efficiency of the heating system. If, for example, some changes have been introduced to the heating system and the house heats up faster than before, the Optimum start system will recognize the changes at the next pre-programmed temperature change (from comfort to economical) and in the next cycle the heating system activation will be adequately delayed, reducing the time needed to reach the desired temperature.

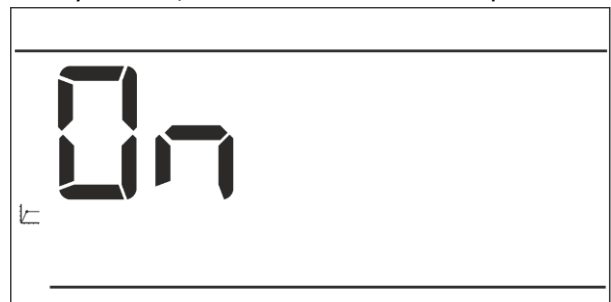


**A** – pre-programmed change from economical temperature to comfort temperature

Activating this function means that at the time of pre-programmed change of the pre-set temperature from comfort to economical or the other way round, the current room temperature is close to the desired value.

In order to configure this parameter, press MENU until *Optimum start* setting panel appears on the screen.

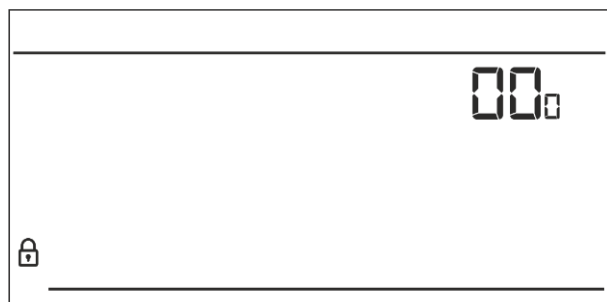
Use  $\nabla$  or  $\blacktriangle$  to activate or deactivate *Optimum start* function. Press MENU to confirm and move on to edit the next parameter or press EXIT to confirm and return to the main screen view.



### V.c.7) Service menu



Certain functions in the controller service menu are secured with a code. In order to adjust their parameters, press MENU until Service menu settings appear on the screen.

To view the service menu it is necessary to enter the code – 215. Use  $\nabla$  or  $\blacktriangle$  to select the first digit (2) and confirm by pressing and holding MENU until the next digit starts flashing. Follow the same steps selecting the remaining two digits.

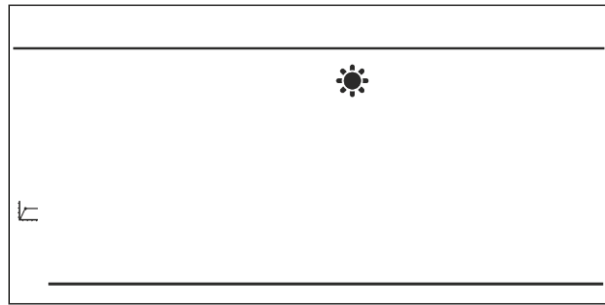


**Heating/cooling mode**

This function enables the user to select the room regulator operation mode:

-  - controlling the cooling system
-  - controlling the heating system

Press  $\nabla$  or  $\blacktriangle$  to select desired type of system. Press MENU to confirm and move on to edit another parameter in the service menu or press EXIT to confirm to return to the main screen view.

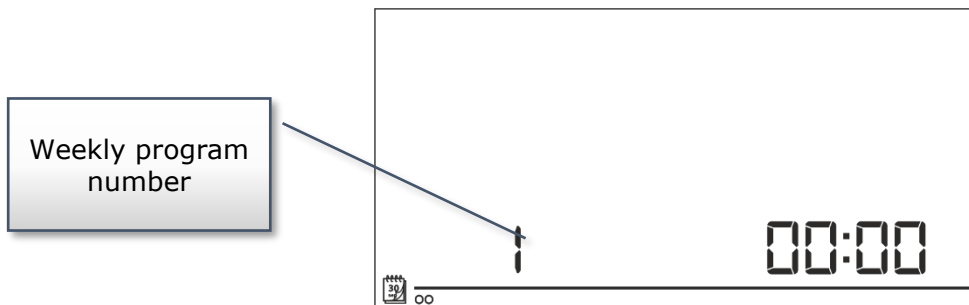
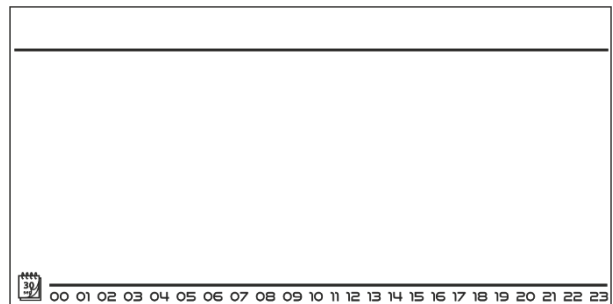


**V.c.8) Weekly control**

This function is used to change the current weekly control program and edit the weekly programs.

**• How to change the current weekly program number**

When weekly control is enabled (see: V.b Operation modes) the current program is activated. In order to choose the program number, press MENU until *weekly program* setting appears on the screen. By pressing and holding MENU button the user opens the program selection panel. Each time the user holds the MENU button, the program number changes. When the desired number appears on the screen, press EXIT – the controller returns to the main screen view and the selected program number is set.



**• How to configure particular weekly programs**

Weekly program allows the user to define the time when comfort temperature and economical temperature will apply. Depending on the program number, the user may set daily temperature values for all days of the week (programs 1÷3), for weekdays and the weekend separately (programs 4÷6) and for each day of the week separately (programs 7÷9). In order to edit weekly program, press MENU until weekly program setting panel appears on the screen.

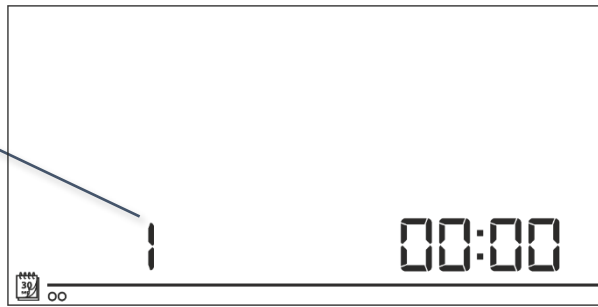


STEP 1 – choose the program to be edited:

By pressing and holding MENU button the user opens the program editing panel. Each time the user holds the MENU button, the program number changes. When the desired number appears on the screen, the user may start editing its parameters.

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Weekly program number

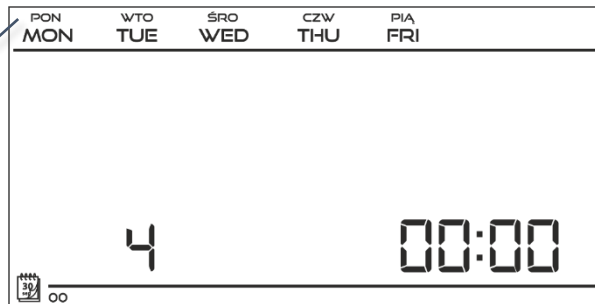


## Step 2 - select days of the week

If the user wants to edit programs 1÷3, there is no possibility of selecting particular days of the week as the setting applies to each day.

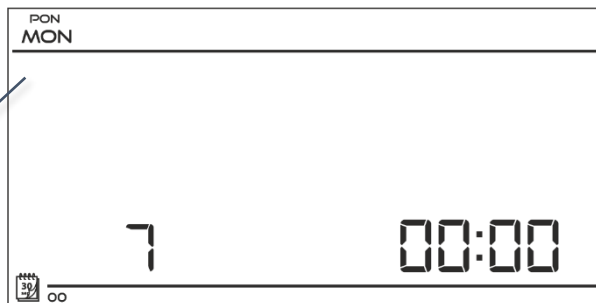
If the user wants to edit programs 4÷6, it is possible to edit the settings for weekdays and the weekend separately. Press MENU in order to select.

Editing weekdays parameters



If the user wants to edit programs 7÷9, it is possible to edit the settings for each day separately. Press MENU in order to select a day.

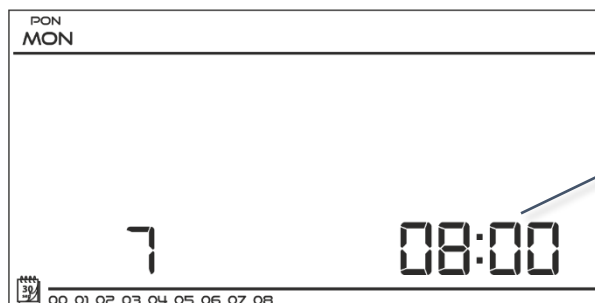
Editing parameters for Monday



## Step 3 - assign comfort temperature or economical temperature to particular hours

An hour which is being edited is displayed on the controller screen. In order to assign comfort temperature, press  $\wedge$ . In order to select economical temperature, press  $\vee$ . The controller automatically moves on to editing the next hour.

Edited hour



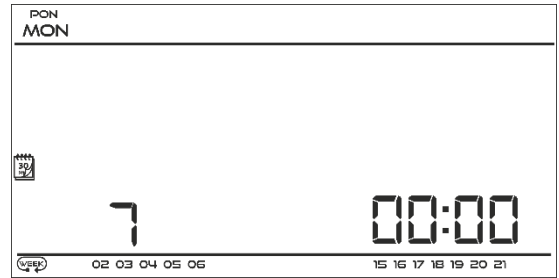


The parameters of the weekly program are displayed at the bottom of the screen: hours to which comfort temperature has been assigned are displayed whereas hours to which economical temperature has been assigned are not displayed.

Example:

The following screenshot presents daily settings of program no. 7 for Monday

- 24<sup>00</sup>-01<sup>59</sup>- economical temperature
- 02<sup>00</sup>-06<sup>59</sup>- comfort temperature
- 07<sup>00</sup>-14<sup>59</sup>- economical temperature
- 15<sup>00</sup>-21<sup>59</sup>- comfort temperature
- 22<sup>00</sup>-00<sup>59</sup>- economical temperature



**NOTE**

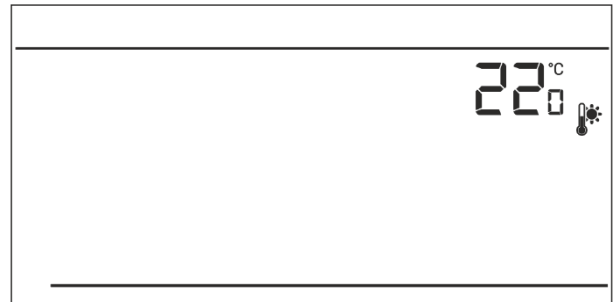
When the user finishes the editing process by pressing and holding MENU button, the controller returns to the main screen view and this program is selected as the current program.

**V.c.9) Pre-set comfort temperature**

Pre-set comfort temperature is used in weekly control mode and day/night mode. Press MENU button until the comfort temperature change panel appears on the screen.

Press  $\nabla$  or  $\blacktriangle$  to set the desired temperature.

Press MENU to confirm and move on to the next parameter or press EXIT to confirm and return to the main screen view.

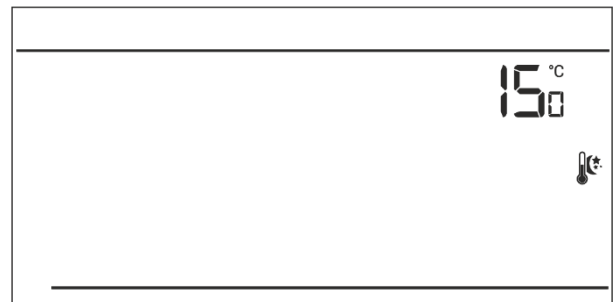


**VII.c.14) Pre-set economical temperature**

Pre-set economical temperature is used in weekly control mode and day/night mode. Press MENU button until the economical temperature change panel appears on the screen.

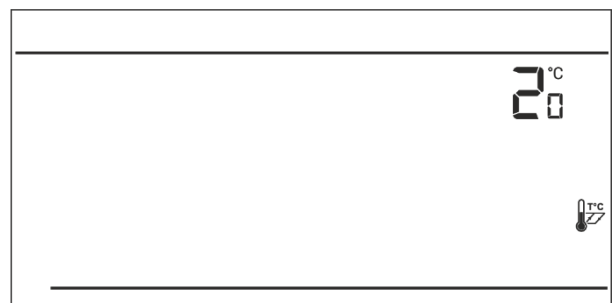
Press  $\nabla$  or  $\blacktriangle$  to set the desired temperature.

Press MENU to confirm and move on to the next parameter or press EXIT to confirm and return to the main screen view.



**VII.c.15) Pre-set temperature hysteresis**

Room temperature hysteresis defines the pre-set temperature tolerance in order to prevent undesired oscillation in case of small temperature fluctuation (within the range of 0,2 ÷ 4°C).



## User's manual

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### Example:

Pre-set temperature: 23°C

Hysteresis: 1°C

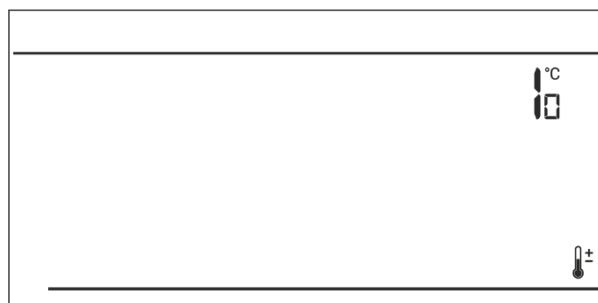
The room regulator reports that the temperature is too low only when the room temperature drops to 22 °C.

In order to set the hysteresis, press MENU until the hysteresis setting appears on the screen. Use  $\nabla$  or  $\blacktriangle$  to set the desired hysteresis value. Press MENU to confirm and move on to the next parameter or press EXIT to confirm and return to the main screen view.

### VII.c.16) Temperature sensor calibration

It is performed when mounting the regulator or after it has been used for a long time, if the room temperature measured by the internal sensor differs from the actual temperature. Calibration setting range is from -10°C to +10°C with the accuracy of 0,1°C.

Press MENU until the sensor calibration panel appears on the screen. Use  $\nabla$  or  $\blacktriangle$  to define correction. Press MENU to confirm and move on to edit the next parameter or press MENU to confirm and return to the main screen view.



## VI. Technical data

Range of room temperature settings	5°C : 35°C
Supply voltage	Batteries 2xAA, 1,5V
Accuracy of measurement	+/- 1°C
Contact load	1A/230V/50Hz
Operating temperature	5°C : 50°C





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Regulator\_VER-24\_2015\_06

Instrukcja ważna od 1.6.2015

Po zakończeniu redakcji instrukcji, dnia 1.6.2015, mogły nastąpić zmiany w wyszczególnionych w nim produktach. Producent zastrzega sobie prawo do dokonania zmian konstrukcji czy odstępstw od ustalonej kolorystyki. Ilustracje mogą zawierać wyposażenie dodatkowe. Technologia druku może mieć wpływ na różnice w przedstawionych kolorach. Aktualnych informacji udzieli Państwu handlowcy produktów Verano-konwektor.