

AVANSA 2007

PROGRAMMABLE RADIO FREQUENCY
DIGITAL ROOM THERMOSTAT



User manual

GENERAL DESCRIPTION OF THERMOSTAT

AVANSA 2007 room thermostat with operating switching is suitable for controlling most boilers sold in the Czech Republic.

It can be connected to any gas boiler with a connection for a room thermostat with double wiring or to an air conditioning unit

equipment

regardless of whether it has 24 V or 230 V operating voltage.



The device can be programmed individually according to your needs so that the heating (cooling) system starts at the time you require and heats (cools) your apartment, office to the temperature you require. In addition to ensuring comfort, it also contributes to reducing energy costs. A separate, independent temperature program can be created for each day of the week. Daily, one fixed (PROG) and six freely selectable (PROG-PROG) switching times can be set (adjustable in 10-minute intervals), and in each switching interval, a freely selected temperature can be set (adjustable in 0.5°C intervals).

The switching sensitivity of the thermostat can be set to $\pm 0.1^{\circ}\text{C}$ or to $\pm 0.2^{\circ}\text{C}$ (basic factory setting) or to $\pm 0.3^{\circ}\text{C}$. This means the temperature difference between the set value and the actual measured temperature at switching on. In the case of the basic factory setting (switching sensitivity $\pm 0.2^{\circ}\text{C}$, heating operation), for example, if the set value on the thermostat is 20°C , the device turns on at a temperature of 19.8°C or below, respectively turns off the boiler at 20.2°C or above. In cooling operation, the thermostat switches exactly the opposite. To change the factory-set switching sensitivity $\pm 0.2^{\circ}\text{C}$, see section 3.4.

The thermostat is equipped with a pump protection function. This function serves to prevent the pump from clogging. It turns on the boiler every day at 12:00 for one minute in the case that the boiler has not been turned on according to the program (e.g., during the summer period) for more than 24 hours. To activate the pump protection function, see section 3.5.

In rooms where you regularly or for a long time stay, it is advisable to place the thermostat so that it is positioned in the direction of the natural air flow in the room, but is not exposed to drafts or excessive temperature influences (e.g., sunlight, refrigerator, chimney, etc.). Its optimal placement is at a height of 1.5 m above floor level.

Zobrazené symboly na displeji:



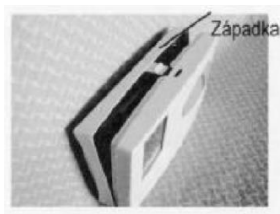
1.LOCATION OF DEVICE

IMPORTANT NOTICE! If your rooms in the apartment are equipped with radiator valves with thermostatic heads, replace these radiator valves with thermostatic heads with manually adjustable controllers or set them to the maximum temperature setting in the room where you intend to install the thermostat. Otherwise, the thermostatic head may interfere with temperature regulation in the apartment.

~~2. THERMOSTAT CONNECTION~~

2. ZAPOJENÍ TERMOSTATU

To mount and connect the thermostat, press the latch located on the top side of the thermostat cover and separate the back part of the thermostat according to the image. Using the attached screws, fix the back cover to the wall. Using a smaller screwdriver, remove the terminal cover from the inner side of the back cover.



The thermostat's output relay is equipped with 3 following connection points: 1 (NO), 2 (COM), 3 (NC) located under the inner cover on the inner side of the thermostat's back cover. The device you want to control (heating/cooling) must be connected to two connection points, created for connecting the room thermostat, series switch 1 (NO) and 2 (COM) in the rest state, to the open relay switches.

If you want to control such an old boiler or another device (e.g. a pump) that does not have a connection point for connecting a room thermostat, then connect the connection points 1 and 2 of the series switch as the connection points of one switch into the current circuit of the mains connection cable of the device you want to control.

After connecting the connection cables, put the removed inner cover back on to prevent the risk of electric shock.

WARNING! For safety reasons, installation and connection of the receiver should be entrusted to a professional. When creating connections for heating / cooling equipment, always strictly comply with the manufacturer's instructions! The voltage appearing on the 1st, 2nd, or 3rd terminal depends only on the controlled system. Therefore, the parameters of the used cable are determined according to the type of controlled device. The length of the cable is not essential.

3.PUTTING THE THERMOSTAT INTO OPERATION, BASIC SETTINGS

3.1 Inserting batteries

The battery holder is located on the inner side of the front cover. Insert 2 alkaline AA batteries (type LR6) into the holder. Make sure to insert them correctly according to the marked polarity. After inserting the batteries, the display will show blinking symbols for day, hour, program number, as well as set and measured internal temperature. (If this information does not appear, you can press the "RESET" on the base board inside the cover.) To put the thermostat into the basic position, press the "SET" button after inserting the batteries. After pressing the "SET" button, the blinking on the display will stop, the thermostat will enter the factory basic position, and you can start setting. After inserting the batteries, mount the front cover of the device onto the installed back cover.

3.2 Setting the current date and time

Press the „SET“ button and then the „DAY“ button. At that moment only the digit of the current day is blinking on the thermostat display (MON as Monday at first start) and the hour and minutes are also displayed. Use the large buttons

 or  located on the front cover of the device to set the digit of the current day (Monday: MON, Tuesday: TUE, Wednesday:

WED, etc.). Press the „DAY“ button again. The digit indicating the day will stop blinking and become permanently visible, while the digits indicating the time will continue to blink. Use the large buttons

located on the front cover of the device to set the current time - hour. Press the „DAY“ button again. The digit indicating the hour will stop blinking and become permanently visible, while the digits indicating the minutes will continue to blink. Use the large buttons

located on the front cover of the device to set the current time - minutes. If you want to change the set values, press the „DAY“ button again to return

to the beginning of the setting. Confirm the end of the setting by pressing the „SET“ button. Pressing the „SET“ button will save the set values and the device will return to the basic position. (After approximately 15 seconds the setting will be automatically confirmed and the device display will switch to the basic position).

3.3 Switching between heating and cooling operation

You can easily switch between heating (basic factory setting) and cooling operation modes. The 1 (NO) and 2 (COM) contacts of the thermostat's output relay are closed in heating operation below the set temperature level, and in cooling operation above the set temperature level (depending on the set switching sensitivity). The closed state of the output relay contacts 1 (NO) and 2 (COM) is indicated on the display in the lower left corner during heating with an icon  , and at cooling with icon .

To switch between operation modes, first press the „SET“ button so that the device display is on the basic screen. Then press and hold the „SET“ button, and then also press the „COPY“ button. At that moment, the time location will display a message indicating the operation mode: heating („HEAT“), cooling („COOL“), or fan („FAN“). You can change the operation mode using the large buttons  . Confirm the setting by pressing the „SET“ button (if no button is pressed within 15 seconds, the setting will be automatically confirmed). After that, the basic screen will return to the device display.

3.4 Setting the switching sensitivity (accuracy)

Switching sensitivity means the temperature difference between the set value and the actual measured temperature at switching on. The smaller this number is, the more even the room temperature will be, increasing comfort. Switching sensitivity does not affect the heat loss of the room (building).

In the case of a higher comfort requirement, it is advisable to choose switching sensitivity so that the highest possible temperature evenness is ensured. However, it is also necessary to ensure that the boiler switches on only in the case of low outdoor temperature (e.g. -10°C) several times per hour, because frequent switching off and on reduces the boiler's operating efficiency and increases gas consumption. In the case of heating systems with high thermal inertia (e.g. underfloor heating) and traditional building structures (e.g. brick buildings), we recommend setting the switching sensitivity to $\pm 0.1^{\circ}\text{C}$, while in the case of systems with low thermal inertia (e.g. flat radiators) and in the case of lightweight buildings (e.g. built-in attics) we recommend setting the switching sensitivity to $\pm 0.2^{\circ}\text{C}$ (basic factory setting) or to $\pm 0.3^{\circ}\text{C}$.

To set the desired switching sensitivity, first press the "SET" button so that the basic screen is displayed on the device display, then press the "DAY" and "COPY" buttons one after the other. Then you can

using the large buttons   choose the switching sensitivity. The label "S:1" indicates $\pm 0.1^{\circ}\text{C}$, label "S:2" indicates $\pm 0.2^{\circ}\text{C}$ and the label "S:3" indicates $\pm 0.3^{\circ}\text{C}$. The setting is confirmed by pressing the "SET" button (if no button is pressed within 15 seconds, the setting will be confirmed automatically). Then the basic screen will return to the device display.

3.5 Activation of the pump protection function

In the basic factory preset setting, this function is not active. Its activation or deactivation is possible by pressing the "SET" button (which puts the device into the basic position) and then pressing the "DAY" "PROG" and large buttons  or . Setting "HP:OFF" (off) or "HP:ON" (on) is confirmed by pressing the "SET" button. (Approximately after 15 seconds the setting will be automatically confirmed and the device display will switch to the basic position). Then the basic screen will return to the device display.

ticky potvrdí a displej přístroje se přepne do základní polohy). Poté se na display přístroje vrátí základní obrazovka.

The activated pump protection function is used to prevent the pump from clogging during the non-heating period and turns on the boiler every day at 12:00 for one minute. (The pump protection function can fulfill its purpose only if the boiler is in an operable condition even in summer. For this period, it is recommended to set a lower temperature (e.g. +10°C) to prevent unnecessary boiler switching on during temporary cooling.)

3.6 Calibration of the thermostat thermometer

You can calibrate the device's thermometer (correct the measured room temperature). First, press the "SET" button so that the basic display appears on the device's screen. Then press the "DAY" button, followed by the "HOLD" button. The text "", "2": "", "3": " will then appear in the place of the clock and the correction value (factory basic position 0.0°C) in the place of the temperature. Use the large buttons to set the correction value between -3.0°C and +3.0°C in 0.1°C intervals. Confirm the setting by pressing the "SET" button (if no button is pressed within 15 seconds, the setting will be confirmed automatically). The device's display will then return to the basic screen. The correction of the measured temperature will take place within a few seconds after confirmation.

pis „CAL” a na místě teploty míra korekce (výrobní základní poloha

Use the large buttons  a  to set the correction value

between -3.0°C and $+3.0^{\circ}\text{C}$ in 0.1°C intervals. Confirm the setting by pressing the "SET" button (if no button is pressed within 15 seconds, the setting will be confirmed automatically). The device's display will then return to the basic screen. The correction of the measured temperature will take place within a few seconds after confirmation.

4.PROGRAMMING THE THERMOSTAT

4.1 Short explanation of programming

- Programming means setting the switching times and selecting the corresponding thermal values. The device can be set for a period of one week. Operation is automatic, the set switching times are repeated in 7-day cycles. The device allows setting of 1 fixed (PROG) and 6 freely selectable switching times (PROG–PROG)

) separately for each day of the week, independently of each other. For each switching time, you can choose a different temperature level between 5 and 40°C in 0.5°C intervals. The set temperature for each switching time is valid until the next switching time. For example, the temperature set for switching time PROG is maintained by the thermostat until switching time PROG. From switching time PROG onward, the temperature level selected for switching time PROG will be valid until the next switching time (PROG).

- The switching time PROG is



which is unchangeable, only the corresponding temperature level can be set according to special requirements. In this way, the thermostat in the basic factory position performs only 1 switching (PROG) daily, which is valid from 00:00 to 00:00 the following day.

NOTE: Using 1 switching per day (basic factory setting) makes sense only when a uniform temperature level is required daily. (E.g., if you want to maintain a constant saving temperature of e.g. 16°C during weekdays and a constant comfortable temperature of e.g. 22°C at the end of the week). In other cases, it is more practical from the comfort and energy saving point of view to activate multiple switching per day. For energy saving purposes, it is recommended to set the comfortable temperature level only for the time when the room or building is in use, because each 1°C reduction in temperature results on average in approx. 6% energy saving per season. In fact, contrary to the assumption, it is not heating up the apartment but maintaining the temperature that requires more thermal energy (e.g., on a stove, a pot of water can be kept boiling with a larger flame than when heating to a lower temperature).

- SWITCHING PROG¹–PROG⁵ are inactive in the basic position (their

duration is ~~---~~), but they can be activated according to the requirement. The duration of switching PROG-PROG can be freely set in 10 minute intervals between 00:10 23:50 with the limitation that the device

allows setting only in the order of increasing time intervals so that the difference between individual switching times must be at least 10 minutes. The minimum difference of 10 minutes between switching times remains even when modifying the time data of a previously set program, to avoid overlapping and identical switching times. In such a case, the device shifts the relevant times forward to ensure that the minimum time difference of 10 minutes is always maintained. If due to the time adjustment one or more switching times fall behind the last adjustable time of the day (23:50), it automatically changes to inactive.

- To enter programming, it is necessary to press and hold the „SET“ button and at the same time press the „PROG“ button. During

programming, the set values (day, time, temperature) appear blinking on the device display. Changes to the values are always made using the large buttons   which are located

on the front of the device. Confirmation of the set value and continuation is done by pressing the „PROG“ button. The set program can be saved by pressing the „SET“ button. A more detailed description of programming is described in section 4.3.

- If there are seven days like that on which you want to use the same program, it is sufficient to write that program once, because its adaptation to any day can be easily done using the "COPY" button according to point 4.4. If you want the same program for all days, you also have the option to program all days of the week at once (then when selecting days, it is necessary to select together the sequential syllables MON TUE WED THU FRI SAT SUN). However, do not forget

that when you program all days at once, you will be able to edit their programs only together. Therefore, if you want a different program for just one day from the others, it is necessary to program the days separately and copy the identical days using the "COPY" button.

•For heating and cooling operation, it is possible to write separate programs, which the thermostat will retain when switching between operations. Therefore, if you use the thermostat in heating operation as well as in cooling operation, it is not necessary to rewrite the program corresponding to the operation each time when switching between operations.

4.2 Proposal for creating a heating program

General comfort requirements are satisfied by a room temperature lowered to 19-21°C at night and higher than 22-23°C during the day when at home. During the day, while the family is at work and school, it is sufficient to just heat. Since heating up and cooling down usually takes a long time, it is useful to set the switching times 0.5-1 hour before the change of the daily routine.

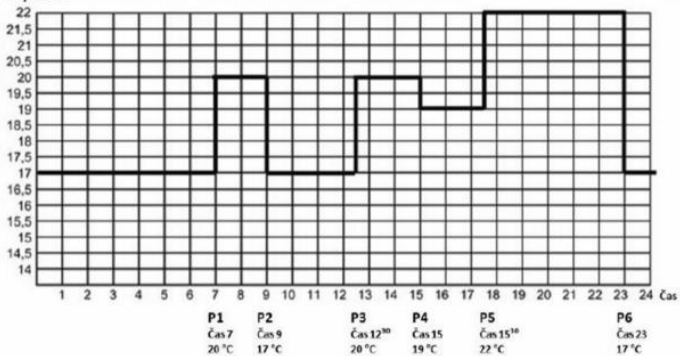
This option is offered by the thermostat's programmability. We recommend an energy-saving heating program for an average employed family to be composed similarly to the heating program listed below:

4.3 Steps for programming the device

PROG 0	00:00	20°C
PROG 1	05:30	22°C
PROG 2	07:00	18°C
PROG 3	15:00	22°C
PROG 4	22:00	20°C

Temperature diagram

Teplota



a. Press the "SET" button so that the basic screen is displayed on the thermostat's display.

b. Press the "SET" button again and hold it down, while also pressing the "PROG" button. The device will then enter the programming position and the sequential syllables indicating the current day (days) will flash in the top row of the display. c. Using the large buttons

on the front of the device, select the day you want to program (MON syllable on Monday, TUE is Tuesday and WED is Wednesday, etc.). If you want to write the same program for every day of the week, it is useful to select all days of the week at once (this is indicated by the common flashing of the sequential syllables MON TUE WED THU FRI SAT SUN), so that each day of the week does not have to be programmed separately. After selecting the day, press the "PROG" button.

d. The device will then offer the temperature setting when turning on PROG,

15": "d. The device will then offer the temperature setting when turning on PROG,"}

d. Tehdy přístroj nabídne

PROG ,

related to the selected day(s). When setting, the currently set temperature is shown by blinking (in the basic factory setting  °C). Using the large buttons  a  located

on the front of the device set the desired temperature level, then press the "PROG" button to record the setting and continue.

e. Then follows the next programming step, setting the start

time ON PROG, which the device display indicates by blinking the set time value (in the basic factory setting

Using large buttons



, located on the front

on the front of the device set the desired time for turning ON PROG, then press the "PROG" button to record the setting and continue.

f. Then programming continues with setting the temperature related to turning ON PROG, which the device display indicates by blinking the set thermal value (in the basic factory setting Using large buttons  a , located on the front of the device set the desired temperature level when turning ON PROG, then press the "PROG" button.

g. **Then the device offers setting the time for turning ON PROG, which** the device display indicates by blinking the set time value (in the basic factory setting). Turning ON PROG can be set by repeating steps "e"-²"f" (in exactly the same way as setting turning ON PROG). If on the selected day(s) you do not want to activate any further turning ON options besides the set turning ON, press the "PROG" button without setting any further

initial ON time from the basic position

--:--.

Then programming of the given day(s) ends, the device immediately offers selection of a new day and programming can continue from step "c". If you have already set all turning ON PROG—PROG for the selected day(s), then after setting the temperature for turning ON PROG, programming of the given day(s) ends, the device immediately offers selection of a new day and programming can continue from step "c".

h. You can save and end programming by pressing the "SET" button.

Then the basic screen returns to the device display. The device saves the settings by itself if no button is pressed within 1 minute. Then the display returns to the main screen.

i.

If you want to copy the heating program written for the selected day(s) in point "c" to another day, you can easily do so using the "COPY" function according to point 4.4.

4.4 Using the "COPY" function (Copying the program of one day to another day or days)

- Press the „SET“ button so that the thermostat display shows the basic screen. Then press the „COPY“ button for approximately 3 seconds to activate the „COPY“ function. The readiness for copying the program is indicated by the inscription „COPY“, which appears in the character position hour and blinking of the sequence segment MON, indicating Monday.
- Using the large buttons  a , located on the front side of the device, select the day whose program you want to copy to another day or days.
- Press the „COPY“ button to copy the selected day's program. After copying, the blinking of the sequence segment indicating the copied day disappears and remains visible continuously.

- Using the large buttons



located on

on the front side of the device select the day to which you want to copy the previously copied program. The sequence segment indicating the currently selected day during the setting blinks (after the first button press

- After you have selected the day to which you want to copy the previously copied program, press the „COPY“ button to perform the program copy. The sequence segment of the day to which you have copied the program is then continuously visible and stops blinking. Using the large buttons   you can then select further

days to which you can also copy the previously copied program using the „COPY“ button.

- You can save the program copies by pressing the „SET“ button (if no button is pressed within 15 seconds, the program copy is saved

automatically). The basic screen then returns to the display. You can then freely copy the program of a new day (days) by repeating the above steps.

4.5 Modification of the device program

- By repeating the programming steps, you can change the set values at any time.
- You can arbitrarily increase the number of previously activated switches according to section 4.3.
- Some previously activated switches can be deactivated by returning the previously set time to the basic factory position during the change of switching time, using the buttons (or a single press of the „DAY“ b_u_t_t_o_n) back to the basic factory position (), then press the „PROG“ button.

Subsequently, when you have deactivated one intermediate switch, the remaining switches are renumbered sequentially.

- When you want to end the modification of the selected day's switching, press the „PROG“ button for 3 seconds. Then you can continue with the modifications by selecting another day. You can save and end the changes by pressing the „SET“ button. The device will also save the settings automatically if no button is pressed within 1 minute. The basic screen then returns to the device display.
- If you want to write a completely new program, press the "RESET" button to delete previous settings from the device memory. This will return the device to its basic factory position. Then perform the basic device setup and programming as described in points 3 and 4.

4.6 Program check

- Press the "SET" button so that the thermostat display shows the basic screen, then press the "PROG" button. The display will then show the sequential syllables indicating the day (days), the PROG on symbol, as well as the set time and temperature for turning on PROG for the given day (days) (no value is blinking).
- By repeatedly pressing the "PROG" button multiple times, you can check the values of PROG, PROG and other on events related to the given day (days). You can change the days using the buttons  . If you programmed all days of the week at once (MON TUE WED THU FRI SAT SUN), you can view the program for all days together only.
- After checking the program, you can press the "SET" button to return to the

basic screen on the display (if no button is pressed within 15 seconds, the basic screen will automatically return to the display).

5.TEMPORARY MODIFICATION OF THE TEMPERATURE SET ACCORDING TO THE PROGRAM

To perform a simpler manual modification of the temperature, in the basic, factory preset setting, the large button is

assigned the value  22°C and the button  value

22°C. If you want to manually modify the temperature, one press buttons  or buttons  automatically activates the factory

preset temperature level assigned to the button. For example, if the currently running program is PROG, which is set to  19°C, in the case

of need, simply one press of the button  ensures comfort temperature 22°C. It is not necessary for you to

set it manually by multiple button presses

stepping by 0.5°C. The energy-saving temperature °C set according to the program can be, for example, set by one press of the button to comfort temperature 22°C and it is not necessary for you to set it manually by multiple button presses

0.5°C. Subsequent repeated pressing of the buttons it is of course possible to set the temperature 22°C preset by the manufacturer with stepping by 0.5°C can be increased or decreased according to current requirements.

To the large buttons assigned by the manufacturer energy-saving temperature 15°C, or the assigned comfort temperature 22°C can be freely changed according to the following procedure:

- To set the energy-saving temperature, press and hold the "SET" button and then press the button once and then use the button

 and/or  to set your desired energy-saving temperature level

degrees. After setting the desired temperature level, press the "SET" button again to save the set temperature level (after approx. 15 seconds, the transferred program copying will be automatically confirmed and the thermostat will switch to the basic position).

- To set the comfort temperature, press and hold the "SET" button and then press the button once  and then use the button

 and/or  to set the desired comfort temperature level

temperature level. After setting the desired temperature level, press the "SET" button again to save the set temperature level (after approx. 15 seconds, the transferred program copying will be automatically confirmed and the thermostat will switch to the basic position).

5.1 Temperature modification until the next program activation

By pressing or holding the large buttons



or



on

sliding the front cover of the device, set the desired temperature. After setting the temperature, the program number disappears from the display, and  an icon appears on the display indicating that the thermostat is operating

based on manual setting. The device controls the boiler according to the set value until the next activation time according to the program.

On the display during temperature changes, values indicating hours will appear, which alternately show the exact time (TIME), as well as the remaining time from the activation of the manual setting (TIME LEFT) (e.g. 0:45).

minutes). After this time has elapsed, the icon disappears and the device is reset to the set program. If you wish to return to the original program before the next activation, press the "SET" button.

5.2 Temperature modification for a 1 ... 99-hour period (party program)

Using large buttons  a , located on the front on the device panel, set the desired temperature. After setting the temperature, the program number disappears from the display, the icon  appears, indicating that the thermostat is operating manually, then press the "DAY" button. Then the icon from the display disappears , as well as in the segment area, indicating the exact time, the inscription , which indicates the starting time in hours of the manual temperature adjustment (the number , indicating the number of hours, blinks, indicating that the time can be set). Using the buttons  we can set the desired duration, arbitrarily from 1 to 99 hours. After the full 10 seconds, the set party program is automatically started and becomes valid. The device then maintains the modified temperature according to the set duration. The set temperature can be changed freely with the

buttons  or  without leaving the party program.

On the display during temperature changes, values indicating hours will appear, which alternately show the exact time (TIME) as well as the remaining time from the activation of the manual setting (TIME LEFT) (e.g. 3:44, 3:44, TIME LEFT) (e.g. 3 hours and 20 minutes). After the set time duration has elapsed, the icon disappears and the device switches to the set program. If you wish to return to the original program before the time duration expires, press the "SET" button, which will interrupt the set temperature.

5.3 Temperature modification for 1 ... 99 - daily segment (holiday program)

Using large buttons  a , located on the front on the device panel, set the desired temperature. After setting the temperature

the program number disappears from the display, the icon appears , indicating that the ter-

the thermostat is operating in manual control, then press and hold the "HOLD" button for at least 2 seconds. After pressing the "HOLD" button, the icon disappears from the display , then after the elapse of

2 seconds the icon , as well as in the segments indicating the exact time label , which during days indicates the initial period of manual temperature adjustment (the number, indicating the number of days blinks, showing that it is possible to set the duration). Using the buttons   set the desired duration

arbitrarily from 1 to 99 days (one day is considered 24 hours, counted from the moment of setting). After the holiday program is set, it automatically starts after 10 seconds and becomes valid. The device then maintains the modified temperature according to the set duration. The set temperature can be arbitrarily changed using the buttons  or



without leaving the party program.

On the display during temperature changes, the values indicating the exact time (TIME) and the number of days remaining from the activation of the manual setting (TIME LEFT) will alternate. After the set time duration has elapsed, the icon  disappears, and the device switches to the set program. If you wish to return to the original program before the time duration of the set modified temperature expires, press the "SET" button, which will interrupt the set temperature.

5.4 Temperature modification until the next manual intervention

By pressing or holding the large buttons  or  located on the front cover of the device, set the desired temperature level. Manual control is symbolized by the icon . Press the "HOLD" button.  and icon  disappears. The device maintains the set temperature until you perform another intervention.

You can arbitrarily adjust the set temperature value at any time by pressing the large buttons  or  located on the front cover of the device without canceling the manual control.

Pressing the "SET" button cancels the modification of the temperature level and the device returns to functioning according to the original program.

6.TURNING ON THE DISPLAY BACKLIGHT

If you press the "LIGHT" button, the display backlight turns on for 15 seconds. If you press another button during this time, the display backlight turns off 15 seconds after the last button press. If you want the display backlight to automatically turn on when any button is pressed, you can activate it by pressing the

"LIGHT" button for 5 seconds. After that, when using the buttons, the backlight turns on automatically and turns off after 15 seconds from the last button press. Activating automatic backlight turning on when using buttons means the display - at the place of segments indicating the exact time, for 3 seconds visible - shows the message "L.OF" while the message "L.OF" is being processed of the button "LIGHT" for 5 seconds, the automatic turning on of the backlight is canceled, and it is only activated again by pressing the "LIGHT" button, accordingly to the basic factory settings. Resetting the backlight to the basic state means the display - at the place of segments indicating the exact time, for 3 seconds visible - shows the message "L.OF".

7.CLOSING OF CONTROL BUTTONS

You have the option to temporarily disable the thermostat's control buttons. This can prevent unauthorized persons from changing the set temperature or program. To lock the control buttons, first press the

"SET" button so that the device display is on the basic screen. Then press and hold



simultaneously for at least

5 seconds. The locking of the control buttons is indicated by the message "LOC", which

appears at the place of the current time display. As long as the control buttons are locked, their normal functions do not work. In the case of pressing any button, only the message "



" appears at the place of the current time display. To unlock the control buttons,

again



a



press and hold

for at least 5 seconds. Within

a few seconds after releasing, the message "



" appears at the place of the current time display, after which the device buttons are again freely usable.

8.BATTERY REPLACEMENT

Battery life is approximately 1 year. Frequent use of the display backlight can significantly shorten this period. If the icon



the batteries need to be

replaced (see section 3.1). After replacing the batteries, it is necessary to reset the exact time again. The set programs remain stored in the device even without batteries. Therefore, it is not necessary to reprogram them.

9.RESET TO FACTORY DEFAULT SETTINGS

Press the "RESET" button inside the base cover to restore the factory preset settings. All other settings will be deleted. Do not use electrically conductive materials, e.g.: a graphite pencil, when pressing the button. After restoring the factory preset settings, re-set the basic settings on the device and re-program according to points 3 and 4.

TECHNICAL DATA

– connection voltage:	24V AC / DC, ... 250V AC, 50Hz
– adjustable current intensity:	8A (inductive load 2A)
– temperature measuring range:	3 – 45°C (with 0.1°C increments)
– adjustable temperature measuring range:	5 – 40°C (in 0.5°C increments)
– accuracy of measured temperature:	$\pm 0,5^{\circ}\text{C}$
– temperature calibration range:	$\pm 3^{\circ}\text{C}$ (with 0.1°C increments)
– optional switching sensitivity:	$\pm 0.1^{\circ}\text{C}$; $\pm 0.2^{\circ}\text{C}$; $\pm 0.3^{\circ}\text{C}$
– recommended storage temperature:	$-10^{\circ}\text{C} \dots +40^{\circ}\text{C}$
– supply voltage:	2 x 1.5V alkaline batteries (type LR6; size AA)
– power:	1.3mW
– battery life:	approx. 1 year
– dimensions:	130x80x22mm (without bracket)
– weight:	120g
– type of thermal sensor:	NTC 10k Ω $\pm 1\%$ at 25°C

PROGRAMMING IN BRIEF

- **Setting date and time:** using the "DAY" and  or .
- **Programming:** pressing and holding the "SET" button, simultaneously pressing the "PROG" button, then setting the temperature level by pressing the "PROG" button or  respectively copying repeating programs using the "COPY" button
- **Checking the program:** using the "PROG" and  or .
- **Temporary modification of the temperature set by the program:**
 - **Until the next program activation:** by pressing the  or .
 - **For a 1 ... 9 hour period:** by pressing the  or  and pressing buttons "DAY".
 - **For a 1 ... 99 day period:** by pressing the  or  and pressing button "HOLD" for 2 seconds.
 - **Until the next intervention:** by pressing the  or  pressing the button "HOLD".